Outlook for the Mexican economy
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*The opinions and views expressed herein are the sole responsibility of the author and do not necessarily represent the institutional stance of Banco de México or of its Governing Board.
Outline

1 External conditions

2 Current situation of the Mexican economy

3 Inflation

4 Monetary policy

5 Forecasts and final remarks
During 2019, the world economy continued to decelerate. This reflected the impact of: 1) prolonged trade tensions; 2) high geopolitical risks, and 3) certain idiosyncratic factors in several economies. Although some of these risks subsided, others have emerged such as the coronavirus outbreak (Covid-19).
International prices of commodities have registered high volatility. Although the prices of oil increased by the end of 2019, such trend has reverted due to the coronavirus outbreak in China.

1/ The GSCI index is an indicator of 24 commodities prepared by Goldman Sachs. In particular the industrial metals component follows the prices of aluminum, copper, nickel, zinc and lead.

Source: Bloomberg.
Headline inflation in advanced economies remains below the respective central banks’ targets, while core inflation continues at low levels, reflecting the absence of inflationary pressures. Meanwhile, inflation expectations remain at low levels.

**G3: Inflation**

*Annual % change*

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**Headline**

Source: Prepared by Banco de México with data from BEA, Eurostat and Japan’s Statistics Bureau.

**Core**

Source: Prepared by Banco de México with data from BEA, Eurostat and Japan’s Statistics Bureau.
In this context of low inflation and risks for the world economy, in the short and, especially, in the medium terms, the central banks of the main advanced economies maintained or expanded their accommodative monetary policy stances.

**G3: Government Bonds Interest Rates**

1/ G3 includes the United States, Japan and the euro area. 
Source: Bloomberg.
International financial markets exhibited higher risk appetite, supported by the accommodative monetary policy stances, the announcement of the preliminary trade agreement between the U.S. and China, and the signing of the withdrawal agreement between the U.K. and the European Union. However, they have recently been affected by the risk associated with the coronavirus.

Note: The risk appetite index compares several financial assets, taking into account that in periods of high appetite for higher risk assets, such as equities of advanced and emerging economies, these tend to register high returns, while safe assets, such as government bonds of the United States, the euro area and Japan, tend to present negative returns. On the other hand, during periods of low appetite for risk, the opposite occurs. In this context, the index value refers to the coefficient of a regression of the daily yield of 64 assets based on their volatility. Source: Credit Suisse.

1/ The financial conditions index is constructed based on the effect of five variables on economic activity: the reference interest rate, the 10-year government bond, the spread of the bonds with investment grade on the government debt bond with equivalent maturity, the ratio of the stock index with average earnings of 10-year equities and the trade weighted exchange rate. Source: Banco de México with Bloomberg and Goldman Sachs data.

Note: The MSCI indices of both advanced (MSCI World Index) and emerging (MSCI Emerging Market Index) economies are presented.

3/ Includes Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Hong Kong, Ireland, Israel, Italy, Japan, Holland, New Zealand, Norway, Portugal, Singapore, Sweden, Switzerland, the United Kingdom and the United States.

4/ Includes Mexico, Brazil, Chile, China, Colombia, Peru, the Czech Republic, Egypt, Greece, Hungary, India, Indonesia, South Korea, Malaysia, the Philippines, Poland, Qatar, Russia, South Africa, Taiwan, Thailand, Turkey and the United Arab Emirates. Source: Bloomberg.
The relaxation in global financial conditions led to greater flows of financial assets to emerging economies, both in fixed income markets and in equity markets. However, emerging economies’ asset prices have been affected by the recent episodes of volatility.

### Asset Performance in 2019 and 2020

<table>
<thead>
<tr>
<th>Region</th>
<th>Country</th>
<th>2019</th>
<th>2020</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Currencies</td>
<td>Stock indices</td>
</tr>
<tr>
<td>Latin America</td>
<td>Mexico</td>
<td>-3.82%</td>
<td>4.56%</td>
</tr>
<tr>
<td></td>
<td>Brazil</td>
<td>-3.87%</td>
<td>31.58%</td>
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<tr>
<td></td>
<td>Chile</td>
<td>-7.74%</td>
<td>-8.53%</td>
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<tr>
<td></td>
<td>Colombia</td>
<td>-0.84%</td>
<td>25.38%</td>
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<tr>
<td>Europe</td>
<td>Russia</td>
<td>12.46%</td>
<td>29.14%</td>
</tr>
<tr>
<td></td>
<td>Turkey</td>
<td>-11.12%</td>
<td>25.37%</td>
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<tr>
<td></td>
<td>Hungary</td>
<td>-5.17%</td>
<td>17.74%</td>
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<tr>
<td>Asia</td>
<td>China</td>
<td>-1.22%</td>
<td>22.30%</td>
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<tr>
<td></td>
<td>Malaysia</td>
<td>1.04%</td>
<td>-6.02%</td>
</tr>
<tr>
<td></td>
<td>India</td>
<td>-2.25%</td>
<td>14.38%</td>
</tr>
<tr>
<td></td>
<td>Thailand</td>
<td>8.61%</td>
<td>1.02%</td>
</tr>
<tr>
<td></td>
<td>Indonesia</td>
<td>3.78%</td>
<td>1.70%</td>
</tr>
<tr>
<td>Africa</td>
<td>South Africa</td>
<td>2.48%</td>
<td>8.24%</td>
</tr>
</tbody>
</table>

Note: Interest rates correspond to interest rate swaps for 10-year maturity. In the case of Mexico, sovereign rates in local currency for 2Y and 10Y are shown.

Source: Bloomberg.
In the last years, emerging economies have been subject to terms of trade shocks, trade tensions and idiosyncratic risk factors, which have had different effects on their inflation rates.
Among emerging economies, the Mexican peso stands out as one of the most traded currencies worldwide.
Outline

1. External conditions
2. Current situation of the Mexican economy
3. Inflation
4. Monetary policy
5. Forecasts and final remarks
For several quarters, economic activity has been exhibiting a moderate downward trajectory.

Gross Domestic Product
Quarterly % change, s. a.

Global Index of Economic Activity
Index 2013=100, s. a.

s. a. / Seasonally adjusted figures.
Source: Mexico’s National Accounts System (SCNM, for its acronym in Spanish), INEGI.

Note: Figures in parentheses represent their share in 2013.
Source: Mexico’s National Accounts System (SCNM, for its acronym in Spanish), INEGI.
Industrial activity contracted, while services exhibited low growth and continue showing some weakness.
A lower dynamism of consumption has been observed recently. However, its main determinants kept showing relative strength.

Private Consumption
Index 2013=100, s. a.

Remittances
Billion USD and constant pesos, s. a.

Consumer Confidence
and Total Real Wage Bill
Response balance and annual % change, s. a.
Gross fixed investment continued to contract, as a result of the weakness in spending on machinery and equipment and investment in construction.
Among the factors that business representatives and analysts consider that could limit growth those related to governance stand out. Progress in addressing certain problems that have affected the economy for years, such as the rule of law (corruption, insecurity and impunity), would foster an environment that would allow for incentivizing growth.

Percentage Distribution of Responses from Analysts and Business Representatives when Consulted on the Three Main Factors that Could Hinder Economic Activity Growth in the Next Six Months 1/

1/ Responses from the Survey of Private Sector Forecasters associated with the question: Which three main factors will limit economic activity growth in your state in the next six months? Source: Monthly Survey of Regional Economic Activity (EMAER, for its acronym in Spanish) and Survey of Private Sector Forecasters. 2/ Refers to factors such as: public insecurity problems, domestic political uncertainty, corruption, impunity and lack of rule of law. 3/ Refers to factors such as: uncertainty over the domestic economic situation, domestic market weakness, households’ level of indebtedness, firms’ level of indebtedness, absence of structural change in Mexico, availability of domestic financing in Mexico, oil production platform and lack of market competition. Source: Monthly Survey of Regional Economic Activity (EMAER, for its acronym in Spanish) and Survey of Private Sector Forecasters.
Impact of Uncertainty on Consumption and Investment in Mexico.
For several years, the Mexican economy has faced an environment of high uncertainty, due to both external and domestic factors.

**Macroeconomic Uncertainty Index for Mexico (IIM)**

- **January 2015**: Mexican oil mix prices fall by 56% (Jul 14 – Jan 15)
- **December 2015**: Presidential campaign in the U.S.
- **January 2017**: Announcement of a possible renegotiation of NAFTA
- **July 2018**: Presidential elections in Mexico
- **October 2018**: NAICM 2/ cancellation

**Maximum Uncertainty Index Associated with 1-month IIM**

- **January 2017**: Mexican oil mix prices fall by 56% (Jul 14 – Jan 15)
- **December 2015**: Presidential campaign in the U.S.
- **July 2018**: Presidential elections in Mexico
- **October 2018**: NAICM 2/ cancellation

2/ Mexico City’s New International Airport (NAICM, for its Spanish acronym).

Source: Banco de México.

3/ Refers to the IIM percentage increase over the maximum level reached in the previous 6 months.

Impact of Uncertainty on Consumption and Investment in Mexico.
The higher uncertainty has negatively affected consumption and, especially, investment.

Impulse Response Functions to an Uncertainty Shock ¹/

investment

consumption

Impact of Uncertainty on Consumption and Investment in Mexico.
The results suggest that the negative effect of higher uncertainty on consumption and investment has prevailed above that of other factors, such as financing costs.

Counterfactual Exercises 1/
3-month moving average, January 2016=100

Investment
Counterfactual A + CETES (B): without the effect of the interest rate
Counterfactual B + IGAE (C): without the IGAE effect
Counterfactual C + Public Investment (D): with constant level of public investment
Counterfactual uncertainty (A): excluding increase in uncertainty

Consumption
Counterfactual A + CETES (B): without the effect of the interest rate
Counterfactual B + IGAE (C): without the IGAE effect
Counterfactual uncertainty (A): excluding increase in uncertainty

1/ See “Quarterly Report October - December 2019”, Banco de México, p. 22.
Note: Counterfactual trajectories are constructed based on the historical decomposition of each VAR, by matching the contributions of the uncertainty and CETES to zero accordingly. Source: Banco de México.
Manufacturing exports have lost momentum. This was mainly the result of the contraction in automotive exports, although non-automotive exports also exhibited weakness.

### Manufacturing Exports
**Index 2013=100, s. a.**

**Automotive and Non-automotive**

- **Automotive (35.8%)**
- **Non-automotive (64.2%)**

**By Destination**

- **United States (82.3%)**
- **Rest of the world (17.7%)**

s. a./ Seasonally adjusted series.

Note: Figures in parentheses represent their participation in 2018.

Source: Prepared by Banco de México with data from Mexico’s Tax Administration Service (SAT, for its acronym in Spanish), the Ministry of the Economy (SE, for its acronym in Spanish), Banco de México, the National Institute of Statistics and Geography (INEGI, for its acronym in Spanish), Mexico’s Merchandise Trade Balance, and National System of Statistical and Geographical Information (SNIEG, for its acronym in Spanish). Information of national interest.
External accounts have reverted their medium-term trend. Specifically, a surplus in the non-oil trade balance and a deficit in the oil trade balance is observed, along with a sizeable reduction of the current account deficit.
Although the national unemployment rate has reached its lowest level in the last three quarters, the urban unemployment rate has been slightly higher than registered previously. In addition, the underemployment rate continued to increase and the creation of IMSS-insured jobs continues to decelerate. Meanwhile, wages continued to advance in real terms.

National and Urban Unemployment Rates

% s. a.

Jobs Insured by IMSS: Permanent and Temporary in Urban Areas

Annual change in thousands

Average Wage of Salaried Workers according to the National Employment Survey (ENOE)²/

Annual % change

Source: IMSS.

Source: Calculated by Banco de México with data from INEGI (ENOE), IMSS, and STPS.

1/ The nationwide NAIRU is the level of the unemployment rate that does not accelerate inflation.

Source: Prepared by Banco de México with IMSS and INEGI data.

2/ To calculate average nominal wages, the bottom 1 percent and the top 1 percent in the wage distribution were excluded. Individuals with zero reported income or those who did not report it are excluded.

Source: Calculated by Banco de México with data from INEGI (ENOE), IMSS, and STPS.
Slack conditions continued to widen, reflecting the moderate decline of economic activity.

Output Gap Estimate 1/
% of potential output, s. a.

Slack Indicators: Main Component by Indicators Frequency 3/

Quarterly indicator
Economic activity indicator

Monthly indicator

Labor market

Consumption

Demand conditions in the lending market

s. a. / Seasonally adjusted data.
Source: Prepared by Banco de México with data from INEGI and Banco de México.

3/ Main Indicators constructed using CCM methodology; see Banco de México (2018), “Quarterly Report, October-December 2017”, p.47. Monthly and quarterly slack indicators are constructed with the main component of sets of series which includes 11 and 12 indicators, respectively. Slack indicators of consumption, economic activity, aggregate demand, labor market and demand conditions in the lending market are based on the first main component of sets of series which includes 6, 4, 3 and 6 indicators, respectively.
Source: Prepared by Banco de México with data from INEGI and Banco de México.
Outline

1. External conditions
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Outlook for the Mexican economy
During 2019, annual headline inflation decreased significantly, particularly during the 2H-2019, reaching levels consistent with the 3% target at the end of Q3 and during Q4 2019. This was mainly due to the decrease in non-core inflation, given that the core index, which better reflects medium-term pressures on prices, showed persistence at levels above the target, although with slight reductions.

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1/ Since 2003, a permanent inflation target of 3%, with a variability interval of +/-1%, was established for headline inflation. Source: Banco de México and INEGI.

2/ The sum of inflation’s components may not add up due to rounding. Source: Prepared by Banco de México with data from INEGI.
The annual average non-core inflation level during Q4 2019 was the lowest on record for a quarter, and was affected by a lower annual change of agricultural and livestock prices, and of energy prices. However, since the beginning of 2020, this component increased due to a higher annual change in fruit and vegetable prices and due to the comparison base in gasoline prices.

Non-core Price Subindex

Agricultural and Livestock Products

Energy Products and Government-authorized Prices

Source: Banco de México and INEGI.

Outlook for the Mexican economy

BANCO DE MÉXICO
INEGI
Average annual core inflation decreased slightly, although it rebounded at the beginning of 2020.
Inflation Indicators More Related to Supply Side Factors.
Evidence suggests that certain supply shocks that have affected the economy could be offsetting the effects of slackness on core inflation.

**Indicators More Related to Supply Shocks and Observed Core Inflation**

Annual % change

Evidence suggests that certain supply shocks that have affected the economy could be offsetting the effects of slackness on core inflation.
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Outlook for the Mexican economy
## Monetary policy conduction

### Meetings of August, September, November and December 2019 and February 2020

**25 bp reductions** in each meeting to a level of **7%**

- The main reasons highlighted in the press releases:
  - The levels attained by headline inflation and its outlook in the horizon in which monetary policy operates.
  - Wider slack conditions in the economy.
  - The recent performance of external and domestic yield curves.

### Overnight Interbank Interest Rate and Government Bond Yields

<table>
<thead>
<tr>
<th>Time Period</th>
<th>1 day</th>
<th>3 years</th>
<th>10 years</th>
<th>30 years</th>
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<tbody>
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<td>Jan-17</td>
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<td>Mar-20</td>
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Source: Proveedor Integral de Precios (PiP).

### Outlook for the Mexican economy
Short-, medium-, and long-term inflation expectations remained relatively stable for headline inflation, while they showed increases for core inflation.

**Break-even Inflation and Inflation Risk Implied in Bonds**

Note: the break-even inflation and inflation risk is calculated as the difference between nominal and real long-term interest rates.

Source: Banco de México estimates with Valmer and PIP data.
Economic Activity Forecasts

Fan Chart: GDP Growth
Annual %, s. a.

GDP Growth
\[
\begin{array}{c|c|c}
\text{Report} & \text{QR Jul-Sep 2019} & \text{QR Oct-Dec 2019} \\
2020 & 0.8 - 1.8 & 0.5 - 1.5 \\
2021 & 1.3 - 2.3 & 1.1 - 2.1 \\
\end{array}
\]

Increase in Number of IMSS-insured Jobs
Thousands
\[
\begin{array}{c|c|c}
\text{Report} & \text{QR Jul-Sep 2019} & \text{QR Oct-Dec 2019} \\
2020 & 500 - 600 & 440 - 540 \\
2021 & 510 - 610 & 470 - 570 \\
\end{array}
\]

Current Account Deficit
% of GDP
\[
\begin{array}{c|c|c}
\text{Report} & \text{QR Jul-Sep 2019} & \text{QR Oct-Dec 2019} \\
2020 & 1.4 & 0.9 \\
2021 & 1.7 & 1.5 \\
\end{array}
\]

s. a. / Seasonally adjusted series. Source: INEGI and Banco de México.
Risks for Growth Scenario in the Forecast Horizon
In an environment of marked uncertainty, the persistent external and domestic risk elements cause the balance of risks for Mexican economic activity to remain biased to the downside.

**Downward risks**
- An escalation of trade tensions.
- A deceleration of the global economy and world trade, including the effects of the coronavirus (Covid-19) outbreak.
- Episodes of volatility in international financial markets.
- Greater and more persistent weakness of aggregate demand components.
- Further deterioration of Pemex’ or the sovereign credit ratings.
- Lower-than-expected public spending.

**Upward risks**
- That the final ratification of the USMCA leads to higher-than-expected investment.
- Greater-than-anticipated dynamism of industrial production in the United States.
- Greater-than-anticipated dynamism of aggregate demand.
Forecasts are slightly adjusted upwards starting from Q2 2020, due to: 1) an upward revision in **non-core inflation** (due to higher agricultural and livestock prices that are partially offset by lower increases in energy prices); 2) effect of **wage increases**, partly offset by an **expectation of wider slack conditions**.

- **Annual headline inflation is expected to lie at 3% starting in Q1 2021.**

**Fan Chart: Annual Headline Inflation ¹/**

**Table:**

<table>
<thead>
<tr>
<th>QR Oct-Dec 2019</th>
<th>QR Jul-Sep 2019</th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
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<tr>
<td></td>
<td></td>
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<td>3.3</td>
<td>3.0</td>
<td>3.1</td>
<td>3.1</td>
<td>3.0</td>
</tr>
</tbody>
</table>

¹/ Quarterly average of annual headline inflation. The next four and six quarters are indicated as of first quarter of 2020, that is, the first and third quarter of 2021, respectively; periods in which the monetary policy transmission channels fully operate. 2/ Forecast since February 2020. 3/ Forecast since November 2019. Source: Banco de México and INEGI.
Similarly, the trajectory for annual core inflation is slightly adjusted to the upside, although it maintains a declining trend and is expected to lie at 3% starting in Q4 2020.

Fan Chart: Annual Core Inflation ¹/

Outlook for the Mexican economy

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1/ Quarterly average of annual core inflation. The next four and six quarters are indicated as of first quarter of 2020, that is, the first and third quarter of 2021, respectively; periods in which the monetary policy transmission channels fully operate. 2/ Forecast since February 2020. 3/ Forecast since November 2019. Source: Banco de México and INEGI.
Risks to Inflation Outlook within the Forecast Horizon
In this context, uncertainty remains regarding the balance of risks for the described path for inflation.

Upward risks

• Core inflation’s resistance to decline.
• Wage increases that affect the labor market and prices.
• A possible exchange rate adjustment due to external and domestic factors, including greater risk aversion due to the coronavirus (Covid-19) outbreak.
• Greater-than-expected increases in agricultural and livestock prices.
• A deterioration in public finances.

Downward risks

• Lower international prices of energy products due to the coronavirus outbreak.
• A widening in slack conditions.
• An additional appreciation of the exchange rate.
Final remarks

1 The global economy continued to decelerate.

2 World financial conditions remain loose, although volatility has been observed.

3 Although several risks for the global economic outlook have diminished, others have emerged such as the coronavirus outbreak.

4 In Mexico, annual headline inflation decreased considerably in H2 2019, although, as anticipated, it rebounded at the beginning of 2020.

5 Slack conditions widened more than anticipated.

6 Annual headline inflation is expected to lie at 3% in Q1 2021, remaining at levels consistent with the inflation target in the rest of the forecast horizon.

7 Economic activity in Mexico is expected to begin its recovery.

8 It is key to boost confidence in the country, strengthen the economy’s fundamentals, and address the obstacles that have prevented the economy from achieving greater medium-term growth.

   ✓ Generate incentives that foster a higher efficiency in resource allocation.

   ✓ Strengthen the rule of law.