Quarterly Report
January – March 2022
June 1, 2022
Banco de México has implemented monetary policy in an environment in which the inflation outlook has become increasingly complex and uncertain.

The environment of high inflation further deteriorated as a result of the military conflict in Ukraine, which led to increases in energy and food prices, and new disruptions in supply chains. Said conflict has also contributed to a decline in global growth expectations and a greater risk aversion. The resurgence of COVID-19 cases in China could imply additional disruptions on supply chains.

In Mexico, annual headline inflation remained significantly above the 3% target, while core inflation continued rising, so that both components have reached levels unseen in two decades.

Given the risk of contamination to the price formation process and to medium- and long-term expectations, Banco de México has sought to implement monetary policy in a timely manner, fostering an orderly adjustment in relative prices and in financial markets. Banco de México will continue focusing on pursuing an orderly and sustained convergence of inflation to its target, being willing to act more forcefully, if the conditions call for it.
Global economic activity grew less than expected during Q1-2022, influenced by the resurgence of COVID-19 cases in some countries, which has been reflected in the persistent disruptions in supply chains, and by the economic impact of the military conflict between Russia and Ukraine.
Growth forecasts for the world economy were revised downwards considerably for 2022 and, to a lesser extent, for 2023. Particularly noteworthy were the downward revisions for the euro area, the United Kingdom, China and, to a lesser degree, the United States.

### World GDP Growth Forecast

**Annual % change**

<table>
<thead>
<tr>
<th></th>
<th>WEO April 2022</th>
<th>Change from January 2022</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2022</td>
<td>2023</td>
</tr>
<tr>
<td>World</td>
<td>3.6</td>
<td>3.6</td>
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<tr>
<td>Advanced</td>
<td>3.3</td>
<td>2.4</td>
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<tr>
<td>United States</td>
<td>3.7</td>
<td>2.3</td>
</tr>
<tr>
<td>Euro area</td>
<td>2.8</td>
<td>2.3</td>
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<tr>
<td>Japan</td>
<td>2.4</td>
<td>2.3</td>
</tr>
<tr>
<td>United Kingdom</td>
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<td>Emerging</td>
<td>3.8</td>
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<tr>
<td>Excl. China</td>
<td>3.4</td>
<td>4.1</td>
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<tr>
<td>Mexico</td>
<td>2.0</td>
<td>2.5</td>
</tr>
<tr>
<td>China</td>
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<td>5.1</td>
</tr>
<tr>
<td>India</td>
<td>8.2</td>
<td>6.9</td>
</tr>
<tr>
<td>Brazil</td>
<td>0.8</td>
<td>1.4</td>
</tr>
</tbody>
</table>

Source: International Monetary Fund (IMF), World Economic Outlook January and April 2022.
World inflation continued increasing, reaching its highest level in decades in certain economies, driven by a more widespread increase in prices, especially energy and food prices. This was the result of a recovery of demand, of persistent bottlenecks in production, and of additional pressures on commodity prices as a result of the military conflict.

- During the first weeks of March, crude oil prices reached their highest level since 2008, in the wake of the sanctions imposed on Russia.
- Subsequently, crude oil prices reverted part of the increase after the release of strategic oil reserves and the lower growth of demand for crude oil in China.
- Over the last weeks, oil prices registered episodes of volatility given the EU proposal to eliminate Russian oil imports and the G-7 commitment to eliminate its dependence on Russian energy products.

**Crude Oil Futures and International Prices**
1/ USD per barrel

**Grain Futures and Prices**
2/ Index 01-Jan-2018=100

1/ Prices refer to the current oil futures contract. Source: Bloomberg.

2/ Prices refer to the current grain futures contract. Source: Bloomberg.
In most advanced economies, both headline and core inflation continued increasing, remaining above their central banks’ targets, while short-term expectations rose significantly and those for the longer term increased moderately.

**Advanced Economies**

**Annual % change**

**Inflation Forecasts for 2022**

**Headline Inflation Expectations**

5 years/5 years

Source: Consensus Forecasts.

1/ The solid line refers to the Personal Consumption Expenditure Price Index (PCE) and the dotted line shows the Consumer Price Index (CPI). 2/ Excludes fresh food. This series does not exclude the effect of the consumption tax increase in May 2014 and October 2019, nor the effect of the free daycare and preschool program in October 2019. 3/ The harmonized index is shown. 4/ Preliminary figures published for May.

Source: Prepared by Banco de México with data from Haver Analytics.
In emerging economies, inflation continued increasing as a result of the factors mentioned, as well as due to the gradual recovery of the services prices.

**Emerging Economies**

**Headline Inflation**

**Annual % change**

**Core Inflation**

Source: Prepared by Banco de México with data from Haver Analytics and INEGI.
The central banks continued reducing their monetary stimulus and some of them accelerated said process. A large number of emerging economies continued increasing their policy rates.

### Reference Rates and Implied Trajectories in OIS Curves

- **Implied target rate in OIS curve:**
  - May 31, 2021
  - Dec 1, 2022

#### US Federal Reserve

- **Bank of Japan**

#### European Central Bank

#### Reference Rates in Emerging Economies

#### Inflation Gap, Reference Rates, and Cumulative Change in 2022

<table>
<thead>
<tr>
<th>Country</th>
<th>Inflation Gap Percentage points</th>
<th>Current Policy Rate %</th>
<th>Cumulative change in Monetary Policy Rate since January 2022 Basis Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Japan</td>
<td>0.10</td>
<td>-0.10</td>
<td>0</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>7.01</td>
<td>1.00</td>
<td>75</td>
</tr>
<tr>
<td>Euro area</td>
<td>6.05</td>
<td>-0.50</td>
<td>0</td>
</tr>
<tr>
<td>United States</td>
<td>6.26</td>
<td>0.75-1</td>
<td>75</td>
</tr>
<tr>
<td>South Africa</td>
<td>1.39</td>
<td>4.75</td>
<td>100</td>
</tr>
<tr>
<td>Colombia</td>
<td>6.23</td>
<td>6.00</td>
<td>300</td>
</tr>
<tr>
<td>Chile</td>
<td>7.52</td>
<td>8.25</td>
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<tr>
<td>India</td>
<td>3.79</td>
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<td>40</td>
</tr>
<tr>
<td>Peru</td>
<td>6.08</td>
<td>5.00</td>
<td>250</td>
</tr>
<tr>
<td>Russia</td>
<td>13.83</td>
<td>11.00</td>
<td>250</td>
</tr>
<tr>
<td>Mexico</td>
<td>4.58</td>
<td>7.00</td>
<td>150</td>
</tr>
<tr>
<td>Brazil</td>
<td>8.63</td>
<td>12.75</td>
<td>350</td>
</tr>
<tr>
<td>China</td>
<td>-0.99</td>
<td>3.70</td>
<td>-10</td>
</tr>
<tr>
<td>Advanced Economies</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Emerging Economies</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: Data as of June 1, 2022. The inflation gap is estimated as the difference between the last available monthly inflation data and the point target or the mid-point of the target range or the variability interval, defined by central banks. These are 2% for advanced economies and Peru, 3% for Mexico, Colombia, Chile and China, 3.5% for Brazil, 4% for India and Russia and 4.5% for South Africa. 4/ Differences from the deposits rate are shown. 5/ Differences from the mid-point of the federal funds target range are shown for the United States. 6/ The 1-year Loan Prime Rate (LPR) is shown. Source: Prepared by Banco de México with data from Haver Analytics.
International financial markets registered volatility and episodes of risk aversion. This occurred in a context of uncertainty associated with the military conflict, high inflation levels and the expectation of a faster reduction of the monetary stimulus, the re-imposition of social distancing measures in China, and the possible impact of these factors on economic activity.

Note: The VIX index is a weighted indicator that measures implied volatility in the options market for S&P 500 published by the Chicago Board Options Exchange. Source: Bloomberg.

Source: Prepared by Banco de México with data from Bloomberg and Proveedor Integral de Precios (PIP).
Outline

1. External conditions
2. Current situation of the Mexican economy
3. Inflation
4. Monetary policy
5. Forecasts and final remarks
In Q1-2022, economic activity reactivated, after having exhibited weak performance in the second half of 2021.

- During Q1-2022 GDP increased 1.01\% in s.a. terms relative to the previous quarter (1.8\% in annual s.a. terms), and lied 2.1\% below the level observed in Q4-2019.
- The above represented growth, after the fall in Q3-2021 and weakness in Q4-2021.
Within industrial activity, manufacturing kept exhibiting dynamism, while construction remained at low levels. Services continued to recover gradually, albeit with certain heterogeneity.
In the first two months of 2022, private consumption continued recovering and registered a level above that observed in February 2020. This reflected the continuous reactivation of consumption of goods, as well as the positive trajectory of services consumption.
Gross fixed investment improved slightly in the first two months of 2022, as its components showed a differentiated performance. In particular, construction lay below the level registered prior to the pandemic and investment in machinery and equipment continued trending upwards.

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**Investment and its Components**  
Index Jan-2020=100, s. a.

- **Imported machinery and equipment**
- **Construction**
- **Domestic machinery and equipment**

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**Real Value of Construction Output by Contracting Sector**  
Index Jan-2020=100, s. a. 1/

- **Public**
- **Private excl. residential housing**
- **Private housing**

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**Quarterly Report January - March 2022**

1/ Seasonally adjusted by Banco de México, except for the total series. Source: Prepared by Banco de México with data from ENEC, INEGI.
In Q1-2022, manufacturing exports continued expanding as a reflection of the dynamism of non-automotive exports and the recovery of automotive exports, although in April the latter exhibited a certain loss of dynamism.

Manufacturing Exports \(^1/\)

By Destination

Index Jan-2020=100; s. a.

Automotive and Non-automotive

Index Jan-2020=100; s. a.

s. a./Seasonally adjusted figures.

\(^1/\) Based in current US dollars.

In Q1-2022, the current account registered a deficit of 1.9% of GDP, which is below the 3.0% deficit observed in Q1-2021. This mainly derived from the higher income from tourism and remittances, as well as from lower deficits in the balance of primary income and the oil trade balance.
After being somewhat affected by the fourth wave of the COVID-19 pandemic in January, between February and April labor market indicators improved.
As to the cyclical position of the economy, in Q1-2022 slack conditions decreased with respect to Q4-2021, although they remained ample and with certain differences across sectors.

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

Sectoral Shares to Aggregate Slack 3/
%, s. a.

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2/ Output gap confidence interval calculated with a method of unobserved components. Source: Prepared by Banco de México with data from INEGI and Banco de México.
Outline

1. External conditions
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3. Inflation
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In Q1-2022, the inflation outlook became more complex, since, in addition to the shocks caused by the COVID-19 pandemic, there are now pressures associated with the military conflict. Thus, between Q4-2021 and Q1-2022 annual headline inflation increased from 6.99 to 7.27%, and reached 7.58% in F1-May, a level unseen in two decades.

**Consumer Price Index**

**Headline Merchandise Services Agricultural and livestock products Energy and government-authorized prices**

**Quarterly Report January - March 2022**
Annual core inflation has trended upwards for over a year, reaching levels that had not been registered since 2001. This is due to the combination of pandemic-related shocks and pressures on the prices of both food and non-food commodities, associated with the military conflict. Thus, between Q4-2021 and Q1-2022, core inflation increased from 5.60 to 6.53%, reaching 7.24% in F1-May.
Between Q4-2021 and Q1-2022, annual non-core inflation still remained at high levels despite having declined slightly from 11.28 to 9.49%, respectively, and then further to 8.60% in F1-May. These high levels have been mostly attributed to the high inflation rates of agricultural and livestock products.
Given the intensification of inflationary pressures and the greater challenge that controlling inflation implied, the Governing Board raised the target for the overnight interbank interest rate by 50 basis points in each monetary policy decision since December 2021, up to its current level of 7%.

1/ The data shown up to January 20, 2008 corresponds to the Overnight Interbank Interest Rate (policy rate). Source: Banco de México with INEGI data.

2/ The short-term ex-ante real rate is constructed using the target for the overnight interbank interest rate and 12-month inflation expectations from Banco de México’s Survey published on June 1, 2022. The dotted line corresponds to the midpoint of the range for the short-term neutral real rate in the long term, which is now between 1.8 and 3.4%. Source: Banco de México.

*In its May decision, the Governing Board highlighted that, given the growing complexity in the environment for inflation and its expectations, it will consider taking more forceful measures to attain the inflation target. The above reinforces Banco de México’s commitment with its constitutional mandate.*
Considering that the magnitude and duration of shocks on inflation have been greater than anticipated, Banco de México revised its inflation forecasts upwards in its Monetary Policy Statements of March and May 2022.

**Headline Inflation Forecasts**

*Annual % change*

**Core Inflation Forecasts**

*Annual % change*

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**Note:** Observed inflation refers to the average of the quarter.

Source: Banco de México and INEGI.
Headline and core inflation expectations for 2022 and 2023 increased considerably. Those for the medium term rose, while longer term ones have remained at levels above the target.

**Median of Headline and Core Inflation at the End of 2022 and 2023**

<table>
<thead>
<tr>
<th>Year</th>
<th>Headline</th>
<th>Core</th>
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<tbody>
<tr>
<td>2022</td>
<td></td>
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<tr>
<td>2023</td>
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</table>

**Median of Medium- and Long-term Inflation Expectations**

<table>
<thead>
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<th>Year</th>
<th>Headline</th>
<th>Core</th>
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<td>2020</td>
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<tr>
<td>2021</td>
<td></td>
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<tr>
<td>2022</td>
<td></td>
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**Breakeven Inflation Rate Implied in Bonds**

<table>
<thead>
<tr>
<th>Year</th>
<th>2022</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016</td>
<td></td>
</tr>
<tr>
<td>2017</td>
<td></td>
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<tr>
<td>2018</td>
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<tr>
<td>2021</td>
<td></td>
</tr>
<tr>
<td>2022</td>
<td></td>
</tr>
</tbody>
</table>

*Source: Banco de México’s Survey of Private Sector Forecasters published on June 1, 2022.*

*Note: The breakeven inflation rate is calculated as the difference between nominal and real long-term interest rates. Source: Estimated by Banco de México with Valmer and PIP data.*
Regarding financial markets, the exchange rate depreciated between the end of February and mid-March. However, since then, the Mexican peso exhibited a better performance. Interest rates presented generalized increases.

Nominal Exchange Rate 1/
Pesos per US dollar

Target for the Overnight Interbank Interest Rate and Government Bond Yields

Yield Curve of Mexico

Source: Proveedor Integral de Precios (PiP).

1/ Observed exchange rate refers to the daily FIX exchange rate. Figures next to analysts’ expectations correspond to the medians of Banco de México’s survey for May, published on June 1, 2022 and the Citibanamex survey of May 20, 2022. Source: Banco de México and Citibanamex.

Note: The gray lines refer to the daily yield curves since September 30, 2021. Source: Proveedor Integral de Precios (PiP).
Outline

1. External conditions
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Economic Activity Outlook

**GDP Growth %**

<table>
<thead>
<tr>
<th>Report</th>
<th>2022</th>
<th>2023</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Current</strong></td>
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<tr>
<td>Lower Limit</td>
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<td>1.4</td>
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<tr>
<td><strong>Central Scenario</strong></td>
<td>2.2</td>
<td>2.4</td>
</tr>
<tr>
<td>Upper Limit</td>
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<td>3.4</td>
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<tr>
<td><strong>Previous</strong></td>
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<td></td>
</tr>
<tr>
<td>Lower Limit</td>
<td>1.6</td>
<td>1.9</td>
</tr>
<tr>
<td><strong>Central Scenario</strong></td>
<td>2.4</td>
<td>2.9</td>
</tr>
<tr>
<td>Upper Limit</td>
<td>3.2</td>
<td>3.9</td>
</tr>
</tbody>
</table>

**Increase in Number of IMSS-insured Jobs Thousands**

<table>
<thead>
<tr>
<th>Report</th>
<th>2022</th>
<th>2023</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current</td>
<td>560 a 760</td>
<td>490 a 690</td>
</tr>
<tr>
<td>Previous</td>
<td>560 a 760</td>
<td>510 a 710</td>
</tr>
</tbody>
</table>

**Current Account % of GDP**

<table>
<thead>
<tr>
<th>Report</th>
<th>2022</th>
<th>2023</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current</td>
<td>-0.5 a 0.2</td>
<td>-0.5 a 0.3</td>
</tr>
<tr>
<td>Previous</td>
<td>-0.6 a 0.1</td>
<td>-0.7 a 0.1</td>
</tr>
</tbody>
</table>

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

- Observed
- Central Scenario Current Report
- Central Scenario Previous Report

*Source: INEGI and Banco de México.*
Risks to Growth
The downward bias in the balance of risks gained strength.

On the downside
¶ A lower external demand to the detriment of economic activity in Mexico.
¶ That the impact on trade and bottlenecks continues, leading to higher input and production costs.
¶ Tighter financial conditions and episodes of volatility in international financial markets.
¶ A lower-than-expected recovery of investment spending.
¶ New waves of contagion negatively affecting economic recovery.

On the upside
¶ That a lower number of reported COVID-19 infections leads to a more vigorous recovery of the economy.
¶ That, within the framework of the USMCA, Mexico becomes an attractive destination for investment.
¶ That global financial conditions conducive to a faster economic recovery are maintained.
The inflation trajectory presented in the Monetary Policy Statement of May is maintained. Annual headline inflation is expected to reach its peak in Q2-2022. Subsequently, it is expected to decrease in the rest of 2022 and during 2023, reaching levels close to 3% in Q1-2024.
Annual core inflation is expected to remain on an upward trend in Q2-2022, and later decline during 2022 and 2023, reaching 3% in Q1-2024. The trajectories for headline and core inflation consider that the effects of the pandemic-related shocks and the military conflict will fade. However, it cannot be ruled out that these shocks will be more lasting or that new shocks occur.

1/ Quarterly average of annual inflation. The next four and six quarters are indicated with dotted vertical lines from the second quarter of 2022, that is, the second quarter of 2023 and the fourth quarter of 2023, respectively; periods in which the monetary policy transmission channels fully operate. 2/ Forecast since May 2022. It also corresponds to the forecast published in the Monetary Policy Statement of May 12, 2022. 3/ Forecast since February 2022. It also corresponds to the forecast published in the Monetary Policy Statement of February 10, 2022. Source: Banco de México and INEGI.

Core Inflation
Quarterly change, annualized and s. a., and annual change in %

1/ Seasonally adjusted figures.
2/ Annualized seasonally adjusted figures.
Source: Banco de México and INEGI.
Risks to Inflation Outlook within the Forecast Horizon
The balance of risks remains biased to the upside and has continued deteriorating.

On the upside

↑ Persistence of core inflation at high levels.
↑ External inflationary pressures associated with the evolution of the pandemic.
↑ Greater price-related pressures derived from the geopolitical conflict.
↑ Episodes of exchange rate depreciation.
↑ Cost-related pressures associated with hiring conditions or wages.

On the downside

↓ A reduction in the intensity of the military conflict between Russia and Ukraine.
↓ That production and distribution chains resume an efficient functioning.
↓ That, given the slack conditions in the economy, cost-related pressures and labor hiring conditions do not exert pressures on prices.
↓ That the measures implemented by the Policy Program to Fight Inflation and High Prices (PACIC) have a greater-than-anticipated effect.
The global evolution of the health emergency remains uncertain, and it continues to cause problems in global supply chains. This complex environment has been aggravated by the military conflict, and it has exacerbated many of the pandemic-related impacts.

In this context, to support the reactivation of economic activity, Mexico’s economic policy must continue to maintain solid macroeconomic fundamentals, including a sound and resilient financial system, as well as a monetary policy focused on attaining price stability.

In this regard, Banco de México Governing Board determines its monetary policy stance seeking to promote an orderly adjustment of relative prices, of the financial markets and of the economy overall, leading to the convergence of inflation to its 3% target and maintaining inflation expectations anchored.
Annex – Boxes

1. Determinants of US Inflation

2. Mexico’s Trade Exposure in light of the Military Conflict in Eastern Europe

3. Inflationary Pressures in the Concurrence of the Pandemic and the War between Russia and Ukraine