



BANCO DE MÉXICO

Executive Summary

Quarterly Report July - September 2019



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Summary

During 2019, Banco de México has conducted monetary policy in an environment of high uncertainty, caused by both external and domestic factors. Regarding the former, given the effects of protracted trade tensions, increased geopolitical risks and various idiosyncratic factors, the world economy has decelerated and its growth outlook has continued to be revised downwards, in an environment in which headline inflation and core inflation in the main advanced economies remain below the targets of their respective central banks. In this context, some of these institutions have implemented monetary easing measures in recent months.

The box *Considerations on the Possible Effects of US Trade Tensions and Monetary Policy on the World Economy* analyzes the possible impacts of two relevant risk factors. First, it presents estimates of the impact of tariff measures implemented or considered so far on economic activity and prices using the general equilibrium model of Costinot and Rodríguez-Clare (2014). The main finding is that the effect of these factors would be negative, mainly affecting the U.S. and China, although these results exclude additional negative effects on investment and economic activity, arising from an increase in uncertainty. Second, the possible effect of the recent decreases in the benchmark interest rate of the U.S. Federal Reserve on the rest of economies is estimated. In this regard, following the methodology of Iacoviello and Navarro (2019), a positive effect on different economies is found. However, this impact could hardly offset in its entirety the negative effect on productivity, and, therefore, on potential GDP resulting from an environment of greater protectionism. Furthermore, its potential to smooth the economic cycle could be considerably limited, due to the effects of higher uncertainty on investment decisions.

International financial markets exhibited lower volatility as compared to the second quarter, mainly because of an easing of trade tensions between the U.S. and China and to a lower probability of a

disorderly exit of the United Kingdom from the European Union. The accommodative monetary policy stances of the main central banks and prospects of low rates at the global level have contributed to improve the performance of international financial markets. Nonetheless, risks are still present for the global economy, associated to trade tensions and geopolitical factors, as well as to political and social uncertainty across different countries. Consequently, a tightening of financial conditions cannot be ruled out, especially for emerging economies.

Domestically, Mexican financial markets have shown an improved performance, favored by the easing of global financial conditions. The peso exchange rate showed a slight appreciation, albeit with episodes of volatility, while government bonds' interest rates have reflected the impact of lower external rates and of monetary policy actions. In addition, as a reflection of the weakness exhibited by the different components of aggregate demand, according to the recently revised GDP data, during the third quarter of 2019, economic activity stagnated, after having registered slight consecutive reductions between the fourth quarter of 2018 and the second quarter of 2019. This implies that the economy's slack conditions widened at a greater-than-expected pace, in an environment in which various medium- and long-term risks continue to generate uncertainty, to the detriment of investment and consumption.

The box *Latent Indicator of Economic Activity Based on a Signal Extraction Model* estimates an indicator of economic activity based on a signal extraction model that simultaneously draws on the information available from the measurement of economic activity from both the supply and the aggregate spending sides. This indicator suggests that over the last two quarters of 2018, economic activity was weaker relative to the measurement obtained from the supply side, and that, in contrast, during the last two quarters of 2019 economic activity registered a lower weakness than that implied by GDP growth measured from the supply side.

During the reported period, annual headline inflation showed an important reduction, and by the end of the third and the early part of the fourth quarter reached levels consistent with Banco de México's point target. This performance mainly derived from a strong decline in non-core inflation, especially from the lower annual rates of change of energy prices, although those of agricultural and livestock products' also declined. It is noteworthy that non-core inflation had adversely affected headline inflation for over two years, and is characterized by a more volatile nature. In contrast, annual core inflation, which better reflects the pressures on prices in the economy, maintained its persistence and lied at an average of 3.78% in the third quarter, although it has shown a slight decline recently. Both upward and downward risks to inflation prevail. Consequently, Banco de México has followed a prudent monetary policy, using all available information and pursuing a monetary policy stance that leads to an orderly and sustained convergence of inflation to its target in the considered forecast horizon, thus strengthening confidence in the Mexican economy and enabling an orderly adjustment in domestic financial markets and in economic activity.

The box *Role of Imports on the Evolution of Merchandise Inflation* shows evidence suggesting that a factor that could be contributing to lower non-food merchandise inflation is the share of imports in the domestic consumption of such merchandise, in particular, China's share in these imports. However, this performance does not seem to be responding to the fact that the goods are coming from China, but rather to the specific characteristics of the merchandise imported from that country. Evidence suggests that one of such characteristics could be that they have a larger tradable component.

In this context, in the meetings of August, September and November, Banco de México's Governing Board lowered the target for the overnight interbank interest rate by 25 basis points to a level of 7.50%. The

¹ Since 2020 is a leap year, it will have one additional day, relative to 2019. As a result, annual GDP growth rate estimated with original data will be higher than that estimated with seasonally adjusted data, as the latter controls for that effect. Likewise, 2021 will have one day less than 2020, as a result of which the annual GDP growth rate estimated with original data will be lower than that estimated with seasonally adjusted

Governing Board mentioned that the decrease in the reference rate was implemented considering the lower levels of headline inflation, as well as the wider slack conditions in the economy and the recent behavior of the external and domestic yield curves.

Banco de México's expected macroeconomic scenario is as follows:

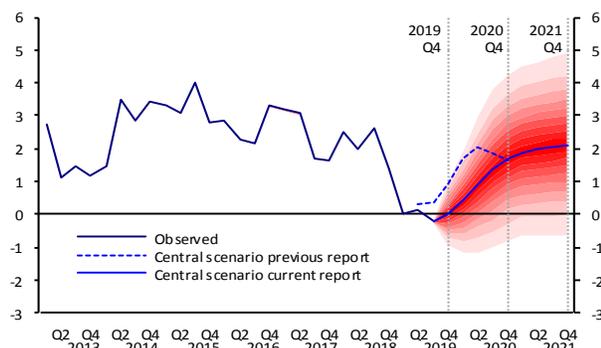
GDP growth: The outlook for Mexico's economic growth for 2019 has been revised downwards from an interval of 0.2 to 0.7% in the previous Report to one of -0.2 to 0.2%, while for 2020 this range has been adjusted from 1.5 to 2.5%, to 0.8 to 1.8%. For 2021, GDP growth is expected to lie in the range of 1.3 to 2.3% (Charts 1 and 2).¹ The revision for 2019 considers the fact that the latest information indicates a weakness of a greater magnitude and duration than previously anticipated, along with the expectation that growth in the fourth quarter of the year will be affected by a lower growth of the automotive sector. The revision for 2020 includes a lower expected level of GDP at the end of 2019 –which, in turn, generates a lower base of comparison for growth in 2020. In this context, the expected expansion responds to expectations of a recovery in the components of domestic demand, albeit more gradual than previously anticipated and in an environment in which the expected growth of industrial production in the U.S. is also lower than previously expected.² Expectations for 2021 consider an inertial scenario consistent with the gradual recovery of economic activity in 2020. It should be noted that there is a high degree of uncertainty around this outlook, as it is considered that the Mexican economy will continue to face a complex environment during the forecast horizon.

Regarding the economy's cyclical position, it is still expected that slack conditions will remain loose throughout the forecast horizon (Charts 3, 4, and 5).

data. As a reference, in 2016 and 2017, the difference between these two growth rates was close to three tenths of a percentage point.

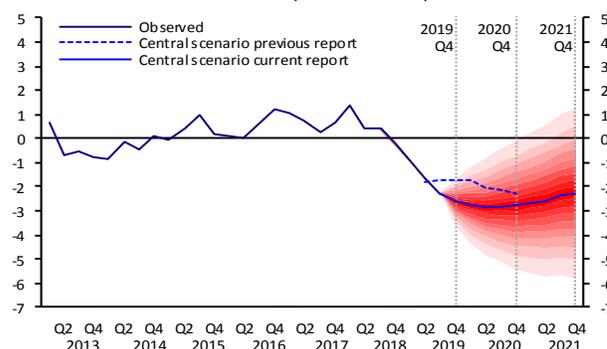
² According to analysts surveyed by Blue Chip in November 2019, US industrial production is expected to grow 0.9 and 0.7% in 2019 and 2020, respectively, which is below the rates of 1.2 and 1.1% stated in the previous Report. For 2021, in line with the October 2019 survey, a 1.5% growth is expected for this indicator.

Chart 1
Fan Chart: GDP Growth, s. a.
 Annual percent



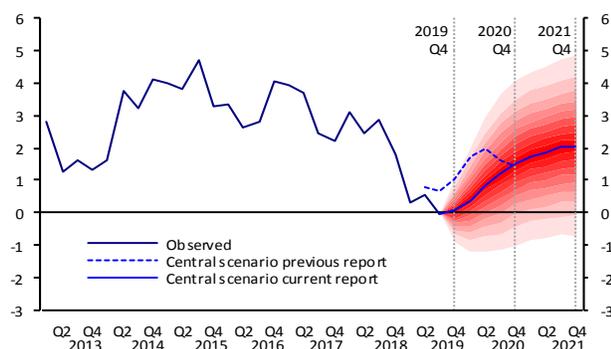
s. a./ Seasonally adjusted figures.
 Source: INEGI and Banco de México.

Chart 4
Fan Chart: Output Gap Estimate
excluding the Oil Sector, s. a.
 Percent of potential output



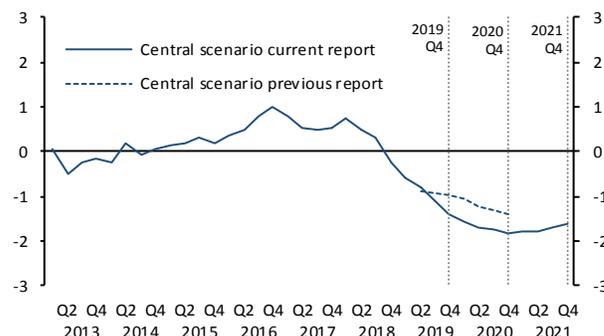
s. a./ Seasonally adjusted figures.
 Source: Banco de México.

Chart 2
Fan Chart: GDP Growth
Excluding Oil Sector, s. a.
 Annual percent



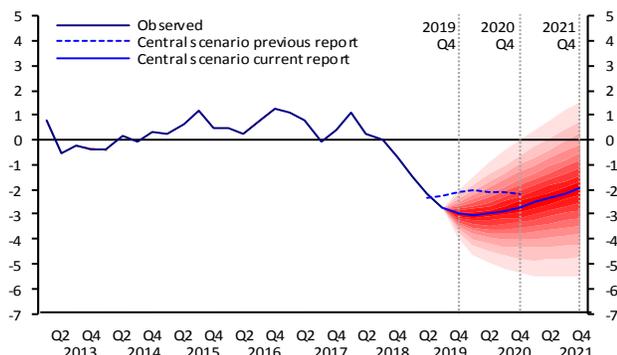
s. a./ Seasonally adjusted figures.
 Source: INEGI and Banco de México.

Chart 5
Quarterly Slack Indicator



Notes: i) In the base scenario of the present Report, the forecast begins in Q3 2019. In the case of the central scenario of the previous Report it started in Q2 2019. ii) The estimated performance of this indicator is consistent with the forecast for GDP growth excluding the oil sector. iii) It is not feasible to calculate a fan chart for the quarterly slack index due to the procedure with which its forecast was estimated.
 Source: Banco de México.

Chart 3
Fan Chart: Output Gap Estimate, s. a.
 Percent of potential output



s. a./ Seasonally adjusted figures.
 Source: Banco de México.

Employment: Based on the latest available information and the revised outlook for growth, the forecast for the number of new IMSS-insured jobs for 2019 has been adjusted from 450-550 thousand jobs in the previous Report to 300-370 thousand jobs in the present Report. For 2020, a range of 500-600 thousand jobs is expected, as compared to the 590-690 thousand jobs foreseen in the previous report. For 2021, a range of 510-610 thousand jobs is estimated.

Current account: For 2019, deficits of the trade balance and the current account of 0.2 and 5.8 billion US dollars, respectively (0.0 and 0.5% of GDP, in the same order), are expected, forecasts which are below those presented in the previous Quarterly Report of

7.8 and 15.2 billion US dollars, respectively (0.6 and 1.2% of GDP, in the same order). For 2020, deficits of the trade balance and current account of 10.9 and 18.1 billion US dollars are anticipated, respectively (0.8 and 1.4% of GDP, in the same order), as compared to the forecasts of the previous Report of 12.1 and 22.0 billion US dollars, respectively (0.9 and 1.6% of GDP, in the same order). For 2021, deficits in the trade balance and current account are estimated to be 15.6 and 23.7 billion US dollars, respectively (1.1 and 1.7% of GDP, in the same order).

The box *Estimates of Price and Quantity Effects on the Evolution of Non-oil Trade Balance Dynamics in Mexico* presents the decomposition of non-oil exports and imports of Mexico into price and quantity effects based on the unit value methodology in order to determine how these effects contributed to the recently observed surplus in the referred balance. The results indicate that the annual increase in the value of exports was supported both by higher prices and by a greater volume, while the relative weakness of the value of imports reflected lower prices, given that the volume kept growing.

Balance of risks to growth: In an environment of marked uncertainty, the external and domestic risk factors that persist cause the balance of risks for economic activity in Mexico to remain biased to the downside. Among the downward risks in the forecast horizon, the following stand out:

- i. An escalation of trade tensions that may affect global growth, investment and trade, and international financial markets, in detriment of economic activity in Mexico. In this regard, the possibility remains that the U.S. announces trade measures against Mexico, possibly associated with non-trade issues. This would affect consumers' spending decisions and/or investment. This risk, however, has diminished.
- ii. That the process of ratifying the United States-Mexico-Canada trade agreement (USMCA) is delayed in the United States and Canada, maintaining an environment of uncertainty and affecting investment.
- iii. That episodes of volatility in international financial markets arise as a result of the following factors:

- a) greater trade tensions worldwide leading to lower risk appetite; b) possible inflationary surprises that generate unexpected increases in the reference rates of the main central banks; c) a possible contagion from other emerging economies, particularly considering an environment of political and social uncertainty in different countries; or d) geopolitical events that may reduce the sources of external financing.

- iv. That a greater-than-expected slowdown of world economic activity and global trade is observed, once the fiscal stimuli currently implemented in some of the main economies, mainly in the U.S., expire or as a result of a greater-than-expected deceleration of US industrial production.
- v. That the recovery of economic activity is delayed as a result of a greater and more persistent weakness of aggregate demand components than anticipated. In particular, that the environment of domestic uncertainty that has been affecting investment persists, and that this causes firms to postpone their investments or prompts consumers to cut their spending as a precautionary measure.
- vi. That the sovereign credit rating or that of Pemex deteriorate further, which could affect access to financial markets.
- vii. That public spending in 2020 is lower than expected.

Among the upward risks to growth during the forecast horizon are:

- i. That the trade agreement with the U.S. and Canada is formalized, triggering investment expenditure.
- ii. That a greater-than-expected dynamism of industrial production in the U.S. contributes to improve the performance of Mexican manufacturing exports.
- iii. That a greater-than-foreseen dynamism of aggregate demand is observed, due to growth of consumer spending, or that some productive sectors face better conditions to increase their investments.

The box *M1 and its Economic Activity Forecast Potential* presents evidence suggesting that the real growth of M1 has a positive and leading relation with economic activity. Based on this fact, an econometric model is estimated, calculating the probability to observe a loss of dynamism in economic activity during the following six months, based on the real growth of M1. The results suggest that this variable has information that helps to forecast periods of economic slowdown in Mexico.

Inflation: With respect to the previous Quarterly Report, the forecast for annual headline inflation is slightly adjusted downwards for year-end 2019. Although core inflation is expected to be slightly higher than anticipated, the impact of non-core inflation being lower than estimated prevails, which, in turn, results from lower growth rates of agricultural and livestock products and energy prices as compared to those previously anticipated. For 2020, annual headline inflation forecasts are very similar to those presented in the previous Quarterly Report, as the

slightly higher core inflation forecast is offset by non-core inflation being below expectations. In this way, annual headline inflation is still anticipated to remain at levels close to 3%, although it is estimated to increase slightly during the first quarter of 2020. For 2021, the greater economic slack that is expected would imply a lower annual headline inflation than that considered in the previous Report. As for annual core inflation, the observed levels that are higher than previously anticipated and the effect of the revised IEPS (Special Tax on Products and Services) on cigarettes and sugary drinks generate upward pressure on the forecast trajectory, while the greater economic slack that is expected induces a reduction in such trajectory throughout the forecast horizon. For the rest of 2019 and most of 2020 the former effects dominate, and starting from the end of 2020 the impact of the greater slack in the economy becomes more important. As a result of the above, annual core inflation will reach levels close to 3% starting from the third quarter of 2020 (Table 1, Chart 6 and Chart 7).

Table 1
Headline and Core Inflation Forecasts
Annual change in percent

	2019			2020				2021		
	II	III	IV	I	II	III	IV	I	II	III
CPI										
Current report ^{1/}	4.2	3.3	3.0	3.5	3.1	3.1	3.0	2.8	2.9	2.9
Previous report ^{2/}	4.2	3.3	3.2	3.4	3.1	3.1	3.0	2.9	3.0	
Core										
Current report ^{1/}	3.8	3.8	3.6	3.6	3.2	3.1	2.9	2.8	2.9	2.9
Previous report ^{2/}	3.8	3.7	3.5	3.4	3.1	3.0	2.9	2.9	3.0	

1/ Forecast from November 2019.

2/ Forecast from August 2019.

Source: Banco de México and INEGI.

It should be noted that some downward risks for non-core inflation have materialized, pushing it down to particularly low levels. As a result, further favorable shocks are less likely to occur. Meanwhile, core inflation has continued to show persistence. In this context, in the horizon in which monetary policy operates, inflation forecasts are subject to the following risks.

To the upside:

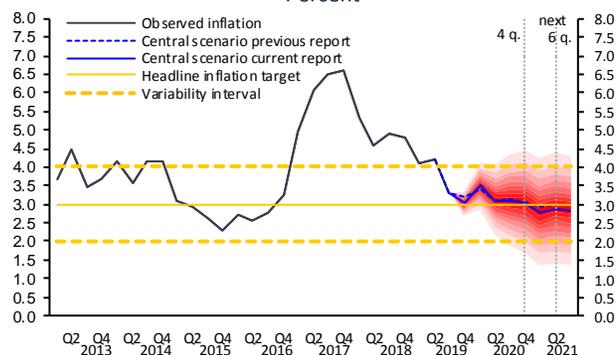
- i. That the persistence shown by core inflation continues.
- ii. Wage increases higher than productivity gains or that these generate cost pressures.
- iii. That the peso exchange rate comes under pressure stemming from external and domestic factors.
- iv. The US threats to impose tariffs and compensatory measures are adopted, albeit this risk has dissipated somewhat.
- v. That public finances deteriorate.
- vi. Increases in agricultural or energy prices greater than anticipated.

To the downside:

- i. That the peso exchange rate appreciates, possibly associated with a context of greater risk appetite in international financial markets, or if the trade agreement with the U.S. and Canada is ratified.
- ii. That slack conditions or their effect on core inflation widen more than expected.
- iii. That lower price changes in some goods included in the non-core subindex are observed.

In this context, uncertainty persists regarding the risks that might divert inflation from its expected trajectory.

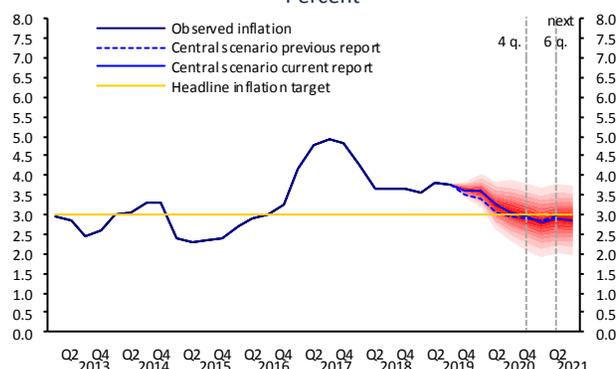
Chart 6
Fan Chart: Annual Headline Inflation ^{1/}
Percent



^{1/} Quarterly average of annual headline inflation. The next four and six quarters are indicated, using as a reference the fourth quarter of 2019, that is, the fourth and the second quarters of 2020 and 2021, respectively, time frames in which the monetary policy transmission channels fully operate.

Source: Banco de México and INEGI.

Chart 7
Fan Chart: Annual Core Inflation ^{1/}
Percent



^{1/} Quarterly average of annual core inflation. The next four and six quarters are indicated, using as a reference the fourth quarter of 2019, that is, the fourth and the second quarters of 2020 and 2021, respectively, time frames in which the monetary policy transmission channels fully operate.

Source: Banco de México and INEGI.

To guide its monetary policy actions, Banco de México’s Governing Board monitors closely the development of inflation vis-à-vis its forecast trajectory, considering the adopted monetary policy stance and the time frame in which it operates. In this process, it considers available information on all inflation determinants as well as medium- and long-term inflation expectations, including the balance of risks for such factors. Monetary policy must respond prudently if, for any reason, the uncertainty faced by the economy increases significantly. To consolidate a low and stable inflation, in an environment in which price formation and slack conditions in the economy are subject to risks, the Governing Board will continue to follow closely all factors and elements of

uncertainty that have an impact on inflation and its outlook, and will take the actions needed, based on incoming information, so that the policy rate is consistent with the orderly and sustained convergence of headline inflation to Banco de México's target within the time frame in which monetary policy operates. The Governing Board will maintain a prudent monetary policy stance and, under the current environment of prevailing uncertainty, will follow closely the potential pass-through of exchange rate fluctuations to prices, Mexico's relative monetary policy stance in an external context of persisting risks, and the behavior of slack conditions and cost-related pressures in the economy. In the presence and possible persistence of factors that, by their nature, involve risks to both inflation and its expectations, monetary policy will be adjusted in a timely and firm manner to achieve the convergence of inflation to its 3% target and to strengthen the anchoring of medium- and long-term inflation expectations to attain such target.

In an environment of economic weakness and marked uncertainty, the unfavorable performance that investment has been exhibiting for a number of years stands out, accentuated by its negative trajectory since early 2018. This evolution has reduced the short-term dynamism of economic activity, by weakening aggregate demand, and could lead to a lower medium- and long-term growth in Mexico through a lower physical capital formation. Thus, it is necessary to revamp investment through an agenda of public policies that foster an environment of certainty and strengthen the business climate in Mexico, supported by a sound and resilient macroeconomic framework, backed by fiscal discipline, price stability and financial stability. Similarly, it is key to address the fundamental causes that inhibit greater investment, both public and private, and that have led to low levels of productivity in the economy. In this sense, encouraging greater competition, providing the necessary incentives to favor value creation over rent seeking, and increasing the efficiency with which the economy operates would contribute to address the structural problems that have prevented the economy from reaching a greater potential growth. It is also key to strengthen the rule of law by fighting insecurity, corruption and impunity, and to guarantee legal certainty. All these efforts would promote the capital accumulation and

productivity growth that are required to eliminate the economic lags that persist, allowing the economy to face from a sounder basis the challenges that could arise from the prevailing adverse and complex international environment.

Twenty-five years after the implementation of the Constitutional Amendment that granted Banco de México its independence, and established as the main objective pursuing the stability of the domestic currency's purchasing power, this Quarterly Report presents the box *Relevance of Central Bank Independence and the Price Stability Mandate*. Within the institutional framework resulting from this Reform, Banco de México's actions have contributed to reduce the level, volatility and persistence of inflation, and to anchor its expectations to levels close to the target. In the same vein, the pass-through effect of exchange rate adjustments on goods' and services' prices has decreased. This progress in curbing inflation has generated a number of benefits for the population. For instance, it has provided it with a greater access to credit at a lower cost and longer maturity, and it has mitigated the negative effects of inflation on the income and welfare of Mexican households, especially those with the lowest income, thus preventing greater poverty and inequality.



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