



BANCO DE MÉXICO

Executive Summary

Quarterly Report April – June 2019

Summary

During the reported period, the Mexican economy faced a complex environment caused by both global factors and others more domestically related, which imply risks that could affect the economy's capacity to grow and its price formation process. As for external factors, trade tensions have intensified, especially between the U.S. and China, which has led to greater uncertainty. In this context, the global economy decelerated and its growth expectations were revised downwards. The aforementioned, together with muted inflationary pressures, has led to the adoption of more accommodative monetary policy stances in a large number of central banks. These conditions have been reflected in significant decreases in interest rates of the major advanced economies, for all terms. Thus, the base scenarios for global growth have been adjusted downwards and various risks persist, such as those associated with the escalation of global trade tensions, new bouts of financial volatility, and political and geopolitical factors. Domestically, financial markets in Mexico have reflected both the impact of the lower interest rates in advanced economies and some bouts of volatility associated with external and idiosyncratic factors. A first bout of volatility at the beginning of June was associated with the threat of tariff imposition on Mexican imports by the United States, along with the revision to the outlook or to the credit rating of both Mexico's sovereign and Pemex's debt by some rating agencies. Volatility eased following the agreement regarding migration reached between the Mexican and US authorities and, for a period of time, the greater risk appetite among investors. Nevertheless, more recently, additional episodes of volatility arose, related to the intensification of trade disputes between the U.S. and China since early August, and to a greater-than-anticipated deceleration of some economies, among other factors.

At the domestic level, during the reported period economic activity in Mexico performed below expectations and thus slack conditions in the economy continue loosening more than foreseen. During the first quarter of the year, headline inflation performed in line with the forecasts previously released by Banco de México, while in the second quarter it lied slightly below forecast. This reflected, above all, the downward adjustment of non-core inflation, given that the core subindex remained stable at relatively high levels. In

such a complex and uncertain environment, Banco de México has conducted monetary policy seeking to preserve the anchoring of medium- and long-term inflation expectations, maintaining a monetary policy stance conducive to the convergence of inflation to its target within the forecast horizon, strengthening confidence in the Mexican economy and contributing to an orderly adjustment of domestic financial markets and of economic activity.

Indeed, although annual headline inflation increased between the first and the second quarters from an average of 4.10 to 4.21%, more recently it trended downwards, reaching 3.29% in the first fortnight of August. The downward trajectory followed by headline inflation has essentially reflected the development of annual non-core inflation, which declined from an average of 5.84 to 5.35% in the referred quarters, and to 1.81% in the first fortnight of August. Within non-core inflation, lower increases were observed, especially in energy and fruits and vegetables prices, while the growth rate of livestock product prices increased. In contrast, average annual core inflation went from 3.56 to 3.83 % between the first and the second quarters, reaching 3.77% in the first fortnight of August. Thus, core inflation has maintained its persistence.

As to monetary policy decisions, in its May and June meetings, the Governing Board maintained the target for the Overnight Interbank Interest Rate at 8.25%, while in its August meeting it lowered it by 25 basis points to a level of 8%.

In its May meeting, the Board mentioned that slack conditions had loosened and that the balance of risks to growth was still biased to the downside. It pointed out that some downward risks to inflation had intensified, such as the greater amount of slack, while other factors could keep it at high levels. The Board considered that the balance of risks for inflation remained to the upside, in a context of marked uncertainty. In its June meeting, it mentioned that the balance of risks to growth had become more uncertain and that its downward bias had widened. As to inflation, the Board noted that, although some risks to inflation in relation to its forecast had decreased, others had gained relevance. Therefore, a high degree of uncertainty prevailed as to the risks that could affect

inflation. In its August meeting, the decision to lower the policy rate was made taking into consideration that headline inflation has declined accordingly to the central bank's projections; that economic slack has expanded more than expected; and the recent performance of external and domestic yield curves for different terms. The latter, considering that, under the current conditions, an 8% level in the policy rate is consistent with the convergence of inflation to its target within the time frame in which monetary policy operates.

The box *Update to the Estimate of the Long-Term Neutral Interest Rate in Mexico* presents updates of the quantitative estimations of the level of the neutral rate in the long term in Mexico. To this end, the following methodologies were considered: i) a modified Taylor rule including a control variable for the unconventional monetary policies in the U.S.; ii) a business cycle model for a small open economy; and, iii) an affine term-structure model for interest rates. The results suggest that given the greater restriction of external financing faced by the Mexican economy since 2014, the long-term level of the neutral real interest rate would have increased slightly from a range of 1.7-3.2% to one of 1.8-3.4%. It should be noted that 87% of the new range is included in the previous range released in the Quarterly Report of July – September 2016, therefore the increase is relatively small and should be taken with caution.

The box *Evolution of the Term Premium in Mexico* presents an estimation of the two components of long-term interest rates: short-term interest rate expectations and the term premium for Mexico. For that purpose, the following methodologies were considered: i) two affine models of the temporal structure of interest rates; and, ii) the average of TIE swaps for different terms. Term premium determinants were also analyzed and it was found that their dynamics are explained by the term premium in the U.S., the real compensation, and the exchange rate risk compensation.

Regarding the international environment, the deceleration of the world economy during the second quarter of 2019 was due to the moderation of growth in the main advanced and emerging economies, such as the U.S., the euro area, Japan, the United Kingdom, and China. In the period covered by this Report, disputes between the U.S. and other economies escalated, not only those regarding trade but also

those associated with technology, migration issues, and with exchange rate policy, raising concerns over their impact on growth. This intensified the decline in business confidence, the weakness of investment, and the slowdown of manufacturing activity. Thus, the growth outlook for the world economy was revised downwards once more.

In the United States, business fixed investment has weakened since the second half of 2018, due to increased uncertainty regarding the outlook for global growth and the future of economic relations between the U.S. and its main trade partners. A scenario of high uncertainty might lead to a greater weakening of that economy insofar as firms delay their investments and hiring decisions. In this respect, the box *Effects of Higher Uncertainty on Business Investment in the United States* seeks to analyze the impact of uncertainty on fixed investment in the U.S. The purpose of the analysis is to identify if uncertainty can have non-linear effects that magnify the propagation of shocks on both investment and the economy. The results suggest that, when uncertainty is very high as compared to previous periods, the deterioration of investment is considerably higher and more persistent than in the linear model. This situation is observed likewise in the case of industrial production, GDP, and non-farm employment.

Headline and core inflation in major advanced economies remained low and below their respective central bank targets. In this scenario of moderate growth, and with downward pressures and an outlook of lower inflation, a large number of central banks in both advanced and emerging economies have adopted more accommodative policy stances. Although this led to a climate of greater risk appetite and to a recovery of assets in international financial markets, episodes of volatility have arisen, such as those registered in early August, after the announcement of new US tariffs on Chinese imports, the labeling by US authorities of China as an exchange rate manipulator for competitive purposes, and the greater-than-anticipated slowdown of some economies. Thus, the risks faced by the global economy have increased, especially the possibility of an intensification of trade disputes, of a no-deal exit of the United Kingdom from the European Union, and of a deterioration of certain political and geopolitical conflicts.

In an environment of marked uncertainty along with the combination of the above mentioned external and domestic factors, during the period analyzed in this report the stagnation that the Mexican economy had been exhibiting since previous quarters persisted. This behavior has been due to a further weakening of the domestic aggregate demand components. Thus, slack conditions in the economy have continued to loosen, even more than expected, widening the negative output gap. In particular, investment continues on a negative trajectory, due mainly to sharp falls in both construction and imported machinery and equipment. Likewise, the weakness private consumption of both goods and services has been exhibiting since the last part of 2018 intensified. In contrast, during the second quarter of the year, and despite the weakening of world trade and the escalation of trade tensions, manufacturing exports recovered to some extent relative to the slowdown observed during the previous two quarters.

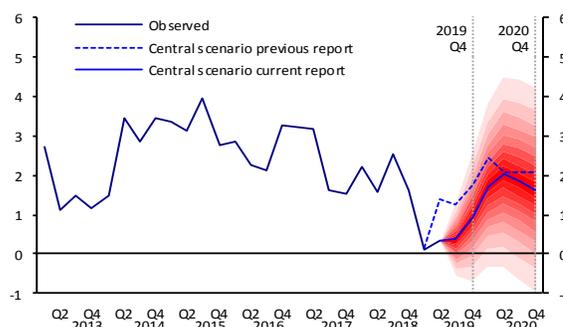
Banco de México's expected macroeconomic scenario is as follows:

GDP growth: The outlook for Mexico's economic activity for 2019 has been revised from an interval of 0.8-1.8% in the previous report to one of 0.2-0.7%. For 2020, GDP growth is expected to lie in an interval of 1.5-2.5%, which compares to the range of 1.7-2.7% in the previous Report (Charts 1 and 2).¹ The revision for 2019 is based on the consideration that, according to data published by INEGI, GDP growth during the second quarter was lower than previously anticipated, thus pointing to a deeper weakness of domestic demand components than was previously estimated, as well as downward adjustments in the expected growth path throughout the forecast horizon for both US industrial production and the crude oil production platform.² These effects could be partly offset in the short term by the measures announced by the Ministry of Finance for the normalization of public spending. Thus, although the rate of GDP growth is still foreseen to recover over the next quarters, such recovery is expected to be gradual.

¹ Since 2020 is a leap year, it will have one additional day, as compared to 2019. As a result, the annual GDP growth rate estimated with original data will be higher than that estimated with seasonally adjusted data, as the latter controls for this effect. As a reference, in 2016, the difference between these two growth rates was of three tenths of a percentage point.

As for the cyclical position of the economy, slack conditions throughout the forecast horizon are expected to remain looser than previously anticipated (Charts 3, 4, and 5).

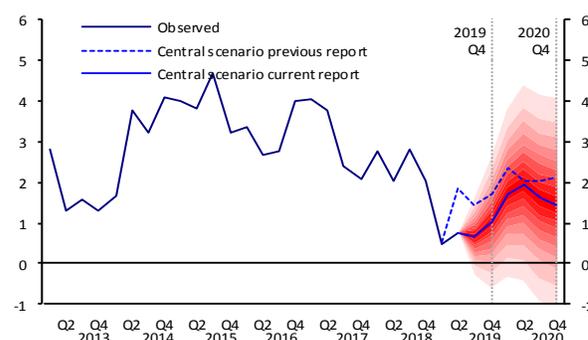
Chart 1
Fan Chart: GDP Growth, s. a.
Annual percent



s. a. / Seasonally adjusted figures.

Source: INEGI and Banco de México.

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

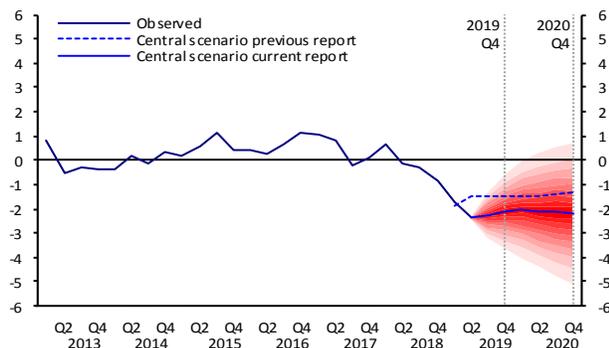


s. a. / Seasonally adjusted figures.

Source: INEGI and Banco de México.

² According to analysts surveyed by Blue Chip in August 2019, US industrial production is expected to grow 1.2 and 1.1% in 2019 and 2020, respectively, below the 2.2 and 1.6% figures mentioned in the previous Report.

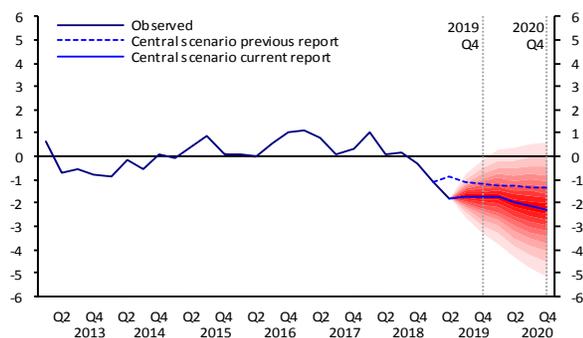
Chart 3
Fan Chart: Output Gap Estimate, s. a.
 Percent of potential output



s. a. / Seasonally adjusted figures.

Source: Banco de México.

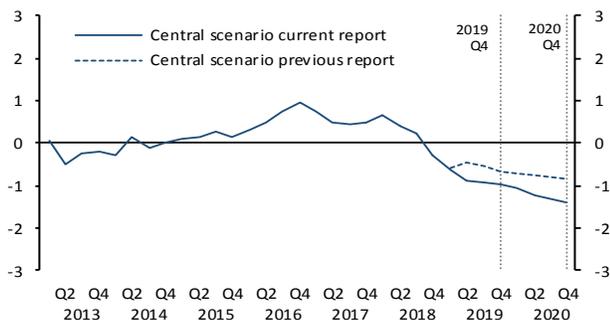
Chart 4
Fan Chart: GDP Growth Excluding Oil Sector, s. a.
 Percent of potential output



s. a. / Seasonally adjusted figures.

Source: Banco de México.

Chart 5
Quarterly Slack Indicator



Notes: i) In the central bank's base scenario for the present Report, the forecast begins in Q2 2019. In the case of the previous Report, it began in Q1 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.

Employment: Based on the revision of the GDP growth outlook for Mexico, and the lower dynamism observed in the creation of IMSS-insured jobs so far during 2019, the forecast for this indicator for 2019 has been revised from 530-630 thousand jobs in the previous Report to 450-550 thousand jobs in the current one. For 2020, an interval of 590-690 thousand jobs is expected, as compared to the interval of 650-750 thousand jobs in the previous Report.

Given the decline in the rate of growth of formal IMSS-insured employment, the box *Recent Evolution of IMSS-insured Employment at the Sectoral and Regional Levels* analyzes the sectoral and regional evolution of this indicator and studies the effect that the stagnation of economic activity and the increase in the minimum wage might have had on the behavior of this indicator.

Current account: For 2019, deficits of the trade balance and the current account of 7.8 and 15.2 billion US dollars, respectively (0.6 and 1.2% of GDP, in the same order), are expected, as compared to the previous Report projections of 13.5 and 24.3 billion US dollars, respectively (1.0 and 1.9% of GDP, in the same order). For 2020, deficits of the trade balance and current account of 12.1 and 22.0 billion US dollars, respectively (0.9 and 1.6% of GDP, in the same order), are expected, as compared to those of the previous Report of 13.7 and 25.6 billion US dollars, respectively (1.0 and 1.9% of GDP, in the same order).

Balance of risks to growth: In an environment of marked uncertainty, the persisting external and domestic risk factors imply that the balance of risks to economic activity in Mexico remains biased to the downside. Among the downward risks in this horizon, those that stand out are:

- i. That uncertainty regarding the possibility of new trade disputes or an escalation of those currently prevailing persists, thus having an impact on global growth, investment and trade and on international financial markets, to the detriment of economic activity in Mexico. In this sense, there is the possibility that the U.S. announces trade measures against Mexico, possibly associated with non-trade issues. This would generate greater uncertainty and would affect consumers' spending decisions and/or investment. If such actions were to be implemented, the effects would be stronger

and could contribute to a deterioration of the Mexican economy's competitiveness and negatively affect economic activity.

- ii. That the process of ratifying the United States-Mexico-Canada trade agreement (USMCA) is delayed in the United States and Canada, generating more uncertainty and, thus, affecting investment.
- iii. That episodes of volatility in international financial markets arise as a result of several factors: a) greater trade tensions worldwide leading to a lower risk appetite; b) possible inflationary surprises that generate unexpected increases in the reference rates of the main central banks or in the expectations for their trajectory; c) a possible contagion from other emerging economies; and, d) geopolitical events that might reduce the sources of external financing.
- iv. That a greater-than-expected slowdown of world economic activity and of global trade is observed once the fiscal stimuli currently implemented in some of the major economies, mainly in the United States, expire or as a result of a greater-than-expected deceleration of US industrial production.
- v. That the environment of domestic uncertainty that has been affecting investment persists, causing some firms to postpone their investments or that consumers 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.

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

- i. That USMCA is formalized, triggering greater investment.
- 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.

iv. That the package of measures announced by the Ministry of Finance boosts GDP growth more than expected.

The box *Pemex Business Plan* presents: i) a recap of the main credit rating agencies' actions regarding Pemex in 2018 and 2019; ii) a description of the guidelines and strategic objectives of the Pemex Business Plan presented after such actions; and, iii) the rating agencies' reactions until now to the aforementioned Plan. Finally, some considerations are presented over the importance of this Plan for public finances and its possible implications for economic growth.

Inflation: With respect to the previous Quarterly Report, the forecast for annual headline inflation is adjusted downwards for the next four quarters as a result of a more-favorable-than-expected trajectory for growth rates of energy prices and agricultural and livestock prices, while remaining at similar levels for the rest of the forecast horizon. Thus, annual headline inflation is estimated to lie at levels close to 3% from the second quarter of 2020. As for annual core inflation, it is expected to follow a trajectory slightly higher than that estimated in the previous report for the following twelve months, as a result of higher-than-foreseen increases in services prices and of a slightly more depreciated exchange rate. However, from the fourth quarter of 2020, expected core inflation is slightly lower, mainly as a result of the foreseen wider slack conditions in relation to those anticipated in the previous Report. Thus, annual core inflation is expected to lie at levels close to 3% from the second quarter of 2020 (Table 1, Chart 6 and Chart 7).

Table 1
Headline and Core Inflation Forecasts
Annual percentage change

	2019				2020				2021	
	I	II	III	IV	I	II	III	IV	I	II
CPI										
Current report ^{1/}	4.1	4.2	3.3	3.2	3.4	3.1	3.1	3.0	2.9	3.0
Previous report ^{2/}	4.1	4.3	4.0	3.7	3.8	3.2	3.1	3.0	3.0	
Core										
Current report ^{1/}	3.6	3.8	3.7	3.5	3.4	3.1	3.0	2.9	2.9	3.0
Previous report ^{2/}	3.6	3.8	3.6	3.4	3.4	3.0	3.0	3.0	3.0	

^{1/} Forecast from August 2019 onwards.

^{2/} Forecast from May 2019 onwards.

Source: Banco de México and INEGI.

Regarding inflation risks, the following stand out.

To the upside:

- i. That the persistence shown by core inflation continues.
- ii. That the peso exchange rate comes under pressure stemming from external or domestic factors.
- iii. That US threats to impose tariffs and compensatory measures are adopted, albeit this risk has dissipated somewhat.
- iv. That energy prices revert their trend or that agricultural and livestock product prices increase.
- v. Weak public finances.
- vi. The escalation of protectionist measures worldwide.
- vii. That given the magnitude of several wage revisions, cost-related pressures arise, insofar as such revisions exceed productivity gains.

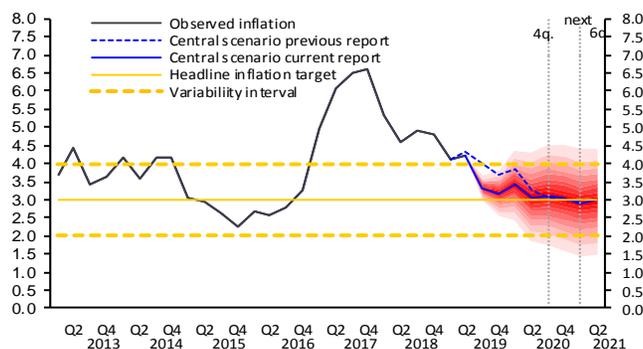
To the downside:

- i. That the peso exchange rate appreciates, possibly associated with a context of more accommodative policy stances and lower interest rates worldwide, or in case greater certainty arises regarding the trade relation with the United States.

- ii. That the prices of certain goods included in the non-core subindex register lower rates of change, as has occurred in the case of energy goods, due to the greater weakness exhibited by the world economy, which would also contribute to reduce core inflation.
- iii. That slack conditions widen more than anticipated, which would have an effect on the behavior of core inflation.

Given the aforementioned, high uncertainty still persists regarding the risks that might affect inflation. In this context, Banco de México will be alert to the possible materialization of inflation risks, both to the downside and to the upside.

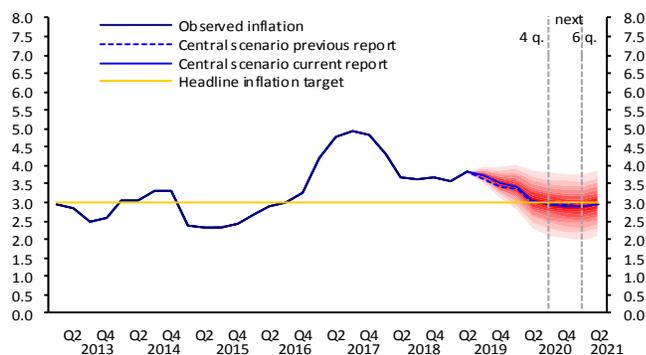
Chart 6
Fan Chart: Annual Headline Inflation^{1/}
Percent



^{1/} Quarterly average of annual headline inflation. The next four and six quarters are indicated, using as a reference the third quarter of 2019, that is, the third and the first 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 third quarter of 2019, that is, the third and the first 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 follows closely the development of inflation vis-à-vis its forecasted trajectory, taking into account the adopted monetary policy stance and the time frame in which it operates. In this process, it uses 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 also respond prudently if, for any reason, the uncertainty faced by the economy increases significantly. To consolidate 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 required actions based on incoming information so that the policy rate is consistent with the orderly convergence of headline inflation to Banco de México's target within the time frame in which monetary policy operates.

Banco de México's Governing Board will maintain a prudent monetary policy stance and, under the current environment of uncertainty, will follow closely the potential pass-through of exchange rate fluctuations to prices, Mexico's monetary policy stance relative to that of the U.S. –in an external environment that is still subject to 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 so that they can attain such target.

To promote the recovery of economic activity in the short and medium terms and to address the challenges and lags that the Mexican economy faces in the long term, particularly given the complex international environment, it is necessary to encourage public policies that improve economic efficiency, correcting the structural and institutional setbacks that have prevented the economy from attaining higher productivity and higher investment levels, both public and private. In addition to preserving and strengthening a solid macroeconomic framework that favors fiscal discipline and price stability, strengthening the rule of law, and providing the necessary incentives to favor value creation over rent seeking is imperative. In this sense, it is key to fight insecurity, corruption and impunity, and to guarantee legal certainty, compliance to the legal framework, and respect for private property. Insofar as progress is made in these areas, an environment of greater certainty will be achieved, and confidence in the business climate in Mexico will increase, fostering investment and allowing for a higher growth rate to the benefit of all Mexicans.



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