BANCO DE MÉXICO®

# Executive Summary

## Quarterly Report April - June 2021

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## Summary

During the period analyzed in this Report, Banco de México has conducted monetary policy in an environment in which the inflation outlook has become more complex. As a result of the pandemic, the global economy shifted from a total and partial shutdown of economic activities, in which different businesses reduced their productive capacity in order to overcome the emergency, to a scenario of a vigorous expansion of spending, especially in advanced economies. This has caused significant bottlenecks in production and external inflationary pressures, affecting the behavior of prices in emerging economies, mainly in those that are more integrated to advanced economies undergoing a faster recovery and higher levels of inflation. Global inflationary pressures are passed through to domestic inflation via increases in prices of tradable goods and in the costs of production inputs, transport and distribution. Insofar as the global environment of higher growth and high inflation persists, there is a risk that international financial markets may react and tighten financial conditions, especially for emerging economies.

At the domestic level, inflation has continued to be affected by the pandemic and by a number of price pressures, resulting in levels that have exceeded the central bank's target. Given their source, the shocks that have increased inflation are expected to be transitory. However, given their variety, magnitude and the extended horizon over which they have affected inflation, they may pose a risk for price formation. This implies significant challenges for monetary policy, which must pursue an orderly adjustment in relative prices and avoid possible impacts on inflation expectations. Under these circumstances, monetary policy must be prudent and timely in order to attain an orderly and sustained convergence of inflation to its target in the horizon in which said policy operates.

As to the external environment, world economic activity continued recovering heterogeneously during the second quarter of the year. In the United States, GDP maintained its pace of growth, reflecting progress in the vaccination process, the easing of lockdown measures, and numerous fiscal stimuli approved in that country. Meanwhile, after having contracted in the previous quarter, economic activity in the euro area, in the United Kingdom, and, to a lesser extent, in Japan has rebounded. Emerging economies have overall exhibited a weakening in the recovery rates of economic activity, with a significantly differentiated performance across countries. Manufacturing activity has been affected by a shortage of certain inputs and by bottlenecks in global supply chains, while the recovery rate of the service sector has moderated.

For 2021, the growth outlook for the world economy overall remained unchanged. However, differences across countries increased. Thus, prospects for 2021 were revised upwards in advanced economies and downwards in emerging economies. For 2022, global growth estimates have been revised upwards, reflecting a better outlook for advanced economies, as in the case of the United States. The slow vaccination process in some economies, as well as the emergence of the Delta variant of the SARS-CoV-2 virus, pose a significant risk to health and the world economic recovery. Among global risks are those associated to the pandemic and to inflationary pressures, along with those related to monetary and financial conditions.

Global inflation has been increasing considerably, pressured by commodity prices, especially energy prices, and affected by other factors, such as the arithmetic effects derived from a low base of comparison, and by multiple bottlenecks in production chains. Thus, in the main advanced economies, inflation reached levels above the targets of their respective central banks, except for Japan. The price formation process in these economies has been affected by structural factors, such as demographics, which had kept it and its expectations below their central banks' targets for extended periods. This has allowed monetary authorities of this group of economies to maintain the monetary stimulus and to emphasize their intention to show patience in withdrawing their accommodative monetary policy stances, although in some cases a

decrease of stimulus is already anticipated. In particular, market expectations of interest rates in some of the main advanced economies point to increases during the second half of 2022 and during 2023. In most emerging economies, inflation also increased driven by the aforementioned factors and, in many cases, it lies above their central banks' target. Risks to price formation in emerging economies differ from those in advanced economies, as inflation and its expectations have not remained below their targets for extended periods. In this regard, monetary authorities in these economies have a lesser monetary policy space. In this respect, some central banks in emerging economies have reduced their monetary stimuli.

The Box *Factors Associated with the Recent Evolution of Inflation in the United States* analyzes different factors that have contributed to the recent increase in inflation in the U.S., along with some risk elements that could lead to a more persistent inflation. Some of these elements are sustained imbalances of demand at levels above supply, sustained price increases in an environment of a recovery in the labor market, and an increase in long-term inflation expectations. Although transitory factors have had a relevant contribution to increments in headline inflation in the United States, the analysis also identifies shocks with more persistence both on demand and supply in the durable-goods sector, and a greater persistence of demand-related factors on headline inflation.

International financial markets performed favorably during most of the period analyzed in this Report. However, volatility episodes were observed generated by the uncertainty over the inflation outlook in some advanced economies and the increase in COVID-19 cases. In this context, uncertainty persists regarding the future evolution of international financial markets.

The Box *The Demand for Banknotes in Mexico during the COVID-19 Pandemic* shows evidence suggesting that the rise in the demand for cash in the country during the period —which is similar to that observed in other economies, both advanced and emerging— cannot be explained by traditional determinants, which points to the influence of another type of factors. Some of these factors are associated to precautionary reasons, both to address unexpected spending (e.g., a health emergency) and to reduce the possibility of contagion when visiting bank branches and during the journeys to withdraw and/or deposit cash.

During the second quarter of the year, economic activity accelerated its recovery rate. Nevertheless, heterogeneity prevailed across productive sectors. Progress in the vaccination process has allowed the recovery of services, while secondary activities have decelerated, especially construction and manufacturing. The shortage of inputs and logistics-related problems have been notable in the latter, particularly in the automotive sector. It is expected that a gradual recovery will continue for the rest of the year, although uncertainty over the evolution of the pandemic and its effects on the economy persists.

The Box *Estimation of the Impact of Disruptions in Inputs' Supply on Automotive Production and Economic Activity* describes the recent adverse effects on the automotive sector and presents different estimates of the possible impact on GDP in 2021 of the technical shutdowns caused by the shortage of inputs.

During most of the period analyzed in this Report, Mexican financial markets have performed favorably. The Mexican peso exhibited moderate fluctuations, and ended the period registering an appreciation, compared to the levels in early March. Following the June 24 monetary policy decision, short- and medium-term interest rates increased, while longer-term rates registered limited adjustments.

Annual headline inflation increased from 3.99 to 5.95% between the first and second quarters of 2021. This was partly the result of an increase in core inflation throughout the reference quarter, as some of the shocks related to the pandemic intensified and have affected supply chains and the productive processes of diverse goods and services, in an environment in which slack conditions in the economy have been narrowing, heterogeneously across sectors. Between the first and second quarters of 2021, annual core inflation went from an average of 3.94 to 4.36%, attaining 4.78% in the first half of August, reflecting higher levels of inflation in both merchandises and services. On the other hand, non-core inflation also registered a large increase, going from 4.12 to 11.02%, mainly due to the arithmetic effect associated with last year's low gasoline prices, which influenced non-core inflation into reaching 12.34% in April 2021. As this effect faded in the following months, together with the reduction in the price of liquefied petroleum (LP) gas in the first fortnight of August, due to the introduction of the price-cap policy, energy inflation as well as its contribution to headline inflation has decreased, although this has been partially offset by the increase in the annual variations of agricultural and livestock product prices since the beginning of the second quarter. Thus, during the first fortnight of August, annual non-core inflation stood at 8.08%. Although non-core inflation decreased somewhat throughout the second quarter of 2021 and the beginning of the third quarter, this has been offset by core inflation's upward trajectory, which has caused headline inflation to remain high, registering 5.58% in the first fortnight of August.

More than a year after the beginning of the pandemic, inflation continues being affected by it. In contrast to 2020, when some downward pressures tended to offset other upward pressures, so far, in 2021, upward pressures have intensified, while other downward pressures have tended to reverse. Supply shocks, such as input costs, logistical problems or higher costs due to the implementation of measures to prevent contagion have increased. These shocks, which have been of considerable magnitude, have affected the cost structure of productive activities and have led to upward pressures on the prices of various goods and services. At the same time, the reopening of the economy has led to upward pressures on services inflation. Thus, inflation has been affected by the cumulative effect of several shocks of significant magnitude over an extended time horizon.

The COVID-19 pandemic has implied diverse shocks that affect different countries simultaneously. The Box *Influence of Global Inflationary Pressures on Mexico's Inflation* uses a principal component methodology to identify the importance of common inflation fluctuations in different economies on the behavior of inflation in Mexico. At the early stages of the pandemic, global factors influenced Mexico's inflation downwards, while their incidence has increased since the end of 2020, contributing to the rise in headline inflation during recent months. The results also show that factors that are idiosyncratic to Mexico have exerted upward pressure on the country's inflation during this period.

In this context, on August 5, Banco de México announced additional actions regarding monetary policy communication. In each monetary policy decision, Banco de México will publish the updated headline and core inflation forecasts for the following eight quarters and will state the voting decision of each Governing Board member. These measures are part of the continuous improvement process that the Central Bank has implemented in order to strengthen transparency and its communication with the public.

The Box *Advances in Banco de México's Communication Strategy* mentions that aligning the inflation forecasts updates with the monetary policy decisions facilitates the understanding of the Central Bank's reaction function, so that agents can better anticipate monetary policy actions. Such forecasts are a reference for analysts, investors and the general public, and therefore they can help to avoid market over-reactions. Likewise, the timely publication of member's voting stance increases transparency in the Central Bank's decision-making process.

Regarding monetary policy decisions, in May Banco de México's Governing Board maintained the target for the overnight interbank interest rate (i.e. the policy rate) at 4%, while it decided to increase this rate by 25 basis points at each of its June and August meetings, to 4.50%. In the last two decisions, it was pointed out that global inflation and its effects on supply chains and production processes of various goods and services have exerted pressure on headline and core inflation. The Board stressed that the revised forecasts for headline and core inflation are higher than those published in the Quarterly Report January - March 2021. In both June and August decisions, the Board stressed that, although the shocks that have affected inflation are expected to be transitory in nature, due to their variety, magnitude and the extended horizon over which they have been affecting inflation, they may imply a risk for the price formation process. In this context, it was deemed necessary to strengthen the monetary policy stance in order to avoid affecting inflation expectations and to enable an orderly adjustment of relative prices and the convergence of inflation to the 3% target.

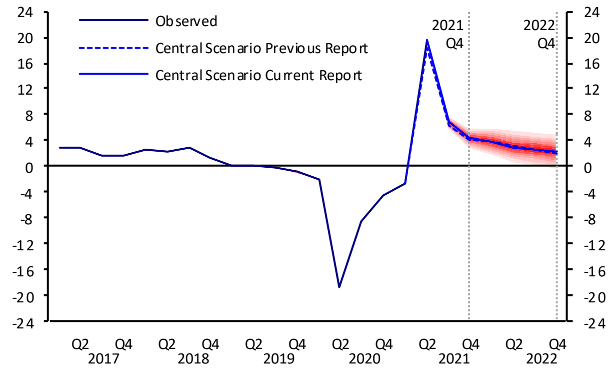
For the following monetary policy decisions, the Governing Board will assess the factors that have an incidence on inflation, on its foreseen trajectory within the forecast horizon and on its expectations. This, in order for the policy rate to be consistent with the orderly and sustained convergence of headline inflation to the 3% target within the time frame in which monetary policy operates, and enable an adequate adjustment of the economy and financial markets.

In the Box *Inflationary Shocks, Anchoring Inflation Expectations and Monetary Policy*, the relationship between inflation shocks, the behavior of long-term inflation expectations and monetary policy in Mexico is analyzed. First, using a sign-restricted vector autoregressive model, it is shown that monetary policy has responded to both non-reversible demand and supply shocks. Subsequently, it is shown that long-term inflation expectations decrease in response to an increase in the bank funding rate, suggesting that monetary policy implementation has contributed to its anchoring.

Regarding the macroeconomic scenario foreseen by Banco de México, the following stands out:

**GDP growth:** The outlook for GDP growth for the Mexican economy for 2021 is revised from 6.0% in the previous Report to 6.2% in the current one, while for 2022 the expectation of a 3.0% growth is maintained. Given the uncertainty that persists regarding the foreseen dynamics for economic activity, economic growth is expected to be between 5.7 and 6.7% in 2021, and between 2.0 and 4.0% in 2022 (Chart 1).[1]

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




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

The revision of the interval for 2021 is mainly explained by a higher-than-anticipated growth in the second quarter of the year. Given the progress in the vaccination process and a context of greater mobility and the reopening of several activities, mainly in the service sector, the gradual reactivation of economic activity is expected to continue in the second half of the year and in 2022, supported by both domestic and external demand. However, considering the persistence of certain disruptions in global supply chains and the recent increase in the number of COVID-19 infections, high uncertainty prevails about the pace of recovery of economic activity.

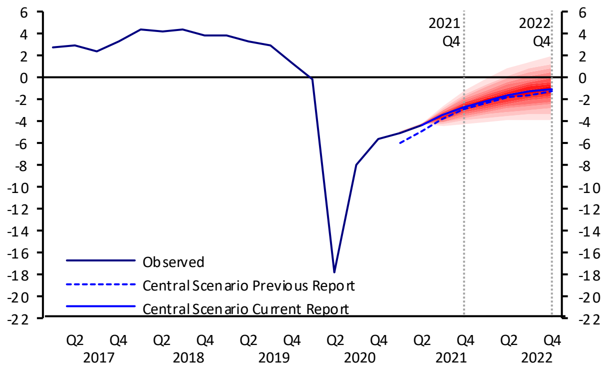
Should GDP growth be near the upper part of the interval in 2021, economic activity would recover during the last quarter of the year the level observed at the end of 2019. With GDP growth near the midpoint of the intervals, such recovery would occur around the first quarter of 2022. With GDP growth near the lower part of both intervals, the level observed at the end of 2019 would be attained in the fourth quarter of 2022.

Regarding the economy's cyclical position, slack conditions in the economy as a whole are expected to continue to narrow gradually over the forecast

[1] Given the greater amount of information available, the interval for 2021 has been shortened from the one in the previous Report (5.0-7.0%), while the corresponding interval for 2022 remains unchanged.

horizon (Chart 2) and with heterogeneity across sectors.

**Chart 2**
**Fan Chart: Output Gap Estimate, s.a.**
Percent of potential output




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

**Employment:** Based on forecasts for activity and the most recent information on the number of IMSS-insured jobs, a growth of between 640 and 840 thousand jobs is expected for this indicator in 2021, a range that compares with that of the previous Report of between 370 and 570 thousand jobs. For 2022, a variation of between 500 and 700 thousand jobs is expected, which compares with that of the previous Report of between 390 and 590 thousand jobs.

**Current Account:** For 2021, the trade balance is expected to be between -8.7 and -3.7 billion dollars (-0.7 and -0.3% of GDP) and the current account balance, between -6.4 and 1.6 billion dollars (-0.5 and 0.1% of GDP). These figures compare with those of the previous Report of a trade balance of between -3.7 and 1.3 billion dollars (-0.3 and 0.1% of GDP) and a current account balance of between -4.8 and 3.2 billion dollars (-0.4 and 0.2% of GDP). For 2022, a trade balance of between -11.8 and -5.8 billion dollars (-0.8 and -0.4% of GDP) and a current account balance of between -10.2 and -0.2 billion dollars (-0.7 and 0.0% of GDP) are projected. These figures compare with the previous Report's forecasts of a trade balance of between -10.9 and -4.9 billion dollars (-0.8 and -0.4% of GDP) and a current account balance of between -13.4 and -3.4 billion dollars (-1.0 and -0.2% of GDP).

**Risks to growth:** Considering the recent dynamism of economic activity and despite the higher uncertainty regarding the recent increase in the number of COVID-19 infections, risks to growth are deemed to remain balanced over the forecast horizon.

Among the risks to the downside in the forecast horizon, the following stand out:

i. A further intensification of the pandemic or delays in the production, distribution or application of vaccines, both at the global and national levels, implying the adoption of new measures to contain the pandemic or a less vigorous economic recovery.

ii. The persistence or intensification of bottleneck problems in global supply chains that have led to shortages of inputs for some sectors in Mexico, particularly in the automotive sector. Similarly, the pandemic could lead to higher input and production costs in various sectors of the economy.

iii. Additional episodes of volatility in international financial markets that could affect financing flows to emerging economies.

iv. A lower-than-expected recovery of investment, remaining at low levels relative to what is required to support the recovery in the face of the pandemic, and long-term growth.

Among the risks to the upside in the forecast horizon, the following stand out:

i. That the pandemic dissipates faster, particularly through an effective vaccination campaign, which would support confidence in the economy and expectations of a robust recovery.

ii. That the stimuli that have been granted at the international and national levels support consumer and investor confidence.

iii. That, within the framework of the USMCA, the greater external demand expected in light of the stimuli implemented in the United States induces an increase in investment.

iv. That global financial conditions conducive to a faster economic recovery are maintained.

**Inflation:** The pandemic has implied an uncertain and complicated environment for inflation. During 2020, the observed shocks exerted pressure on inflation in different directions, offsetting each other. In 2021, some of the upward pressures have intensified, while downward pressures have tended to reverse. Some supply shocks have become more evident, such as the reduced availability of several inputs relative to the increase in their demand or their rising prices, in the context of a gradual recovery of economic activity, or logistical problems. This, in addition to possible cost pressures associated with the implementation of measures to prevent contagion of customers and employees by various establishments. Thus, changes in the cost structure of productive activities have led to upward pressures on the prices of various goods and services. Likewise, greater consumer confidence to demand on-site services and the limited reopening of certain activities have exerted pressure on service inflation. Thus, inflation has been affected by the cumulative effect of several shocks of significant magnitude over an extended time horizon.

In this context, it was necessary to make a significant revision to the inflation forecast, which was published in the monetary policy decision of August 12. The forecasts published in that decision are maintained for this Report. In particular, considering the characteristics of shocks that have affected headline and core inflation, the largest upward revisions correspond to the forecasts for the short-term.

The revision to headline inflation forecasts with respect to those published in the previous Report mainly reflected the significant pressures on core inflation derived from the described shocks. The forecasts incorporate the fact that such pressures have been significantly greater-than-anticipated and that they would fade over the forecast horizon. As for non-core inflation, the previous Report anticipated LP gas prices to be lower than those observed in June and July, but similar to those implied by the price-cap policy. Likewise, an updated trajectory of the variations in agricultural and livestock product prices, which have turned out to be higher than expected in the previous Report, is also included. Thus, after reaching levels above 5% for the remainder of the year and the beginning of 2022, headline inflation is expected to decrease, especially at horizons longer than one year, and to converge to the 3% target in the first quarter of 2023 (Table 1 and Chart 3a).

The revision in the core inflation forecast incorporates the recent shocks that have been materializing with respect to previous forecasts, especially regarding merchandises, and to a lesser extent, services. In addition, core inflation for the following quarters is expected to continue being affected by certain cost-related effects. This would imply high levels until mid-2022 followed by a reduction that would place it at 3% in the first quarter of 2023 (Table 1 and Chart 3b).

Chart 4 presents the annualized seasonally adjusted quarterly variation rates for the headline and core indices over the forecast horizon. It shows that, after the shock observed in the second quarter of 2021, headline inflation would decline in seasonally adjusted terms to such extent that, since the fourth quarter of this year, annualized seasonally adjusted rates would already fluctuate around 3%. In the case of core inflation, although higher quarterly rates are incorporated for the following 12 months with respect to those of the previous Report, they point to a downward trajectory and would be at levels close to 3% in annualized seasonally adjusted rates as of the third quarter of 2022. This is because annual rates are affected for 12 months by short-term shocks to inflation, and therefore their reduction is slower than that of seasonally adjusted rates. As shown in Chart 4, these rates are above the seasonally adjusted rates until the third quarter of 2022, in the case of headline inflation, and until the second quarter of 2023, in the case of core inflation.

This central baseline scenario incorporates the effects of the cost-related shocks that have been materializing. However, if additional pressures or a longer-than-anticipated duration of the observed shocks were to occur, this would imply a more adverse scenario for inflation. Among the main risks to which inflation is subject to, the following stand out:

To the upside:

i. External inflationary pressures, which could imply inflationary pressures in our country. This could result from higher cost-related pressures associated with increases in commodity prices, including energy products, inputs in general or transportation costs, as well as logistical problems in global production chains. A more vigorous global recovery could also exert pressure on inflation, partly because of the stimuli implemented.

ii. Cost-related pressures stemming from the implementation of additional sanitary measures in the country, disruptions in distribution supply chains, or due to higher costs associated to labor hiring conditions or wages that are passed on to consumer prices.

iii. Core inflation persistence.

iv. Episodes of exchange rate depreciation, possibly due to bouts of volatility in international financial markets.

v. Increases in the prices of agricultural and livestock products due to domestic production conditions or to droughts faced by various regions of the United States.

To the downside:

i. A larger-than-expected effect due to the negative output gap.

ii. Greater social distancing measures that reduce the demand for goods and services.

iii. That the exchange rate appreciates.

iv. That given the slack conditions in the economy, cost-related pressures and labor hiring conditions do not exert pressures on prices.

v. That energy prices are lower-than-expected.

The balance of risks for the anticipated path of inflation in the forecast horizon is biased to the upside.

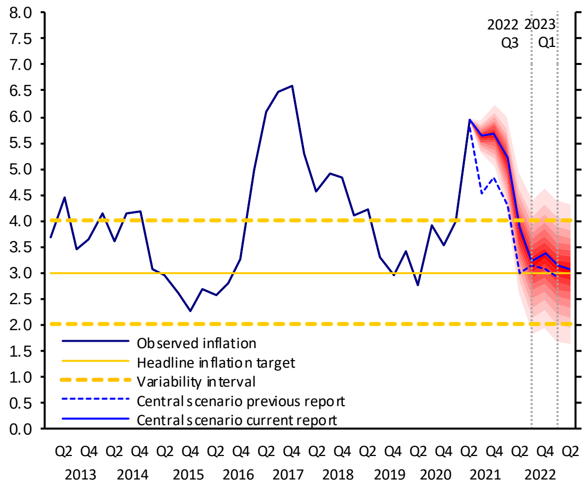
**Table 1**
**Headline and Core Inflation Forecasts**
Annual change in percent

| | 2021 | | | | 2022 | | | | 2023 | |
|---|---|---|---|---|---|---|---|---|---|---|
| | I | II | III | IV | I | II | III | IV | I | II |
| **CPI** | | | | | | | | | | |
| Current report[1/] | 4.0 | 6.0 | 5.6 | 5.7 | 5.2 | 3.9 | 3.2 | 3.4 | 3.1 | 3.1 |
| Previous report[2/] | 4.0 | 5.8 | 4.5 | 4.8 | 4.3 | 3.0 | 3.1 | 3.1 | 2.9 | |
| **Core** | | | | | | | | | | |
| Current report[1/] | 3.9 | 4.4 | 4.7 | 5.0 | 5.1 | 4.4 | 3.6 | 3.3 | 3.1 | 3.0 |
| Previous report[2/] | 3.9 | 4.3 | 3.9 | 3.9 | 3.9 | 3.3 | 3.2 | 3.2 | 3.2 | |

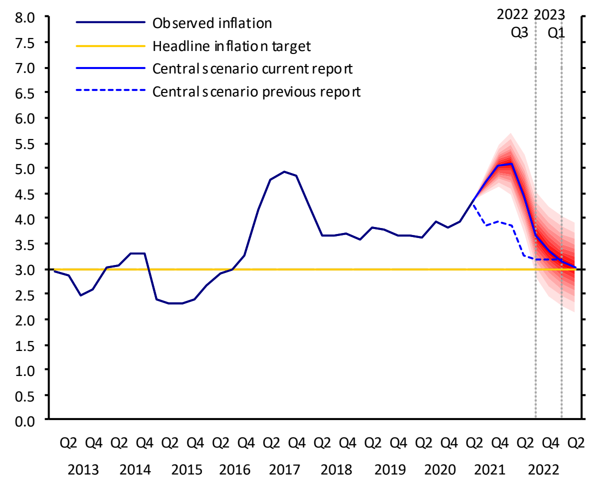
1/ Forecast from August 2021. Monetary Policy Statement August 12, 2021.
2/ Forecast from May 2021.
Source: Banco de México with data from INEGI.

**Chart 3**

**a) Fan Chart: Annual Headline Inflation**[1/]
Percent




**b) Fan Chart: Annual Core Inflation**[1/]
Percent

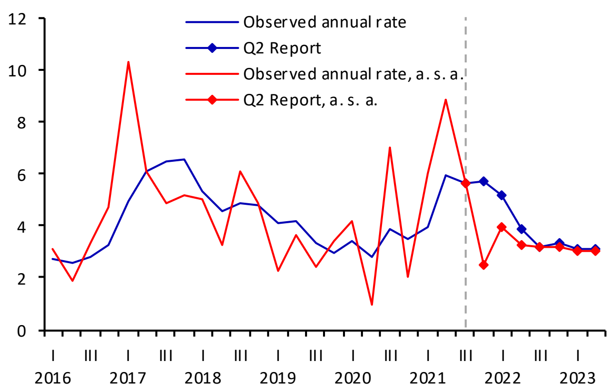



1/ Quarterly average of annual inflation. The next four and six quarters are indicated with vertical lines, using as a reference the third quarter of 2021, that is, until the third quarter of 2022 and the first quarter of 2023, respectively, time frames in which the transmission channels of monetary policy fully operate.

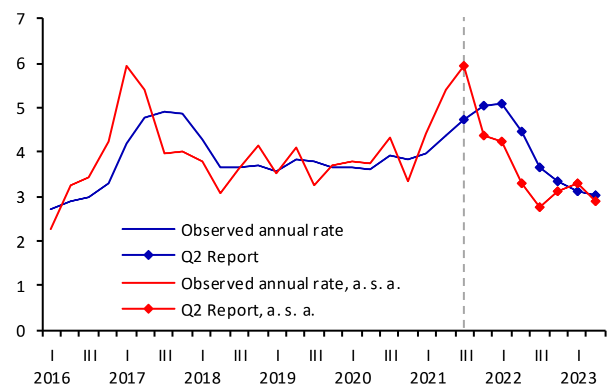
Source: Banco de México and INEGI.

**Chart 4**

**a) Headline Index**
Quaterly variation, annualized and s.a.,
and annual variation in percent




**b) Core Index**
Quaterly variation, annualized and s.a.,
and annual variation in percent




s.a. seasonally adjusted figures.
a.s.a. annualized seasonally adjusted figures.
Vertical line corresponds to third quater of 2021
Source: Banco de México and INEGI.

Health risks due to the pandemic, both in Mexico and worldwide, have increased with the emergence of more contagious variants of the virus. In Mexico, in an environment of greater mobility and reopening of several activities, this has been reflected in a new upsurge of infections and in an increase in the number of hospitalizations. However, progress in the vaccination campaign has contained the increase in mortality in the same proportion. In this context, uncertainty prevails as to the permanence of factors that have supported the global and domestic recovery, as well as the possible measures that authorities or the population itself may adopt in the face of the resurgence of the pandemic. This, in turn, may introduce volatility in international financial markets. In this regard, it is clear that global and national efforts to vaccinate as many people as possible would support economic recovery and employment.

Economic policy, both in fiscal and monetary terms, should continue to strengthen macroeconomic fundamentals. In this regard, Banco de México' Governing Board will implement a monetary policy stance intended to foster an orderly adjustment of relative prices, financial markets, and of the economy overall, as well as to achieve the convergence of inflation to its 3% target and the anchoring of inflation expectations.

In addition, to mitigate possible more persistent adverse effects associated with the pandemic and achieve a more sustained recovery, the institutional and structural elements that affect capital accumulation and productivity must be reinforced. It is also essential to continue strengthening the rule of law and fighting insecurity. This will enable economic activity and employment to regain more rapidly their pre-pandemic levels, and would aid in laying solid foundations for a long-term growth path that allows the creation of more and better jobs and a greater wellbeing for the population.

The Box *General Allocation of Special Drawing Rights (SDRs) of the International Monetary Fund* (IMF) explains the features of this reserve asset, the recent general allocation of SDRs of the IMF to its member countries, its role in Banco de México's balance sheet, and their uses under the applicable legal framework. On August 23, 2021, the IMF distributed to its members the general allocation of SDRs equivalent to USD 650 billion to provide additional liquidity to the global economic system by strengthening the international reserves of IMF member countries. In the case of Mexico, this general allocation amounted to SDR 8,542.4 million, which increased on that date Banco de México's international assets reserve by USD 12,117 million.

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