

Quarterly Report

January - March 2023

May 31, 2023



BANCO DE MÉXICO®

During Q1-2023 and so far this Q2-2023, Banco de México continued facing a complex and uncertain environment for the conduct of monetary policy.

Externally

- ✓ **Global inflation decreasing** but still **at high levels**.
- ✓ Prospects of **world economic slowdown**.
- ✓ **Episode of international financial turbulence**.
- ✓ Central banks **nearing the end of the hiking cycle**.

Domestically

- ✓ **Resilience** of **domestic economic activity**.
- ✓ **Inflation decreasing** but still **at high levels**.

Monetary policy

- Banco de México strengthened its monetary policy stance. Considering the inflation outlook and the policy stance attained, **in its last meeting it left the reference rate unchanged at 11.25%**.
- Banco de México **will remain firm in its efforts to consolidate an environment of low and stable inflation**, in view of **an outlook that is estimated to remain complex** throughout the forecast horizon.

Outline

1 External conditions

2 Current situation of the Mexican economy

3 Inflation

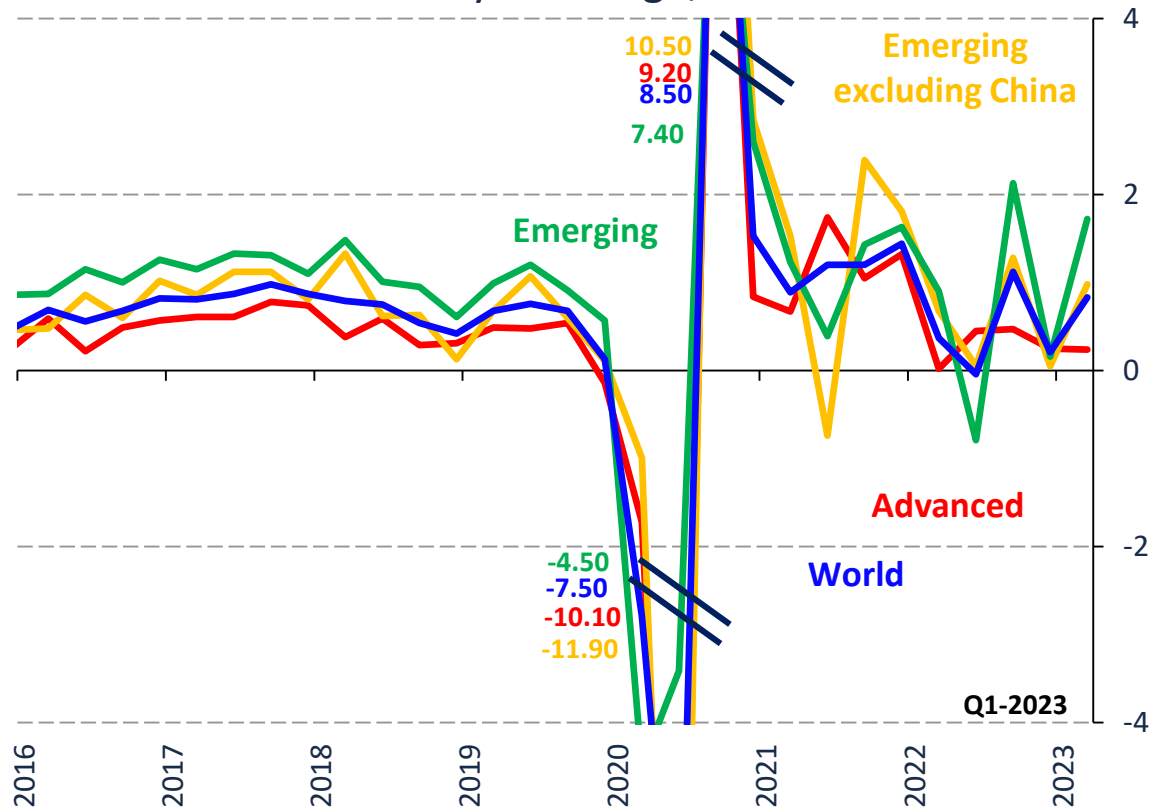
4 Monetary policy

5 Forecasts and final remarks

During Q1-2023, global economic activity reactivated its rate of expansion compared to the previous quarter. Latest figures from the purchasing managers' indices point to a reactivation of services and to a slight recovery in world manufacturing activity.

World Economy

Real GDP Growth
Quarterly % change, s. a.

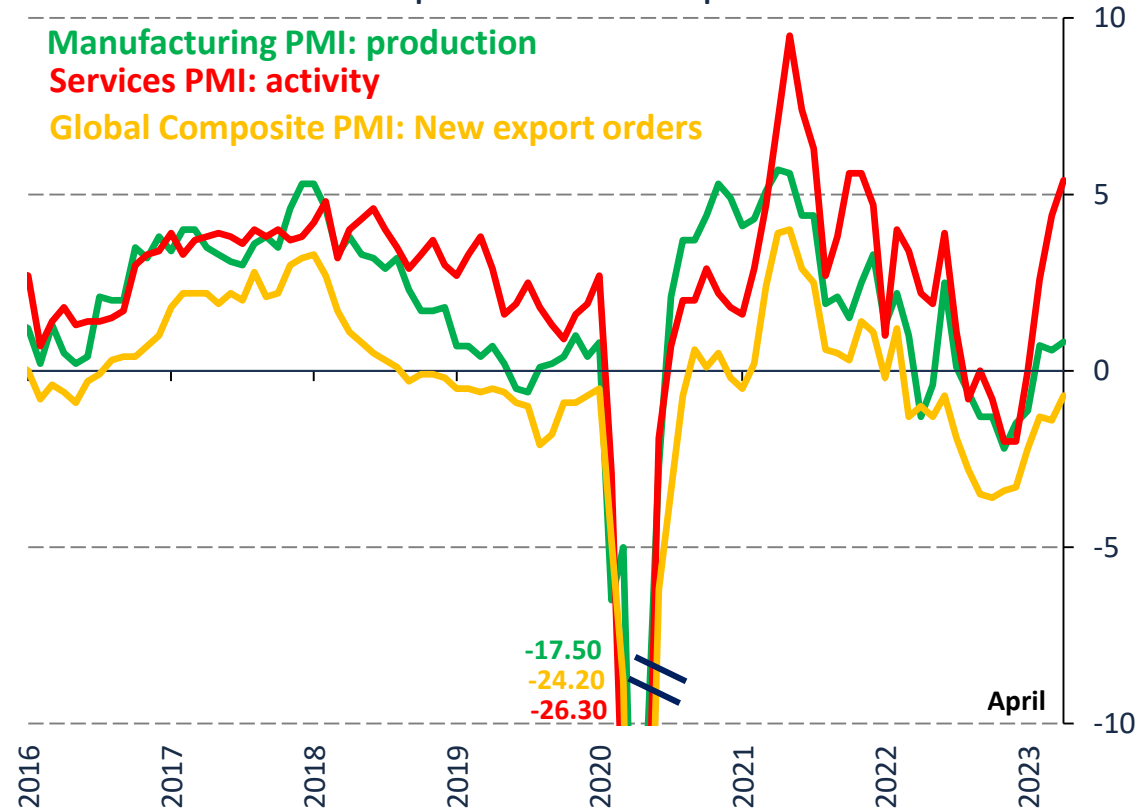


s. a. / Seasonally adjusted figures.

Note: The sample of countries used for the calculation represents 85.2% of world GDP adjusted for purchasing power parity. Forecasts are used for some countries in the sample for Q1-2023. The range of the chart was reduced to facilitate its reading.

Source: Prepared by Banco de México with information from Haver Analytics and J.P. Morgan.

Purchasing Managers' Indices
Deviation with respect to the 50-point threshold^{1/}



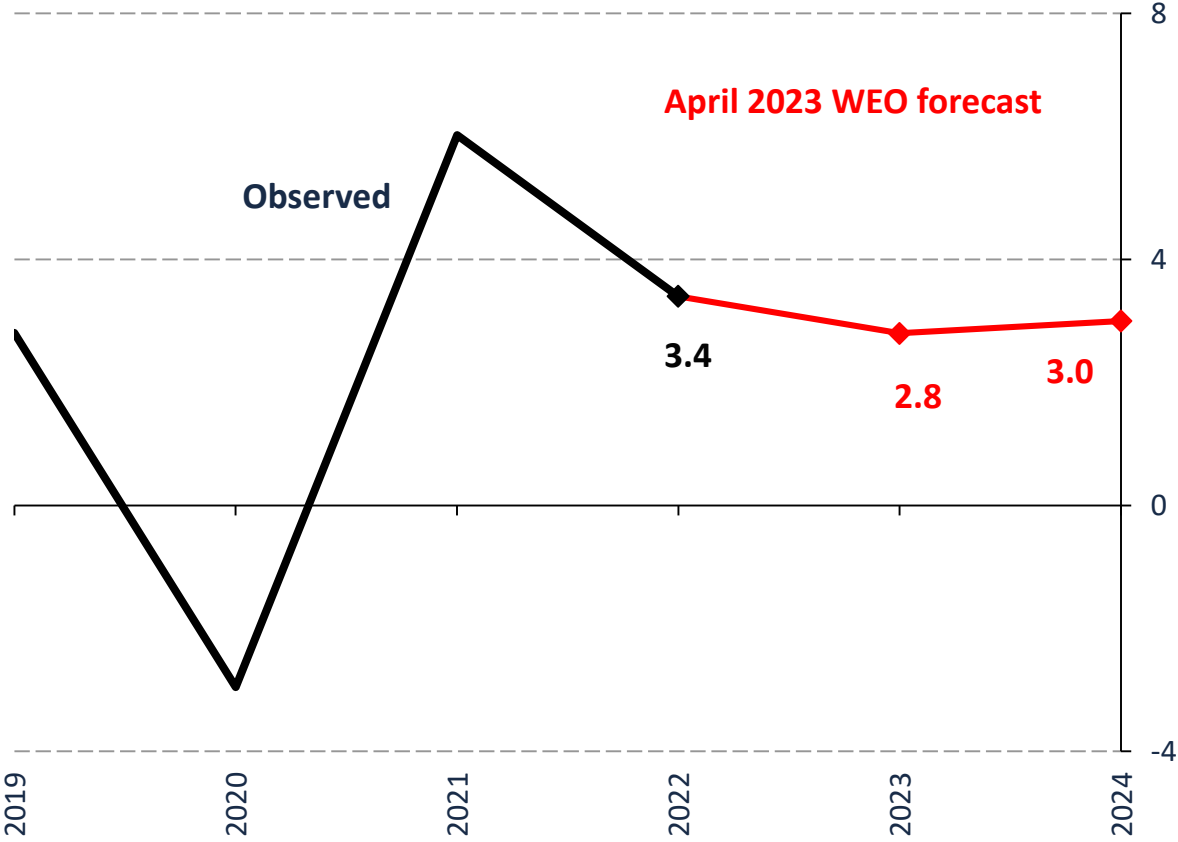
^{1/} The index varies between 0 and 100 points. An observation above the 50-point threshold is considered a general increase compared to the previous month and that below the 50-point threshold, a general decrease.

Note: PMIs at their original levels are seasonally adjusted. Figures shown correspond to the minimum level of the indicator that is not displayed in the chart. The range of the chart was reduced to facilitate its reading.

Source: IHS Markit.

The global growth outlook by international organizations continues pointing to a deceleration of world economic activity in 2023 and a slight recovery in 2024. The balance of risks, however, remains biased to the downside.

World GDP Growth Forecast
Annual % change



Note: The data for 2022 correspond to estimates from the International Monetary Fund published in the World Economic Outlook April 2023.
Source: International Monetary Fund (IMF), World Economic Outlook April 2023.

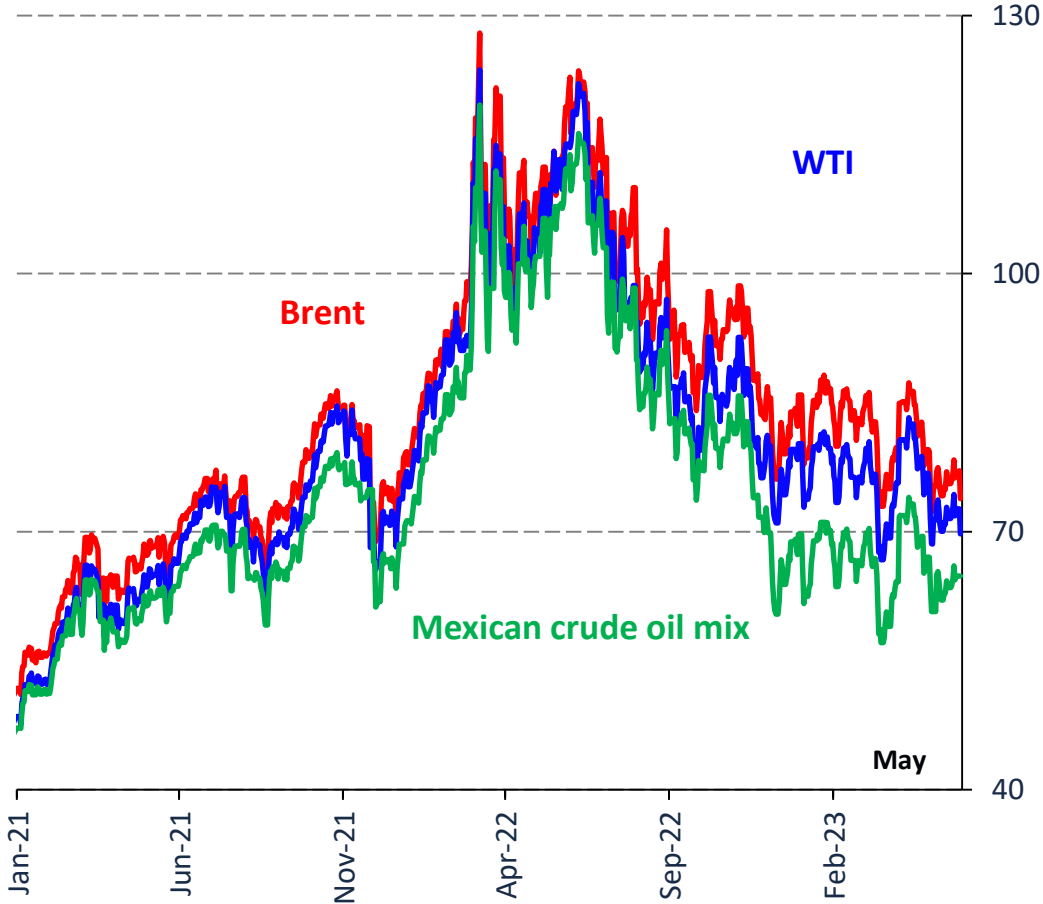
GDP Growth Forecast

	WEO April 2023 Annual % change			Change from WEO January 2023 Percentage Points	
	2022	2023	2024	2023	2024
World	3.4	2.8	3.0	-0.1	-0.1
Advanced	2.7	1.3	1.4	0.1	0.0
United States	2.1	1.6	1.1	0.2	0.1
Euro area	3.5	0.8	1.4	0.1	-0.2
Japan	1.1	1.3	1.0	-0.5	0.1
United Kingdom	4.0	-0.3	1.0	0.3	0.1
Emerging	4.0	3.9	4.2	-0.1	0.0
Emer. Excl. China	4.5	3.3	4.1	-0.1	0.0
Mexico	3.1	1.8	1.6	0.1	0.0
China	3.0	5.2	4.5	0.0	0.0
India	6.8	5.9	6.3	-0.2	-0.5
Brazil	2.9	0.9	1.5	-0.3	0.0

Note: The data for 2022 correspond to estimates from the International Monetary Fund published in the World Economic Outlook April 2023.
Source: Prepared by Banco de México with data from International Monetary Fund (IMF), World Economic Outlook January and April 2023.

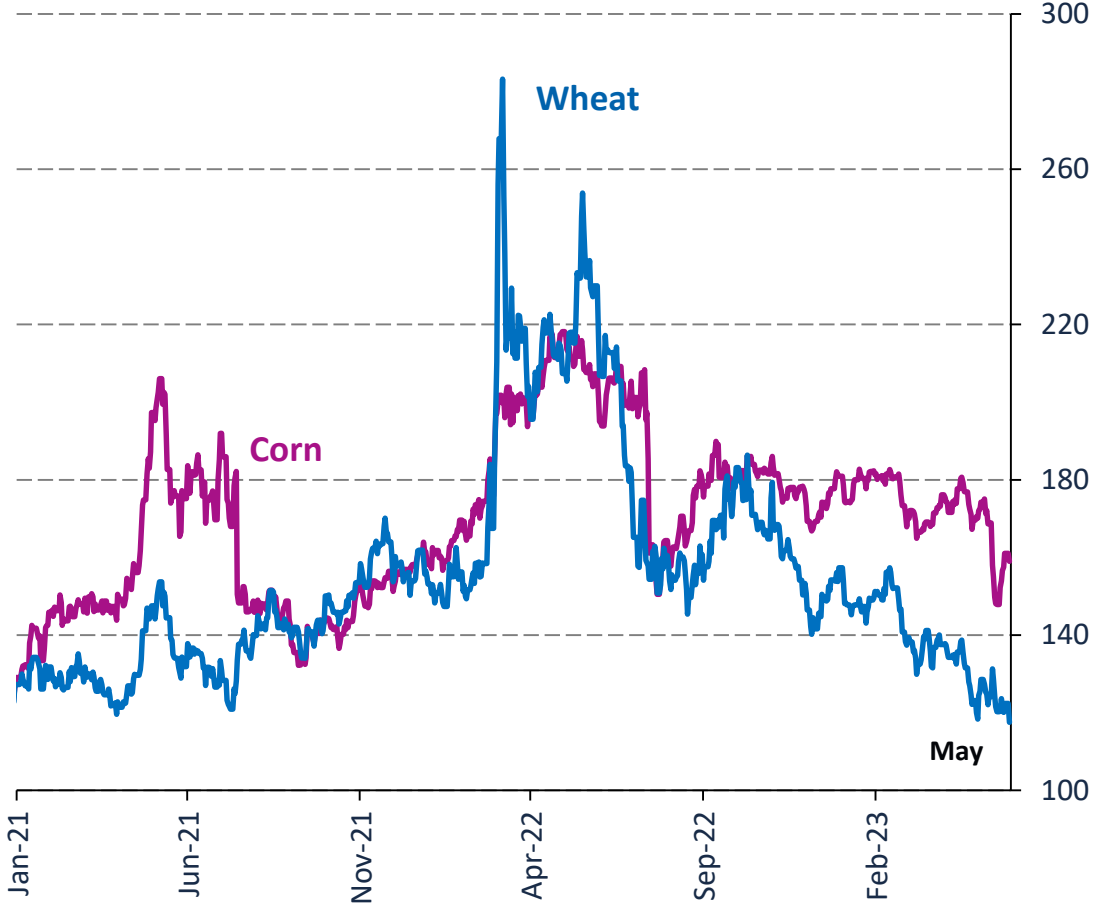
International commodity prices registered mixed results and continued exhibiting volatility during the period covered by this report, albeit with a downward bias.

Crude Oil Prices
USD per barrel



Source: Bloomberg.

Grain Prices ^{1/}
Index 01-Jan-2019=100

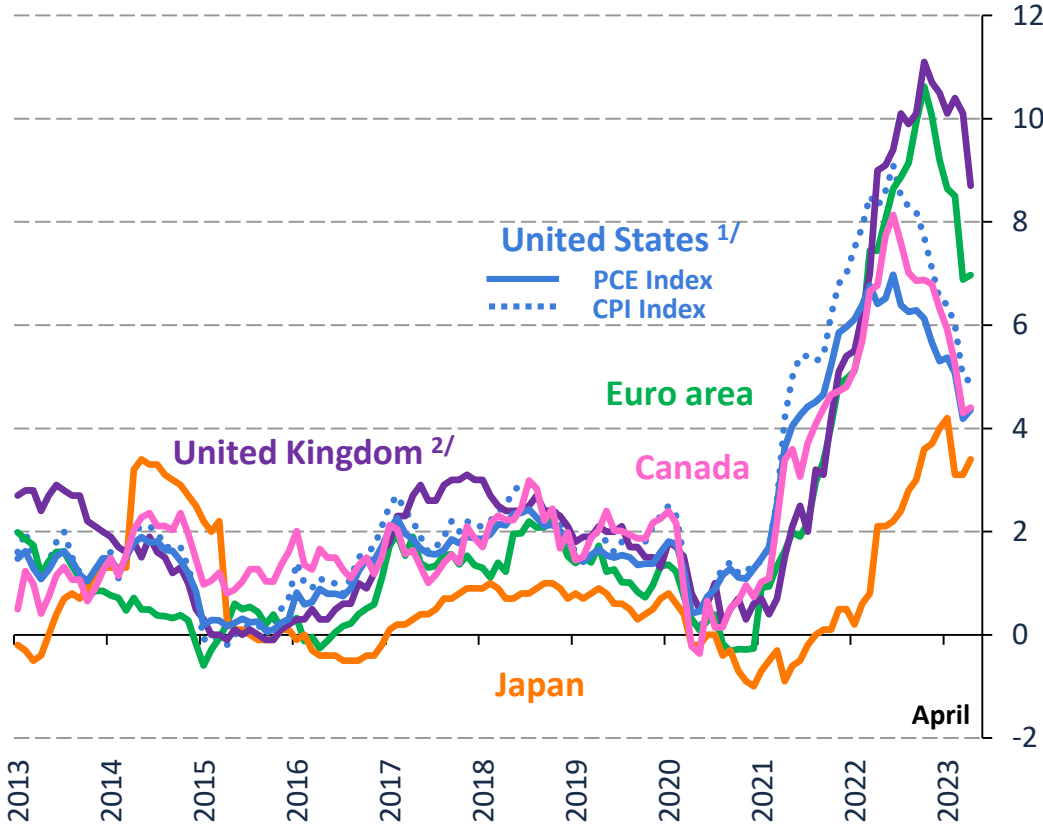


^{1/} Prices refer to the current grain futures contract.
Source: Bloomberg.

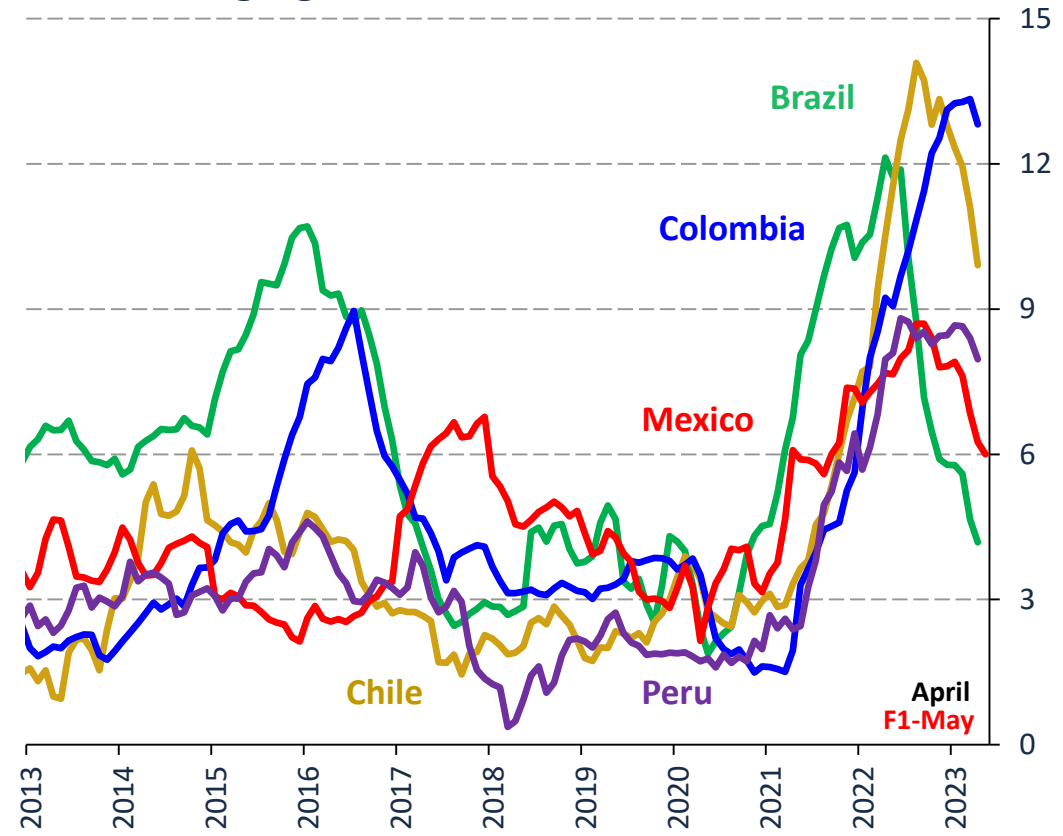
In most of the major economies, headline inflation declined due to a reduction in energy and food price pressures. Nevertheless, in most economies, this indicator remains above their central banks' targets.

Headline Price Index Annual % change

Advanced Economies



Emerging Economies in Latin America



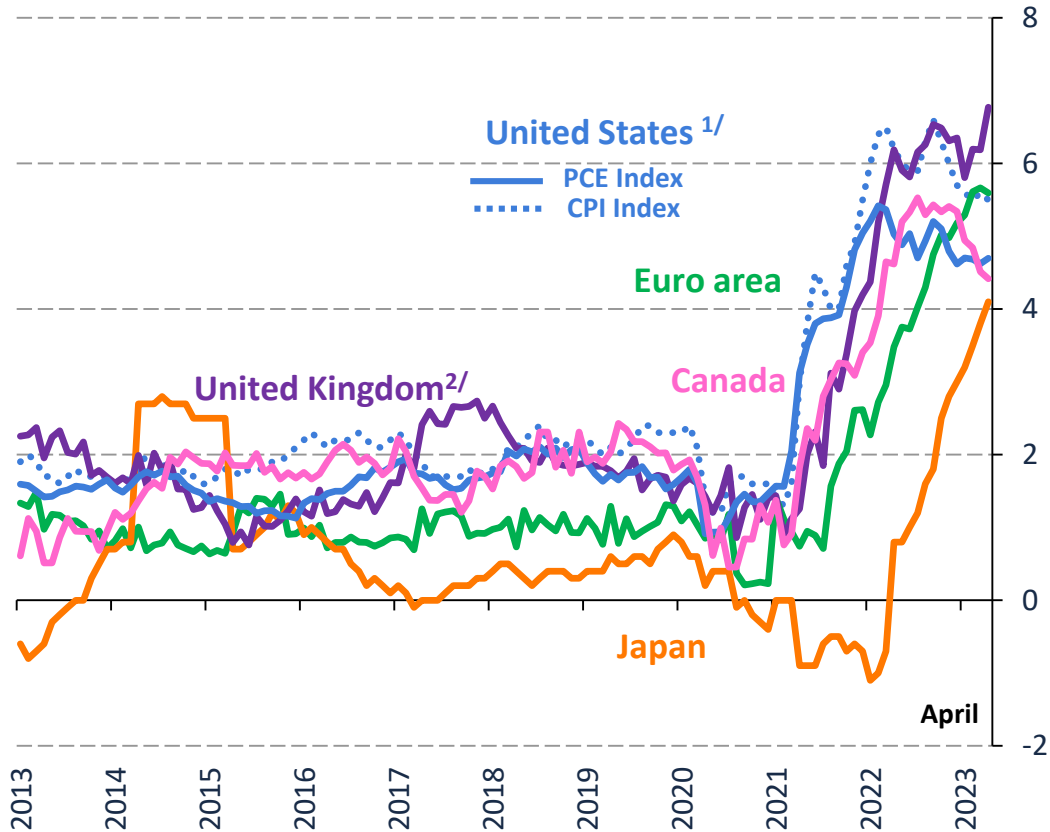
1/ The solid line refers to the Personal Consumption Expenditure Price Index (PCE) and the dotted line shows the Consumer Price Index (CPI). 2/ The harmonized index is used.
Source: Bureau of Economic Analysis, Bureau of Labor Statistics, Eurostat, Bank of Japan, Office for National Statistics of the UK and Statistics Canada.

Source: INEGI and corresponding national statistics offices.

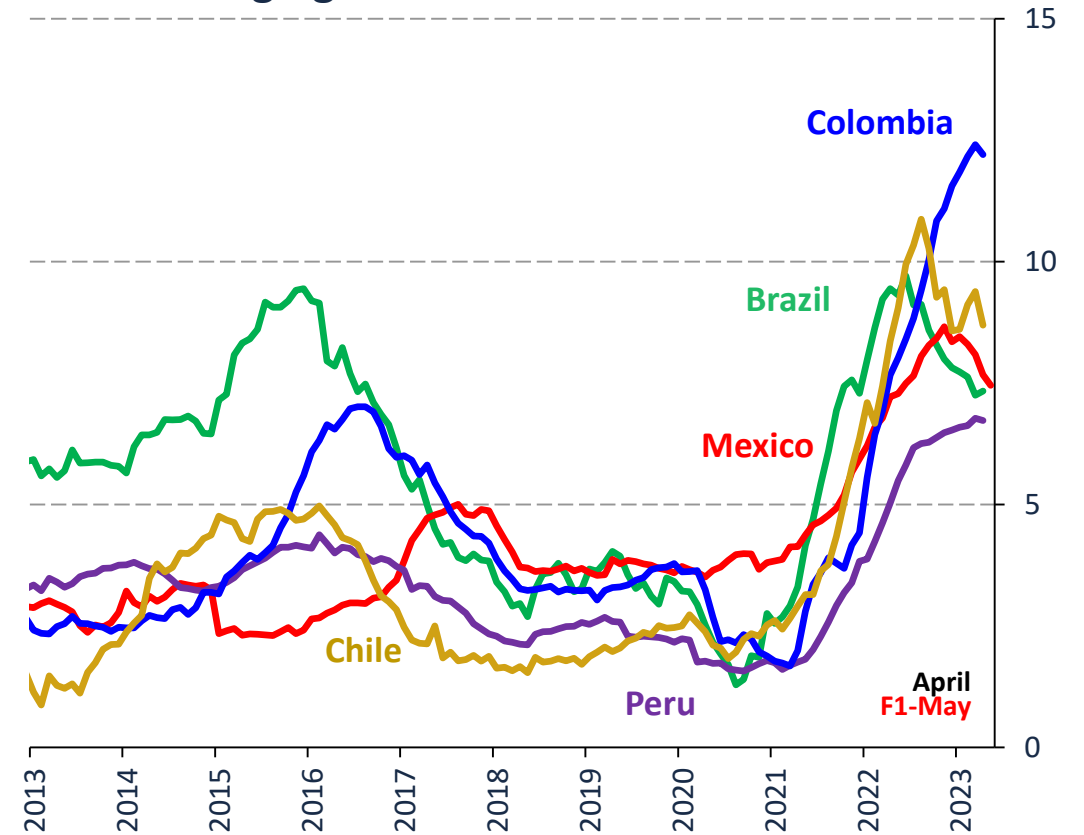
Core inflation, on the other hand, has shown a greater resistance to decline.

Core Price Index Annual % change

Advanced Economies



Emerging Economies in Latin America



1/ The solid line refers to the Personal Consumption Expenditure Price Index (PCE) and the dotted line shows the Consumer Price Index (CPI). 2/ The harmonized index is used.
Source: Bureau of Economic Analysis, Bureau of Labor Statistics, Eurostat, Bank of Japan, Office for National Statistics of the UK and Statistics Canada.

Source: INEGI and corresponding national statistics offices.

The events in some banks in the United States and Europe created turbulence in international financial markets and led to a tightening of financial conditions. However, the authorities of these countries acted immediately to contain risks.

US Dollar Index DXY ^{1/}
Index



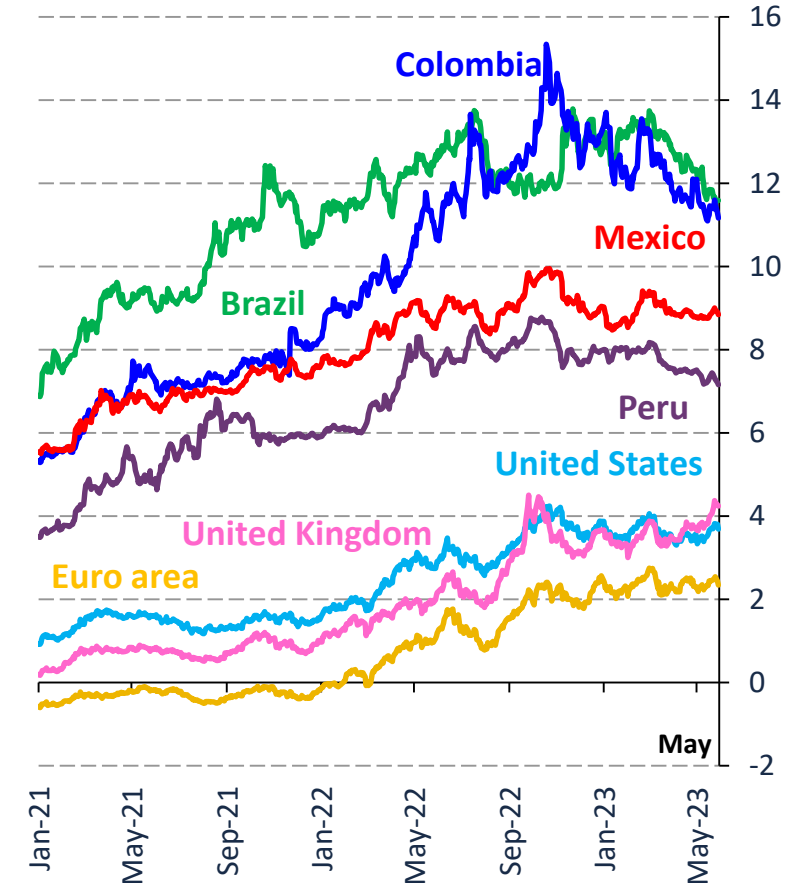
1/ DXY: Refers to the US dollar index calculated by the Intercontinental Exchange (ICE) as a weighted average of the nominal exchange rate of six currencies: euro, Japanese yen, British pound, Canadian dollar, Swedish krona, and Swiss franc.
Source: Bloomberg.

Global Financial Conditions Index
Index



Source: Goldman Sachs.

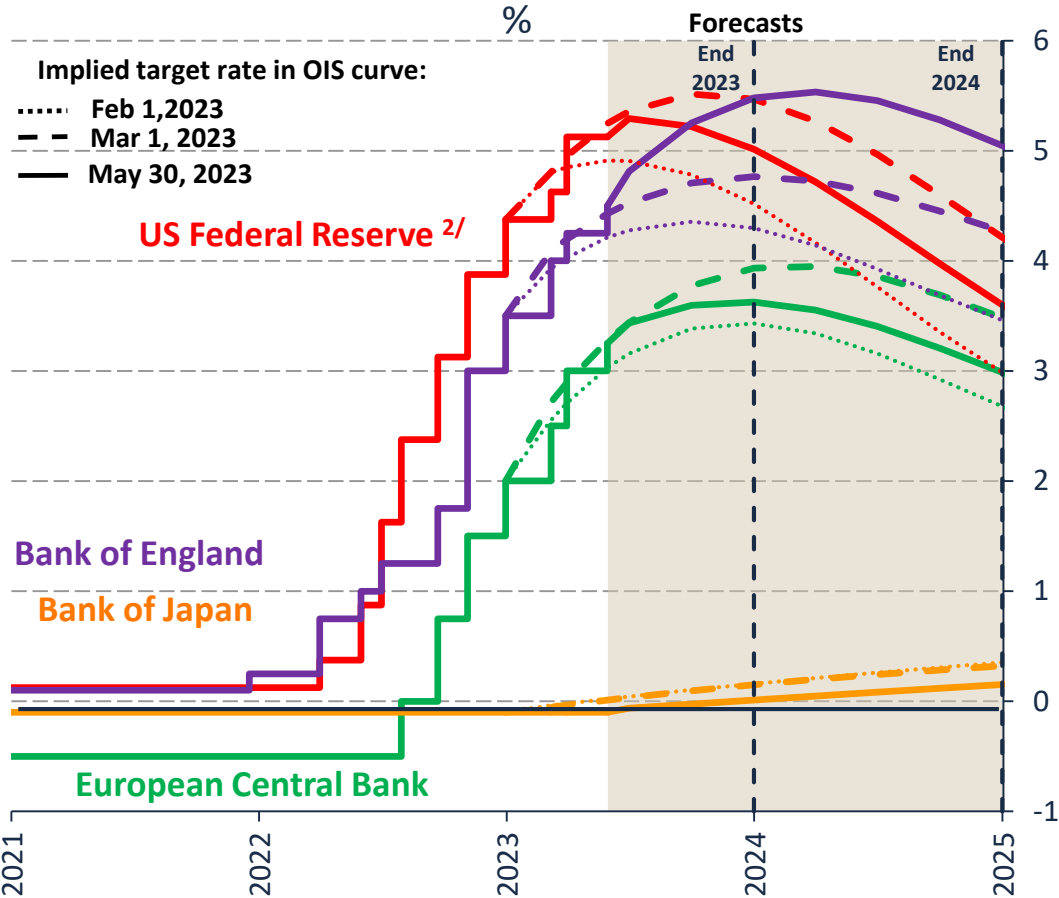
10-year Government Bond Nominal
Interest Rates
%



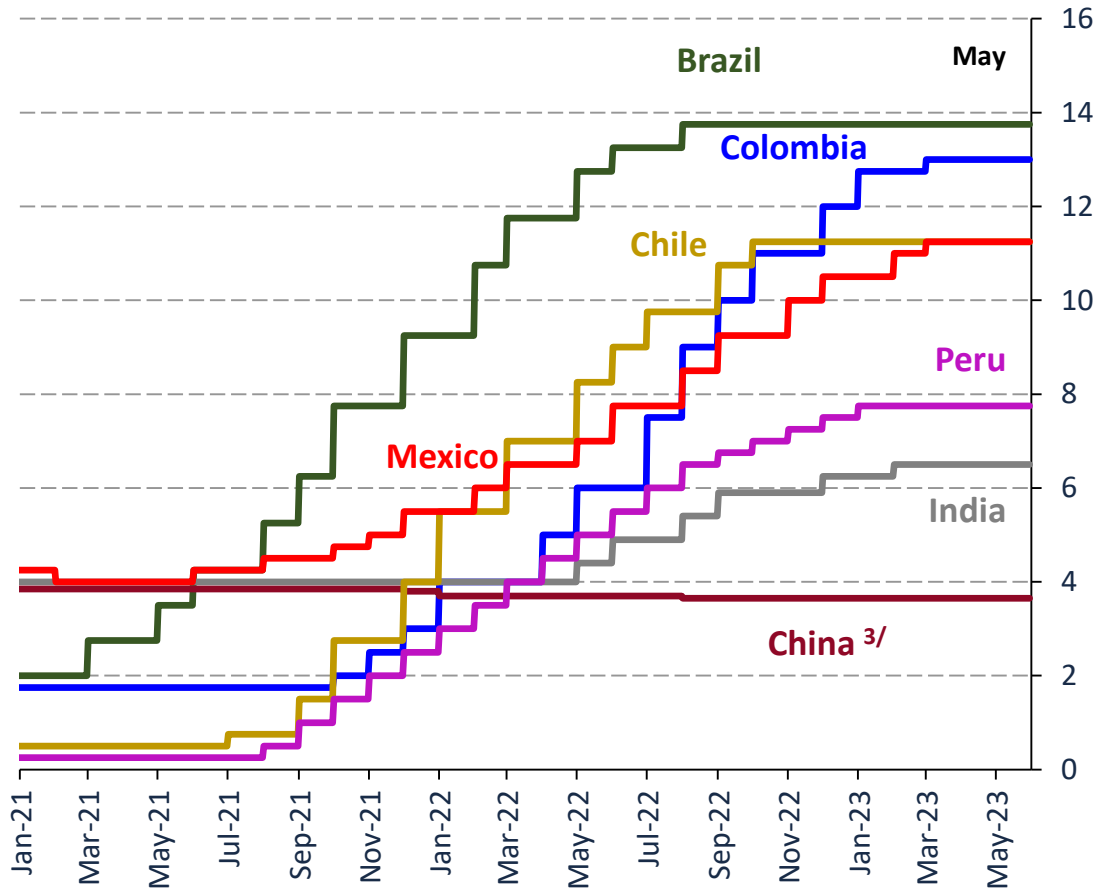
Source: Prepared by Banco de México with data from Bloomberg and Proveedor Integral de Precios (PiP).

Most central banks continued tightening their monetary policy stances, although in several cases, in their latest decisions, they moderated the pace of reference rate increases or left such rates unchanged.

Reference Rates and Implied Trajectories in OIS Curves in Advanced Economies ^{1/}



Reference Rates in Emerging Economies %



1/ OIS: Fixed-for-floating swap where the fixed interest rate is the overnight effective reference rate. 2/ Data for the observed federal funds rate corresponds to the average between the lower and upper bounds of the target range. Source: Prepared by Banco de México with data from Bloomberg.

3/ For China, the 1-year Loan Prime Rate (LPR) is shown. Source: Haver Analytics.

Outline

1 External conditions

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4 Monetary policy

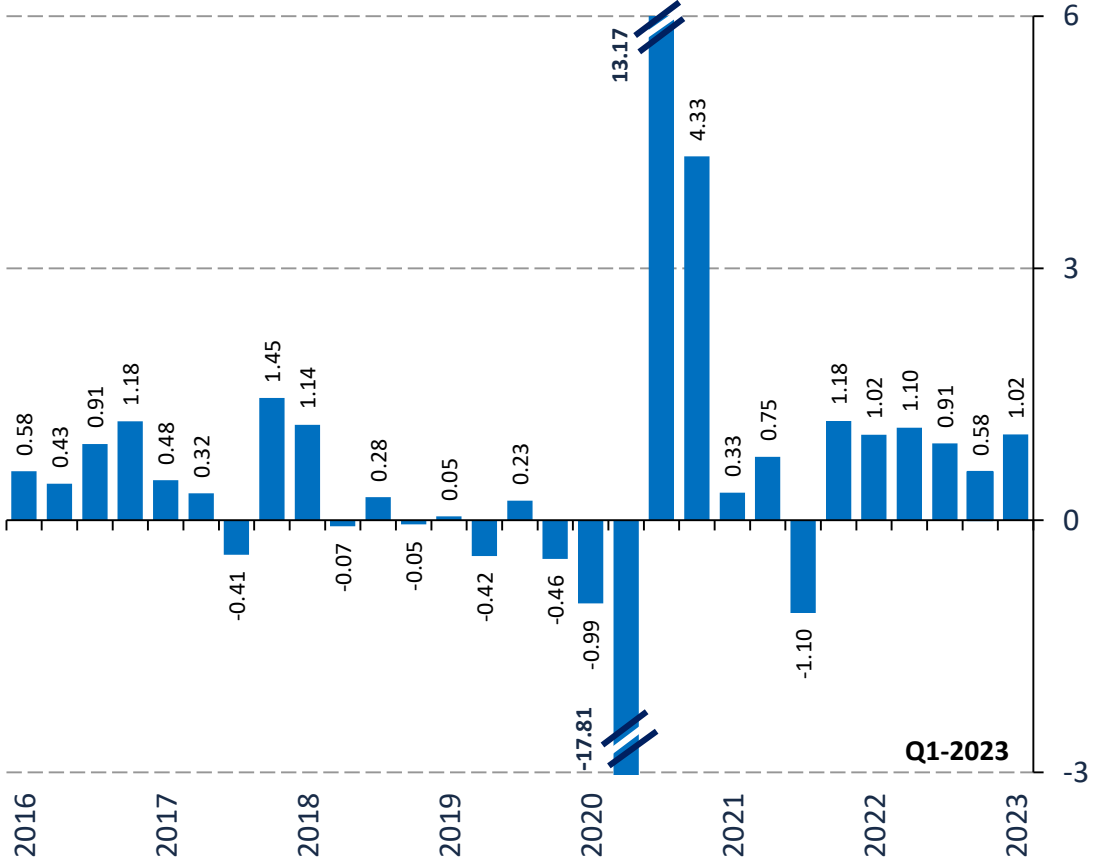
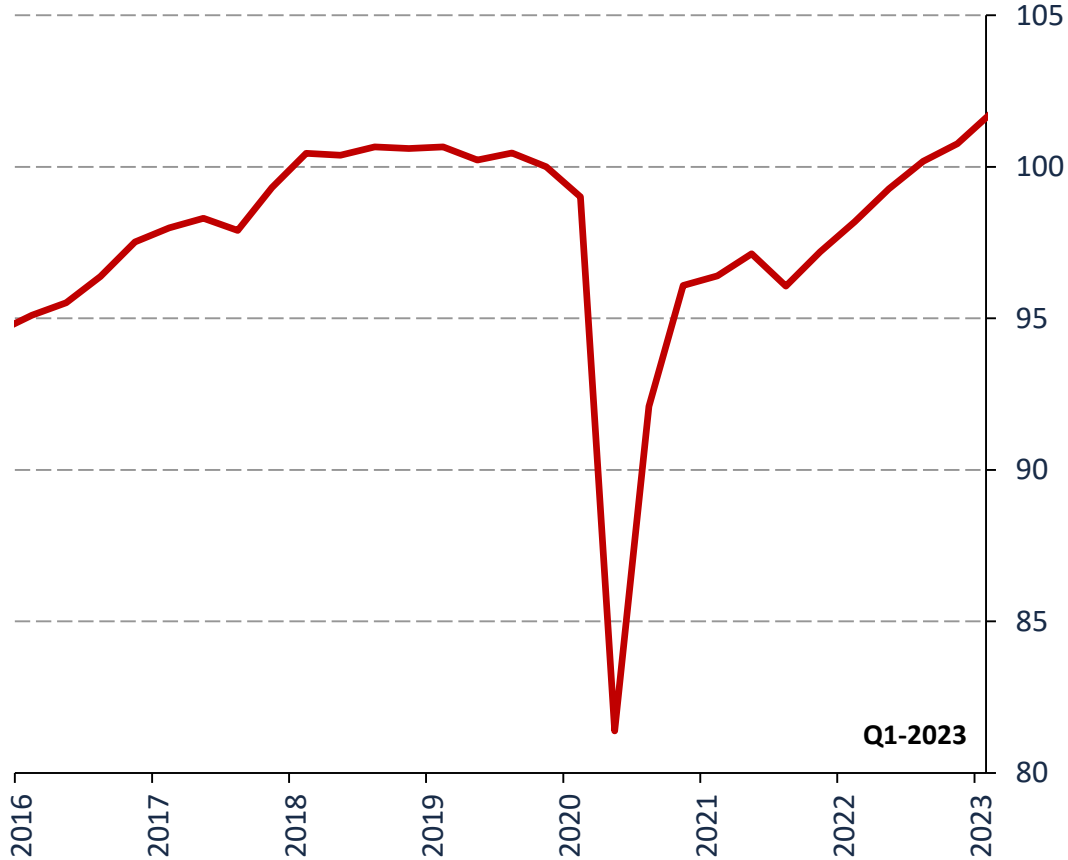
5 Forecasts and final remarks

In Q1-2023, economic activity in Mexico showed resilience, despite the complex external environment that prevailed.

Gross Domestic Product

Index Q4-2019=100, s. a.

Quarterly % change, s. a. ^{1/}

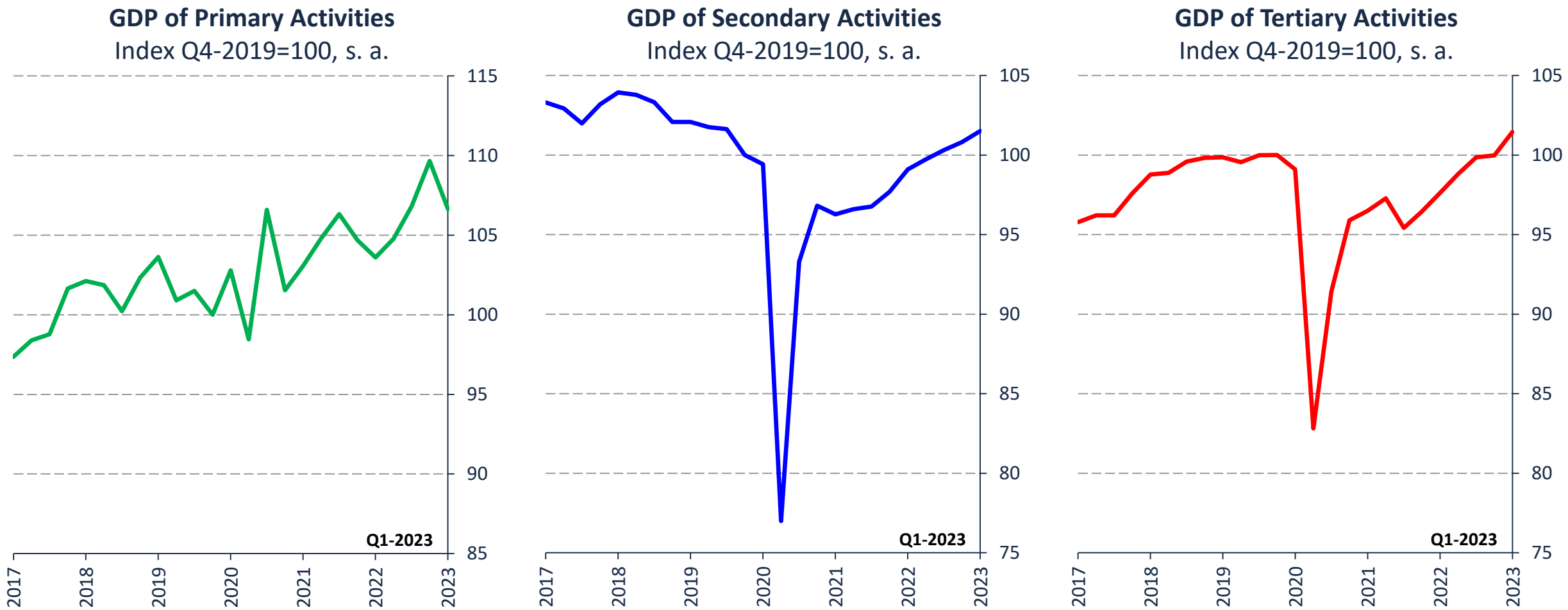


s. a. / Seasonally adjusted figures.
Source: Mexico's National Accounts System (SCNM, for its acronym in Spanish), INEGI.

s. a. / Seasonally adjusted figures.
^{1/} The range of the chart has been reduced to facilitate its reading.
Source: Mexico's National Accounts System (SCNM, for its acronym in Spanish), INEGI.

The expansion of economic activity in Q1-2023 was due to a reactivation of tertiary activities with respect to the previous quarter, as well as the continuous growth of secondary activities.

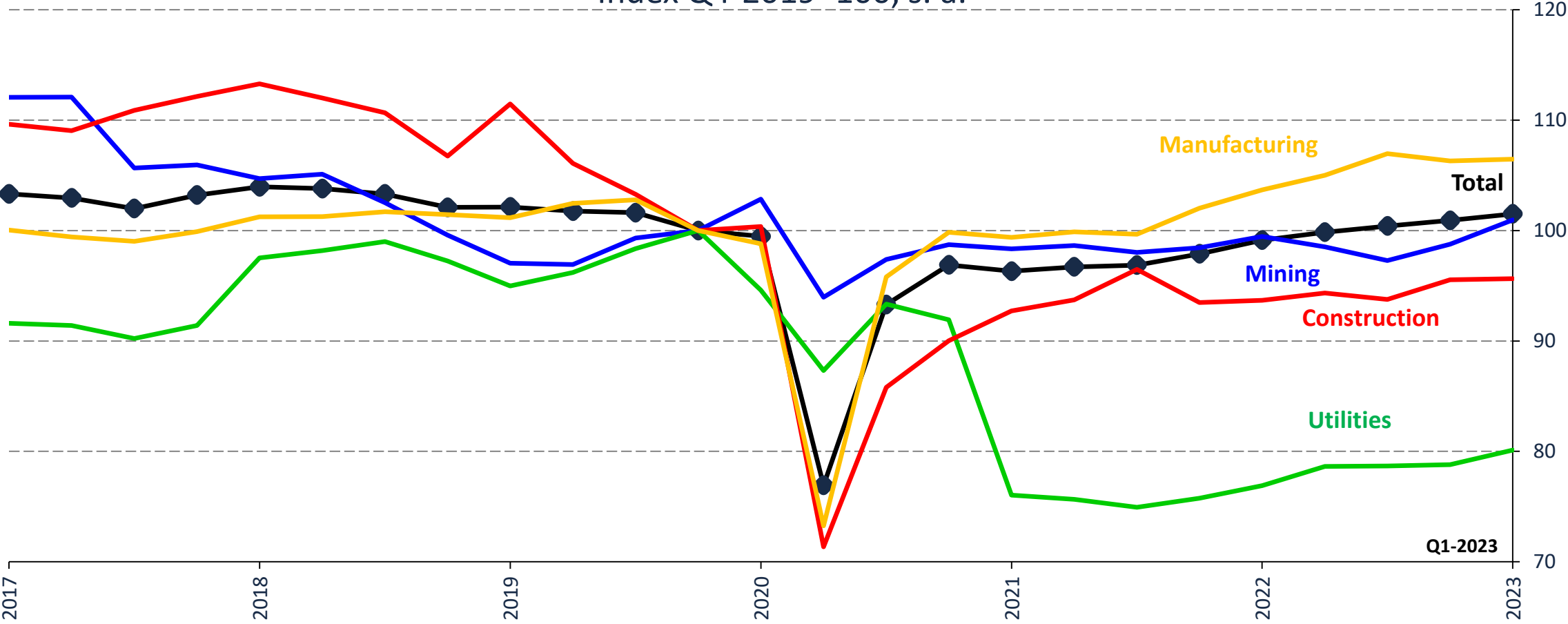
Gross Domestic Product by Economic Activity



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

During Q1-2023, the increase in industrial activity was mainly due to growth in the mining sector. Construction decelerated with respect to the previous quarter and manufacturing exhibited weakness.

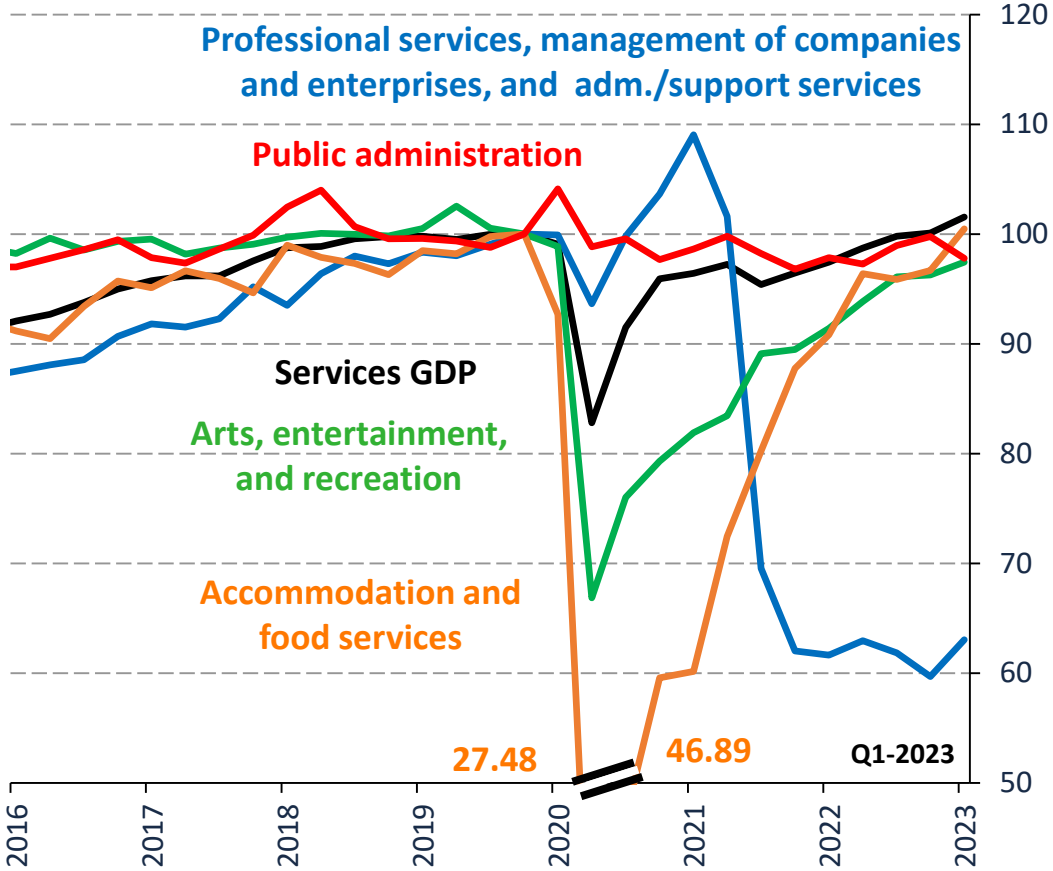
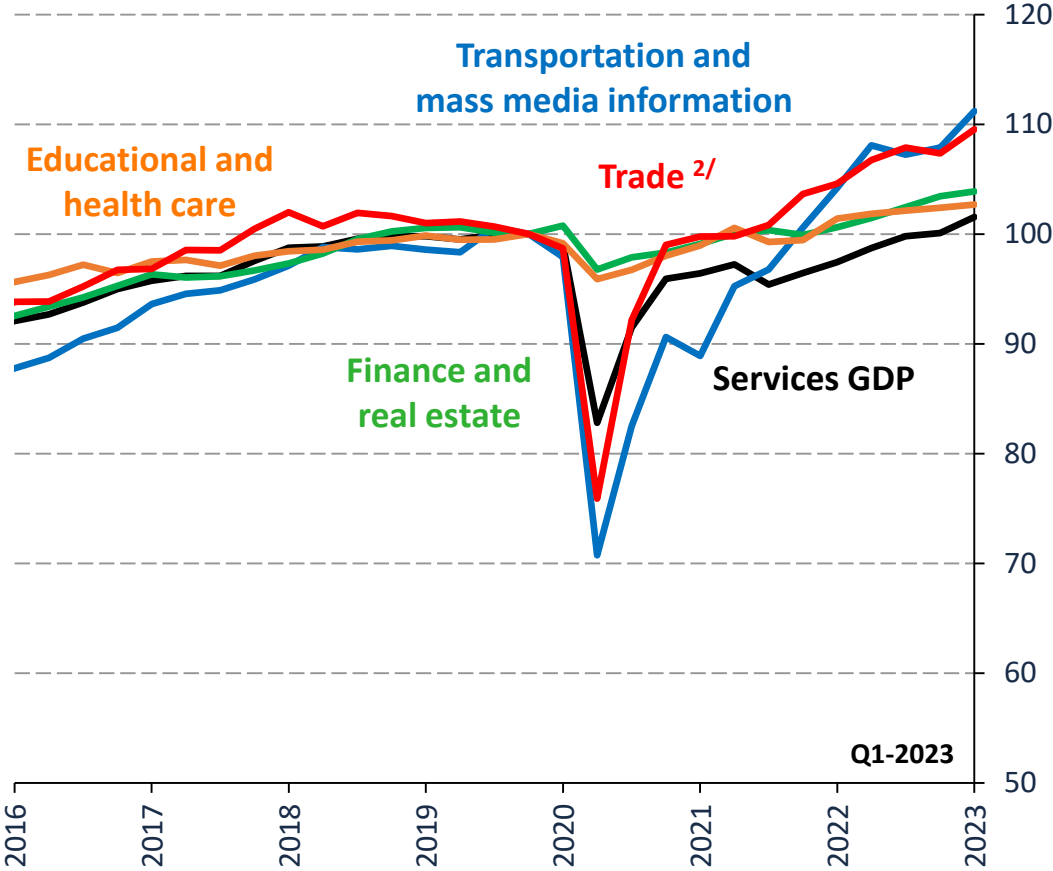
Industrial Activity
Index Q4-2019=100, s. a.



s. a. / Seasonally adjusted figures.
Source: Monthly Indicator of Industrial Activity, Mexico's National Accounts System (SCNM, for its acronym in Spanish), INEGI.

During the reported quarter, services gained more dynamism. This was due to the good performance of most of its components.

Service sector ^{1/}
 Index Q4-2019=100, s. a.



s. a. / Seasonally adjusted figures.

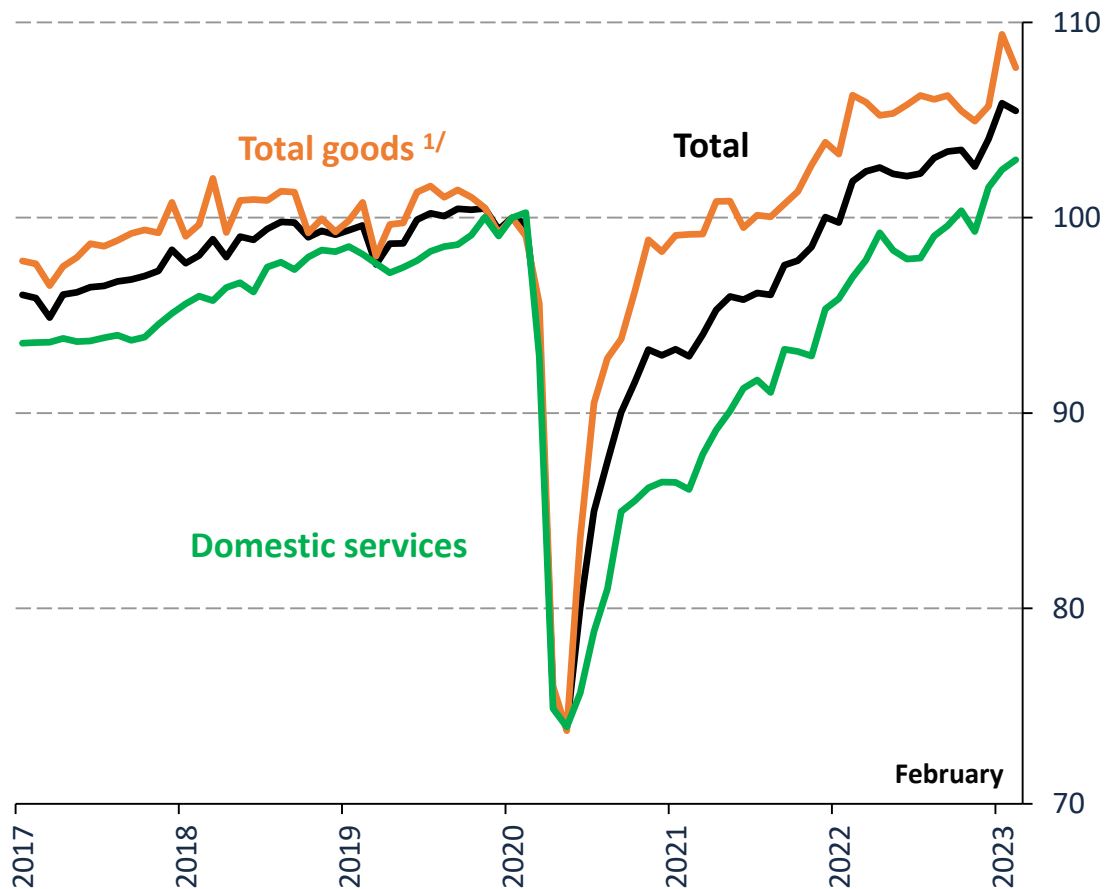
1/ The range of the second chart has been reduced to facilitate its reading. 2/ Includes both wholesale and retail trade.

Source: Mexico's National Accounts System (SCNM, for its acronym in Spanish), INEGI.

During the first bimester of 2023, both private consumption and gross fixed investment continued increasing.

Total Private Consumption

Index Jan 2020=100, s. a.

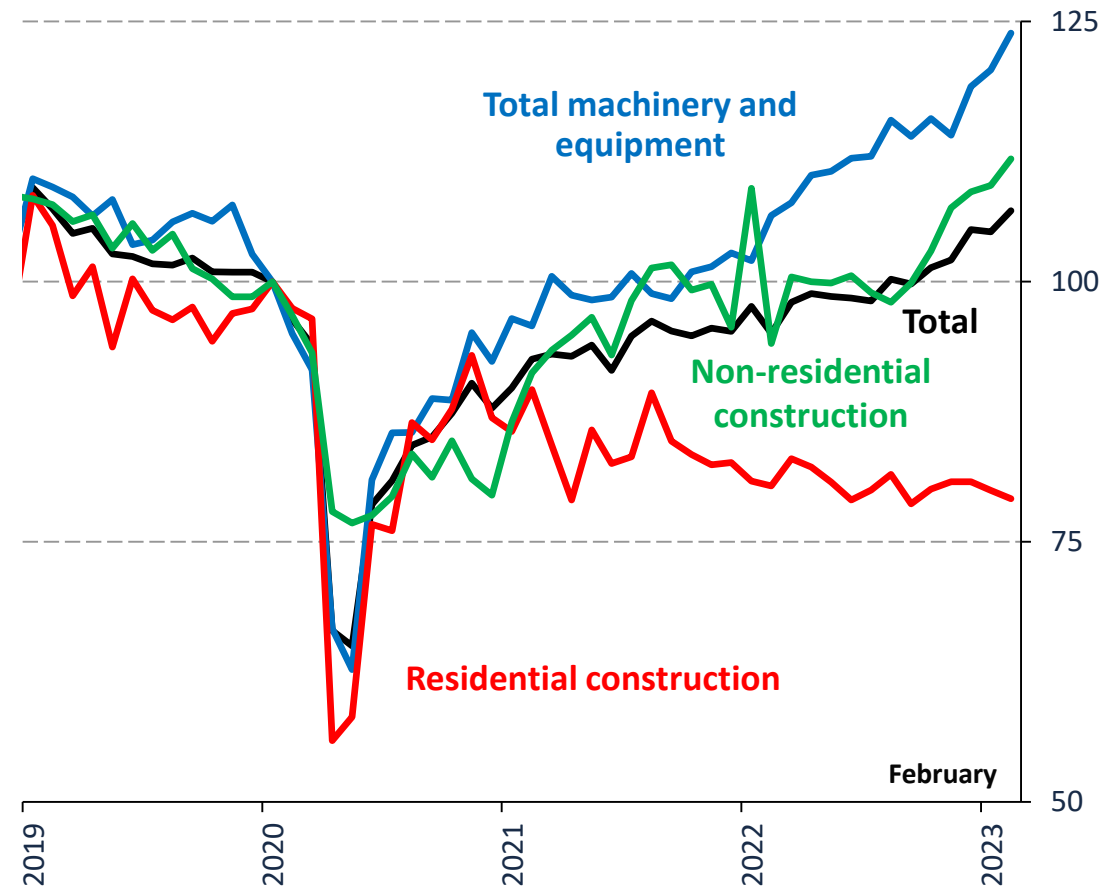


s. a. / Seasonally adjusted figures.

1/ Includes both national and imported goods. Prepared and seasonally adjusted by Banco de México. Source: Mexico's National Accounts System (SCNM, for its acronym in Spanish), INEGI.

Investment

Index Jan-2020=100, s. a.



s. a. / Seasonally adjusted figures.

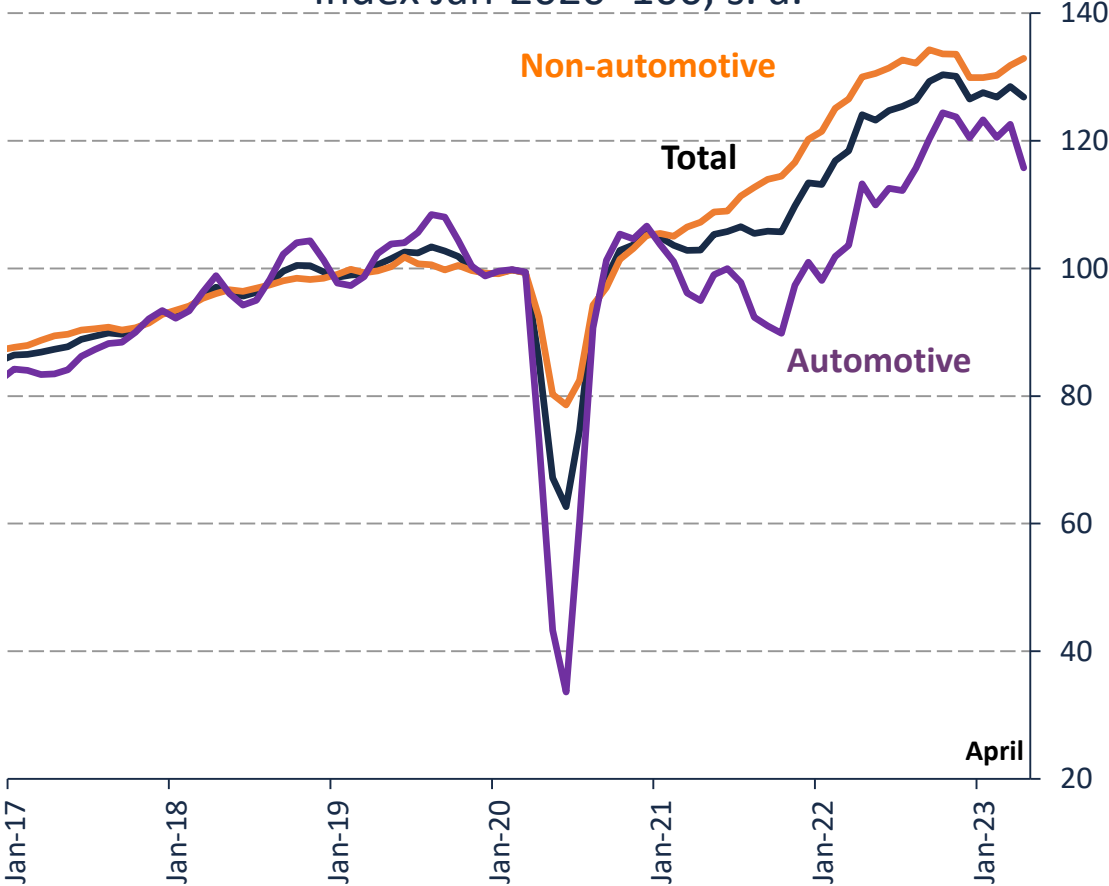
Source: Mexico's National Accounts System (SCNM, for its acronym in Spanish), INEGI.

After having declined in Q4-2022, the value in USD of manufacturing exports increased moderately in Q1-2023.

Manufacturing Exports ^{1/}
 Three-month moving average

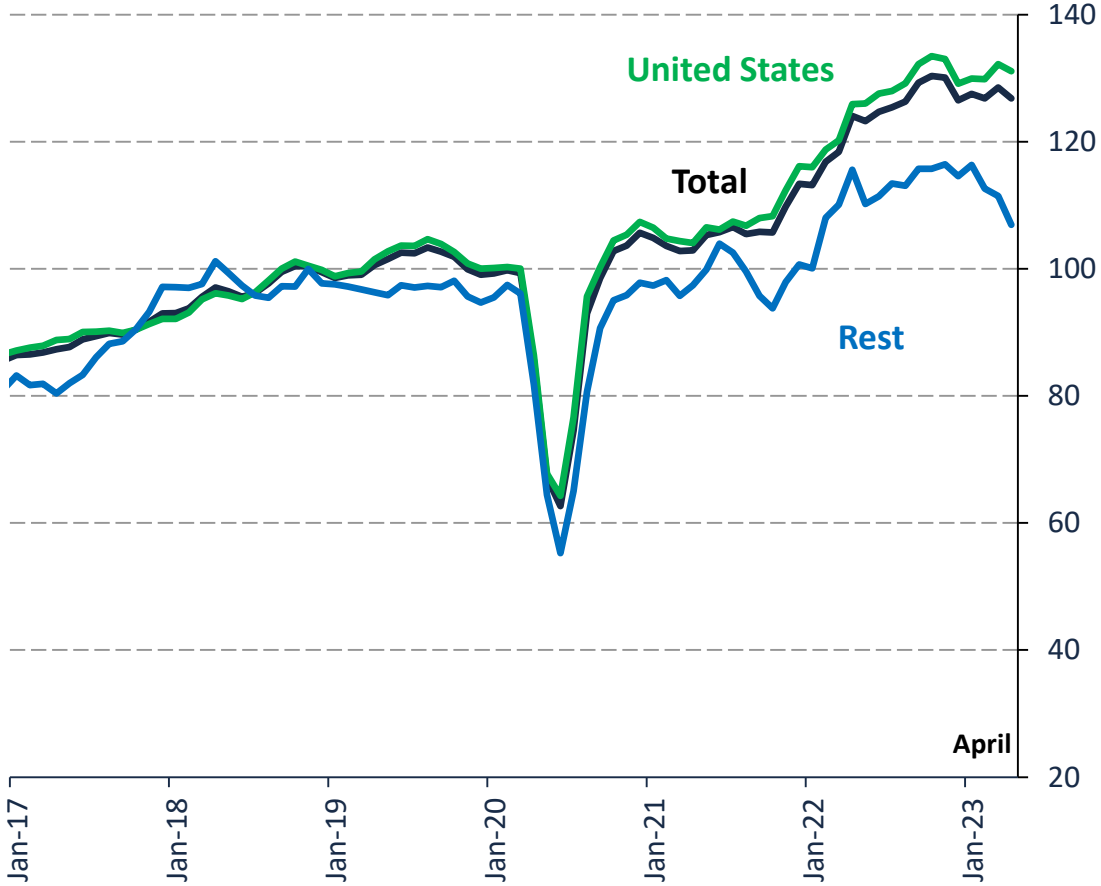
Automotive and Non-automotive Manufacturing Exports

Index Jan-2020=100, s. a.



By Destination

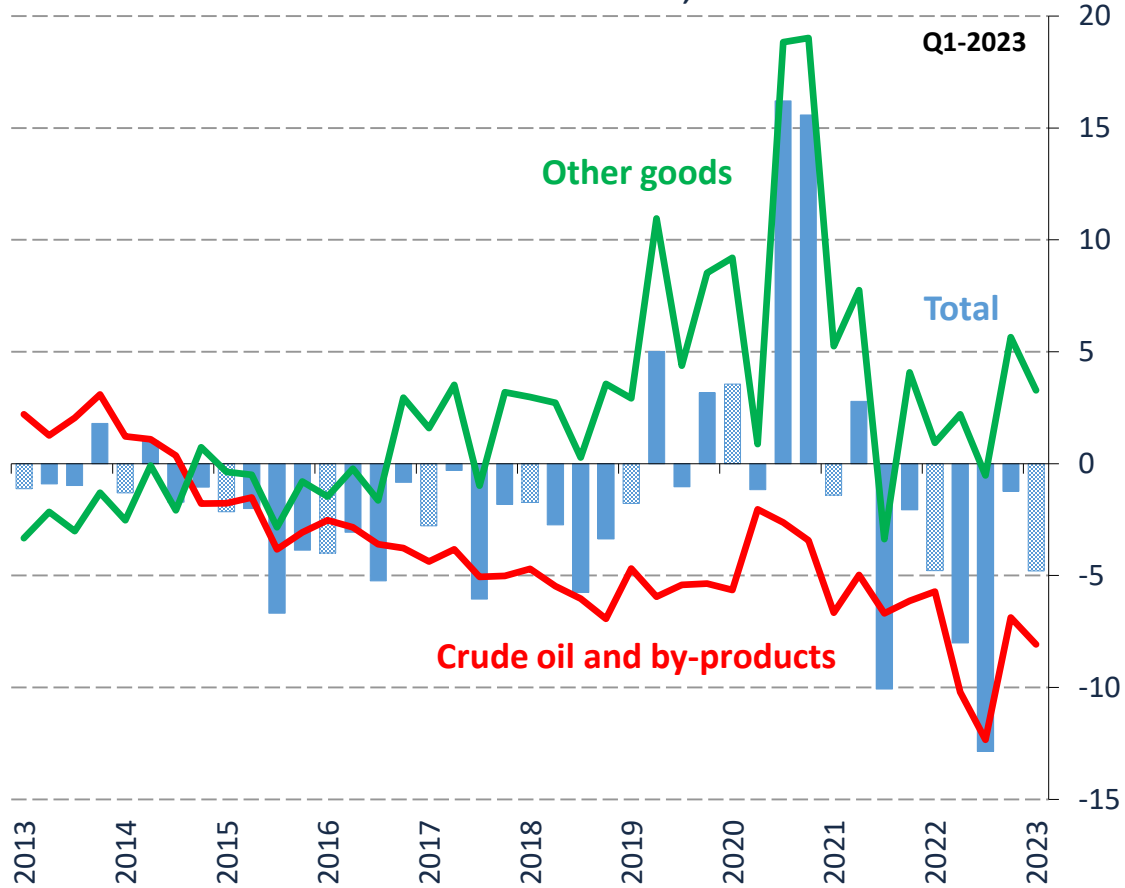
Index Jan-2020=100, s. a.



s. a. / Seasonally adjusted figures.
 1/ Based on current US dollars. Source: Prepared by Banco de México with data from PMI Comercio Internacional, S.A. de C.V., SAT, SE, Banco de México and INEGI. Mexico's Merchandise Trade Balance. SNIEG. Information of National Interest.

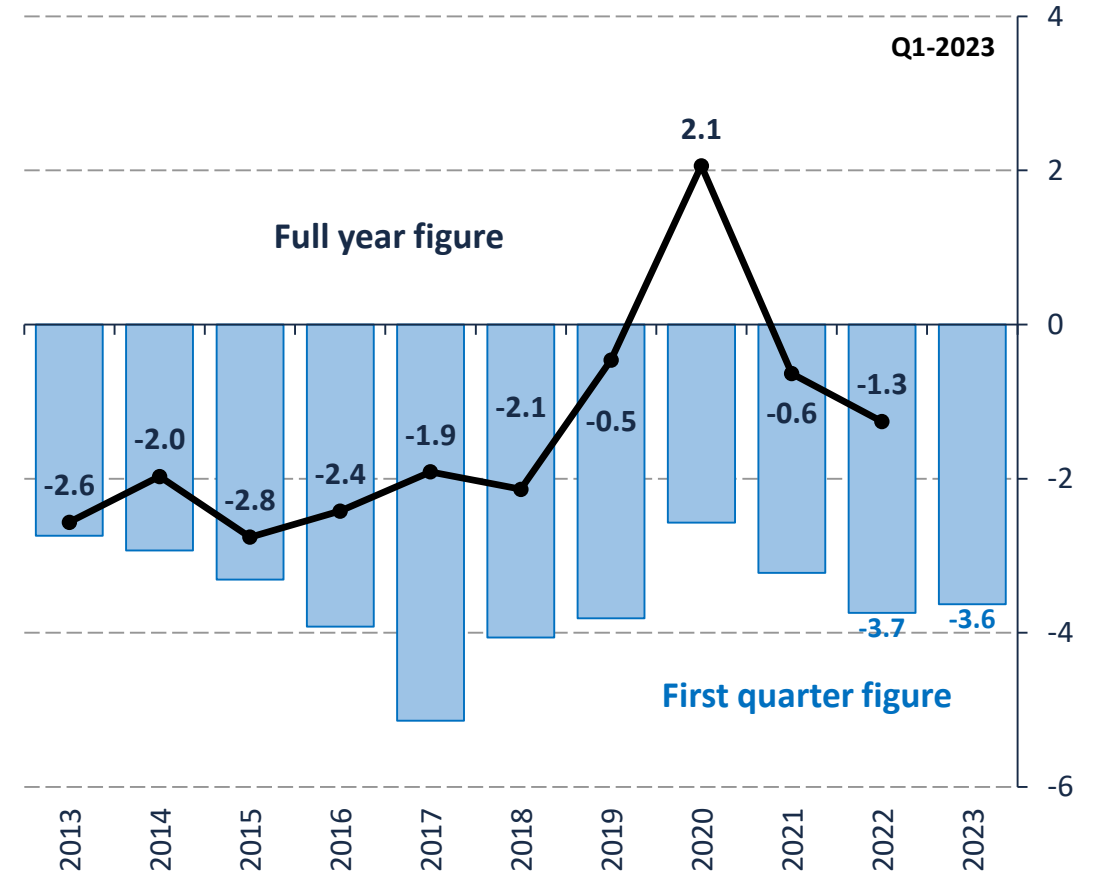
In Q1-2023, the current account registered a deficit similar to that observed in the same period of 2022.

Trade Balance
Billions of dollars, s. a.



s. a. / Seasonally adjusted figures. Source: SAT, SE, Banco de México, INEGI. Mexico's Merchandise Trade Balance. SNIEG. Information of national interest.

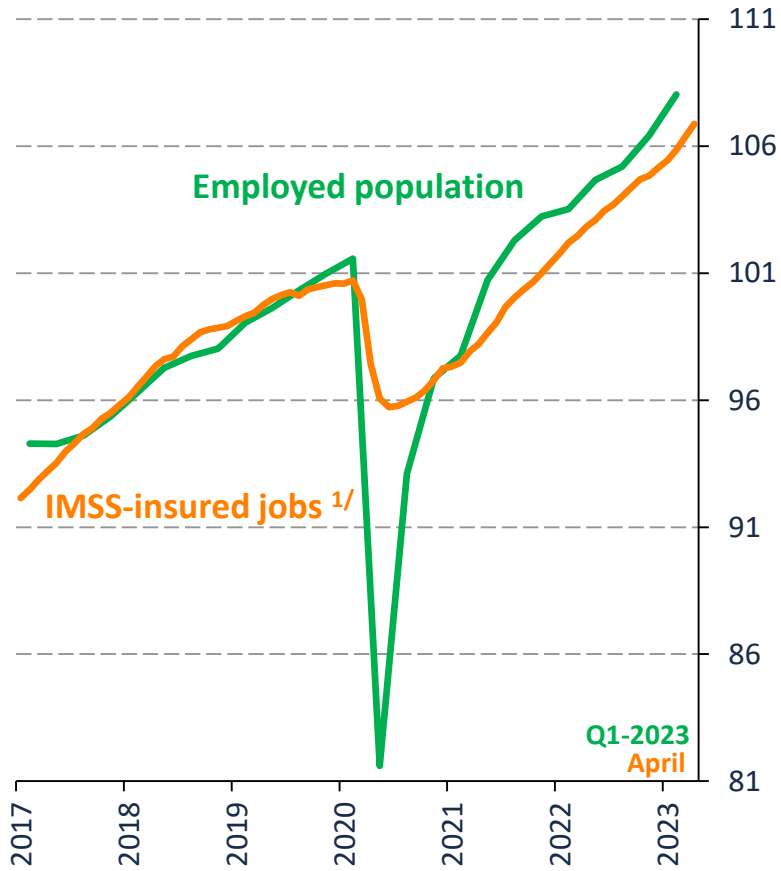
Current Account
% of GDP



Source: Banco de México and INEGI.

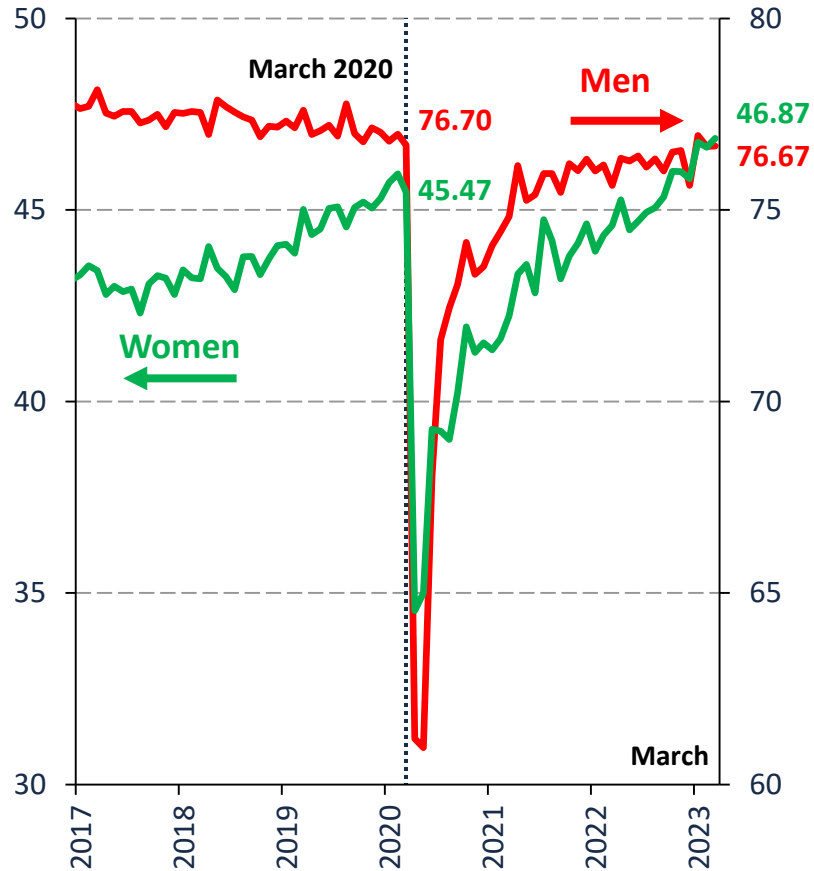
During Q1-2023, the labor market remained strong.

IMSS-insured Jobs and Employed Population
Index 2019=100, s. a.



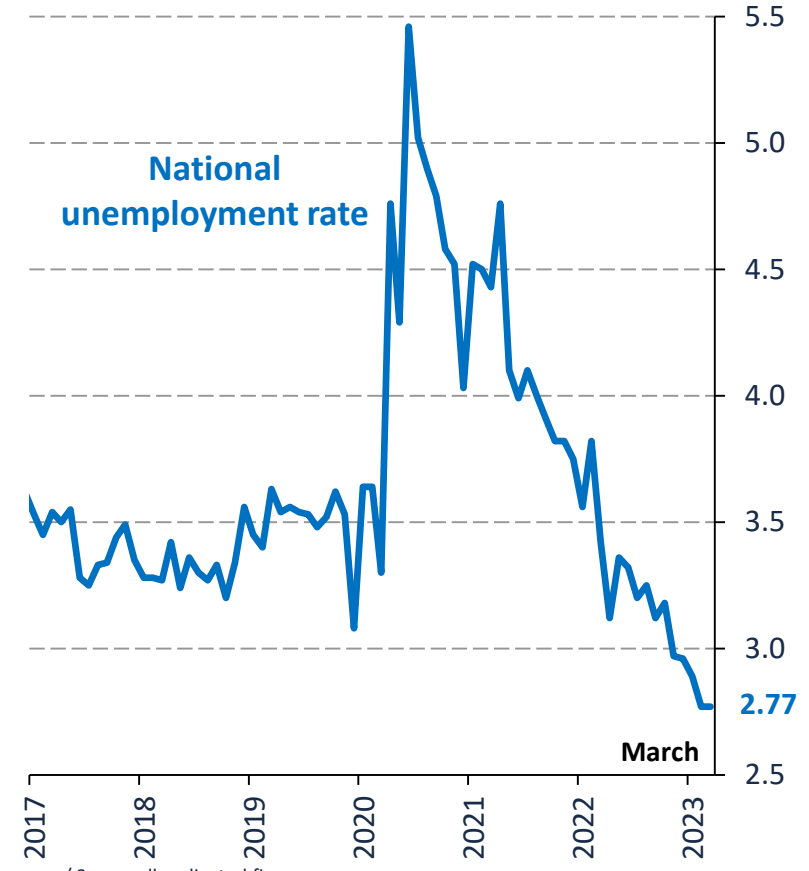
s. a. / Seasonally adjusted figures. 1/ Refers to permanent and temporary urban workers. Seasonal adjustment by Banco de México.
Source: Prepared by Banco de México with data from IMSS and INEGI (ENOE, ETOE and ENOE^N).

National Labor Participation Rates ^{2/}
%, s. a.



s. a. / Seasonally adjusted figures.
^{2/} Percentage of the economically active population (EAP) with respect to the population 15 years and older.
Source: Prepared by Banco de México with data from INEGI (ENOE, ETOE and ENOE^N).

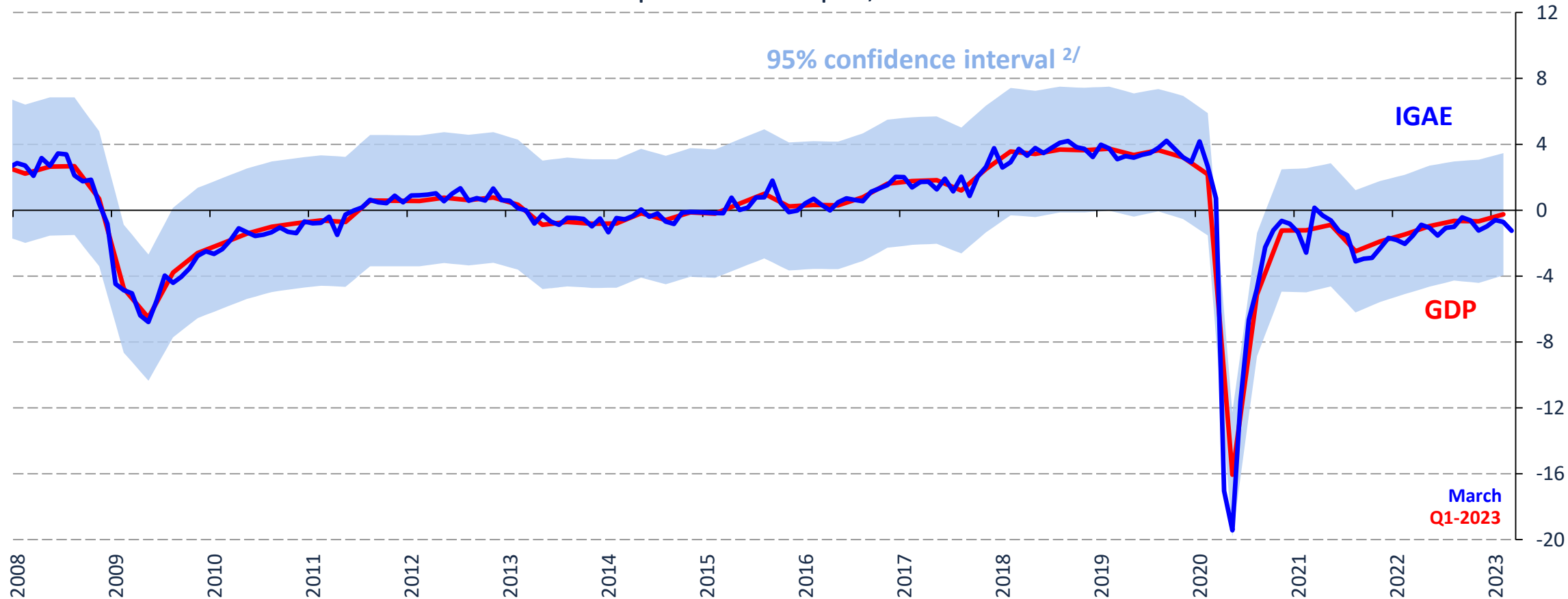
National Unemployment Rate
%, s. a.



s. a. / Seasonally adjusted figures.
Source: Prepared by Banco de México with data from INEGI (ENOE, ETOE and ENOE^N).

As for the economy's cyclical position, the point estimate of the negative output gap continued narrowing, without being statistically different from zero.

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



s. a. / Prepared with seasonally adjusted data.

1/Output gap estimated with a tail-corrected Hodrick-Prescott filter; see "Inflation Report April – June 2009", Banco de México, p.74.

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

2 Current situation of the Mexican economy

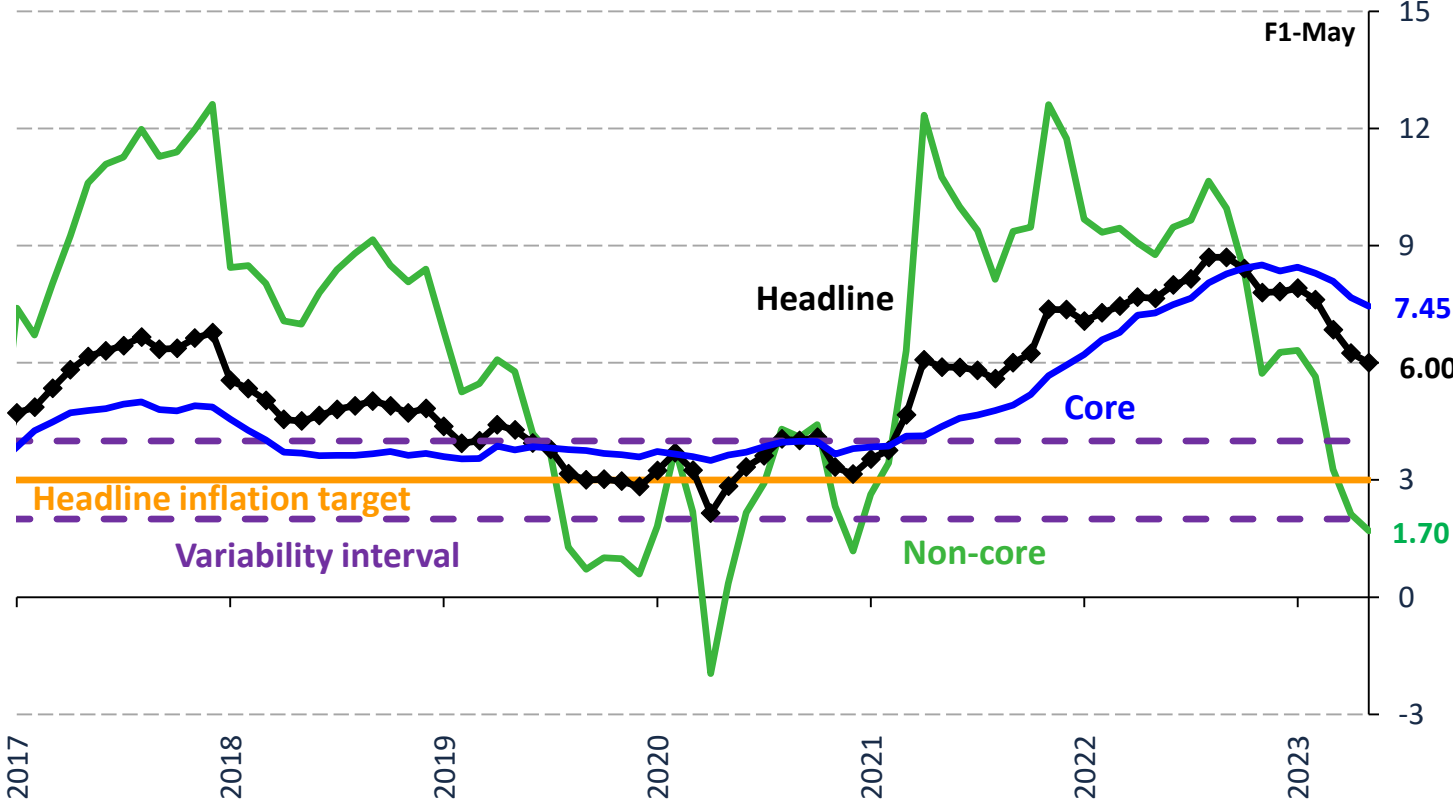
3 Inflation

4 Monetary policy

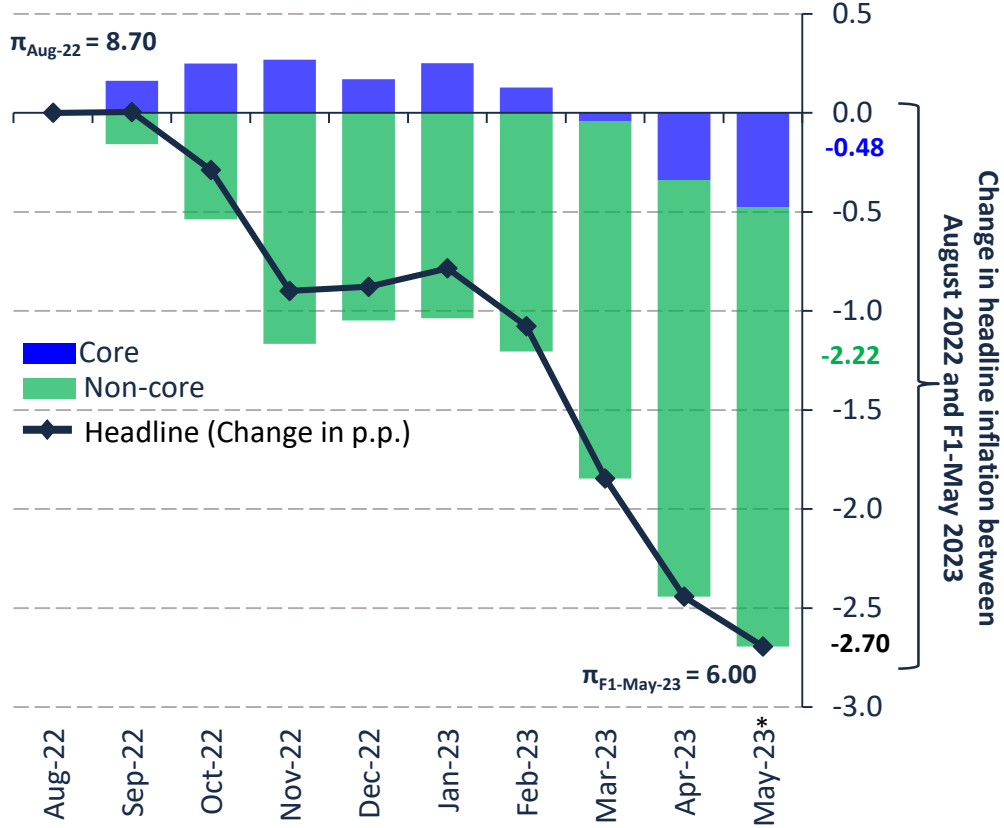
5 Forecasts and final remarks

Annual headline inflation in Mexico declined from 8.01% in Q4-2022 to 7.46% in Q1-2023, reflecting, to a greater extent, the reduction in non-core inflation. Recently, core inflation has also contributed to the decline in headline inflation, which in F1-May stood at 6.00%.

National Consumer Price Index
Annual % change



Change in incidence each month to headline inflation with respect to August 2022
Percentage points

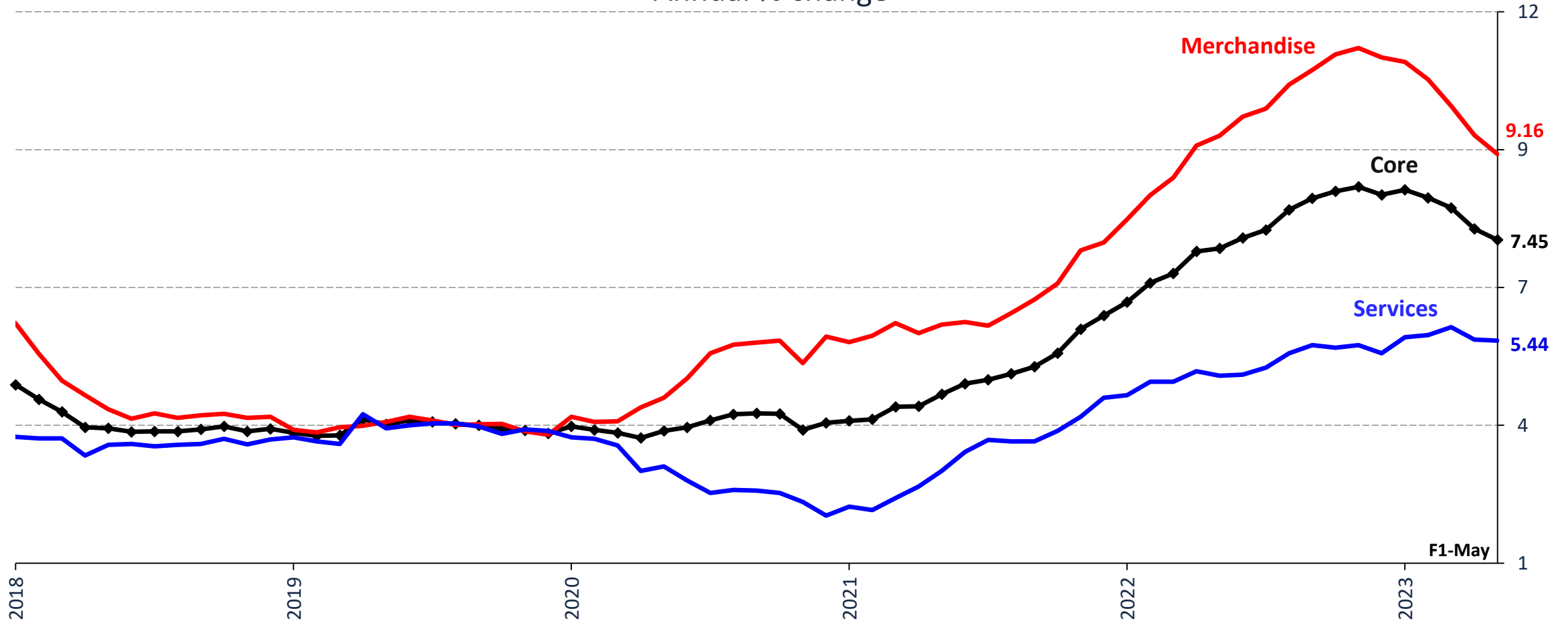


Source: Banco de México and INEGI.

* / Corresponds to the first fortnight of May.
Note: August 2022 is used as reference because it is the highest inflation level since January 2001.
Source: INEGI.

Between Q4-2022 and Q1-2023, annual core inflation decreased gradually, which became more evident in F1-May, when it reached 7.45%. However, it remains at high levels and continues facing significant pressures derived from the shocks of the pandemic and the military conflict in Ukraine.

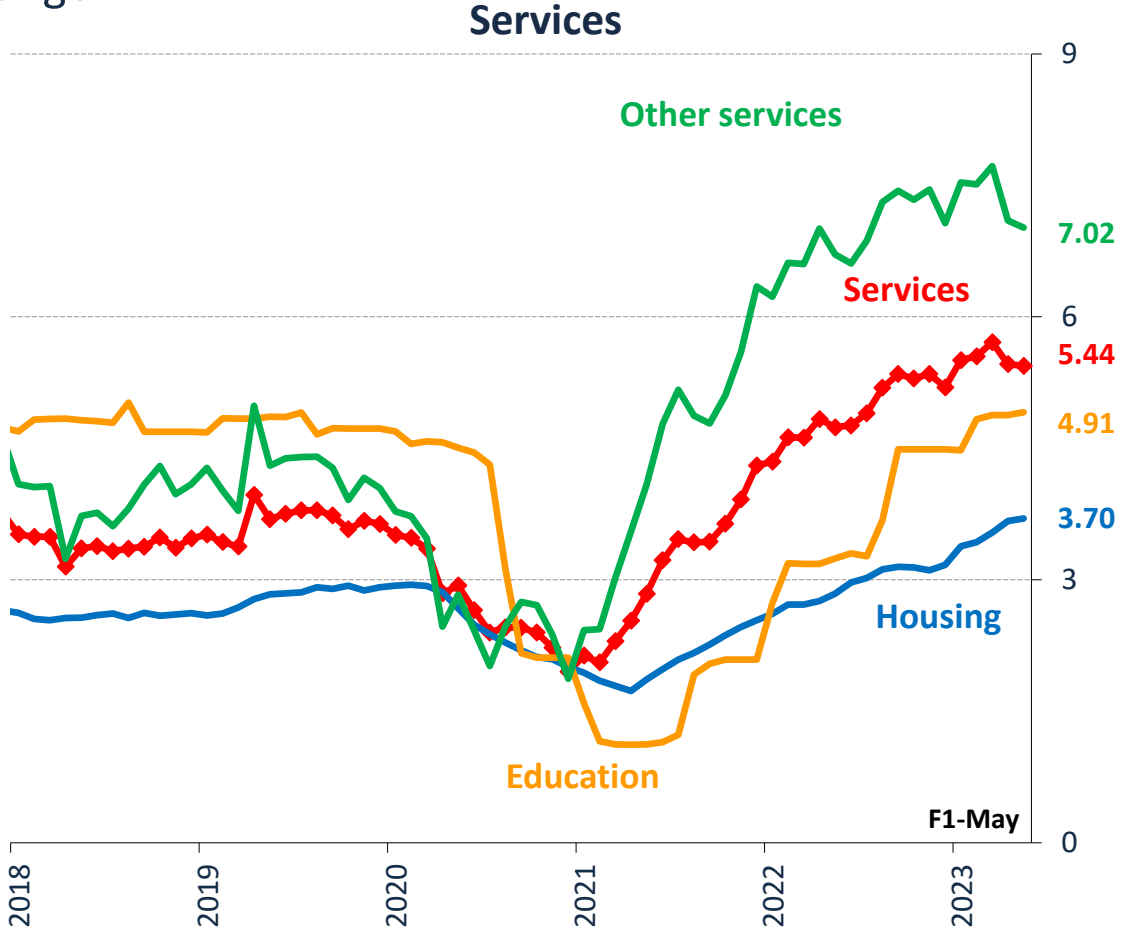
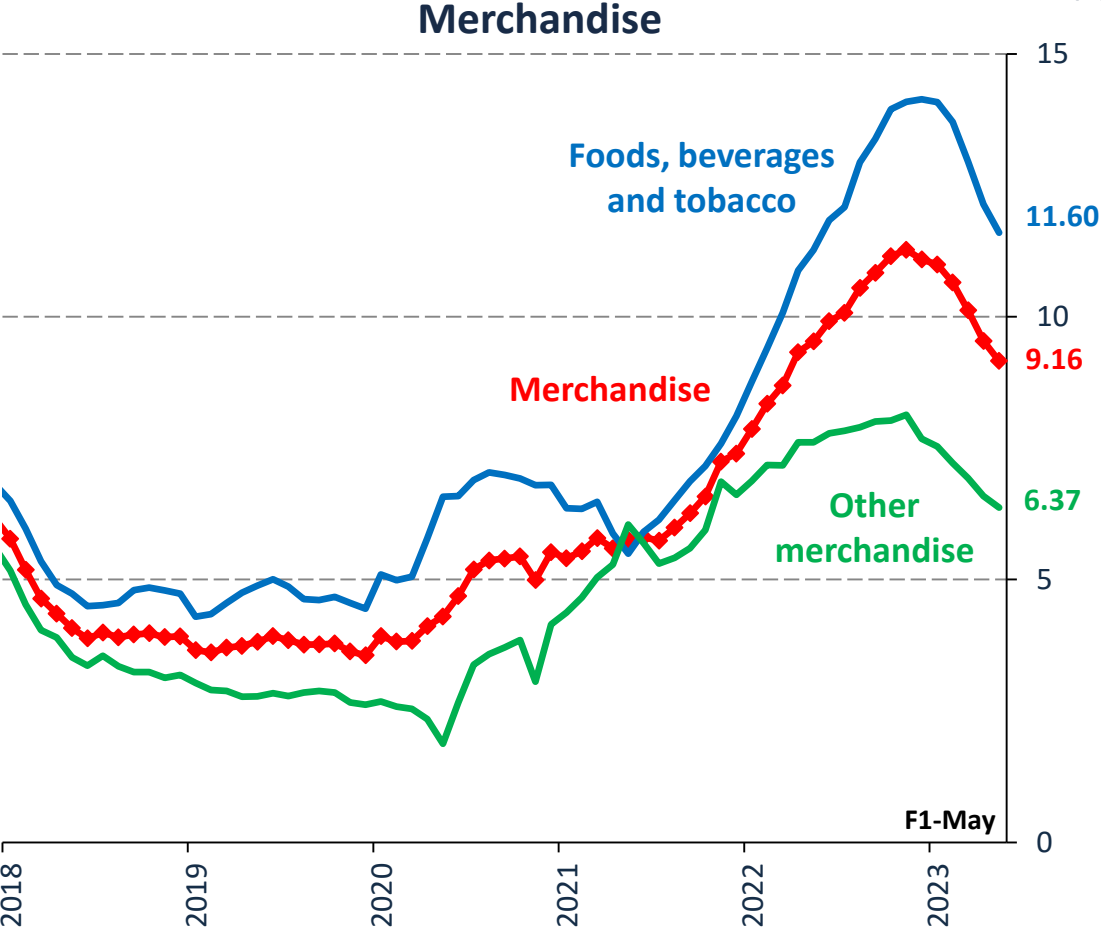
Core Price Sub-index Annual % change



Source: INEGI.

The easing of price-related pressures has been reflected in a decline in merchandise inflation. Meanwhile, the effects of the shocks accumulated since the pandemic and the recovery of economic activity increased the inflation of various services.

Core Price Sub-index
Annual % change

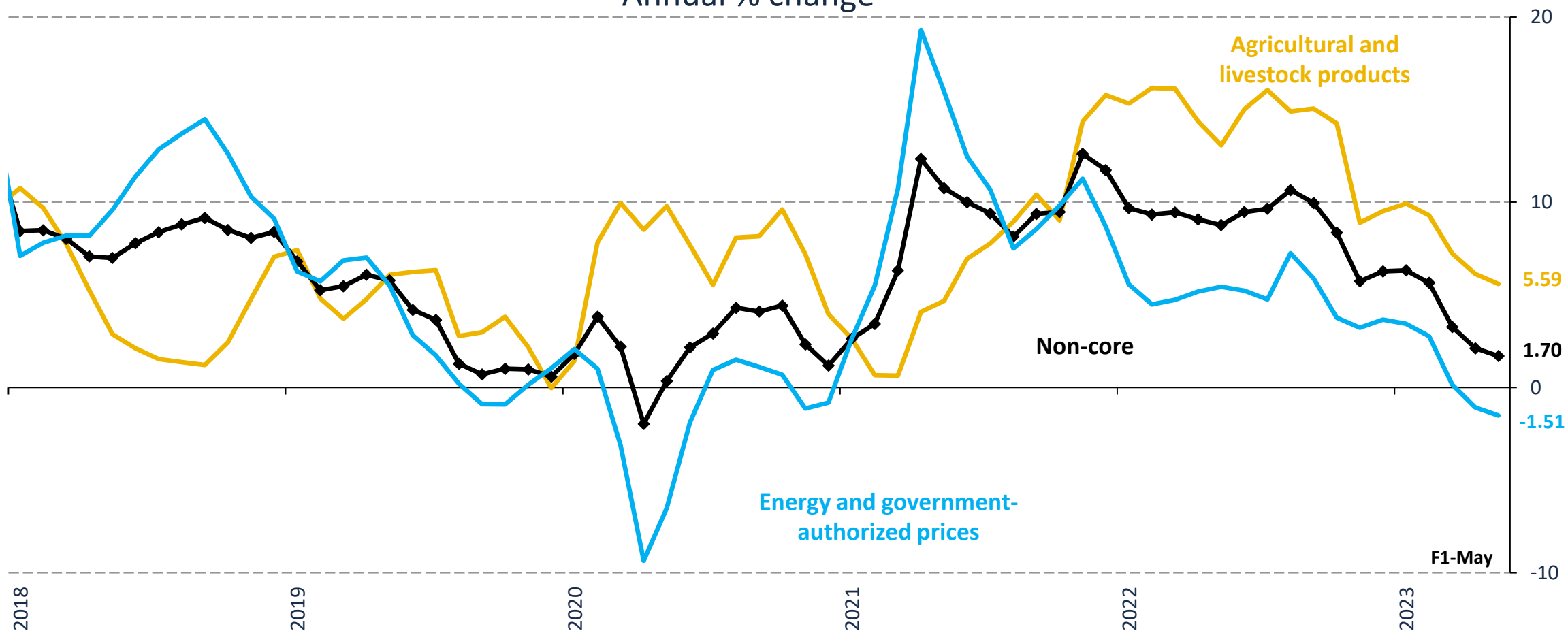


Source: INEGI.

Source: INEGI.

During Q1-2023, annual non-core inflation continued declining, showing a further decrease in F1-May to 1.70%. This performance was driven by the lower inflation levels observed in agricultural and livestock products and energy.

Non-Core Price Sub-index Annual % change



Source: INEGI.

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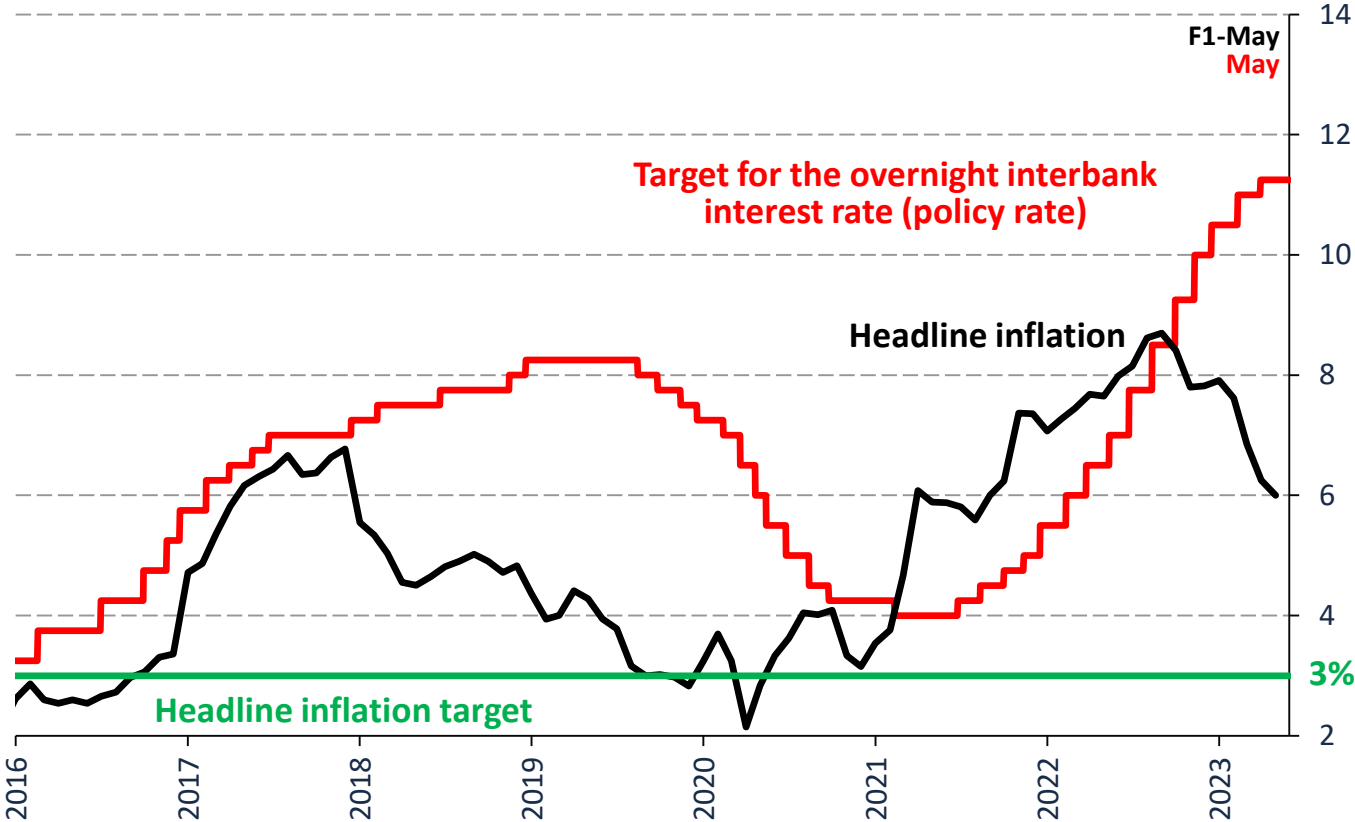
3 Inflation

4 Monetary policy

5 Forecasts and final remarks

Banco de México strengthened its monetary policy stance in light of a still complicated environment, with increases of 50 and 25 bps at its February and March meetings. In May, considering the stance already attained and the easing of certain pressures, the Governing Board left the target rate unchanged at 11.25%.

Target for the Overnight Interbank Interest Rate and Headline Inflation
Annual %



Source: Banco de México with INEGI data.

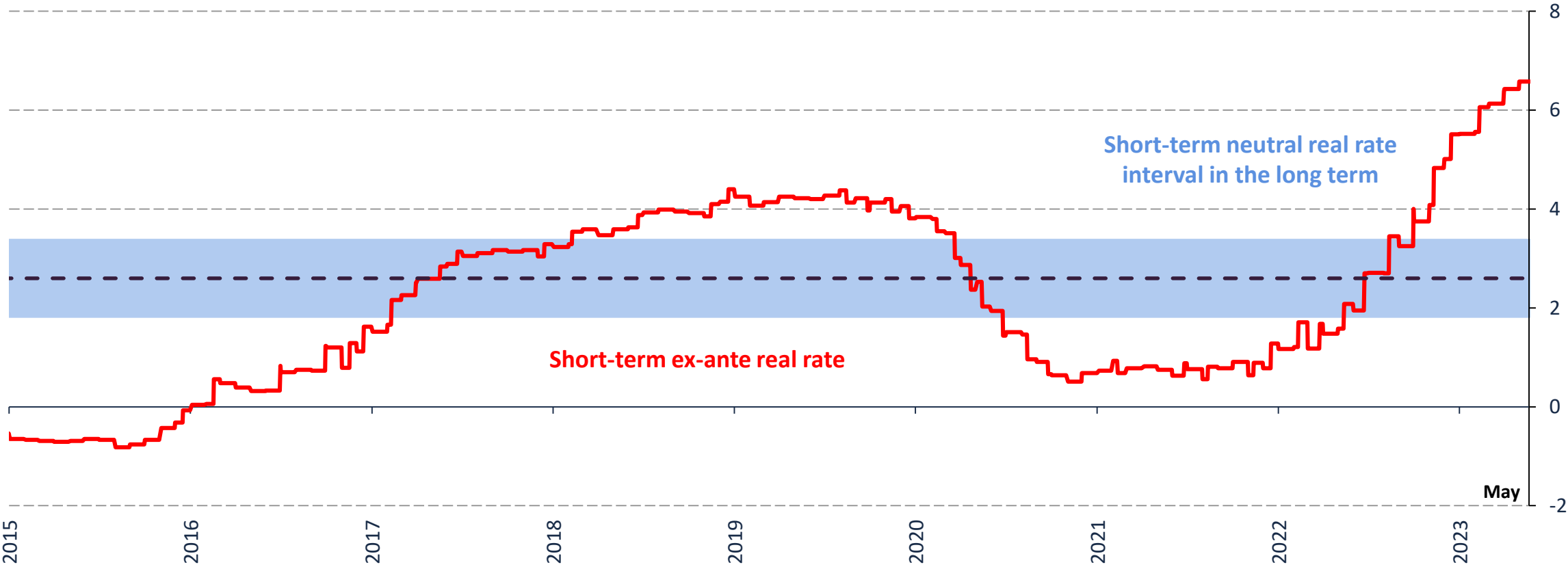
Recent Evolution of Banco de México’s Monetary Policy Decisions

	Changes in the policy rate (bp)	Interest rate (%)
Feb-21	-25	4.00
Mar-21	0	4.00
May-21	0	4.00
Jun-21	+25	4.25
Aug-21	+25	4.50
Sep-21	+25	4.75
Nov-21	+25	5.00
Dec-21	+50	5.50
Feb-22	+50	6.00
Mar-22	+50	6.50
May-22	+50	7.00
Jun-22	+75	7.75
Aug-22	+75	8.50
Sep-22	+75	9.25
Nov-22	+75	10.00
Dec-22	+50	10.50
Feb-23	+50	11.00
Mar-23	+25	11.25
May-23	0	11.25

Source: Banco de México.

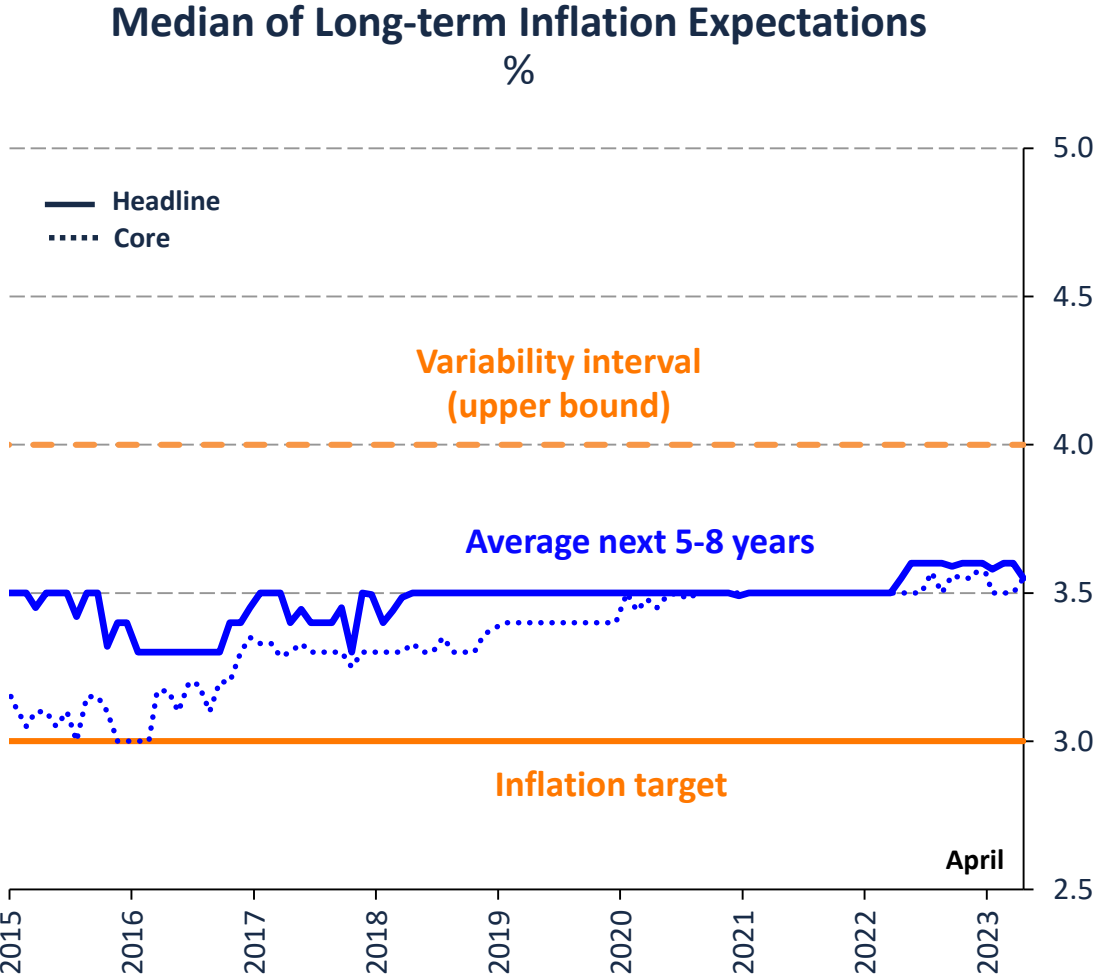
Considering the increase in the nominal reference rate and the evolution of inflationary expectations, the short-term ex-ante real interest rate is situated above the upper limit of the estimated interval for the neutral interest rate.

Short-term Ex-Ante Real Rate and Estimated Interval for the Short-term Neutral Real Rate in the Long Term ^{1/} Annual %



^{1/} The short-term ex ante real rate is constructed using the target for the overnight Interbank interest rate and the mean of 12-month inflation expectations drawn from Banco de México's Survey of Private Sector Forecasters. The dotted line corresponds to the midpoint of the interval for the short-term neutral real rate in the long term, which is now between 1.8 and 3.4%. The shaded area corresponds to the estimated interval for the short-term neutral rate in the long term. Source: Banco de México.

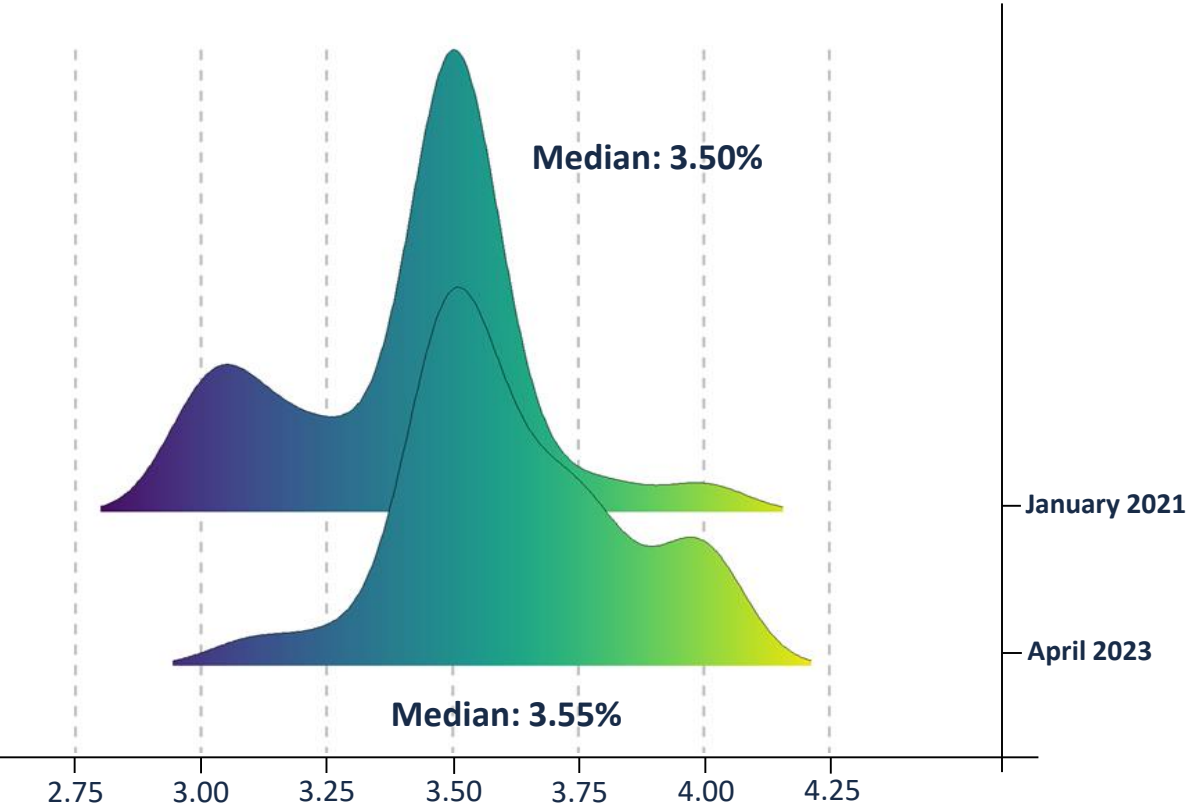
The strengthening of the monetary policy stance has contributed to maintain long-term inflation expectations anchored.



Source: Banco de México's Survey of Private Sector Forecasters.

Distribution of Average Headline Inflation Expectations for the Next 5-8 Years

%

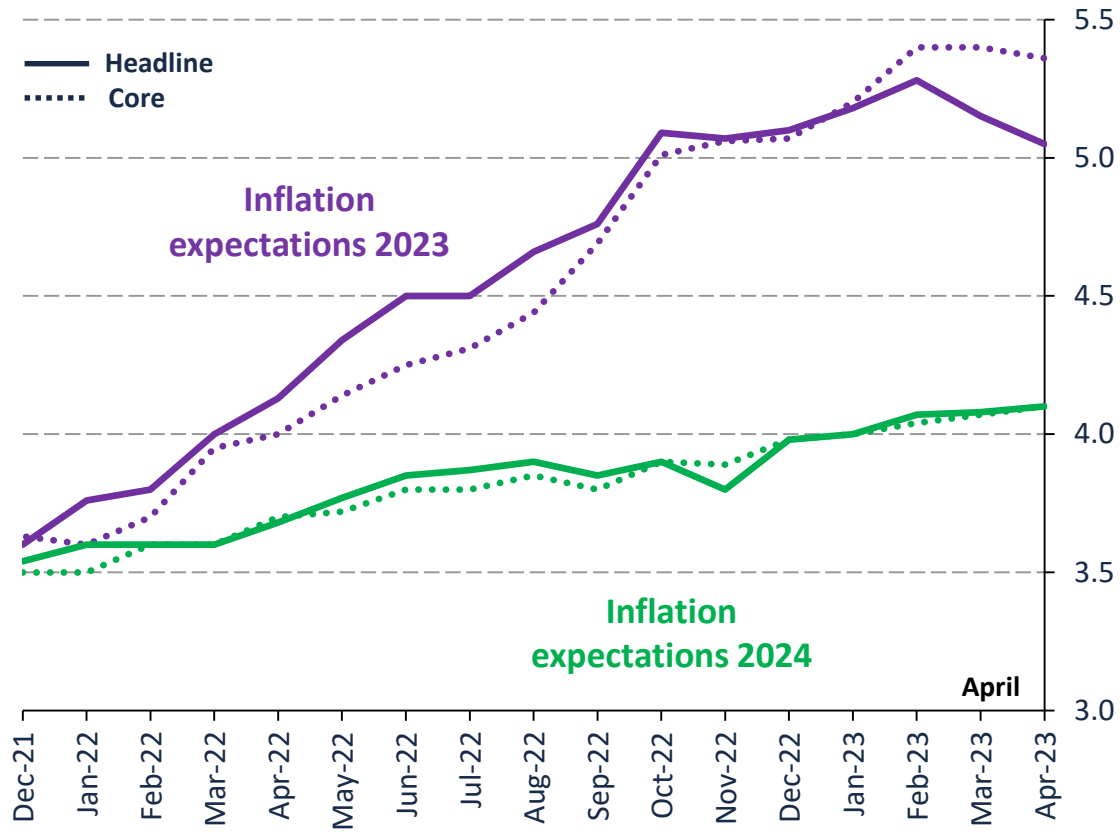


Source: Banco de México's Survey of Private Sector Forecasters. The reported figures correspond to the surveys published on February 2, 2021 and May 2, 2023.

Short-term inflation expectations showed differentiated movements given the complex inflationary environment, while those for the next 4 years decreased.

Median of Headline and Core Inflation Expectations at the End of 2023 and 2024

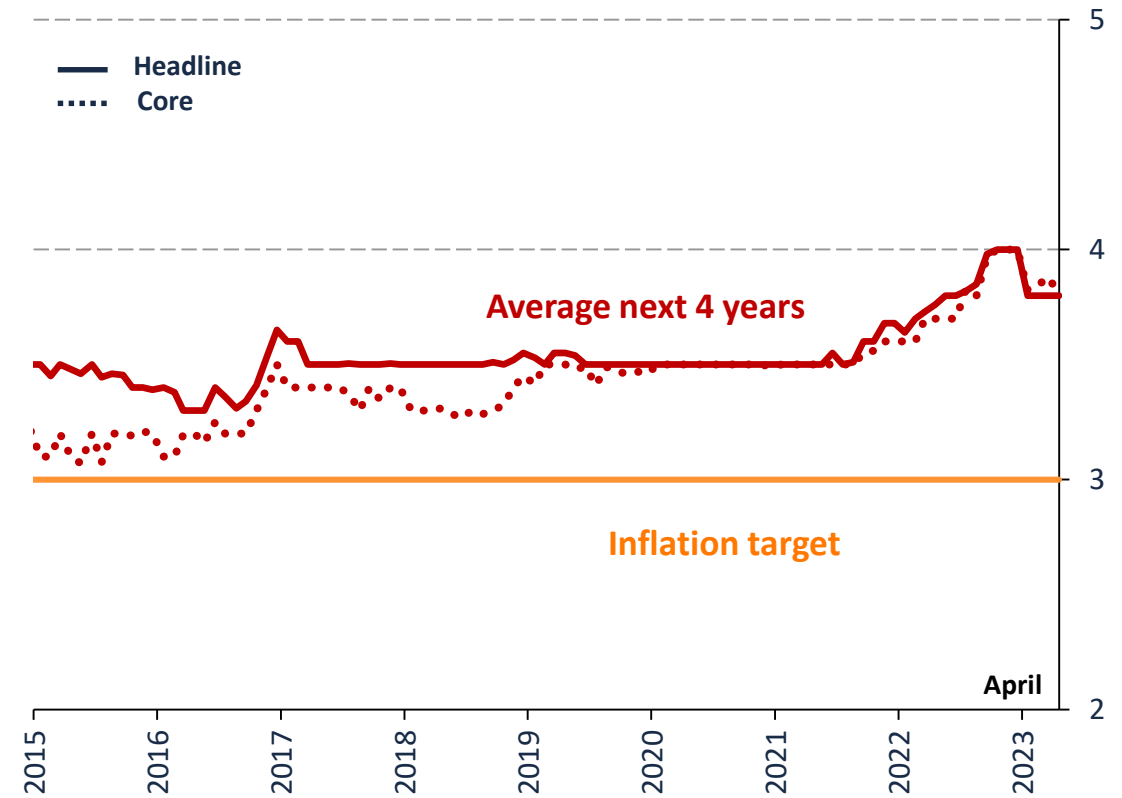
%



Source: Banco de México's Survey of Private Sector Forecasters.

Median of Headline and Core Inflation Expectations for the Next 1 to 4 Years

%

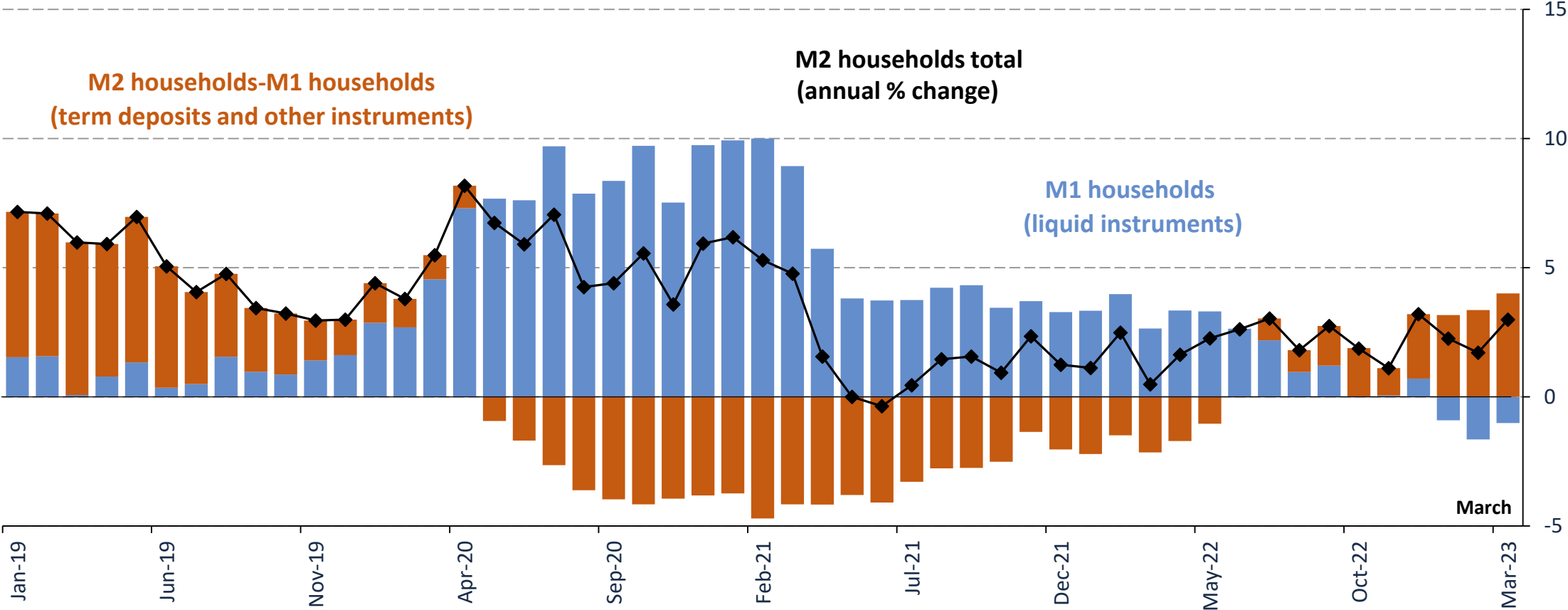


Source: Banco de México's Survey of Private Sector Forecasters.

By inducing an increase in term deposit rates, the reference rate hiking cycle has led to a recomposition of households' financial savings. The increase in the opportunity cost of holding assets with low yields has encouraged households to acquire term deposits.

M2 Households

Real annual % change and contribution to growth in percentage points ^{1/}

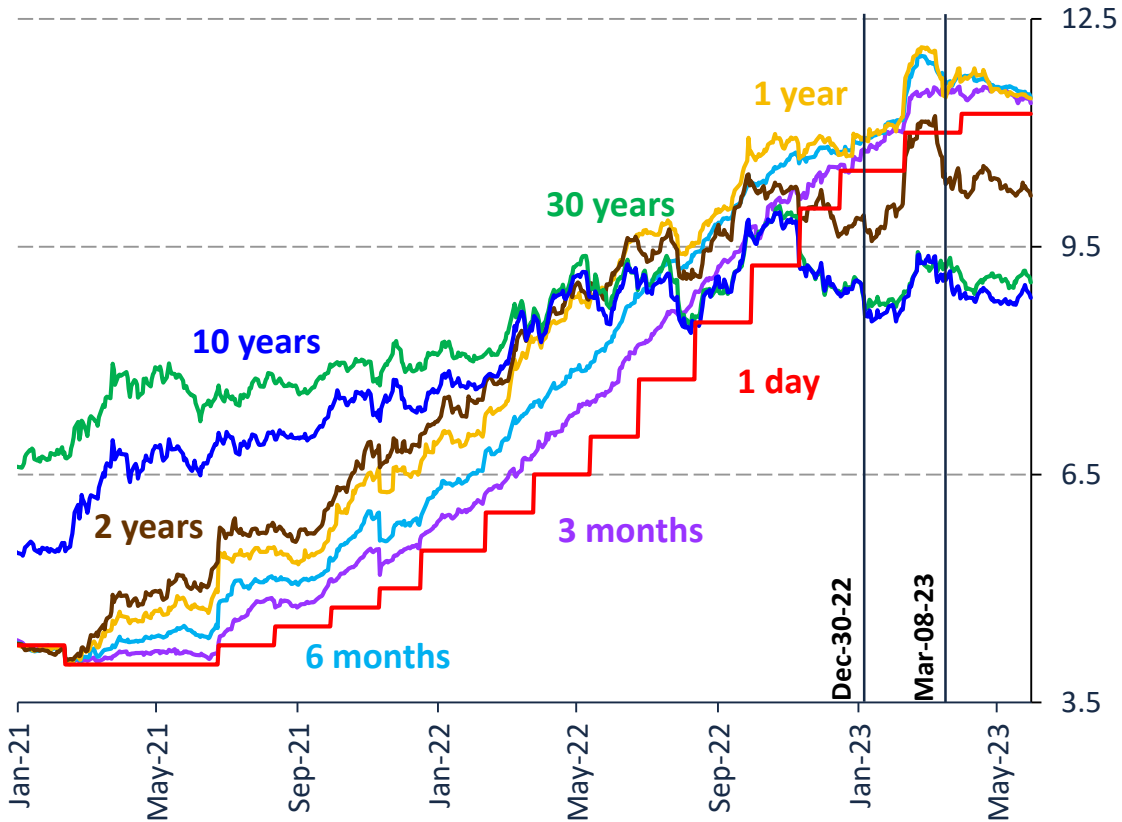


Source: Banco de México. 1/ Figures are calculated based on balances adjusted for exchange rate fluctuations.

During the first months of the year and until the beginning of March, government bond interest rates increased for all terms. Subsequently, those for medium and long terms decreased.

Target for the Overnight Interbank Interest Rate and Government Bond Yields

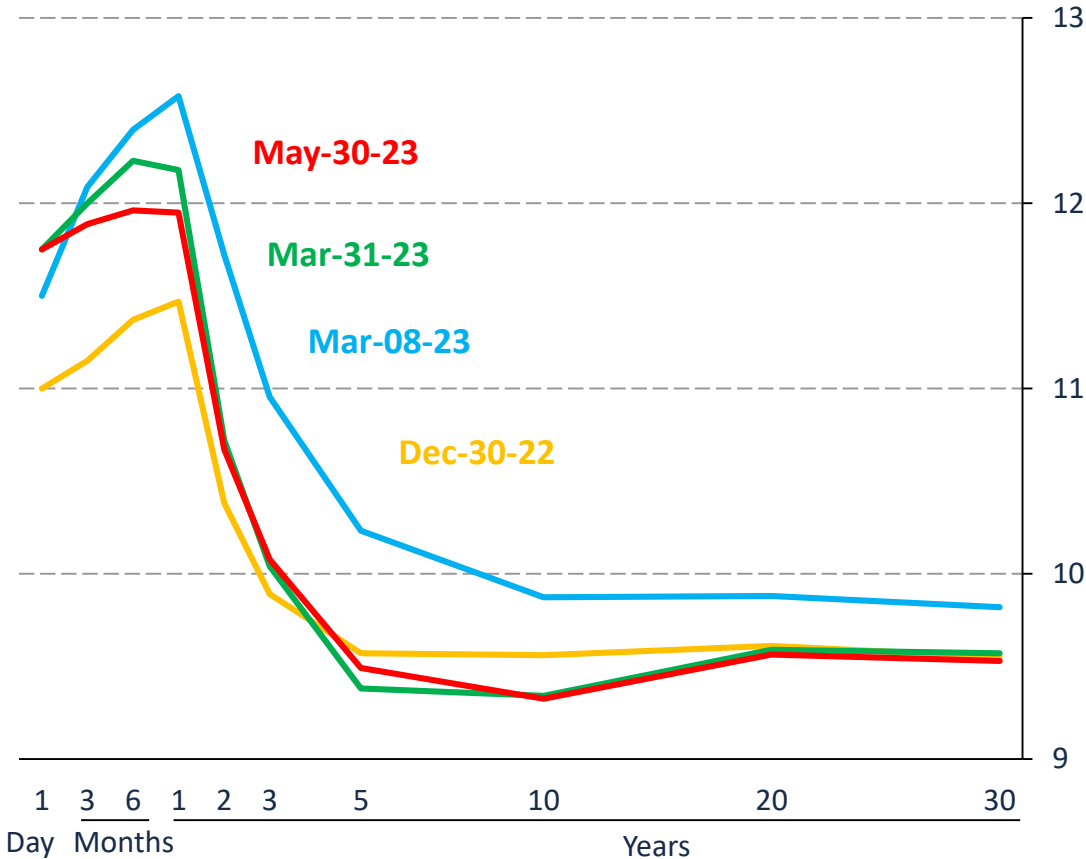
%



Note: The vertical lines corresponds to December 30, 2022 and March 8, 2023.
Source: Proveedor Integral de Precios (PiP).

Yield Curve of Mexico

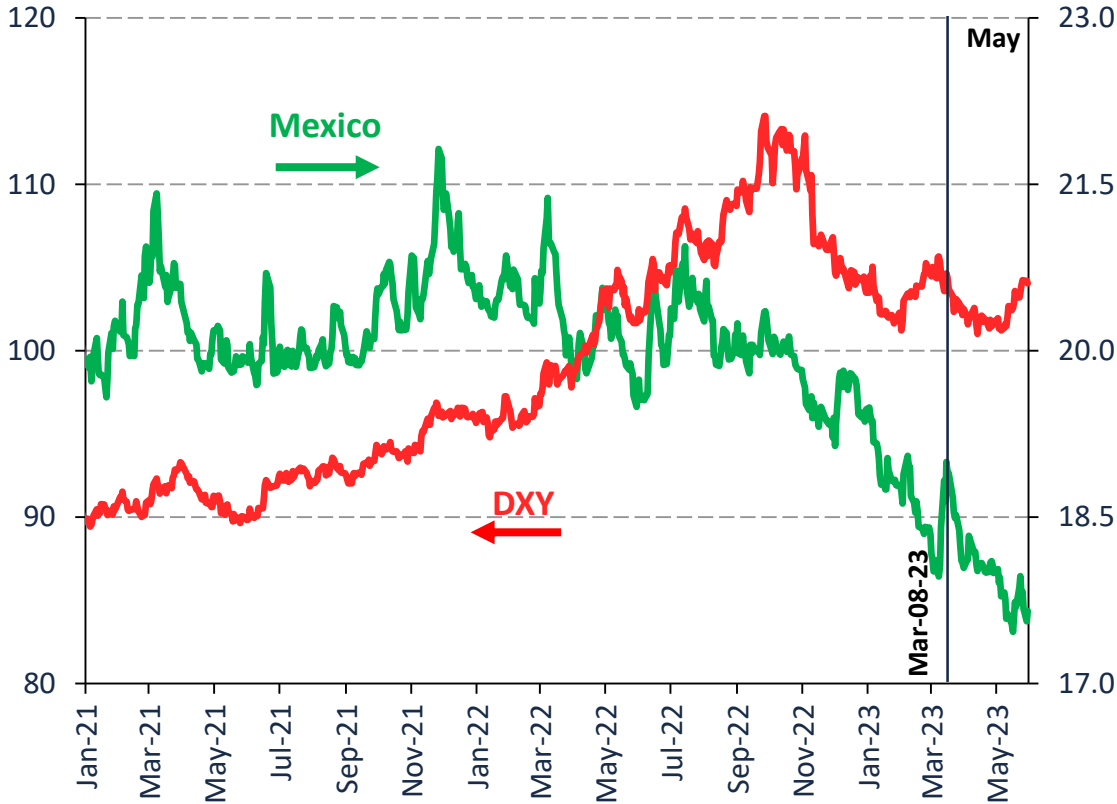
%



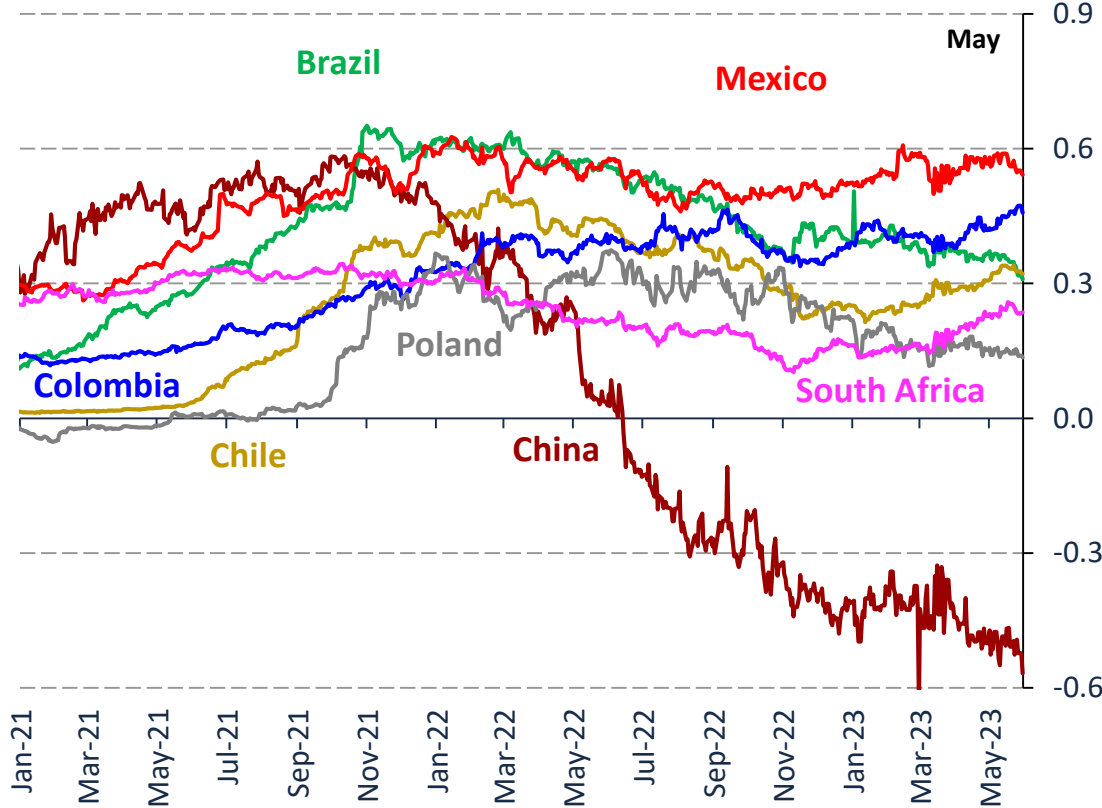
Source: Proveedor Integral de Precios (PiP).

Mexico's sound macroeconomic fundamentals as compared to other emerging economies explain part of the dynamics of the foreign exchange market. Banco de México's actions have also had an impact on the above, by affecting the volatility-adjusted interest rate spread of Mexico relative to the United States.

Nominal Exchange Rate and DXY ^{1/}
Pesos per US dollar, No units



Volatility-adjusted Spreads between Emerging Markets 1-year Interest Rates and those of the US ^{2/}
No units

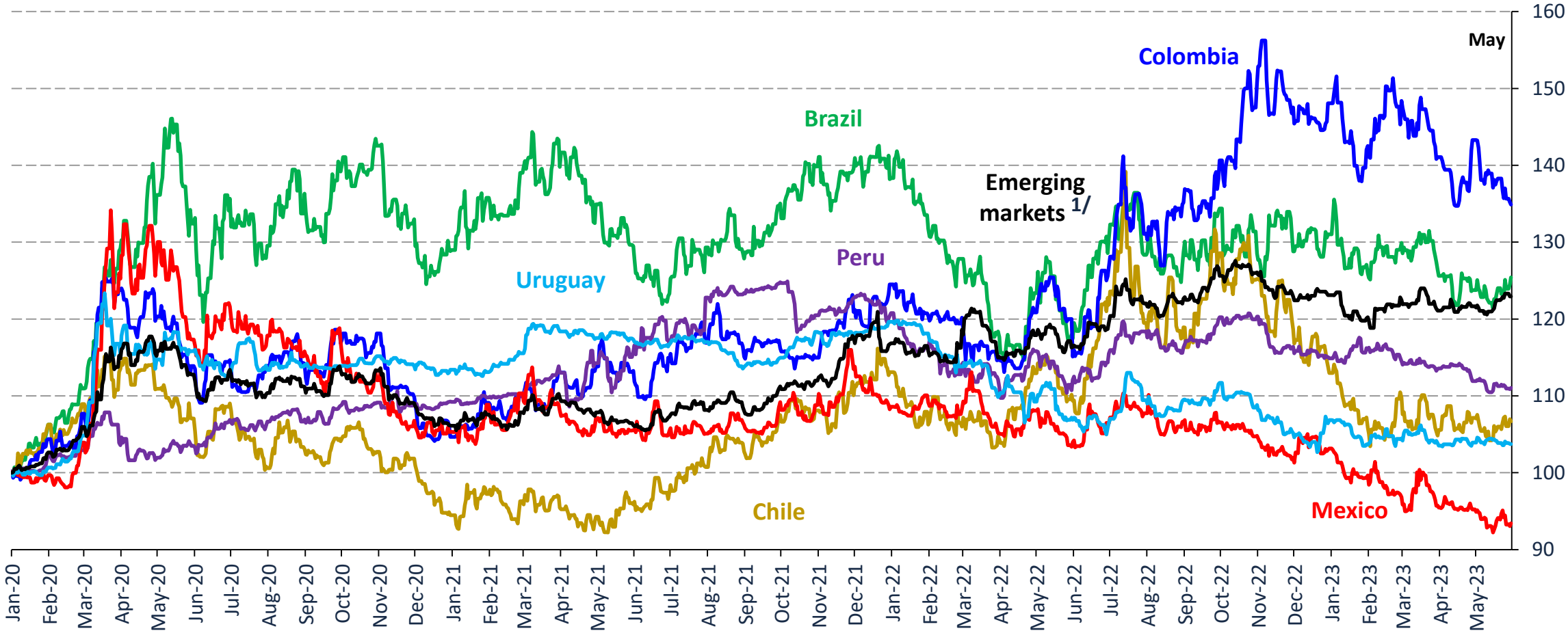


1/ The observed rate is the daily FIX exchange rate. For the DXY Index, an increase represents an appreciation of the US dollar.
Source: Banco de México and Bloomberg.

2/ The spreads are calculated with the implied spread in 1-year foreign exchange forwards, adjusted by implied volatility of the same time span.
Source: Banco de México with Bloomberg data.

The Mexican peso continues standing out among emerging economies' currencies as one of the most resilient ones.

Exchange Rate Against the US Dollar
Index Jan-01-2020=100

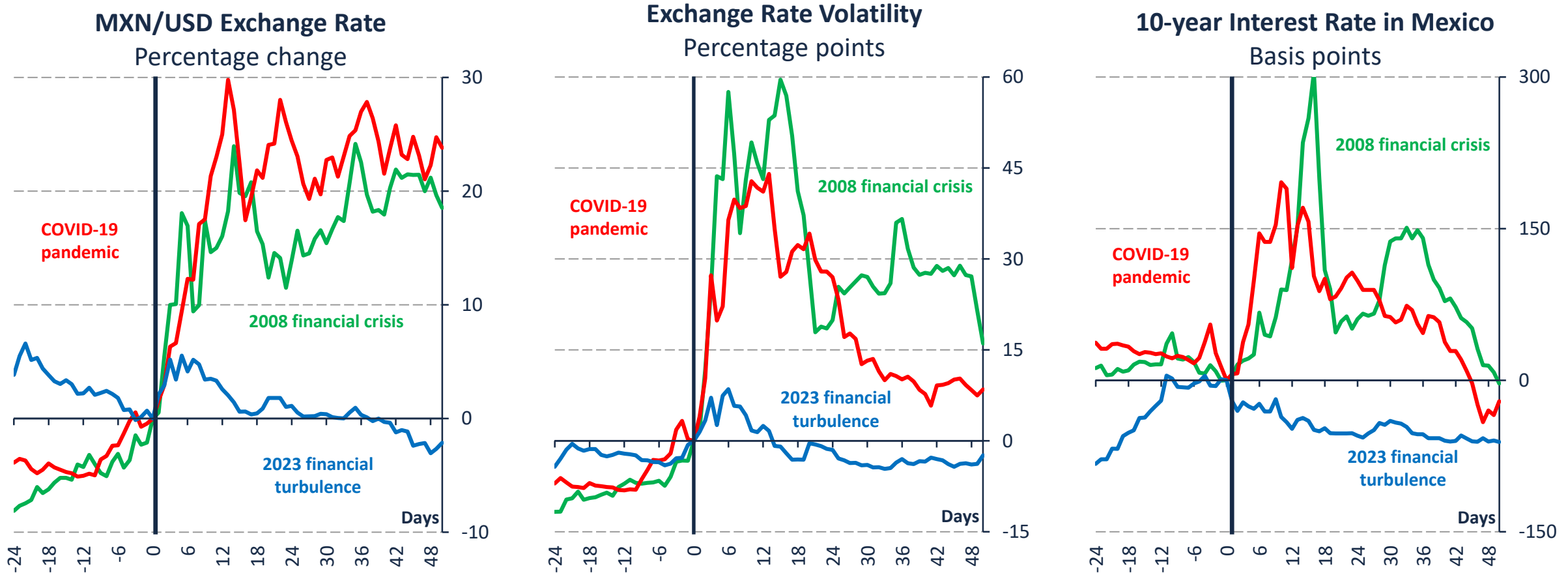


1/ Refers to the JP Morgan Emerging Market Currency Index (EMCI) Fixing.
Source: Bloomberg.

The impact of the recent episode of bank distress in the United States and Europe on financial variables in Mexico was moderate, as compared to the repercussions of the previous episodes of international financial turbulence.

Effects of Financial Turmoil Events on Mexico's Financial Variables

Accumulated daily change in Mexican financial variables with respect to day zero



Note: Day zero reflects the onset of the crisis in each event mentioned. In the 2008 financial crisis, this refers to October 2, 2008; in the COVID-19 pandemic, it refers to March 4, 2020; and in the case of financial turmoil events, it refers to March 8, 2023.

Source: Banco de México with Bloomberg data.

Outline

1 External conditions

2 Current situation of the Mexican economy

3 Inflation

4 Monetary policy

5 Forecasts and final remarks

Economic Activity Outlook

GDP Growth ^{1/} %

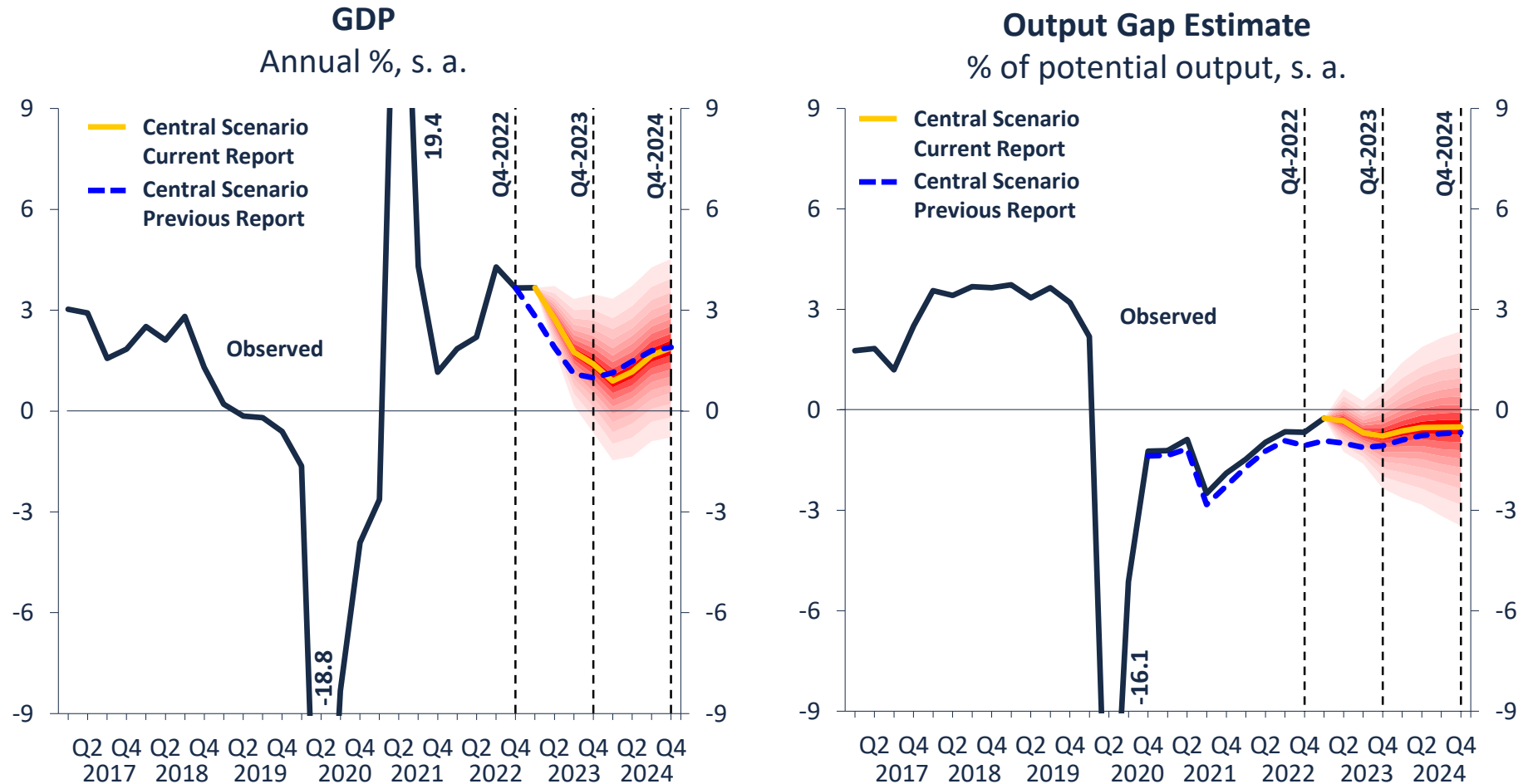
Current report

Year	Point	Interval
2023	2.3	1.7 a 2.9
2024	1.6	0.6 a 2.6

Previous report

Year	Point	Interval
2023	1.6	0.8 a 2.4
2024	1.8	0.8 a 2.8

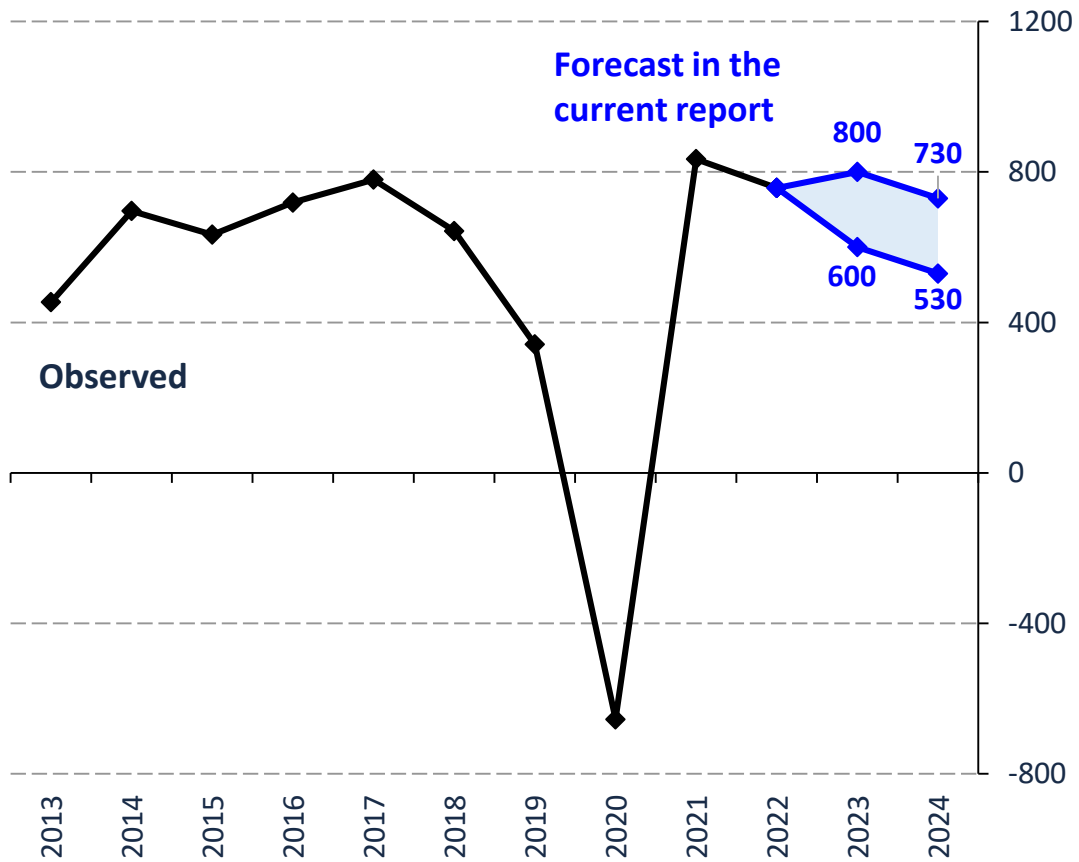
Fan Charts



s. a. / Seasonally adjusted series. 1/ Forecasts with figures without seasonal adjustment. Mexico's GDP growth in 2022 was 3.0% in non-seasonally adjusted figures. Note: In the central scenario of the current report, the forecast starts in Q2-2023. In the central scenario of the previous report, the forecast starts in Q1-2023. Source: INEGI and Banco de México for the center chart and Banco de México for the right-hand side chart.

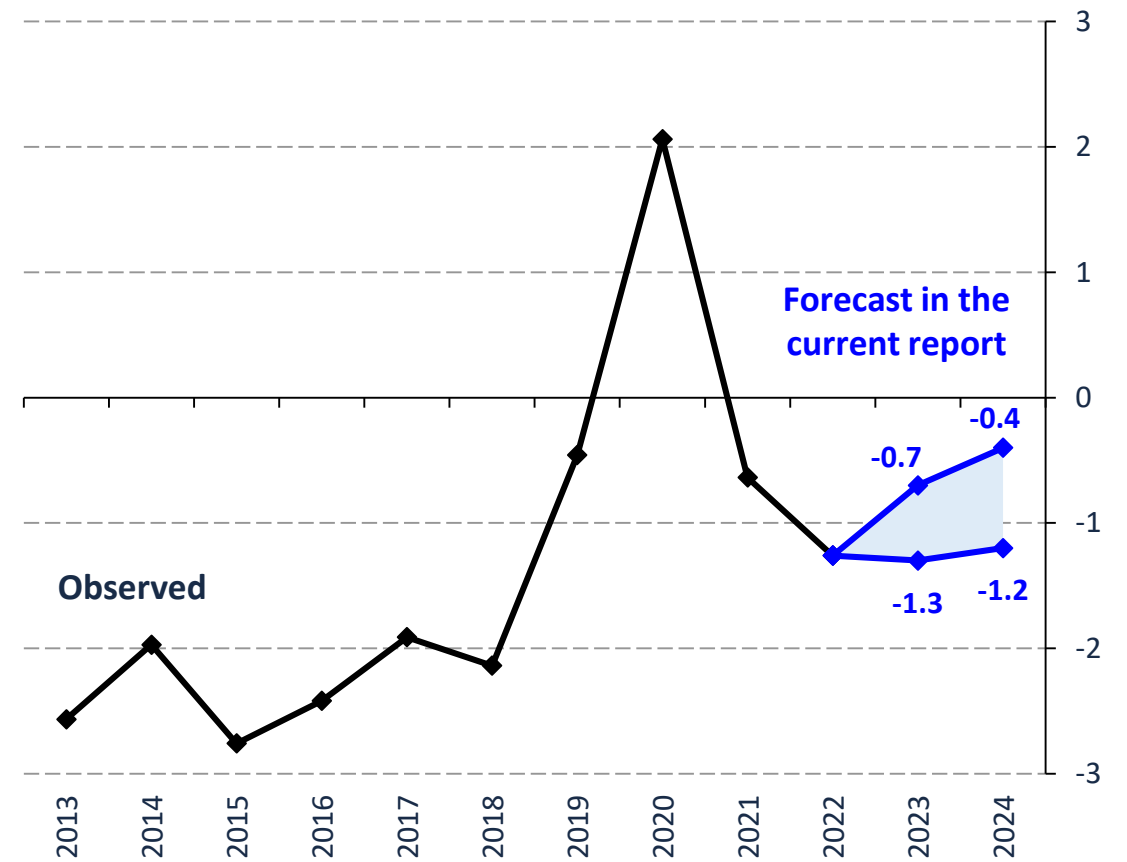
Economic Activity Outlook

Increase in Number of IMSS-insured Jobs Thousands



Source: IMSS and Banco de México.

Current Account % of GDP



Source: Banco de México.

Risks to growth

The balance of risks to the outlook for Mexico's economic activity remains biased to the downside.

On the downside

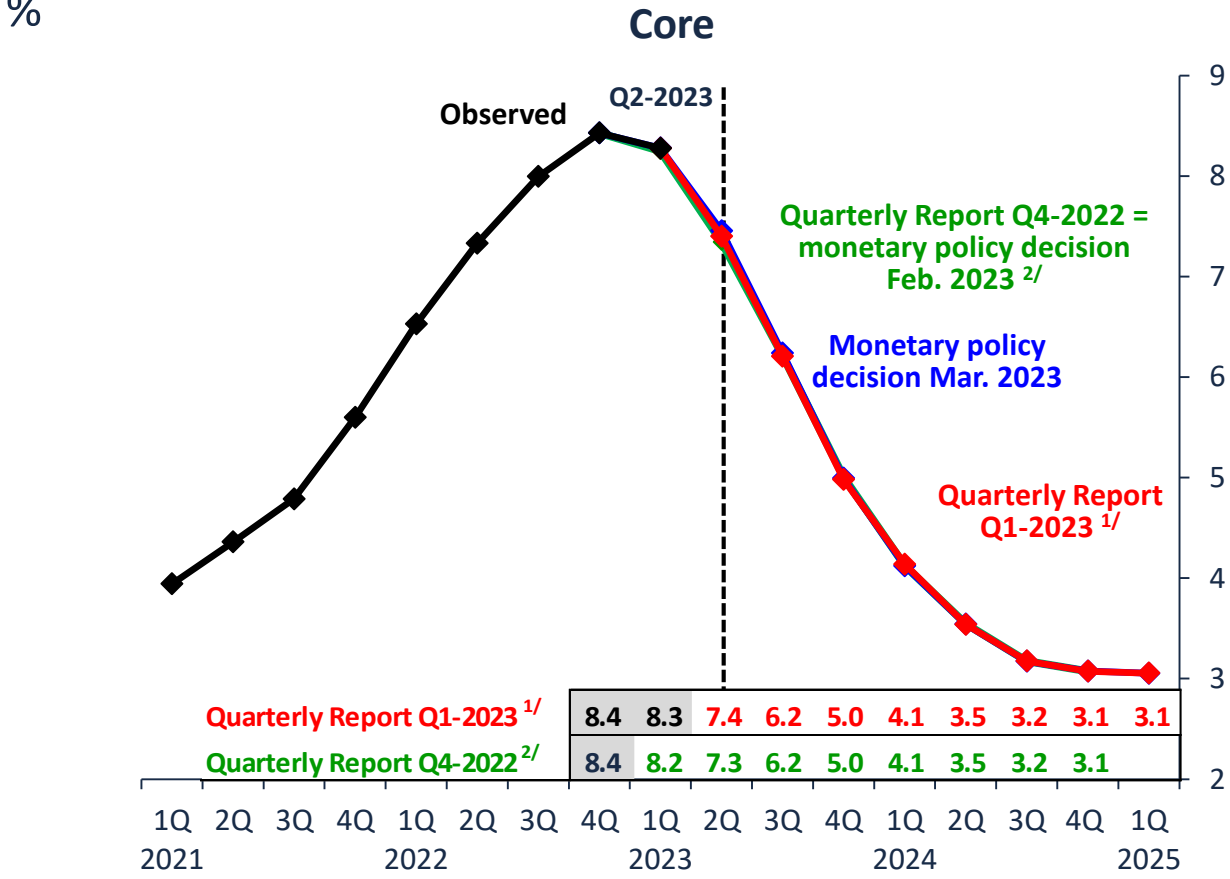
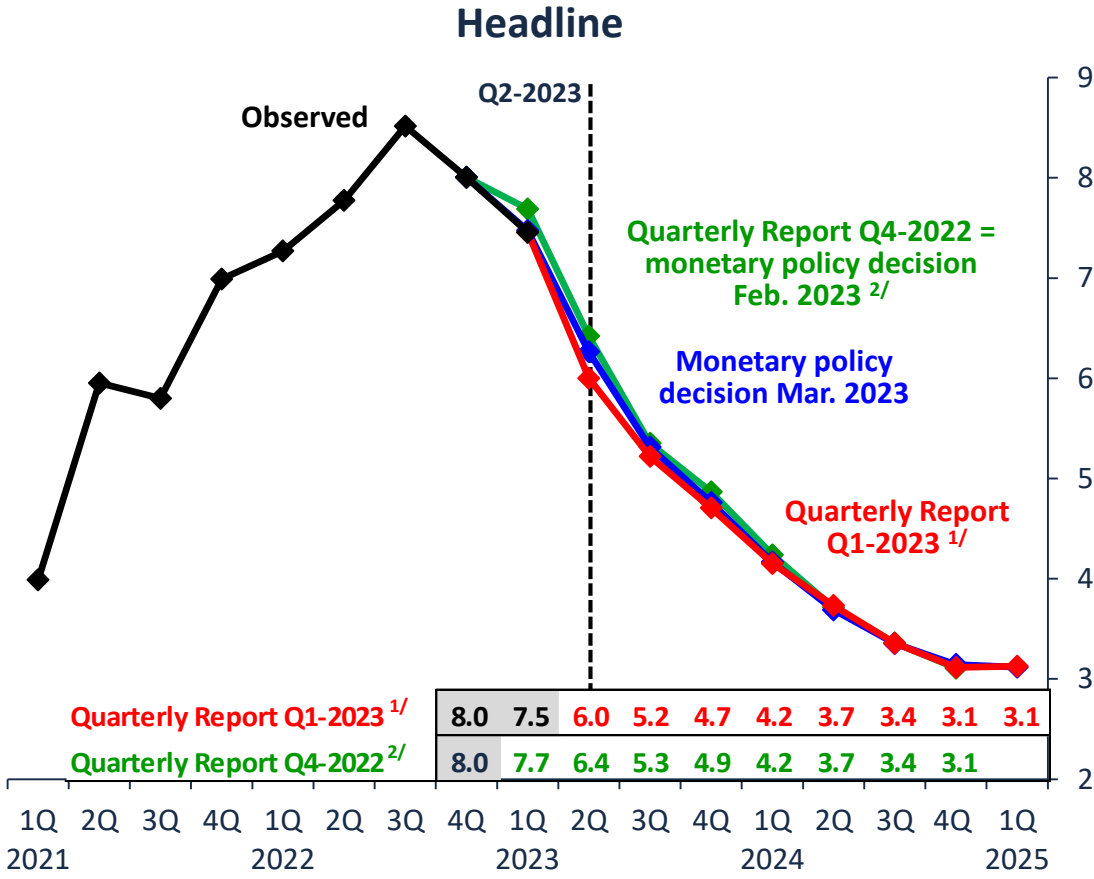
- ↓ A lower external demand, particularly in the event of a deep and lasting recession in the United States
- ↓ Tighter financial conditions and/or episodes of volatility in financial markets
- ↓ New trade affectations and bottleneck problems
- ↓ Lower than expected or insufficient recovery of investment spending to support the growth of the economy, particularly in the long term
- ↓ That weather phenomena adversely impact national economic activity

On the upside

- ↑ That the slowdown in the US economy is lower than expected
- ↑ That the Mexican economy shows greater resilience than expected in light of the difficult international environment and the anticipated weakness of global economic growth
- ↑ That, within the USMCA framework, Mexico becomes an attractive investment destination

The most recent headline and core inflation forecasts have had minor adjustments. It is still expected that these indicators reach levels close to the 3% target by Q4-2024.

Annual inflation forecasts



1/ Forecast since May 2023. It corresponds to the forecast published in the Monetary Policy Statement of May 18, 2023. 2/ Forecast since February 2023. It corresponds to the forecast published in the Monetary Policy Statement of February 9, 2023.
 Source: INEGI for annual variation observed data and Banco de México for forecasts.

Risks to inflation outlook within the forecast horizon

The balance of risks to the expected path of inflation over the forecast horizon remains biased to the upside.

On the upside

- ↑ Persistence of core inflation at high levels
- ↑ Episodes of exchange rate depreciation
- ↑ Higher cost-related pressures that could be passed on to consumer prices
- ↑ New upward pressures on international reference prices of some food and energy products

On the downside

- ↓ A greater-than-anticipated deceleration in world economic activity
- ↓ That the pass-through of cost-related pressures onto prices is limited
- ↓ A more efficient functioning of production and distribution chains
- ↓ That the measures implemented by the Federal Government to mitigate price increases have a greater-than-anticipated effect

Final remarks

- The Governing Board will continue setting its monetary policy with the strong commitment **to promote an orderly adjustment of relative prices, financial markets and the economy as a whole**, in order to lead inflation to its target and maintain inflation expectations anchored.
- The Governing Board will closely monitor inflationary pressures, as well as all factors that have an incidence on the foreseen path for inflation and its expectations. It also reaffirms its commitment to its **primary mandate** and the need to continue its efforts to consolidate an **environment of low and stable inflation**.
- For the wellbeing of the population, and in order to promote higher economic growth, it is essential to maintain an environment conducive to generating greater investment and an adequate allocation of resources. This gains urgency and relevance in order to face the complex global environment and to take advantage of investment opportunities in view of phenomena such as **nearshoring**.

Annex – Boxes

1 Heterogeneity in the Impact of Monetary Conditions on Manufacturing Sectors in Mexico and the U.S.

2 Heterogeneity in the Behavior of the Manufacturing Subsectors during the Pandemic according to their Degree of Global Integration

3 Measures of Labor Market Slack in Mexico

4 Recent Changes in the Composition of Households' Financial Savings in Mexico

5 Core Inflation Persistence

6 Effect of the Recent Turbulence in International Financial Markets on Domestic Financial Markets

7 Recent Advances in Banco de México's Communication Strategy



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