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# MONETARY POLICY REPORT

ISSN - 2711 - 2128



**07/**  
2024



July 2024

# MONETARY POLICY REPORT

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\* Presented by the technical staff to the Board of Directors for its meeting on 31 July 2024.

Banco de la República  
*Bogotá, D. C. (Colombia)*

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ISSN - 2711 - 2128



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# Monetary Policy in Colombia

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*Banco de la República* (the Central Bank of Colombia) is required by the Constitution to maintain the purchasing power of Colombia's currency in coordination with general economic policy<sup>1</sup>. In order to fulfill this mandate, *Banco de la República's* Board of Directors (hereafter BDBR) has adopted a flexible inflation-targeting scheme, by which monetary policy actions (MP) seek to lead inflation to a specific target and achieve maximum levels of sustainable output and employment.

The flexibility of this scheme allows the BDBR to maintain an adequate balance between reaching its inflation target and smoothing output and employment fluctuations around their sustainable growth paths. The BDBR has set a 3.0% inflation target based on annual change in the consumer price index (CPI). In the short term, inflation may be affected by factors outside of monetary policy control, such as changes in food prices due to climate-related phenomena. To factor in this reality, the BDBR has also set a  $\pm 1$  percentage point range outside its inflation target (i.e.,  $3.0 \pm 1$  pp). This range does not represent a monetary policy target, but rather reflects the fact that inflation can fluctuate around the target and will not always be equal to 3.0%.

The main instrument the BDBR uses to control inflation is the policy interest rate (overnight repo rate, or benchmark interest rate). Given that monetary policy actions take time to fully affect the economy and inflation<sup>2</sup>, the BDBR assesses the inflation forecast and inflation expectations vis-à-vis the inflation target, as well as the current situation and outlook of the economy, in order to determine their value.

The BDBR meets once a month, producing monetary policy decisions in eight of its meetings (January, March, April, June, July, September, October, and December). In principle, no such decisions are made in the BDBR's four remaining meetings (February, May, August, and November)<sup>3</sup>. At the end of the meetings in which monetary policy decisions are produced, a press release is published, and a press conference is held by the Governor of the Central Bank and the Minister of Finance. The minutes of the meeting describing the positions that led the BDBR to its decision are published on the following business day. Additionally, the Monetary Policy Report (MPR)<sup>4</sup>, produced by the Central Bank's technical staff, is published in January, April, July, and October, together with the minutes. On the Wednesday of the week following the Board meeting, the Governor clarifies concerns about the minutes, and the Bank's Deputy Technical Governor presents the MPR. This dissemination scheme<sup>5</sup> seeks to deliver relevant and up-to-date information to contribute to better decision-making by the agents of the economy.

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1 Political Constitution of Colombia (1991), Article 373 and Decision C-481/99 of the Constitutional Court.

2 For further details, see M. Jalil and L. Mahadeva (2010). "Transmission Mechanisms of Monetary Policy in Colombia", *Universidad Externado de Colombia, School of Finance, Government, and International Relations*, ed. 1, vol. 1, no. 69, October.

3 A Board Member may request an extraordinary meeting at any time to make MP decisions.

4 Formerly known as the Inflation Report.

5 The current communication scheme was approved by the BDBR in its May 2023 meeting.



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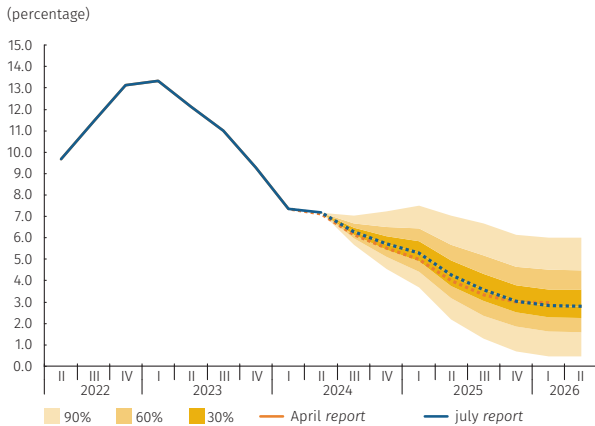
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# 1. Summary

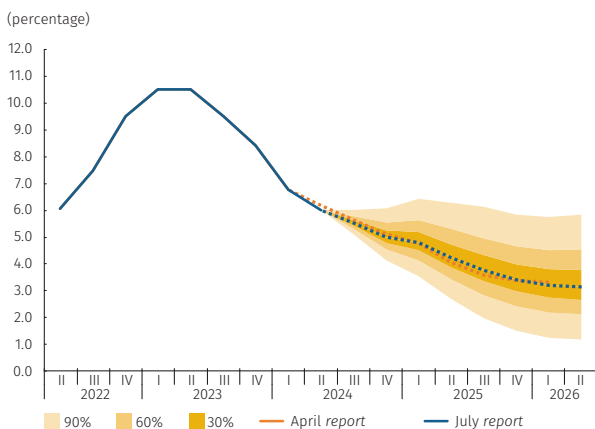
**Graph 1.1**  
Consumer Price Index <sup>a/b/</sup>  
(annual change; end-of-period)



a/ This graph presents the forecast probability distribution on an eight-quarter time horizon. Density characterizes the prospective balance of risks with areas of 30%, 60%, and 90% probability surrounding the central forecast (mode), through a combination of densities from the Patacon and the 4GM monetary policy models. b/ The probability distribution corresponds to the forecast exercise from the July report.

Source: DANE – calculations and projections by Banco de la República.

**Graph 1.2**  
CPI excluding food and regulated items <sup>a/b/</sup>  
(annual change; end-of-period)



a/ This graph presents the forecast probability distribution on an eight-quarter time horizon. Density characterizes the prospective balance of risks with areas of 30%, 60%, and 90% probability surrounding the central forecast (mode), through a combination of densities from the Patacon and the 4GM monetary policy models. b/ The probability distribution corresponds to the forecast exercise from the July report.

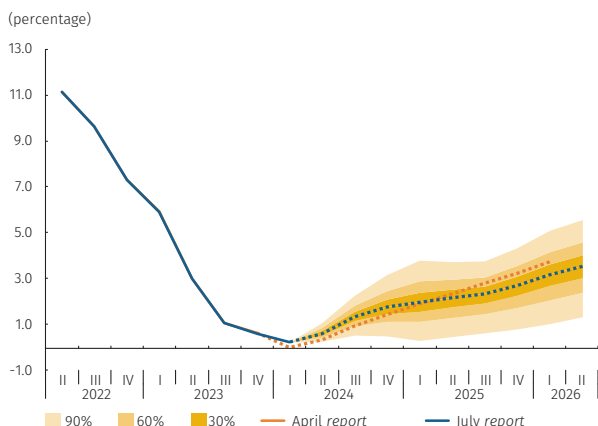
Source: DANE – calculations and projections by Banco de la República.

## 1.1 Macroeconomic Summary

**As anticipated, headline inflation during the second quarter remained stable at 7.2%, while core inflation (6.0% in June) continued to decline at a slightly faster pace than expected. The cumulative monetary policy effects and the unwinding of specific shocks that affected prices continue to assist in the convergence of inflation to the 3% target.** In the second quarter, the increase in food prices was greater than expected due to a rebound in the perishable food basket, offset by a larger-than-foreseen decline in the year-to-year variation of other CPI baskets. This Report projects a higher annual increase in the food CPI versus the April yearend estimates due to recent supply shocks that are expected to gradually dissipate and to increases in international transportation costs, notwithstanding favorable weather conditions. Increases in the CPI for regulated items would continue to ameliorate, albeit at a more gradual pace, given higher-than-expected energy and transportation price adjustments. As foreseen in the previous Report, core inflation would continue to decline, falling to 5.0% by the end of the year. However, this forecast faces upside risks originating mainly from housing rents. Should these prospects materialize, noting that food and regulated items have a particularly high level of uncertainty, headline inflation for 2024 (5.7%) would surpass its April estimate (5.5%) (Graphs 1.1 and 1.2). As a result, the indexation of certain CPI groups to higher inflation could play a part in delaying the convergence of inflation to the target in 2025. Nevertheless, the collective effects of monetary policy, together with an output gap expected to fall in negative territory – more so than projected in the previous Report – along with modest exchange rate pressures, would assist in maintaining inflation’s downward trend, placing it at 3.0% by yearend 2025. These forecasts remain highly uncertain, mainly associated with the future behavior of the exchange rate, the degree of persistence of the supply shocks that affected food prices, and the outcomes of the provisions regarding adjustments in public services and transportation, among others.

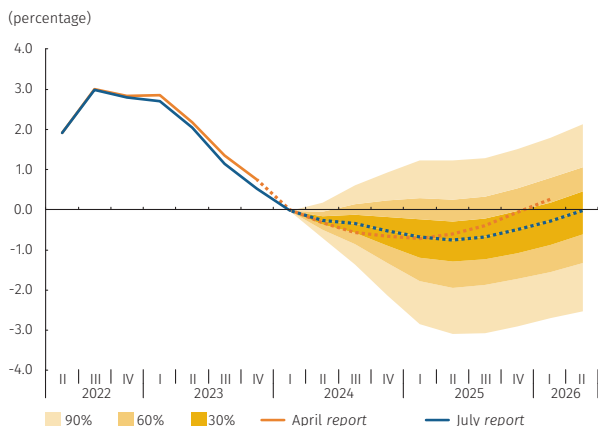
**The new economic activity figures suggest higher economic growth for 2024 (1.8%) than expected in April (1.4%).** Economic growth for the first quarter (0.9%) surpassed previous estimates by Banco de la República’s technical staff (TS-Banrep) (0.3%), as a sharper annual drop in imports and a higher-than-expected annual increase in exports lifted the contribution of net external demand to GDP. Domestic demand continued to

**Graph 1.3**  
Gross Domestic Product, four quarter accumulation<sup>a/b/c/</sup>  
(annual change)



a/ Seasonally adjusted and corrected for calendar effects.  
 b/ This graph presents the forecast probability distribution on an eight-quarter time horizon. Density characterizes the prospective balance of risks with areas of 30%, 60%, and 90% probability surrounding the central forecast (mode), through a combination of densities from the Patacon and the 4GM monetary policy models.  
 c/ The probability distribution corresponds to the forecast exercise from the July report.  
 Source: Banco de la República.

**Graph 1.4**  
Output gap<sup>a/b/c/</sup> - Predictive Densities  
(four-quarter accumulation)



a/ The historical output gap estimate is calculated as the difference between observed GDP (four-quarter accumulation) and potential GDP (trend; four-quarter accumulation) based on the 4GM model.  
 b/ This graph presents the forecast probability distribution on an eight-quarter time horizon. Density characterizes the prospective balance of risks with areas of 30%, 60%, and 90% probability surrounding the central forecast (mode), through a combination of densities from the Patacon and the 4GM monetary policy models.  
 c/ The probability distribution corresponds to the forecast exercise from the July report.  
 Source: Banco de la República.

contribute negatively to annual growth, despite its recovery at the margin, as investment fell and private consumption stagnated. Economic indicators for the second quarter suggest that GDP would continue its recovery (1.8% annually), partly as a result of positive supply shocks in the primary sector and demand shocks in the tertiary sector, which are expected to be transitory. The fall in annual domestic demand would have ceased, with quarterly increases noted in the past three quarters, mainly attributable to the performance of total investment and, to a lesser extent, of consumption. The trade deficit would broaden slightly as a result of higher growth in imports versus exports at the margin. For the remainder of 2024 and into 2025, economic activity levels would continue to recover in an environment of gradually easing external financing conditions and a less restrictive monetary policy over the forecast horizon, compatible with an inflation rate of 3% (± 1 percentage points) in 2025. Hence, economic growth for 2024 was revised upward from 1.4% to 1.8%, and for 2025 downward from 3.2% to 2.7%. The downward revision for 2025 is due, in part, to the higher comparison base implied by the upward revision in 2024 (Graph 1.3). Overcapacity in production during 2024 would be somewhat smaller than that forecast in April and more pronounced through 2025, with a dissipation noted by the end of the forecast horizon (Graph 1.4). These estimates continue to be subject to a high level of uncertainty due to external factors, including global political tensions and monetary policy in advanced countries, and to domestic factors, such as the uncertainty concerning the development and impact of the reforms submitted to Congress, the response of domestic demand to local financial conditions, and the announced cut in public spending.

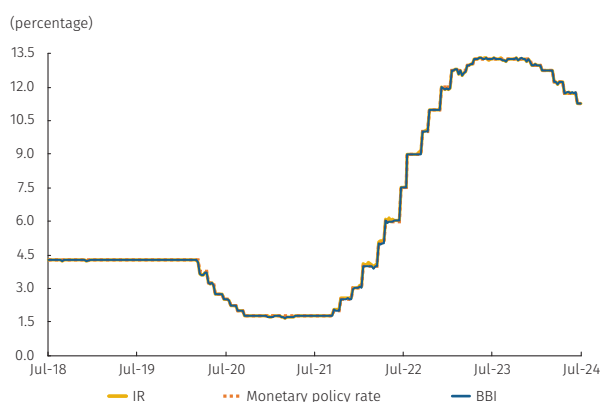
**Globally, economic activity remains weak as inflation continues to decline but remains above target in several countries, while the country's external financial conditions continue as foreseen in the April Report.** As described in April, external demand relevant to Colombia remains weak and is expected to recover in 2025 at a somewhat slower pace than projected. Higher oil supply scenarios diminished the projected oil price path, translating into lower terms of trade. In the United States, the Federal Reserve (Fed) left the policy rate unchanged in June, and the median of Fed officials' forecasts expect that the first rate cut could occur by the end of the year. Subsequently, the fall in US headline and core inflation in June exceeded market expectations, but both 2025 levels and expectations remained above target. At the same time, output growth in the second quarter indicated a somewhat weaker-than-estimated slowdown in the economy. In this scenario, the expected path for the Fed's interest rate implied by the futures market was at similar values to those projected by the technical staff in the April Report. The country risk premium increased slightly

and the average exchange rate was somewhat lower than projected in the previous Report, reflecting external financing conditions similar to those anticipated in April. Consequently, TS-Banrep upheld the previous forecast regarding the Fed's expected interest rate path, with two rate cuts foreseen during the remainder of this year and four rate cuts in 2025. Uncertainty about external forecasts and their bearing on the country remains high, given the unpredictable evolution of global conflicts, including those in Ukraine and the Middle East, foreign trade performance and cost conditions, external financial conditions, and perception surrounding Colombia's sovereign risk, among others.

**The contractionary monetary policy stance continues to support the convergence of inflation to the 3% target. However, inflation and its expectations remain above target.**

Indicators of economic activity for the second quarter of 2024 denote that output would complete three periods with quarterly increases, and the fall in domestic demand would have halted in annual terms. Excess production capacity would be similar to that estimated in April and the country's external position would be more sustainable compared to that recorded a year ago. In the labor market, the unemployment rate continues at historically low levels. Credit dynamics continued to temper, and households are expected to continue reducing their debt indicators. As foreseen, headline inflation remained stable in the second quarter while core inflation continued to decline, but both registered high levels well above target. Inflation expectations continue above 3%, although inflation expectations over the two-year and longer horizons fell, moving closer to the target. Going forward, inflation is anticipated to continue its downward trajectory in an environment of excess productive capacity. This macroeconomic context - characterized by high inflation, inflation expectations above 3%, and upside risks for these variables - underlines the need to maintain a tight monetary policy stance that will continue to favor the convergence of inflation towards the target in 2025. As inflation and its expectations stay on a path toward the target and favorable conditions for the country's macroeconomic stability continue, a less restrictive monetary policy can be exercised.

**Graph 1.5**  
Monetary policy interest rate, interbank rate and BBI<sup>a/</sup>  
(weekly data)



a/ IR: interbank rate. BBI: benchmark banking indicator.  
Sources: Financial Superintendency of Colombia and Banco de la República.

## 1.2 Monetary Policy Decision

At both its June and July 2024 meetings, the Board of Directors of *Banco de la República* (BDBR) decided by majority vote to reduce the monetary policy interest rate by 50 basis points in each meeting, bringing it to 10.75% (Graph 1.5).

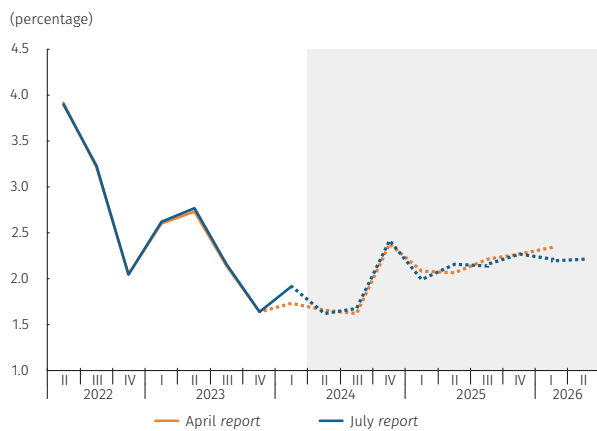


## 2. Macroeconomic forecasts and risk analysis<sup>1</sup>

### 2.1 International outlook

#### 2.1.1 Foreign demand

Graph 2.1  
Real GDP, main trade partners  
(Annualized change, projections according  
to full-year assumption)



Sources: Bloomberg, statistics offices and central banks, calculations and projections by Banco de la República.

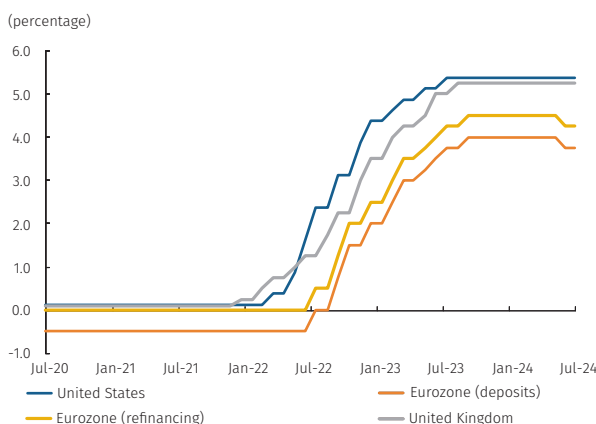
**In 2024, external demand relevant to Colombia is expected to decelerate at a slightly lower pace than anticipated in the prior Report, with a moderate rebound projected for 2025 (Graph 2.1).** According to the latest report from the International Monetary Fund (IMF), global economic growth is forecasted to slow slightly to 3.2% in 2024, down from the estimated 3.3% in 2023. Consequently, the growth trajectory of Colombia's key trading partners will continue to experience some deceleration in their annual expansion rates. In the United States, first-quarter economic growth was weaker than expected, primarily due to a decline in private consumption, driven by the depletion of savings accumulated during the pandemic and the delayed effects of a contractionary monetary policy. Additionally, recent data has indicated lower confidence and a deterioration in the business outlook.<sup>2</sup> This was accompanied by downward surprises in both headline and core inflation over the past two months and a more balanced labor market. Conversely, the first quarter saw better-than-expected growth in economies such as the eurozone, Brazil, Peru, Ecuador, and China. The Chinese economy grew by 5.3%<sup>3</sup> year-on-year, supported by higher exports, while Ecuador recorded 1.2% annual growth, driven by increased net external demand, particularly due to lower imports. These developments occurred in the context of relatively looser international financial conditions than the previous year, continued monetary easing in the region, and the beginning of interest rate cuts in some advanced economies, such as Canada and the eurozone (Graph 2.2).

- 1 The projections presented in this chapter are based on estimates from the Patacon and 4GM central forecast models. For more details on these models, see <https://www.banrep.gov.co/es/node/149> and <https://www.banrep.gov.co/en/4gm-new-model-monetary-policy-analysis-colombia>
- 2 At the time this Report was prepared, preliminary figures indicated that U.S. GDP grew at an annualized quarterly rate of 2.8% in the second quarter of 2024. This marks an acceleration from the 1.4% growth recorded in the first quarter of 2024 and is higher than the 1.4% growth recorded in the second quarter of 2023.
- 3 During the drafting of this Report, it was noted that in the second quarter, the Chinese economy grew at an annual rate of 4.7%. This growth fell short of the Chinese government's full-year target of 5.0%, largely due to weak domestic demand. In response to this data, the Central Bank of China reduced its key one-year and five-year interest rates by 10 basis points, bringing them to 3.35% and 3.85%, respectively.

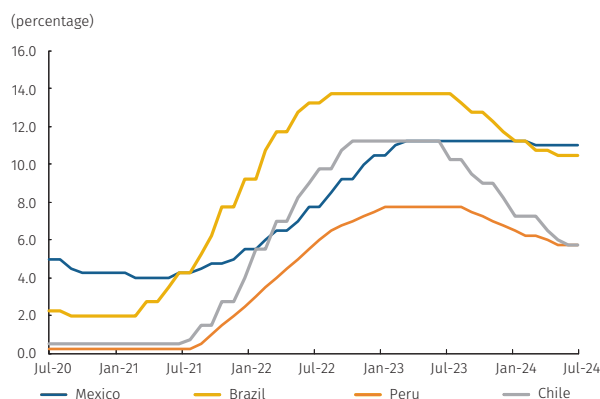
As a result, the growth assumption for Colombia’s trading partners in 2024 has been revised slightly upward to 1.9%,<sup>4</sup> although this still represents a slowdown from the estimated 2.3% in 2023. For 2025, growth is projected to rebound to 2.1%<sup>5</sup> (Table 2.1), a slight downward revision from the previous Report. This rebound is expected as inflation continues to converge toward targets and the monetary policy interest rate easing cycle continues.

Graph 2.2  
Monetary policy interest rate, select main trading partners

A. Developed Economies



B. Latin America



Note: July 2024 includes data observed on the 25th of said month.  
Source: Bloomberg.

Table 2.1  
Economic Growth among Major Trade Partners<sup>a/</sup>

Main partners	2022 (pr)	2023 (pr)	2024 (proj)	2025 (proj)
United States	1.9	2.5	2.0	1.7
Eurozone	3.4	0.6	0.7	1.5
China	3.0	5.2	4.8	4.3
Ecuador	6.2	2.4	1.0	1.9
Brazil	3.0	2.9	2.1	2.0
Peru	2.7	-0.5	2.3	2.6
Mexico	3.9	3.2	2.2	1.9
Chile	2.1	0.3	2.5	2.3
All trade partners <sup>a/</sup>	3.6	2.3	1.9	2.1

(pre): preliminary, (proj): projected  
a/ Projections calculated based on the contribution of non-traditional trade.  
Sources: Bloomberg, Focus Economics, statistics offices, and central banks (observed data); Banco de la República (projections and calculations).

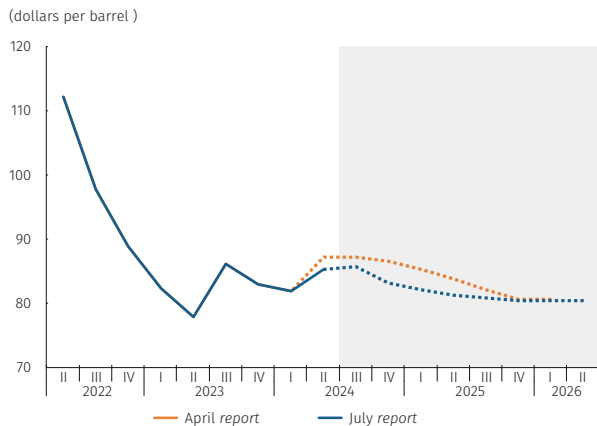
2.1.2 International Prices

**The forecast horizon has seen a downward revision in oil prices compared to the previous Report, attributed to increased crude oil availability in the market (Graph 2.3).** In the second quarter of the year, the average Brent crude oil price was approximately USD 85 per barrel (bl), up from the first quarter. This recent price increase is attributed to higher demand for oil and its derivatives, such as jet fuel, driven by the summer season in the northern hemisphere and a reduction in crude inventories in the United States. Additionally, prices have been supported by voluntary production cuts by the Organization of the Petroleum Exporting Countries and its allies (OPEC+) through the third quarter of 2024, along with moderated production levels in Russia. Prices have also been pressured upward by the start of the hurricane season, rising geopolitical tensions in the Middle East, and expectations of the beginning of an interest rate easing cycle in the United States, which could boost fuel

4 The April Report projected the aggregate growth of the country’s main trading partners to be 1.8% in 2024 and 2.2% in 2025.

5 However, this growth would be below the indicator’s historical average of the indicator, which was 2.94% between 2001 and 2022.

**Graph 2.3**  
Assumed quarterly oil price



FSOURCE: Bloomberg, calculations, and projections by Banco de la República.

demand by stimulating economic activity. However, over the forecast horizon, oil prices are expected to decrease due to increased crude oil availability. This is largely due to the anticipated rise in oil production from non-OPEC countries (United States, Guyana, Brazil, and Canada) and the gradual end of voluntary production cuts by some OPEC+ members, starting in September 2024 and concluding in September 2025.<sup>6</sup> Consequently, the average Brent price is projected to be around USD 84 per barrel in 2024 and USD 81 per barrel in 2025, lower than the previous Report's projections of USD 86 per barrel and USD 83 per barrel, respectively. Overall, uncertainty regarding future oil prices remains high, mainly due to potential future decisions by OPEC+ and various market shocks.

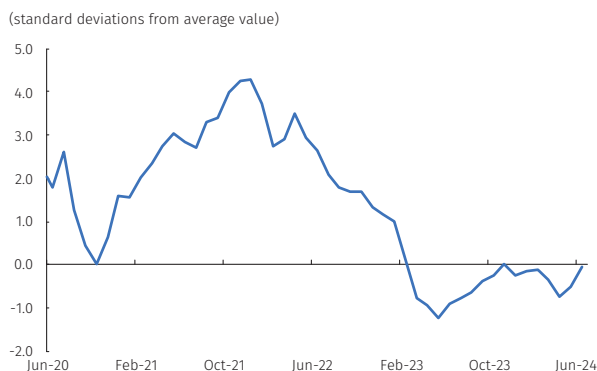
**In 2024, terms of trade are expected to decline compared to the previous year, though the decrease will be less pronounced than previously projected in the April Report.**

An annual deterioration in Colombia's terms of trade is still anticipated, given the reduction in international oil prices. However, this decline will be moderated by anticipated increases in international gold prices, lower expected growth in the dollar prices of intermediate goods imported by the country, and a smaller reduction in international coffee and coal prices.

**During the remainder of 2024, global inflation is expected to continue moderating but remain above target in some advanced economies, such as the United States and the eurozone.**

So far in 2024, the process of moderating global inflation has slightly reversed, primarily due to higher international energy prices, persistently high service prices, and tight labor markets. In May, total inflation in the Organization for Economic Co-operation and Development (OECD) countries rose slightly to 5.9%, while core inflation moderated slightly to 6.1%. The most recent World Bank report highlighted the high persistence of core inflation in advanced economies, noting that goods disinflation would continue, albeit at a slower pace, due to some recent pressures in supply chains, while services inflation would remain elevated (Graph 2.4). The World Bank estimates that total global inflation will continue to decelerate but will only approach the worldwide average inflation target of 2.5% by the end of 2026. In the United States, June 2024 inflation surprised the market by declining for the second consecutive month, following the upward surprises observed

**Graph 2.4**  
Global Supply Chain Pressure Index<sup>a/</sup>



a/ For its construction the authors used international shipping indicators (Baltic Dry Index (BDI), Harpex index, among others) and certain subcomponents of the Purchase Manager Index (PMI) surveys for the Eurozone, China, Japan, South Korea, Taiwan, the UK, and the US.

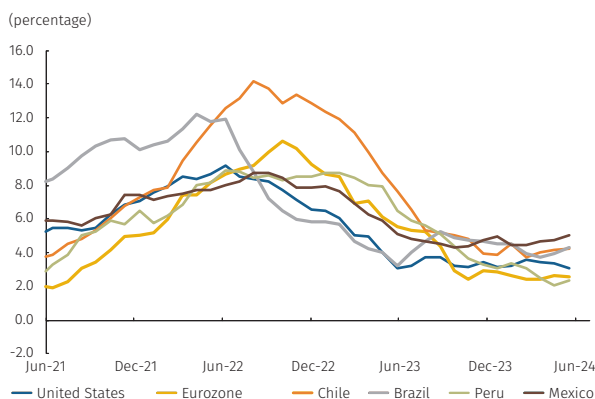
Sources: Gianluca Benigno, Julian di Giovanni, Jan J. J. Groen, and Adam I. Noble, "A New Barometer of Global Supply Chain Pressures" Federal Reserve Bank of New York Liberty Street Economics.

<sup>6</sup> At its meeting on 02 June 2024, the OPEC+ decided to extend the production targets set for 2024 through to 2025. Additionally, they agreed to maintain the voluntary production cuts of approximately 2.2 million barrels per day by some members until September 2024. These cuts will then be gradually eliminated each month until the end of September 2025. This moderation in the cuts may be adjusted or reversed depending on market conditions.

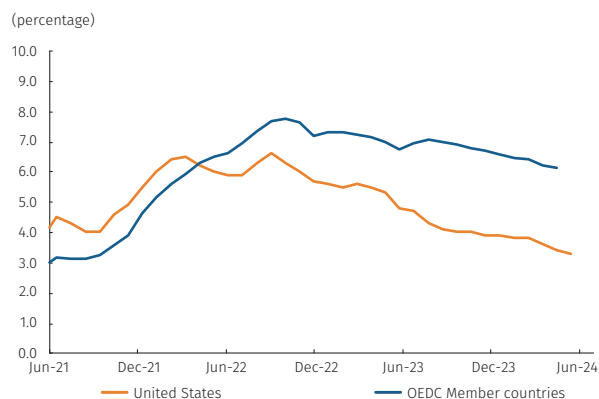
in the year’s first quarter. Total annual inflation moderated to 3.0% from the 3.3% seen in May due to lower domestic gasoline prices, continued goods deflation, and some easing in housing-related services prices. Core inflation also surprised the market on the downside, coming in at 3.3% year-on-year. In the eurozone, total annual inflation moderated to 2.5% in June, while core inflation remained stable at 2.9% (Graph 2.5). Going forward, total inflation in these economies is expected to continue declining due to the lagged effects of tight monetary policy on economic activity and the tempering of international energy prices. However, inflation will remain above its target by the end of 2024.<sup>7</sup> International organizations foresee upside risks to global inflation in the short term, associated with persistent price increases in the services sector and upward pressures from renewed geopolitical and global trade tensions. This is compounded by resilient labor markets and an unusually active hurricane season in the United States.

Graph 2.5  
Inflation, select main trading partners

A. Headline Inflation



B. Inflation excluding food and energy



Source: Bloomberg and the Organization for Economic Development and Cooperation (OECD).

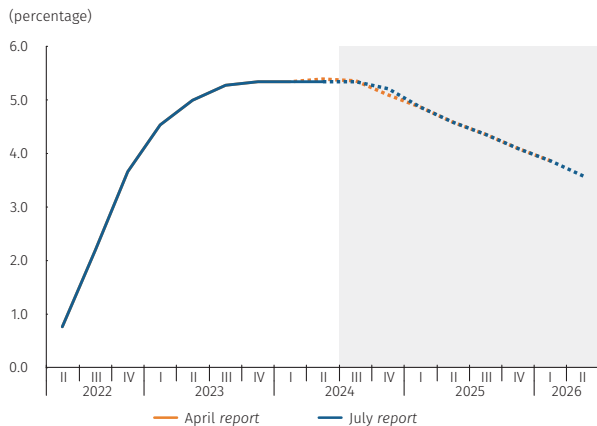
### 2.1.3 International Financial Developments

**The assumption for the monetary policy interest rate in the United States remains similar to that presented in the previous Report amid high uncertainty regarding price developments and economic activity.** At its July 2024 meeting, the Federal Open Market Committee (FOMC) held its interest rate unchanged in the range of 5.25% to 5.50%,<sup>8</sup> consistent with the expectations outlined in the April Report (Graph 2.6). In the minutes from the June meeting, FOMC members noted recent progress in the disinflationary process and stable inflation expectations but continued to emphasize a data-dependent approach for future monetary

7 In the United States, according to the New York Fed’s June 2024 median survey of primary dealers and market participants, total PCE (implicit price deflator) inflation is expected to be 2.2% by the end of 2024. In the euro zone, according to the European Central Bank’s (ECB) June 2024 survey, median harmonized total inflation would be 2.3% for the last quarter of 2024.

8 At its meeting on 06 June 2024, the European Central Bank (ECB) reduced its benchmark interest rates by 25 basis points. However, the ECB’s latest projections revised upward its forecasts for headline and core inflation for 2024 and 2025. Consequently, at its July meeting, the ECB decided to keep the benchmark interest rates unchanged. The market now anticipates no further interest rate adjustments for the remainder of the year.

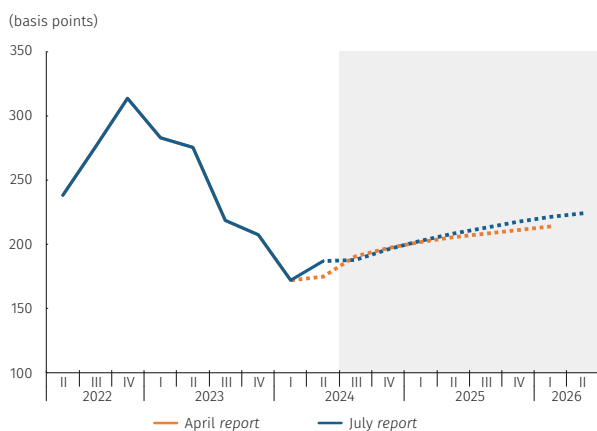
**Graph 2.6**  
Assumed U.S. Federal Reserve quarterly interest rate



Source: Federal Reserve Bank of Saint Louis, calculations, and projections by Banco de la República.

policy decisions. Additionally, the median FOMC<sup>9</sup> projections published in June revised the interest rate estimate upward, indicating a single 25 basis point cut by the end of the year and a 100-basis point reduction through 2025. However, this revision was made before the downward inflation surprises observed in May and June. Futures associated with the monetary policy rate have moderated in recent weeks in response to recent data on inflation, the labor market, and economic activity, falling below the Federal Reserve's<sup>10</sup> current expectations. Given this context, the assumption for the U.S. monetary policy interest rate for 2024 remains similar to the April Report, projecting two 25 basis point reductions during the remainder of the year, bringing the rate to a range of 4.75% to 5.00% by the end of 2024. For 2025, four staggered interest rate reductions of 25 basis points each are expected, resulting in a range of 3.75% to 4.00% by the end of the year, provided the disinflationary process continues. Uncertainty regarding this assumption remains high, influenced by factors such as the evolution of the domestic labor market, the pace of economic expansion, concerns about fiscal sustainability, potential increases in the neutral real interest rate, the impact of geopolitical conflicts on international energy prices, and the hurricane season, which could affect domestic inflation.

**Graph 2.7**  
Colombia's assumed quarterly risk premium (CDS)<sup>a/</sup>



a/ Five-year credit default swaps

Source: Bloomberg, calculations, and projections by Banco de la República.

**For 2024 and 2025, a slightly higher risk premium for Colombia is projected compared to the previous Report (Graph 2.7).** In the second quarter of the year, risk aversion in international financial markets increased due to the outcomes of parliamentary elections in the European Union, the presidential elections in Mexico, and escalating conflicts in the Middle East and Ukraine. Additionally, upward inflation surprises in the first quarter led to increased expectations for global monetary policy rates, suggesting tighter international financial conditions. As a result, the risk premiums for several emerging countries rose in the second quarter of 2024 (Graph 2.8, panel A). For Colombia, the average five-year credit default swap (CDS) increased from 172 basis points (bps) in the first quarter to 187 bps in the second quarter. However, by July 25, international financial conditions had improved, following downward inflation surprises in some advanced economies that generated expectations of a less restrictive monetary policy. Consequently, the country risk premium moderated to an average of 185 bps, 9 bps lower than the June average, and the exchange rate appreciated by approximately 1% during the same period (Graph 2.8, panel

9 In the June 2024 report, the median of the FOMC's new projections revised upward its forecast for the PCE from 2.4% to 2.6%. The revision for the core component of the PCE was from 2.6% to 2.8% for the same period.

10 As of 25 July 2024, futures associated with the monetary policy interest rate for the end of 2024 and 2025 are at 4.80% and 3.68%, respectively, compared to 4.99% and 4.36% for the futures taken on April 19, 2024.

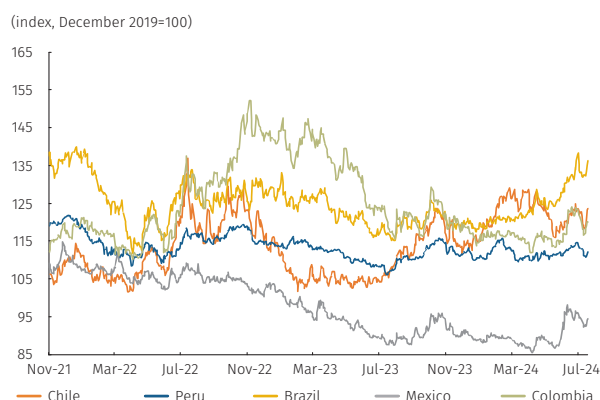
B). Given this context, a slightly higher risk premium than previously projected is anticipated, averaging 186 bps for 2024. For 2025, the five-year CDS is expected to average 211 bps.<sup>11</sup> This upward trajectory in risk premium reflects continued uncertainty regarding Colombia’s fiscal accounts, rising public indebtedness, high global uncertainty, ongoing geopolitical conflicts, and expectations of less restrictive monetary policies in advanced economies.

Graph 2.8  
Behavior of nominal exchange rate and risk premium for select Latin American countries

A. Five-year credit default swaps



B. Nominal exchange rate



Note: Data to July 25, 2024  
Source: Bloomberg, calculations by Banco de la República.

## 2.2 Macroeconomic Projections<sup>12</sup>

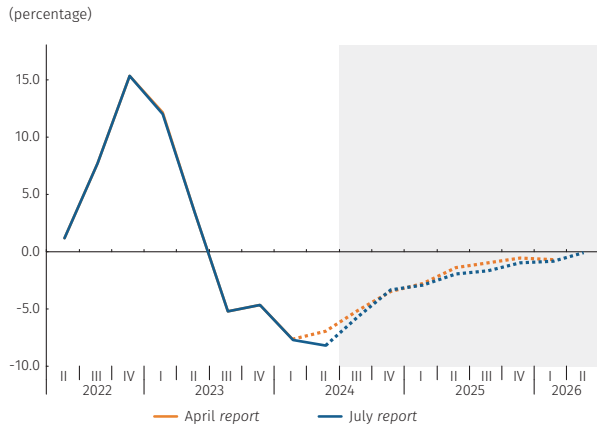
### 2.2.1 Inflation

**Despite the pause observed during the second quarter, total consumer inflation is expected to gradually decline and converge to the target over the forecast horizon.** This decline is driven by a contractionary monetary policy stance, negative output, and real exchange rate gaps (Graph 2.9), moderating inflation expectations, and the full absorption of supply shocks. However, due to past price pressures and their persistent effects on inflation in Colombia, inflation is anticipated to remain above the target throughout 2024, converging to 3.0% by 2025. Compared to the April Report, the forecast path for inflation has been slightly revised upward, reflecting significant uncertainty due to the nature of its main determinants. For 2024, the upward revision primarily concerns food and regulated items, explained by a potentially more pronounced upward phase in the agricultural cycle based on recent data. This revision also considers upward surprises in electricity tariffs (regulated items) and, to a lesser extent, rents (services) observed in the second quarter. Additionally, the output gap is expected to be narrower in 2024 than that projected in the April Report. Most of these factors have shown high volatility historically, making the forecast and its revisions against prior reports highly uncertain. Moving into 2025, factors

11 In the April Report, the forecast for Colombia’s five-year CDS was 184 basis points (bps) for 2024 and 207 bps for 2025.

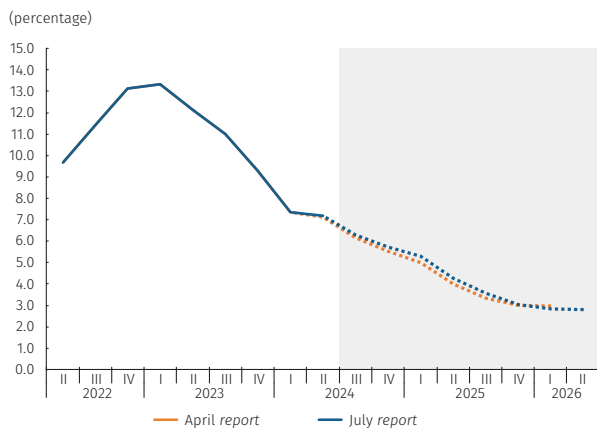
12 Projections are based on an active monetary policy wherein Banco de la República’s monetary policy interest rate is adjusted to guarantee alignment with the inflation target.

**Graph 2.9**  
**Quarterly RER inflationary gap<sup>a/</sup>**  
**(annual change, end-of-period)**



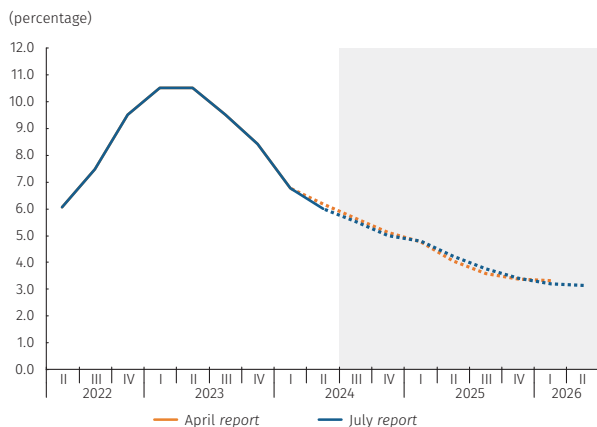
a/ The real exchange rate (RER) inflationary gap captures inflationary pressures caused by the exchange rate. Positive values imply upward inflation pressures. The gap is calculated as the deviation in the real exchange rate relative to a non-inflationary trend estimate under the 4GM monetary policy model.  
 Source: Banco de la República.

**Graph 2.10**  
**Consumer Price Index (CPI)**  
**(Annual change, end-of-period)**



Source: DANE, calculations and projections by Banco de la República.

**Graph 2.11**  
**CPI excluding food and regulated items**  
**(Annual change, end-of-period)**



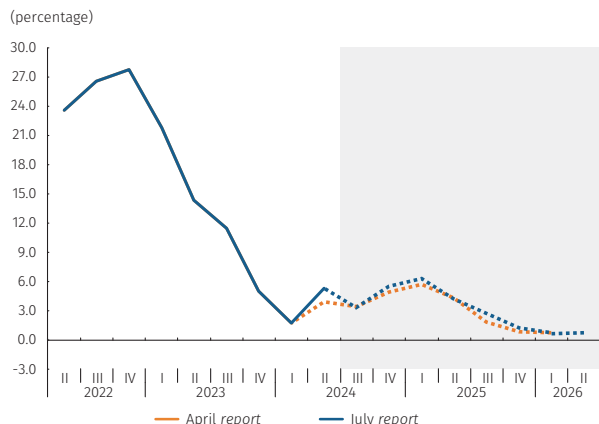
Source: DANE, calculations and projections by Banco de la República.

such as indexation to a higher inflation rate at the end of 2024 contribute to an increased forecast for part of that year. Nevertheless, the cumulative effects of a still restrictive monetary policy and weak demand are expected to result in an inflation outcome for 2025 similar to that of the previous Report. Given these considerations and the significant degree of uncertainty surrounding these forecasts, the most likely path indicates total annual inflation of 5.7% by the end of 2024 and 3.0% by the end of 2025 (Graph 2.10).

**Core inflation (excluding food and regulated items) is expected to follow a downward trend over the forecast horizon, largely due to a gradual decrease in the rate of adjustment in services, thus enabling core inflation to approach 3.0% by the end of 2025.** The anticipated decline in core inflation reflects the same factors contributing to the reduction in total inflation: a continuous decrease in the annual variation of service prices and relative stability in the price of goods around their current low levels. Compared to the April Report, adjustments in the Consumer Price Index (CPI) for rents—the item with the highest weight in the consumer basket—are expected to be higher. These are associated with upward surprises in the most recent data observed, which would indicate greater inertia than expected in the previous report. However, for 2024, these increases in rents are expected to be offset by reductions in other items, such as food away from home and tourism-related expenditures, leading to a slightly lower core inflation path than projected in the April Report. For 2025, the forecast path has been revised slightly upward due to indexation to the higher total inflation expected by the end of 2024. It is important to note that there may be significant upside risk for services, particularly rents, given their recent annual rates have remained around 8%, exceeding those projected in the central forecast path of this Report. Section 2.3, Balance of Macroeconomic Forecast Risks, provides further details on this and other risks. Overall, the most likely forecast path for annual core inflation is 5.0% at the end of 2024 and 3.4% at the end of 2025 (Graph 2.11).

**No lasting upward pressure on food prices is expected for the rest of the year. The annual variation in December is likely to be similar to the current rate and should decline in 2025, aiding in the convergence of overall inflation to the target.** Data from the second quarter showed stronger-than-expected results compared to the April Report, primarily due to a more pronounced increase in agricultural prices. Additionally, higher-than-anticipated international prices for certain foodstuffs and transportation costs contributed to an upward revision of the central forecast, particularly for late 2024 and early 2025. However, this revision carries high uncertainty. Despite the increased forecast due to

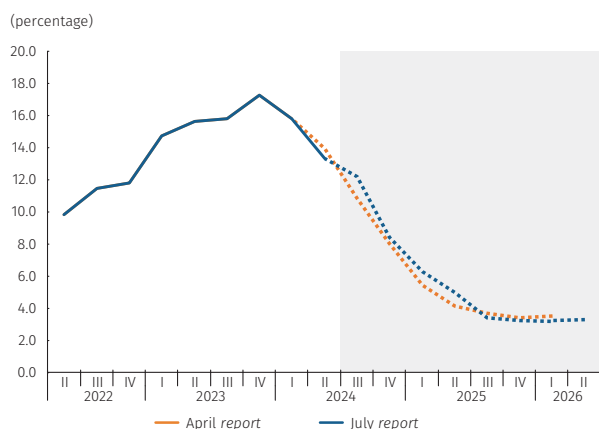
**Graph 2.12**  
CPI for foods  
(Annual change, end-of-period)



Source: DANE, calculations and projections by Banco de la República.

recent upward surprises, it assumes a favorable evolution in production and perishable food prices in the latter half of the year, given the high volatility and susceptibility to supply shocks to which this basket is subject. Agricultural production has shown significant dynamism this year, a trend expected to continue, supported by favorable weather conditions. Looking forward to 2025 and beyond, the annual variation in food prices is projected to follow a decreasing trend, closely aligning with that of the April Report. The temporary impact of the increase in the “healthy” taxes will persist through the end of 2024 and 2025. Consequently, the most likely scenario for annual food price variation is 5.4% at the end of 2024 and 1.2% at the end of 2025 (Graph 2.12).

**Graph 2.13**  
CPI for regulated items  
(Annual change, end-of-period)

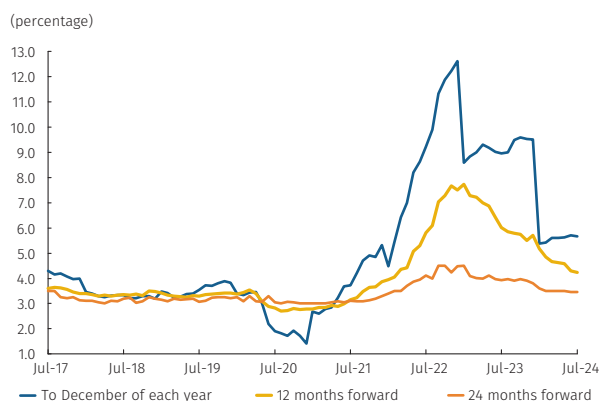


Source: DANE, calculations and projections by Banco de la República.

**Regulated prices are expected to continue exerting upward pressure, though this should ease over the forecast horizon.**

The adjustment path for these prices maintains a downward trend but will still register figures higher than overall inflation throughout the period. This downward trajectory is largely due to significant moderation in fuel price adjustments and a reduction in the rates at which this basket is indexed. However, the forecast includes the effects of indexation at higher rates and the recognition of costs and investments in public services. The forecast was revised upward to mid-2025, mainly due to higher-than-expected adjustments in electric power tariffs compared to the previous report, as well as higher total inflation this year, which impacts the indexation of the sub-basket for 2025. Additionally, the forecast includes toll rate adjustments in the second half of 2024 to update those previously frozen. It’s important to note that the forecast is surrounded by high uncertainty, particularly concerning electricity tariffs, as the sector faces ongoing upward pressures from the tariff option mechanism and investment needs across several regions. Given these factors, the annual variation in the CPI for regulated items is most likely expected to stand at 8.4% at the end of 2024 and 3.2% at the end of 2025 (Graph 2.13).

**Graph 2.14**  
Bank and stockbroker inflation forecast <sup>a/</sup>



a/ Corresponds to the median response of the Monthly survey of economic analyst expectations conducted by Banco de la República.  
Source: DANE, calculations and projections by Banco de la República.

**Long-term inflation expectations remain close to the target, but short-term expectations remain significantly above 3%.**

The expectations of economic analysts, obtained from the monthly survey of economic analysts conducted by Banco de la República between July 9 and 11 (Chart 2.14), suggest yearend total median inflation expectations and inflation excluding food to stand at 5.7% and 5.9%, respectively, by the end of 2024, which is very similar to the April survey results (5.6% and 5.8%, respectively). By the end of 2025, these expectations stand around 3.8%. Two- and five-year ahead inflation expectations reflect median expectations of 3.5% and 3.0%, respectively. As of June, the survey began including expectations for core inflation and for food and regulated item inflation. In the July survey, median responses indicated

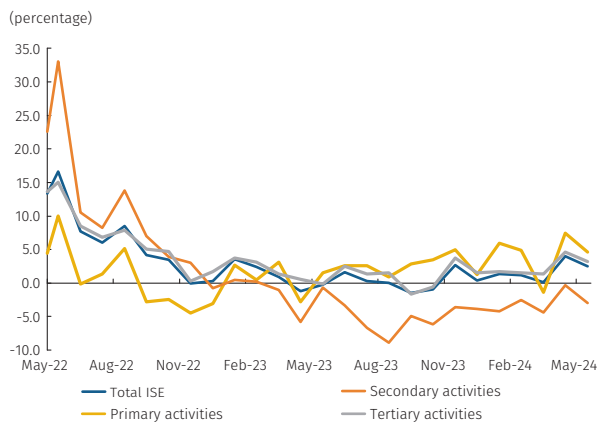
expected rates of 5.2%, 5.1%, and 8.7%, respectively, by the end of 2024, while for yearend 2025, these rates are expected to fall to 3.6%, 4.0%, and 4.8%, respectively. Additionally, as of July 25, estimates derived from public debt bond data, adjusted for inflationary risk and liquidity premiums (break-even inflation: BEI) show lower inflation expectations compared to the April Report, standing at 3.6%, 3.6%, and 3.5% for two, three, and five years, respectively (compared to 4.4%, 4.2%, and 4.0% in April).

### 2.2.2 Economic Activity

**In the second quarter, the Colombian economy would have grown at a higher annual rate than forecasted in the previous Report and above the rate observed at the beginning of the year.** Data available as of May, including the economic monitoring indicator (ISE, Graph 2.15) and some indicators from June<sup>13</sup>, suggest that economic activity levels were higher than those of the previous quarter, with an annual growth rate close to 1.8%. This represents an upward revision from the 1.4% forecast in the April Report (Graph 2.16). The stronger growth was primarily driven by robust performance in the primary and tertiary sectors. The primary sector benefited from agricultural crops such as bananas and coffee, livestock, and increased oil extraction, supporting a forecast of quarterly expansion in this segment. The tertiary sector likely continued to improve, bolstered by positive dynamics in public administration, health, and education services—particularly due to the retroactive payment of public sector salaries in April and May—artistic and entertainment activities fueled by sports betting, cargo and passenger transportation, and financial and insurance activities. In contrast, the secondary sector likely saw a decline compared to the previous quarter, partly due to a downturn in the manufacturing industry and stagnation in the construction industry.

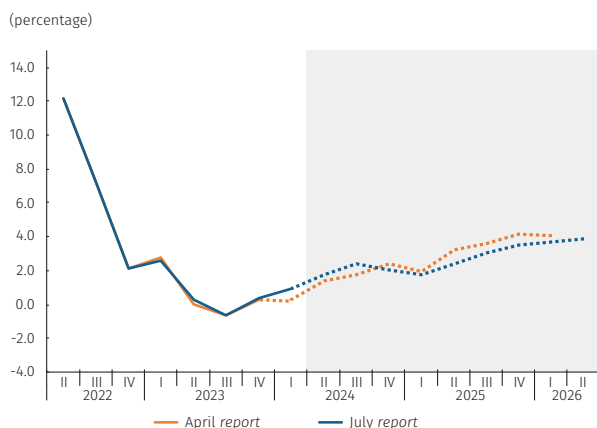
**On the expenditure side, the acceleration in growth was likely driven by domestic demand, which would continue to expand quarterly.** After experiencing declines between mid-2022 and the third quarter of 2023, domestic demand began showing moderate quarterly expansions starting in late 2023, and this trend would have likely persisted through the second quarter of 2024. As a result, domestic demand may have registered a slight annual increase after five consecutive quarters of decline. In the second quarter, this increase in domestic demand was likely due to a modest recovery

Graph 2.15  
Economic Tracking Indicator (ISE), and ISE by sectors <sup>a/, b/</sup>  
(Annual change)



a/ Seasonally adjusted and corrected for calendar effects  
b/ Primary activities: agriculture, hunting, forestry and fishing, mine and quarry exploitation. Secondary activities: manufacturing industries and construction. Tertiary activities: electricity, gas, and water supply; commerce, repairs, transportation and lodging; information and communications, financial and insurance activities; real estate activities; professional, scientific and technical activities; administrative and support services; public administration and defense, education and health; arts and entertainment  
Source: DANE, calculations and projections by Banco de la República.

Graph 2.16  
Quarterly GDP <sup>a/</sup>  
(Annual change)



a/ Seasonally adjusted and corrected for calendar effects  
Source: DANE, calculations and projections by Banco de la República.

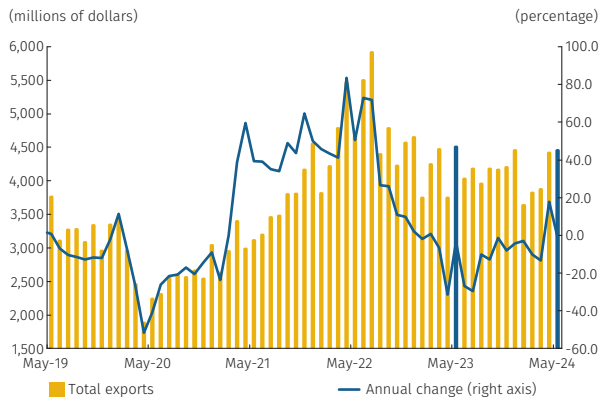
13 These include consumer credit disbursements, new motorcycle registrations, ground freight movement and the regional economic pulse (PER for its acronym in Spanish).

in consumption, including the public sector component, as well as growth in gross fixed capital formation. Public consumption would have improved, mainly due to higher personnel expenses from the payment of retroactive salaries to civil servants in April and May, which may have had a temporary impact. Fixed investment was likely driven by expenditures on machinery and equipment, as suggested by import figures, which are detailed below.

**In June, private consumption marked three consecutive quarters of marginal recoveries, showing slight annual growth after experiencing setbacks during much of 2023.** The increase in household consumption would have been supported by several factors, including a reduction in real consumer loan interest rates, improved credit dynamics, relative stability in consumer confidence in recent months, lower inflation, and rising real wages in the first half of the year. This was amidst a backdrop where employment showed marginal improvement, and the unemployment rate stabilized after deteriorating at the end of the previous year. Additionally, there was an increase in government transfers to households and remittances from abroad. The most robust dynamism was observed in the consumption of services, where high levels are expected, along with positive annual and quarterly growth. An increase in durable goods consumption is also expected, suggesting that this component may have stopped annual declining. In contrast, semi-durable goods consumption is expected to continue to decline as compared to the previous year, albeit less sharply than in previous quarters, while non-durable goods consumption is expected to have remained relatively stable at first-quarter levels. These forecasts are supported by the performance of several indicators, including ISE, retail sales, and services surveys as of May, as well as more recent data such as consumer credit disbursements, commercial bank transactions, imports of consumption goods, and vehicle and motorcycle registrations.

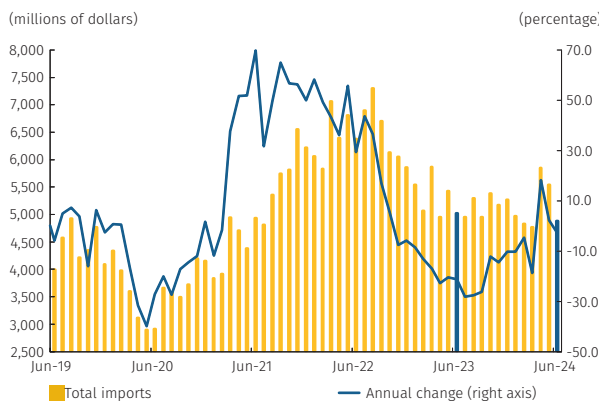
**Fixed investment showed a slight recovery in the second quarter, with total investment possibly increasing, under the assumption of better inventory performance.** At the beginning of the year, gross fixed capital formation grew quarter-on-quarter, a trend that would have continued into the second quarter. This would have resulted in a positive, though modest, annual variation for this GDP component during that period. Based on preliminary data on capital goods imports as of June, this forecast assumes that investment in machinery and equipment remained at levels similar to those registered in the first quarter. While these levels are lower than the exceptionally high values of 2022, they are still above pre-pandemic levels and more aligned with long-term trends. Housing investment is expected to continue its annual decline, though not significantly, as suggested by the completion of projects from the building census. In contrast, an annual increase is expected in the other buildings and structures segment, primarily driven by ongoing civil works in Bogotá and other municipalities. Finally, for the second quarter, a reduced rate of inventory deaccumulation is expected, particularly in the industry, mining (coal), and coffee sectors. This would have contributed to quarterly and annual gross capital formation growth. This assumption is based on the fact that previous quarters saw significant inventory deaccumulation, a trend unlikely to continue if the economy is not contracting, as suggested by data provided by DANE and forecasts by the Bank's technical staff.

**Graph 2.17**  
Total goods exports (FOB)  
(Monthly)



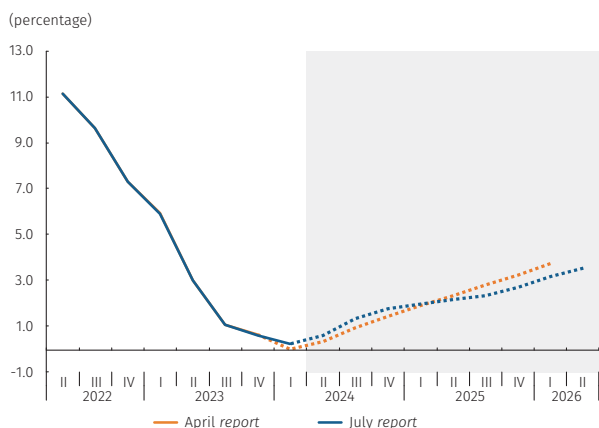
Source: DANE, calculations by Banco de la República.

**Graph 2.18**  
Total goods imports (CIF)  
(Monthly)



Source: DANE and DIAN (preliminary foreign trade data); calculations by Banco de la República.

**Graph 2.19**  
GDP, four-quarter cumulative<sup>a/</sup>  
(annual change)



a/ Seasonally adjusted and corrected for calendar effects  
Source: DANE, calculations and projections by Banco de la República.

**In the second quarter, net external demand in constant pesos would have remained at levels similar to those in the first quarter of this year, contributing positively to annual growth.** This forecast, which suggests a trade balance in real pesos close to pre-pandemic levels, assumes quarterly increases in both exports and imports. For exports, the quarterly rise would also result in annual growth similar to that of the previous quarter, driven primarily by external sales of coal, oil, coffee, and other agricultural products such as bananas (Graph 2.17), aligning with the strong performance of the primary sector. Additionally, some growth is expected in exports of manufactured goods and services, reflecting improved demand from the country's main trading partners during this period. On the other hand, imports are expected to rise on a quarterly basis, though their annual growth would have remained in negative territory due to continued subdued domestic demand. This is supported by preliminary DIAN figures as of June (Graph 2.18). The increase compared to the first quarter was concentrated in imports of consumer goods and intermediate goods, particularly fuels. As a result, net external demand would continue to make a positive contribution to the annual GDP variation, although to a lesser extent than in previous periods.

**The economy is expected to gradually gain momentum during the second semester of the year, though growth will likely remain modest.** This report continues to anticipate an easing of local monetary policy, in line with the expectation that inflation will converge to the target by 2025. This could gradually improve consumer and business confidence levels. These factors should lead to a slow acceleration in the annual growth of economic activity as the year progresses and into 2025. Specifically, the second half of 2024 is expected to see an uptick in annual growth of total consumption, with household spending beginning to recover slowly due to more favorable financial conditions and public consumption remaining relatively stable, as per estimates from the Medium-Term Fiscal Framework (MFMP). This forecast also considers the adjustment in public spending announced by the Government for the second half of the year, which is a response to the reduction in projected revenue. Regarding investment, a significant rebound is not expected for the remainder of this year, but more evident dynamism is anticipated in 2025 amidst an environment of lower interest rates. The forecast also includes a boost from investments in civil works, reflecting substantial progress in local projects like the Bogotá metro and national initiatives like the 5G infrastructure program. On the external demand side, greater export dynamism is expected for the remainder of 2024, with no further declines in imports anticipated. Overall, the Colombian economy is projected to grow by 1.8% in 2024 (Graph 2.19), an upward revision from the 1.4%

forecast in the April Report, with output levels below those of potential GDP. It is important to note that this growth revision is largely due to the positive surprises observed and projected for the first half of this year.

**Looking forward to 2025, the Colombian economy is expected to continue on its path to recovery, approaching long-term growth rates.** This forecast is supported by anticipated lower external and internal financing costs, which should enhance domestic demand growth. It also includes a slight acceleration in the growth of trading partners, which would lead to higher exports, as well as an increase in remittances from abroad. Additionally, the stabilization of public debt is expected to contribute to a relatively stable macroeconomic balance, minimizing significant deterioration in the perception of country risk beyond what the technical staff has considered in this Report. Consequently, a 2.7% annual growth is projected for 2025 (Graph 2.19). This figure is lower than the previous forecast, partly due to the higher comparison base from 2024 and the cumulative monetary policy measures needed to ensure inflation converges to the target. This forecast remains subject to a high degree of uncertainty, mainly due to ongoing volatility in international financial conditions and fiscal adjustment challenges in Colombia.

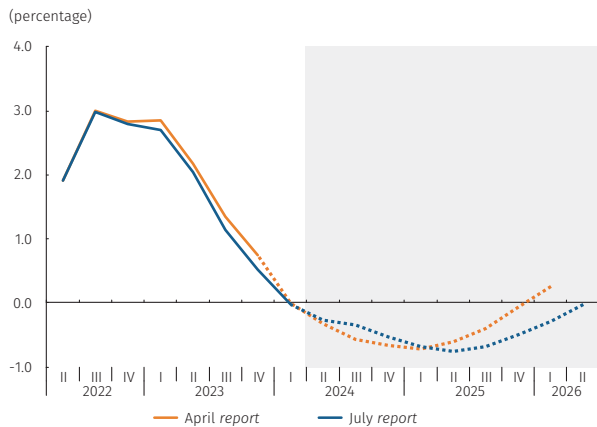
**The unemployment rate is expected to remain relatively stable during the second semester of 2024. It is anticipated that the national unemployment rate will average around 10.6%, with the thirteen cities averaging slightly lower at 10.5%.** The information available as of May from the Integrated Household Survey (GEIH for its Spanish acronym) indicates stable employment levels with a slight rebound. During recent months, the informal non-salaried labor force stagnated, partly due to improved employment dynamics in other municipal capitals and rural areas. Consequently, the global labor force participation rate remained stable, increasing marginally to 64.0%. Since the beginning of the year, domestic unemployment rate growth has slowed, evidencing increased stability in recent months. For the rolling quarter ending in May, the unemployment rate decreased compared to April, reaching 10.5%.<sup>14</sup> Based on recent labor market trends and the economic activity projections presented in this Report, the seasonally adjusted national unemployment rate for 2024 is expected to remain stable, averaging between 9.8% and 11.4%, with 10.6% as the most likely value. In the urban area, unemployment is also expected to remain relatively unchanged for the rest of the year, averaging between 9.7% and 11.3%, with 10.5% as the most probable value. These figures are slightly lower than those in the previous Report, particularly for the urban area. Estimates of an unemployment rate consistent with stable inflation (NAIRU: non-accelerating inflation rate of unemployment) suggest that the unemployment rate will gradually converge to its long-term value over the forecast horizon, resulting in a somewhat wider gap than estimated in the April Report.

**The Colombian economy is expected to exhibit excess productive capacity for much of the forecast horizon, consistent with inflation converging to its target within the projection period.** For the second quarter, the economy experienced excess productive capacity, measured by a negative annual output gap, reflecting weak domestic demand, a decrease in annual core inflation, and restrictive domestic and external financing conditions. Specifically, the central

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<sup>14</sup> See Chapter 3 of this Report for additional information.

**Graph 2.20**  
Output gap <sup>a/</sup>  
(four-quarter cumulative)



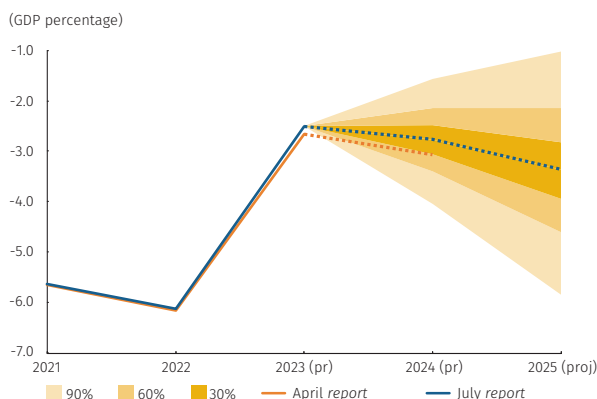
a/ The historical estimate of the output gap is calculated as the difference between observed GDP (four-quarter cumulative) and potential GDP (trend; four-quarter cumulative) from the 4GM model; for the forecast, it is calculated as the difference between the technical staff's GDP estimate (four-quarter cumulative) and potential GDP (trend; four-quarter cumulative) from the 4GM model.  
Source: DANE, calculations and projections by Banco de la República.

forecast scenario of this Report projects an annual output gap of -0.3% for the second quarter of 2024, consistent with previous forecasts (Graph 2.20). By yearend 2024, the gap is estimated to be around -0.5%, slightly less negative than the April Report's estimate of -0.7%. This minor upward revision is primarily due to increased GDP growth forecasts for the current year. The potential GDP growth for the entire year remains at 2.9%, unchanged from the April estimate. Productive overcapacity is expected to gradually decrease starting in the second half of 2025 as economic activity gains momentum. It is important to note that the output gap and potential output estimates presented in this Report are subject to considerable uncertainty due to various supply and demand shocks affecting the economy in the first half of 2024. Additionally, the fiscal adjustment forecasts involve public revenue and expenditure projections with significant risks, and their impact on economic activity is difficult to quantify.

### 2.2.3 Balance of Payments

**For 2024, the current account deficit is expected to widen to 2.8% of GDP, up from 2.5% in 2023 (Graph 2.21).**<sup>15</sup> This increase is primarily attributed to a widening trade deficit in goods. The trade deficit is expected to grow due to a decrease in export revenues amid moderating international prices for raw materials, despite a recovery in the local production of these products.<sup>16</sup> Conversely, imports are anticipated to rebound as domestic demand recovers and international prices for imported goods rise. However, improvements in income from tourism service exports, a reduction in profits from foreign direct investment sent abroad, and higher remittance inflows<sup>17</sup> to Colombia are expected to mitigate the extent of the external imbalance.

**Graph 2.21**  
Annual current account <sup>a/, b/</sup>  
(four-quarter cumulative)



(pre): preliminary, (proj): projected

a/ The graph displays the probability distribution and its most likely path for 2023 and 2024. Densities characterize the balance of potential risks with areas of 30%, 60% and 90% probability around the central forecast (mode), using primarily as reference the densities from the Patacon model.

b/ The probability distribution is derived from the forecasting exercise of the July report.

Source: Banco de la República.

**This deficit is expected to rise to 3.4% of GDP by 2025.** This increase is anticipated in the context of ongoing economic growth, particularly domestic demand, which would drive up imports. Additionally, high-interest payments on external debt and increased profits remitted abroad from sectors beyond mining and oil will contribute to the widening deficit.

15 For the second quarter of 2024, a projected current account deficit of approximately 2.3% of GDP is anticipated, similar to the 2.6% observed in the same period of 2023. The widening of the trade imbalance in goods, as well as the higher deficit forecast for primary income, contribute to this dynamic.

16 In addition, this year there will not be revenues from aircraft re-exports as seen in the previous year.

17 Workers' remittances are expected to increase in 2024 due to high levels of Colombian migration abroad observed in 2022 and 2023, as well as tight labor markets in several countries where Colombian migrants reside.

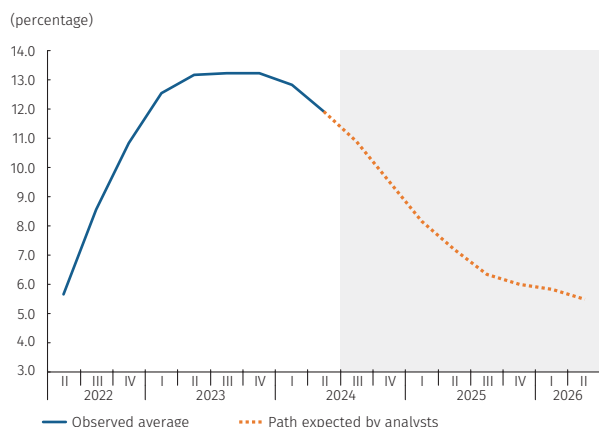
The expansion of the deficit in 2024 and 2025 is expected to align with a larger public sector imbalance, consistent with the Medium-Term Fiscal Framework (MTFF), although this will be partially offset by higher savings and lower investment by the private sector. It is important to note that the forecast for the current account deficit carries high uncertainty, influenced by factors such as the evolution of international commodity price fluctuations, domestic and external financial conditions, and both local and global growth risks.

**Higher external financing needs are anticipated for 2024 and 2025 due to the expected widening of the current account deficit.** Foreign direct investment (FDI) will remain the primary source of external financing, although it is expected to decline compared to 2023, partly due to some lower international commodity prices. The public sector is projected to contribute to current account financing, with an increase relative to 2023, reflecting the larger fiscal deficit outlined in the Medium-Term Fiscal Framework (MTFF). Conversely, the private sector is expected to shift from accumulating assets abroad in 2024 to attracting foreign capital inflows in 2025. External financing will occur in the context of continuing U.S. interest rates above pre-pandemic levels and a Colombian risk premium above its historical average.

#### 2.2.4 Monetary Policy and Interest Rates Expected by Analysts

**The median analysts’ expectation for the third-quarter policy interest rate stands at 10.9% for 2024 and would reach an average of 9.5% for the fourth quarter of 2024. During 2025, the interest rate is anticipated to continue decreasing (Graph 2.22).** The median response to *Banco de la República’s* monthly survey of analyst expectations, conducted at the beginning of July, indicates that the policy interest rate is expected to reach 10.9% in the third quarter of 2024 and continue to drop to 9.5% in the fourth quarter. Looking ahead, analysts anticipate the policy rate to decrease further to 6.0% by the fourth quarter of 2025 and stand at 5.5% by the end of the eight-quarter forecast horizon. The policy rate path outlined in this Report aligns with the anticipated reduction in headline inflation and its convergence toward the target over the forecast period. On average, this path is higher for the eight-quarter horizon compared to what analysts projected in the July 2024 survey. By yearend 2025, the analysts anticipate higher headline and core inflation rates relative to the figures projected by the Bank’s technical staff.

Graph 2.22  
Monetary policy interest rate: average observed quarterly, and rate expected by analysts<sup>a/</sup>



a/ These projections are calculated considering the quarterly average of the current rate according to the median response of the Monthly survey of economic analyst expectations conducted by Banco de la República for July 2024. Source: Banco de la República.

### 2.3 Balance of Macroeconomic Risks

**The current balance of risks is characterized by reduced levels of uncertainty compared to the previous Report. However, upside risks to inflation remain predominant.** The predictive densities (PD)<sup>18</sup> exercise, which summarizes the risk balance across multiple variables within the macroeconomic forecast, indicates changes to the level of uncertainty surrounding several external and internal risk factors. On the external front, the uncertainty surrounding oil prices, heightened in the April Report due to geopolitical tensions in the Middle East, has eased. Improved inflation data from the United States and a projected slowdown in domestic consumption suggest reduced uncertainty regarding the pace of monetary policy normalization in that country. However, there are still moderate upward biases in international food prices and the cost of external financing. Domestically, while some weather-related risks relative to food and regulated basket prices have lessened, an upward bias in inflation persists, primarily due to potential levels of inertia in service price adjustments, particularly rents. Regarding growth, the balance of risks remains high, with a mixed outlook. Downside risks predominate throughout the forecast horizon, except for those projected for the second quarter. These include low consumer and investor confidence, reduced prospects for public consumption due to the need for additional fiscal adjustments beyond those announced by the government, and the possibility of a prolonged contractionary monetary policy in response to inflationary pressures.

**Externally, while upside risks related to oil prices and the Federal Reserve's interest rate have lessened, risks concerning the cost of external financing and international food prices remain.** The PD exercise has mitigated the upside risk to oil prices previously associated with potential geopolitical tensions in the Middle East and Ukraine, as well as supply cuts announced by OPEC+, which have not significantly impacted prices. Consequently, this Report reflects a balanced risk outlook for oil prices over the forecast horizon. Conversely, risks related to the Federal Reserve's interest rate and external inflation are balanced due to recent U.S. inflation data suggesting a likely pace of monetary policy normalization in line with the central path. Similarly, the growth outlook for trading partners also shows balanced risks, with a diminished economic dynamism forecast for China offset by potentially more robust growth among other regional partners. Upside risks remain for the cost of external financing and international food prices. The high volatility in interest rate expectations, particularly in developed economies like the United States, underscores the significance of this risk factor. An upward bias remains relative to the Colombian sovereign risk premium, primarily due to uncertainty in the local fiscal environment. Additionally, risks related to international food prices persist due to the potential impacts of extreme weather events on harvests and rising international transportation costs.

**Trajectories for headline inflation and inflation excluding food indicate a predominance of upside risks, the most significant of which stems from the persistence of price adjustments in some service categories.** Excluding the goods basket, all other price baskets exhibit upside risks, with the strongest

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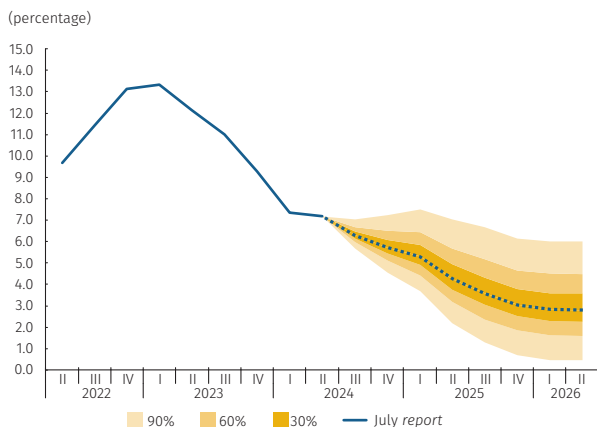
<sup>18</sup> Technical details on the construction of the risk balance through the predictive density exercise can be found in the paper *"Caracterización y comunicación del balance de riesgos de los pronósticos macroeconómicos: un enfoque de densidad predictiva para Colombia"* (Méndez-Vizcaino et al., 2021) and in Box 1 of the July 2021 Monetary Policy Report.

being associated with services. This risk relates to higher levels of inflationary inertia than anticipated in the central scenario, particularly concerning rents, which account for half of this basket, and their annual variation has been slow to decline. In addition, there is a stronger risk of pass-through of past labor cost increases (due to higher minimum wages and reduced working hours) on service prices than forecasted in the central scenario. Food and regulated baskets, meanwhile, incorporate moderate upside risks. For the food basket, these risks include potential overestimation of the correction in the upward cycle of perishables and disruptions in international transport routes that could affect logistics and production costs. In the case of regulated items, risks arise from potential adjustments in the price of diesel (ACPM) for small consumers, which could impact public transportation prices, and from upward pressures on energy tariffs due to ongoing structural issues within the sector.

**Although the path of economic activity carries an upside risk in the short term, downside risks prevail for the remainder of the forecast horizon.** The predictive densities exercise for economic activity exhibits an upside bias for the second quarter of 2024 due to some positive surprises in the ISE records, which could imply higher-than-expected GDP growth for that quarter. However, downside risk factors are predominant for the remainder of the forecast horizon. These risks include low consumer confidence, potential additional reductions in public consumption if projected revenues do not materialize amid compliance with fiscal rules, and uncertainty in capital-intensive sectors that could continue to constrain investment. Furthermore, the PD exercise also incorporates downside risks from the possibility of a more prolonged tight monetary policy stance in response to inflationary pressures. These downside risks outweigh the upside risks related to more dynamic consumption of services, particularly in the entertainment sector, and a stronger-than-expected recovery in inventories.

**In summary, the risk balance results in upside risks to inflation and mixed risks to growth throughout the forecast horizon.** In this context, there is a 90% probability that headline inflation will fall within a range between 4.6% and 7.3% by the end of 2024 and between 0.7% and 6.1% by the end of 2025 (Graph 2.23). Similarly, core inflation, with the same level of certainty, is expected to range between 4.1% and 6.1% at the close of 2024 and between 1.5% and 5.8% by the fourth quarter of 2025 (Graph 2.24). The probability that headline and core inflation will fall below 4% by yearend 2025 is 64% and 60%, respectively. Regarding economic activity, there is a 90% probability that annual GDP growth will range between 0.5% and 3.1% in 2024 and between 0.8% and 4.3% in 2025 (Graphs 2.25 and 2.26).

**Graph 2.23**  
Consumer price index, predictive density <sup>a/, b/</sup>  
(annual change, end-of-period)

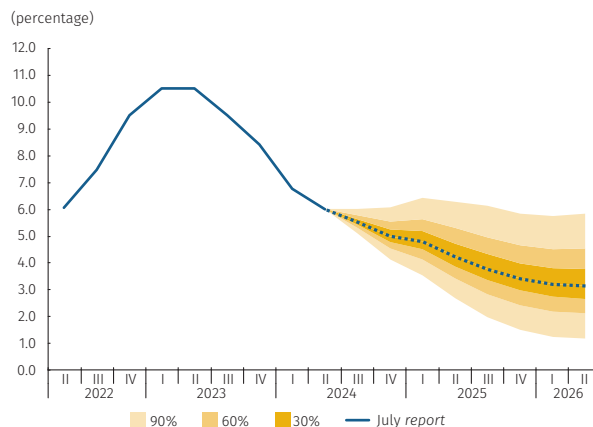


	4Q 2024	2Q 2025	4Q 2025
<b>Mode</b>	5.7	4.2	3.0
<b>&lt; Mode</b>	41%	41%	42%
<b>Intervals</b>			
<b>&lt;2</b>	0.0%	3.5%	19.9%
<b>2 to 4</b>	0.8%	31.3%	44.6%
<b>&gt;4</b>	99.2%	65.2%	35.6%

a/ The graph displays the probability distribution and its most likely path on an eight-quarter forecast horizon. Densities characterize the balance of potential risks with areas of 30%, 60% and 90% probability around the central forecast (mode), using a combination of densities from the Patacon and 4GM models.  
b/ The probability distribution is derived from the forecasting exercise of the July report.

Source: DANE, calculations and projections by Banco de la República.

**Graph 2.24**  
CPI excluding food and regulated items, predictive density <sup>a/, b/</sup>  
(annual change, end-of-period)

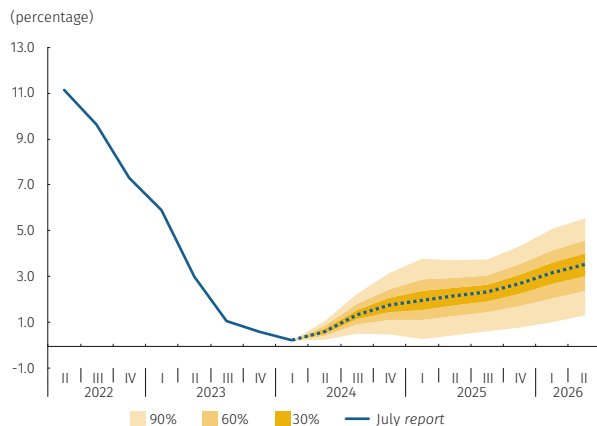


	4Q 2024	2Q 2025	4Q 2025
<b>Mode</b>	5.0	4.2	3.4
<b>&lt; Mode</b>	42%	42%	42%
<b>Intervals</b>			
<b>&lt;2</b>	0.0%	1.1%	10.0%
<b>2 to 4</b>	2.7%	32.3%	49.7%
<b>&gt;4</b>	97.3%	66.6%	40.3%

a/ The graph displays the probability distribution and its most likely path on an eight-quarter forecast horizon. Densities characterize the balance of potential risks with areas of 30%, 60% and 90% probability around the central forecast (mode), using a combination of densities from the Patacon and 4GM models.  
b/ The probability distribution is derived from the forecasting exercise of the July report.

Source: DANE, calculations and projections by Banco de la República.

**Graph 2.25**  
GDP, four-quarter cumulative, predictive density <sup>a/, b/</sup>  
(annual change)

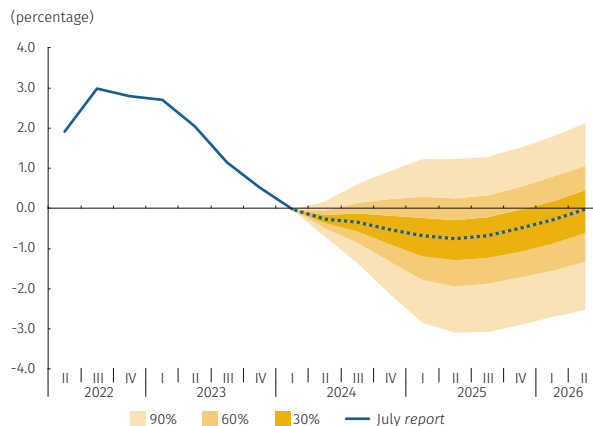


	2Q 2024	4Q 2024	4Q 2025
<b>Mode</b>	0.6	1.8	2.7
<b>&lt; Mode</b>	44%	48%	56%
<b>Intervals</b>			
<b>&lt;0</b>	0.5%	1.2%	0.8%
<b>0 to 2</b>	99.4%	59.2%	29.7%
<b>2 to 3,5</b>	0.0%	37.7%	50.5%
<b>&gt;3,5</b>	0.0%	1.9%	18.9%

a/ The graph displays the probability distribution and its most likely path on an eight-quarter forecast horizon. Densities characterize the balance of potential risks with areas of 30%, 60% and 90% probability around the central forecast (mode), using a combination of densities from the Patacon and 4GM models.  
b/ The probability distribution is derived from the forecasting exercise of the July report.

Source: DANE, calculations and projections by Banco de la República.

**Graph 2.26**  
Output gap, predictive density <sup>a/, b/</sup>  
(four-quarter cumulative)



	2Q 2024	4Q 2024	4Q 2025
<b>Mode</b>	-0.3	-0.5	-0.5
<b>&lt; Mode</b>	50%	53%	57%
<b>Intervals</b>			
<b>&lt;-2</b>	0.0%	6.4%	16.2%
<b>-2 to 0</b>	83.9%	67.5%	53.8%
<b>0 to 2</b>	16.0%	25.5%	27.3%
<b>&gt;2</b>	0.1%	0.6%	2.6%

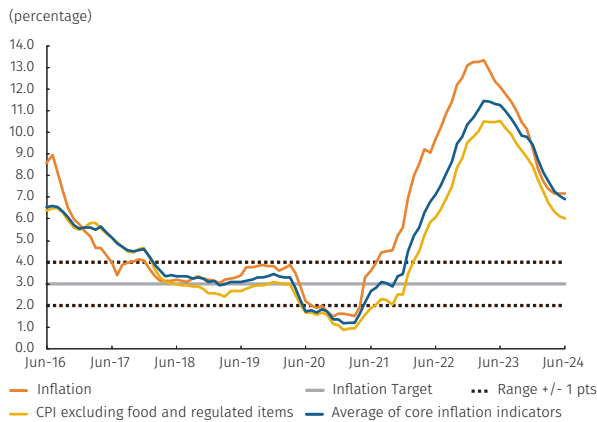
a/ The graph displays the probability distribution and its most likely path on an eight-quarter forecast horizon. Densities characterize the balance of potential risks with areas of 30%, 60% and 90% probability around the central forecast (mode), using a combination of densities from the Patacon and 4GM models.  
b/ The probability distribution is derived from the forecasting exercise of the July report.

Source: DANE, calculations and projections by Banco de la República.



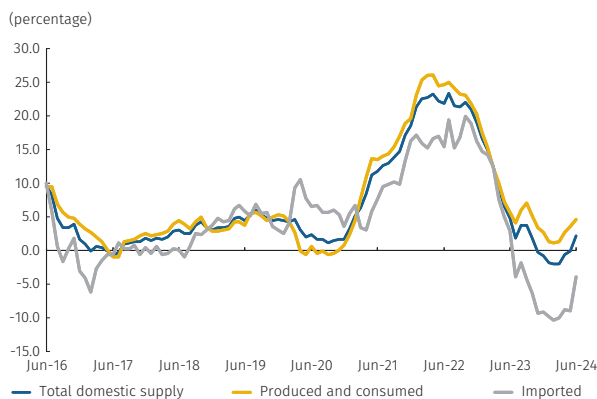
# Current economic situation

**Graph 3.1**  
CPI and core inflation indicators  
(Annual change)



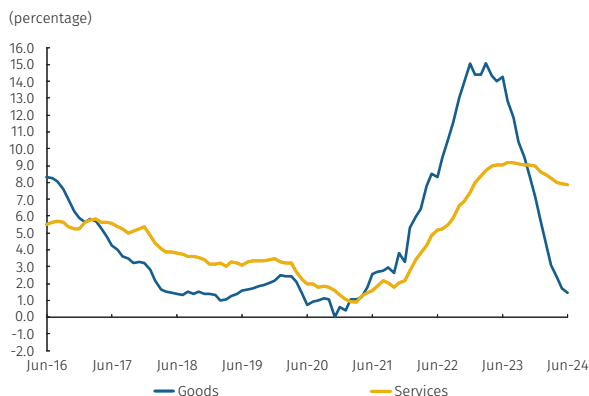
Sources: DANE and Banco de la República.

**Graph 3.2**  
PPI by origin  
(Annual change)



Sources: DANE, calculations by Banco de la República.

**Graph 3.3**  
CPI for goods and services, excluding food and regulated items  
(Annual change)



Sources: DANE, calculations by Banco de la República.

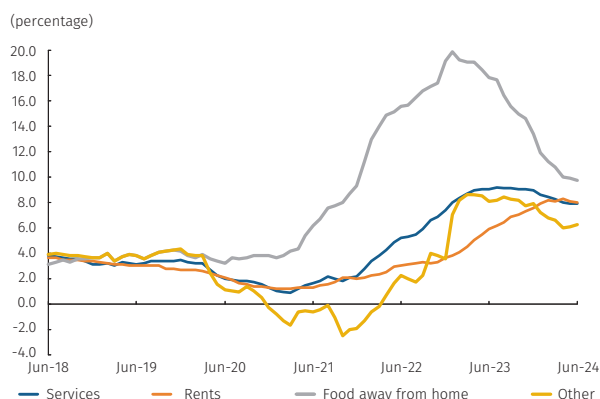
## 3.1 Inflation and price behavior

**Inflation slowed between March and June and remained steady during the second quarter, which was consistent with the projections of the previous Report.** Inflation’s behavior was stable during the second quarter, with annual inflation in June at 7.2%, somewhat lower than the levels seen in March (7.4%) and December 2023 (9.3%) (Graph 3.1). Core inflation (excluding food and regulated items) continued the downward trend that began in mid-2023, falling from 8.4% in December to 6.0% in June, reflecting lower demand pressures and even the presence of some excess production capacity. Additionally, despite a nominal depreciation recorded at the end of June, the real exchange rate exerted disinflationary pressures, with the real exchange rate inflation gap in negative territory (see Section 2.2.1). Likewise, despite the continuance of military conflicts in Ukraine and the Middle East, lower international cost pressures also played a part in the decreases seen in the external prices of certain goods. Nevertheless, this was partially offset by increases in food prices, especially perishables, and by still-high adjustments in fuel and energy prices. This, together with an unfavorable statistical comparison base, explained the recent rebound in annual producer inflation from -2.0% in March to 2.3% in June, reflecting increases in both the local and imported components within the producer basket that contributed to its rebound (Graph 3.2).

**Goods were at the forefront of the downward course assumed by core inflation.** Between March and June 2024, the annual change in the goods CPI basket fell by 1.6 percentage points, from 3.1% to 1.4%, respectively, underscoring the perseverance of the downward trend observed since the beginning of 2023 (Graph 3.3). This dynamic would have been favored by a negative output gap, slow growth in household consumption, and lower annual raw materials, inputs, labor, financial, transportation, and logistics cost adjustments. The exchange rate has been highly volatile in recent weeks, limiting its pass-through to consumer prices given the lag with which it operates. Finally, this sub-basket has experienced some notable falls in the price levels of certain components, including electrical appliances and computer equipment, which recorded annual reductions of more than 5.0%, contributing to the decrease in the group’s annual adjustment rate.

**Services also participated in core inflation’s decline, albeit falling by a lesser degree than goods as they continue to exhibit high annual price adjustments.** The downward trend in the services sub-basket that began in the second half of the

**Graph 3.4**  
CPI for services, excluding food and regulated items and its components (Annual change)



Sources: DANE, calculations by Banco de la República.

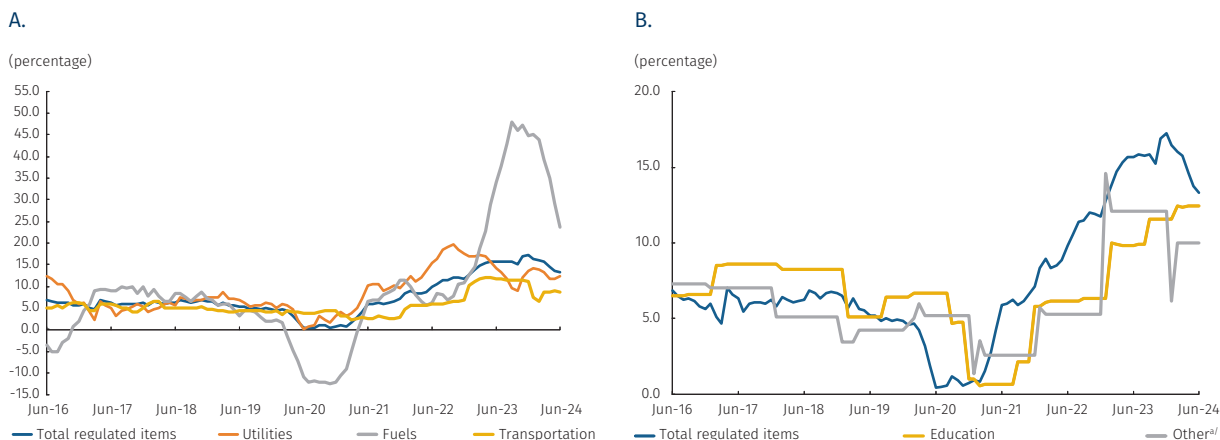
year continued, resulting in an annual change of 7.9% in June, below that of March (8.3%) and December (9.0%). In general, greater stability in the annual price variations of most of the items within this sub-basket was noticeable, particularly in food away from home, which registered an annual change of 9.8% in June of this year in contrast with the 13.4% recorded in December 2023 and the more modest 10.8% seen in March (Graph 3.4). This was not the case of the rent component, the most significant element in the family basket because of its assigned 25.2% weighing within headline inflation. After rising in the first quarter of the year, this component's annual growth fell slightly between March (8.1%) and June (8.0%). Adjustment rates for this category continue exceptionally high, buttressed by the indexation to the previous year's inflation, as well as the low levels of new housing supply resulting from the weak performance of the construction sector. The latter was further affected by the lower number of properties available for rent in certain cities year-on-year, particularly Bogotá and Medellín.<sup>1</sup> Other services, such as transportation, travel packages, nightclubs, and hotels, affected by weak demand, have also experienced a significant decrease in their annual price variation since the end of 2023 and into 2024.

**During the second quarter, the regulated items component of the CPI also contributed to the decrease in annual inflation, partly explained by a stabilization noted in domestic fuel prices.** As a result, the annual change seen in the regulated component decreased between March (15.8%) and June (13.3%). The annual price variations for both utilities and fuels fell between March and June, closing June at 12.5% and 23.8%, respectively. In this case, fuels fronted the drop seen in the whole group, as the required adjustment to close the gap between domestic and international gasoline prices was finalized early in the year (Graph 3.5, Panel A). The utilities group was no longer a driving force within the regulated services component of the CPI, mellowing its increments from 13.3% in March to 12.5% in June. This was primarily due to a favorable statistical base of comparison with respect to the figures observed in June 2023. However, year-to-date increases in all public utilities, except gas, have been significant (4.7%). The rest of the regulated subgroups (education, transportation, and fuels) did not present substantial changes during the second quarter (Graph 3.5, Panel B).

**The annual food CPI adjustment recorded a rebound mainly attributed to the perishables component.** In the second quarter, there was an upward spike in the food CPI's annual change after the lower level seen in March (1.7%), ending June at 5.3% (Graph 3.6). The price rebound was mainly due to increases experienced in perishable foods, whose annual

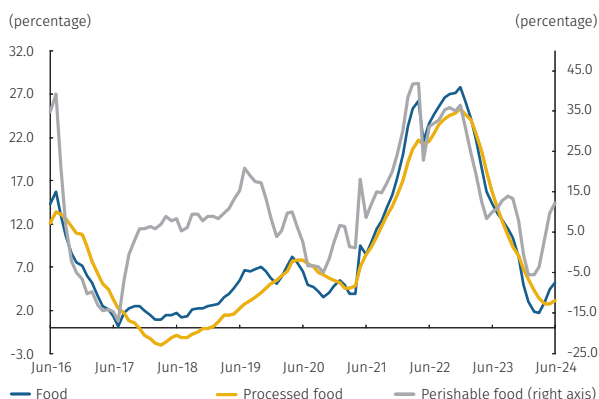
<sup>1</sup> According to *La Galería Inmobiliaria*, the supply of used rental housing (strata 4, 5 and 6), saw a year-on-year 15% decrease as of June.

**Graph 3.5**  
CPI for regulated items and its components  
(Annual change)



a/ Includes EPS affiliate co-payments, administrative certificates and documents, and professional fee payments  
 Sources: DANE, calculations by Banco de la República.

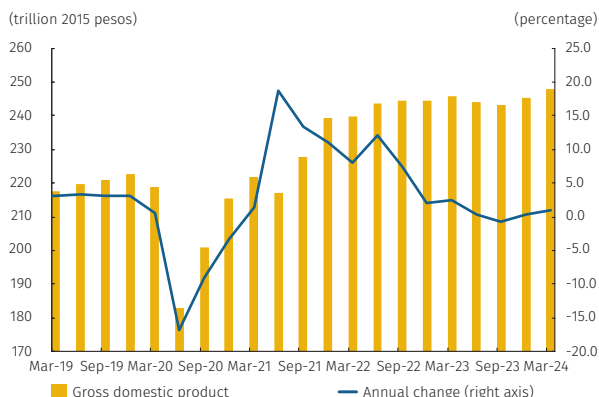
**Graph 3.6**  
CPI for food and its components  
(Annual change)



Sources: DANE, calculations by Banco de la República.

change increased from -3.4% in March to 12.5% in June. These price increases were partly due to changes in agricultural production that took place in anticipation of the El Niño phenomenon, along with the delayed effect of the lower rainfall levels experienced yearend 2023 into early 2024, which impacted agricultural productivity in the second quarter. The supply of perishable foodstuffs is most affected when an El Niño event appears, in this case particularly affecting potatoes and vegetables, whose prices rose by more than 20%. In contrast, the processed food component, which is produced mainly with imported inputs, saw price levels fall slightly between March (3.4%) and June (3.2%) as external shocks that had impacted prices dissolved, including those associated with the pandemic and the war in Ukraine, coupled with the relative stability of the exchange rate and moderate demand.

**Graph 3.7**  
Gross Domestic Product<sup>a/</sup>  
(Quarterly and annual change)

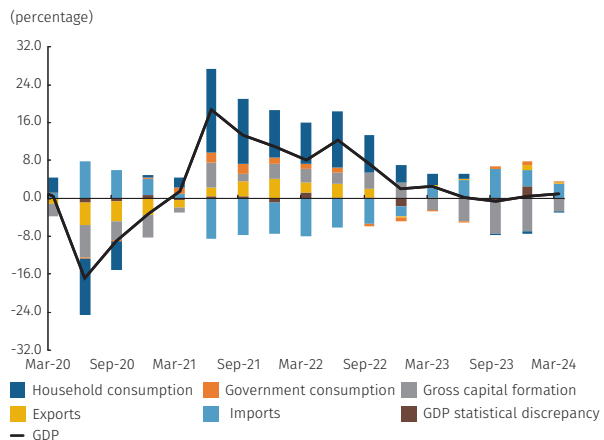


a/ Seasonally adjusted and corrected for calendar effects  
 Sources: DANE, calculations by Banco de la República.

### 3.2 Growth and domestic demand

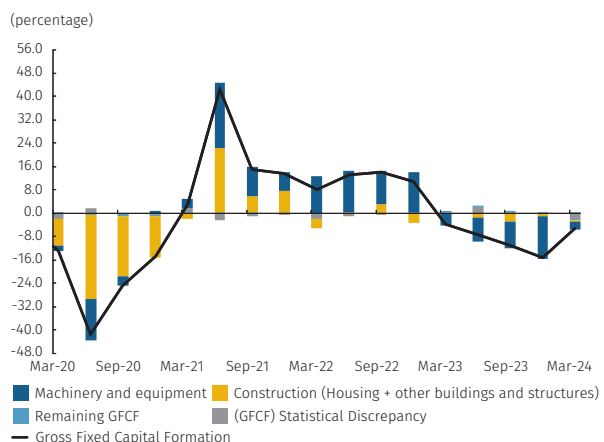
**At the start of 2024, the Colombian economy exhibited low annual growth, although slightly surpassing expectations as a result of some positive supply shocks.** During the first quarter of 2024, Colombia’s economic activity registered an annual growth rate of 0.9%, with an annualized quarterly expansion of 4.4%, according to seasonally adjusted figures corrected for calendar effects. Annual growth was higher than that foreseen in the April Report (0.3%), mainly attributable to a downward revision in GDP levels estimated by the DANE for the first quarter of 2023 (Graph 3.7). This occurred in an environment of receding year-on-year domestic demand resulting from sluggish investment activity and stagnant private consumption. Nonetheless, there was a quarter-on-quarter expansion in domestic absorption. The performance of this component continued to reflect, in part, a monetary policy that remains in contractionary territory as the necessary

**Graph 3.8**  
Contributions to annual change to quarterly GDP <sup>a/</sup>  
(Annual change, contribution)



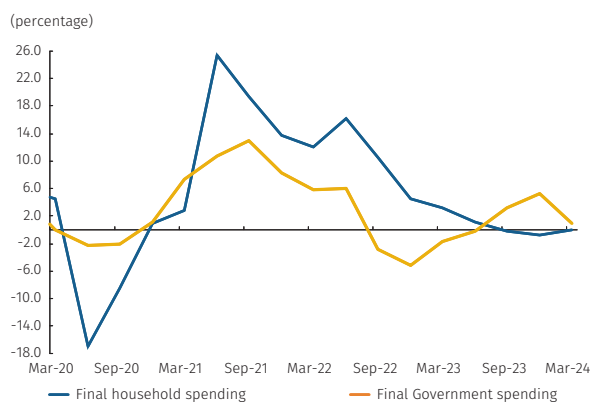
a/ Seasonally adjusted and corrected for calendar effects  
Sources: DANE, calculations by Banco de la República.

**Graph 3.9**  
Quarterly gross fixed capital formation <sup>a/</sup>  
(Annual change, contributions)



a/ Seasonally adjusted and corrected for calendar effects  
Sources: DANE, calculations by Banco de la República.

**Graph 3.10**  
Final household and general government spending <sup>a/</sup>  
(Annual change)



a/ Seasonally adjusted and corrected for calendar effects  
Sources: DANE; calculations by Banco de la República.

progression of convergence towards the target and reduction of excess spending in the economy continues. The weakened demand also occurred amid a backdrop of relatively low business and consumer confidence indicators and an inflation rate well above the target. On the supply side, performance was varied, with primary branches being the greatest contributors to growth in this quarter. However, part of this expansion could be attributed to transitory factors, as the agricultural cycle was seemingly anticipated in light of the potential adverse effects expected on production with the onset of the El Niño phenomenon.

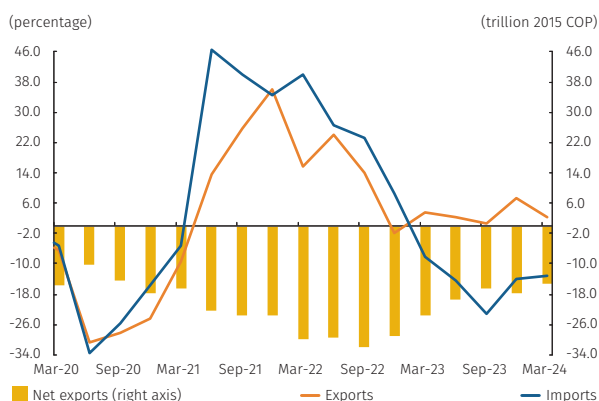
**In the first quarter, domestic demand continued its correction process, which again entailed a negative annual variation resulting from a significant contraction of investment.** Despite registering a quarterly expansion, domestic absorption continued to fall in annual terms (-2.6%) during the first quarter of the year, although at a more moderate pace than that seen in the second semester of 2023. Within its components, the primary negative contributor was a considerable annual decline noted in gross capital formation (-14.6%) (Graph 3.8), which was again significantly affected by a negative inventory change and statistical discrepancy component. Gross fixed capital formation, excluding changes in inventory and statistical discrepancy, also fell annually but to a lesser degree (-5.2%) (Graph 3.9). By segments, investment in housing and machinery and equipment saw annual reductions, although both increased compared to yearend 2023 results. In the latter case, the marginal increase would be mainly explained by the imports of capital goods for the industry segment. Investment in other buildings and structures retained values similar to those registered in the previous quarter, still below those observed before the pandemic, although enough for this component to register annual growth against the low levels seen in the past year.

**Consumption continued stable at the relatively high levels noted at the beginning of 2023, yet registered a slight annual contraction without a relevant increase at the margin.** Along with the marginal annual decline in total consumption seen in the first quarter (-0.3%), the private component registered a similar performance (-0.1%) (Graph 3.10). The slowdown in household consumption continued in the context of monetary policy, which was still in contractionary territory, with little recovery in consumer confidence levels and continued restraint in household credit. Concurrently, private savings continue to recover from the very low levels seen following the pandemic. During the first quarter, the segment with the most favorable performance was services consumption, which continued to increase in both quarterly and annual terms. Consumption of non-durable and durable goods also increased at the margin but did not surpass the previous year's results. Semidurable consumption levels showed a similar behavior, continuing its

downward adjustment. However, it is worth noting that these three segments of private consumption reached very high levels in 2022 and early 2023. Finally, public consumption also failed to perform well early in the year, with an annual growth of only 0.9%, lower than that of yearend 2023, resulting in a slight drop registered in quarterly terms.

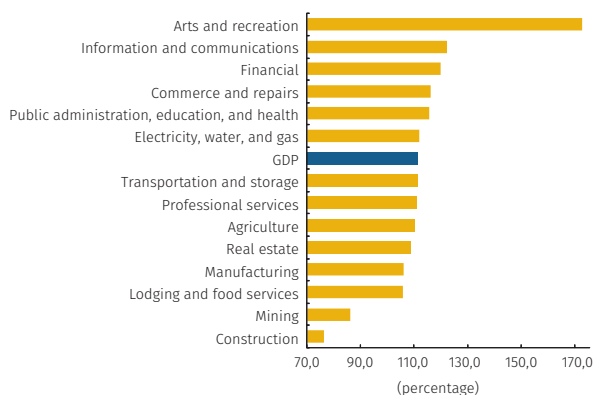
**In the first quarter, exports continued to grow steadily in annual terms, while imports continued to fall, which resulted in net external demand once again contributing positively to demand-side growth accounting.** The moderate annual increase in exports (2.4%) was mainly explained by an annual increase in external sales of non-traditional goods. Exports of services remained high, mainly buttressed by non-resident tourism. On the other hand, exports of basic goods such as coal, coffee, and oil fell at the margin. Imports continued to register significant annual decreases, which was in line with the spending adjustment process. The annual decrease in imports was especially noticeable for intermediate goods but was also seen in other segments. Despite registering an annual drop, purchases of capital goods for industry registered a quarter-on-quarter recovery, compatible with a quarterly increase in investment enjoyed by this sector during the first months of the year. Consequently, the external deficit in constant pesos narrowed compared to that of the fourth quarter of 2023, and versus that observed a year earlier (Graph 3.11), therefore continuing to be a positive contributor accounting-wise to changes in GDP.

Graph 3.11  
Exports, imports, and trade balance <sup>a/</sup>  
(Annual change and trillion 2015 COP)



a/ Seasonally adjusted and corrected for calendar effects.  
Sources: DANE, calculations by Banco de la República.

Graph 3.12  
Sectoral value-added levels in 1Q 2024 relative to 4Q 2019 <sup>a/</sup>  
(4Q 2019 = 100%)



a/ Seasonally adjusted and corrected for calendar effects  
Sources: DANE, calculations by Banco de la República.

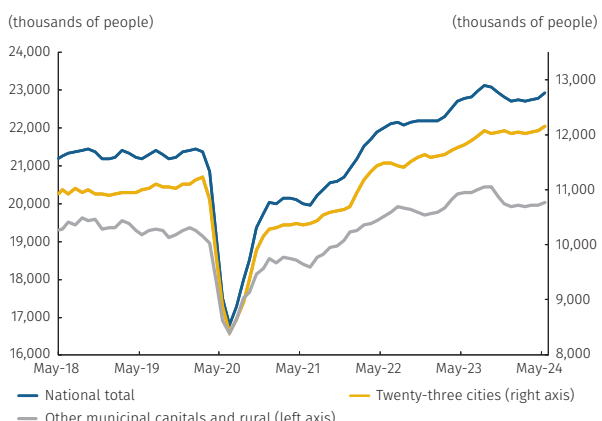
**On the supply side, agricultural, public administration, and arts and entertainment activities were the most dynamic sectors during the first quarter of the year.** GDP growth in this period was driven predominantly by the primary sector, which, as a whole, recorded an annual increase of 3.1% (Graph 3.12). These activities were favored by the positive dynamics seen in agricultural crops other than coffee and livestock (given the high levels of pig slaughter and egg production). This was compounded by the positive performance of tertiary activities, which grew by 1.4% annually, especially within the public administration and health and education services, as a consequence of salary increases in the public sector. The first quarter also saw growth in artistic and entertainment activities that continued to be driven by the boom in online gaming and sports betting, as well as in electricity, gas, and water services as a result of higher demand for electricity in the regulated sector. On the other hand, the secondary branches completed a year of annual declines (-3.2% year-on-year in the first quarter), mainly due to a weakening of the manufacturing industry and the residential and non-residential construction subsector. The latter despite improvement in the performance of civil works, with progress in some regional projects such as the first line of the Bogota Metro.

### 3.3 Labor Market<sup>2,3</sup>

#### National aggregate employment stabilized in recent months after past contractions.

For the rolling three-month period ending in May, the results of the Integrated Household Survey (GEIH for its acronym in Spanish) showed employment levels stabilizing in other urban core areas and the rural area, which was reflected in observed in stable national aggregates during most of the quarter, with some improvements at the margin (Graph 3.13). Data to May showed a quarterly increase in employment at the national aggregate level<sup>4</sup> (1.0%) observed in several economic sectors; commerce and hotel services, construction, public administration, and health and education contributed most to the quarterly employment growth. Year-on-year, employment grew by 0.7%, translating to the creation of 149,000 new jobs. By geographic area, the annual variation in urban and rural employment was 2.8% and -1.7%, respectively.

Graph 3.13  
Employed population by location

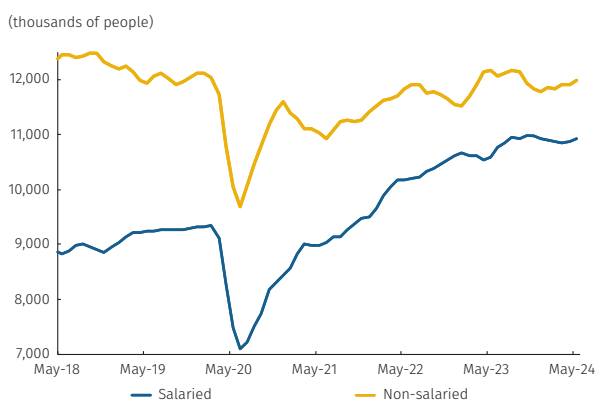


Note: Corresponds to rolling quarterly seasonally adjusted data  
Sources: DANE (GEIH), calculations by Banco de la República.

#### The salaried employment segment remained stagnant, while the non-salaried segment showed slight increases during the year to date.

Rolling quarter data to May saw a quarterly change in salaried employment of 0.5% (Graph 3.14) after the contraction seen year-to-date. In annual terms, this employment segment grew by 3.1%, with private employees heading the salaried employment performance in the national aggregate. This behavior coincided with observations from other sources of information on formal salaried employment, including pension contributions to the Comprehensive Contribution Settlement System (PILA for its Spanish acronym) and the records of affiliates to family compensation funds (CCF for its Spanish acronym). On the other hand, the non-salaried employment segment experienced a slight quarterly rise, reflecting a better performance of employment in other urban core areas and in the rural area, although it showed negative year-on-year changes (-1.4%). The non-salaried informal employment rate increased in the national aggregate and reached 56.2%.

Graph 3.14  
Jobs by type of employment: national total



Note: Corresponds to rolling quarterly seasonally adjusted data  
Sources: DANE (GEIH), calculations by Banco de la República.

#### In recent months, the national aggregate unemployment rate remained stable as labor demand began to recover.

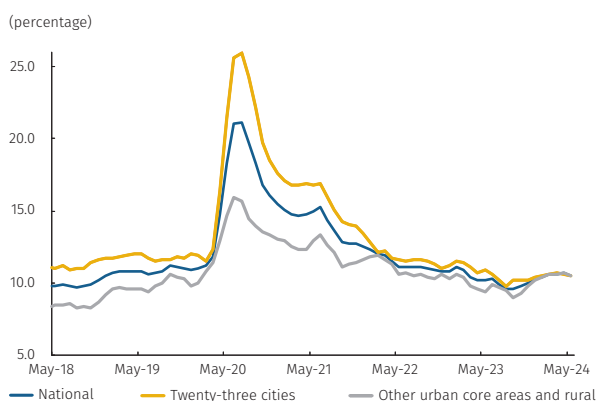
In May, the national unemployment rate on a rolling quarter and seasonally adjusted basis fell with respect to April and stood at 10.5%, a level close to that seen in the first months of the year. By geographical area, there was also a slight reduction in the unemployment rate of the urban, other core urban, and

2 For a more detailed analysis of the labor market, we invite you to consult Banco de la República's Labor Market Report, available only in Spanish at <https://www.banrep.gov.co/es/reporte-mercado-laboral>

3 Labor market figures presented in this section of the Report primarily correspond to the rolling quarter ending May 2024.

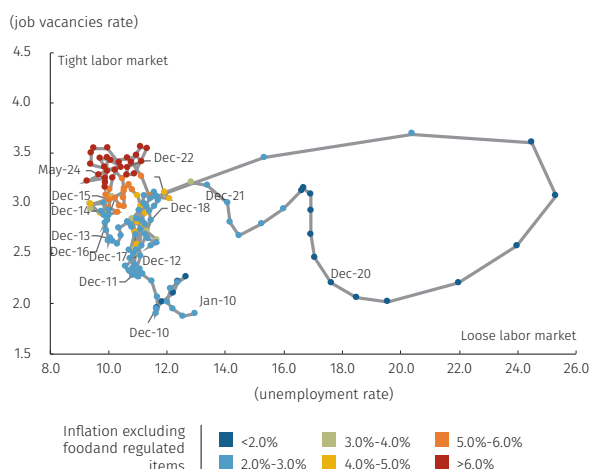
4 Consistent with employment behavior, the national aggregate employment rate increased at the margin to 57.3%. In annual terms, employment losses of -0.5 pts were recorded.

Graph 3.15  
Unemployment rate by location



Note: Corresponds to rolling quarter seasonally adjusted data  
Sources: DANE (GEIH), calculations by Banco de la República.

Graph 3.16  
Beveridge curve for the seven largest cities



Notes: Rolling quarter seasonally adjusted data. GEIH's vacancy rate is estimated based on hires according to Morales, Hermida, and Dávalos' methodology (2019)  
Sources: DANE (GEIH), calculations by Banco de la República.

rural areas. High divergence in the unemployment rate among the twenty-three main cities stands out, with Quibdó having the highest unemployment rate (29.2%) and Bucaramanga the lowest (8.9%). The unemployment rate in the main cities fell relative to the previous year, with Ibagué (-3.1 pts), Neiva (-2.6 pts), and Valledupar (-2.3 pts) seeing the most significant drops, while Riohacha (4.6 pts), Quibdó (3.2 pts), and Cartagena (2.6 pts) registered the largest increases. As for the unemployment gap by gender, after having registered recent increases, it narrowed in May and stood at 4.1 pts as the unemployment rate decreased for women while concurrently increasing for men.

**Other indicators of formal labor demand improved at the margin, and hiring expectations rebounded into positive territory.** These signs suggest the tightness observed in the labor market could continue in the coming months. The job vacancy rates obtained as of May from classified ads and the implicit GEIH hiring figures showed improved performance at the margin, which is in line with the behavior observed in the salaried and non-salaried segments. The improvement in job vacancy indices, together with rising hiring expectations derived from Banco de la República's quarterly Survey of Economic Expectations (ETE for its Spanish acronym) registered positive results<sup>5</sup> versus the fourth quarter of 2023, suggesting an increment in the formal salaried employment level in the near future. The behavior of the unemployment rate in the urban domain and the job vacancy rate provided by the Beveridge curve<sup>6</sup> (Graph 3.16), suggests the labor market remains tight due to a still-high job vacancy rate. Accordingly, positive hiring expectations within a context of gradually recovering economic growth would indicate that this tightness could continue over a more extended period of time. Finally, with data through April, job income information shows that, for the national aggregate, annual nominal income indexes continued to adjust upward. In real terms, the median income of the salaried segment showed an annual increase of 6.1%, equal to the increase recorded by the non-salaried segment seen in this environment of falling inflation.

### 3.4 Financial and Monetary Market

**During the second quarter of 2024, the loan portfolio continued its low growth, with similar behavior to that seen in the first months of the year, amid a backdrop of interest rates that continued to decline, risk levels that remained**

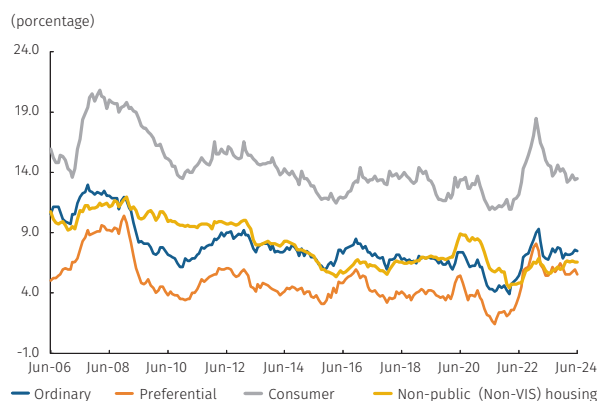
- 5 As of the first quarter of 2024, economic expectations rallied with a 11.6 pts rise versus the previous quarter, considering for this assessment those with plans to increase or decrease their workforce in the short term.
- 6 The Beveridge curve is a graphical representation of the relationship between unemployment and the job vacancy rate.

Table 3.1 Average monthly interest rates (percentage)

	Dec-21	Dec-22	Dec-23	Mar-24	Jun-24
<b>Interbanks</b>					
Interbank policy rate	2.68	11.42	13.18	12.69	11.75
Interbank overnight	2.73	11.41	13.13	12.68	11.75
BBI overnight	2.72	11.41	13.13	12.68	11.75
BBI 1-month	2.96	11.80	13.10	12.44	11.47
BBI 3-months	3.36	12.08	12.81	12.02	11.01
BBI 6-months	3.97	12.31	12.35	11.39	10.49
BBI 12-months	-	12.17	11.17	10.11	9.65
<b>Deposits</b>					
Savings	1.19	5.72	6.23	5.88	5.36
DTF 90-days	3.08	13.42	12.63	10.85	10.14
CDT* 180-days	3.71	15.58	12.90	10.87	10.33
CDT 360-days	5.10	17.08	13.19	10.88	10.75
CDT > 360-days	7.14	19.15	12.71	11.15	11.32
<b>Credit</b>					
Preferential	6.00	18.57	17.05	14.79	13.65
Ordinary	8.18	19.27	17.93	16.56	15.66
Non-public housing purchases	9.40	17.22	17.06	15.93	14.71
Public housing purchases	11.55	17.00	15.41	14.23	13.42
Personal loan consumption	17.51	31.23	28.16	26.32	24.73
Payroll loan consumption	11.65	19.45	19.83	18.71	18.14
Credit card	24.47	39.01	34.70	31.10	29.22

\*CDT (term deposit certificates)

Sources: Financial Superintendency of Colombia, calculations by Banco de la República.

Graph 3.17  
Real loan interest rates  
(Monthly average data deflated  
by the CPI excluding food)

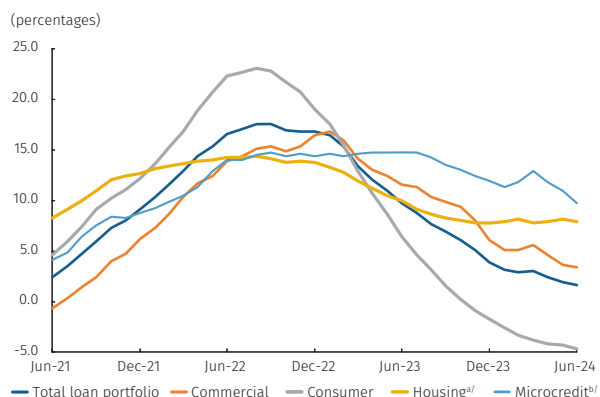
Sources: Financial Superintendency of Colombia, calculations by Banco de la República.

**high, and expectations that the benchmark rate would see additional reductions.** In the lending sector, credit risk indicators continued to increase and remained high in real terms, with expectations of further reductions in the monetary policy interest rate (MPR). On the credit supply side, the non-performing loans (NPL) risk indicators continued to increase and remained at high levels, and lending institutions continued to record low profits and continued with strict high requirements for granting new loans. Although some of these factors may show positive behaviors in the second half of the year, credit's contribution to economic growth, particularly household consumption, is expected to be low.

**Reductions in the MPR continued to pass through to market interest rates, although at a slower pace than in previous months (Table 3.1).** During the second quarter, the Board of Directors of *Banco de la República* (BDBR) continued to decrease the benchmark rate, with 50 basis points (bps) cuts in its April and June meetings. Money market interest rates mirrored a similar reduction, particularly the interbank rate (TIB for its Spanish acronym) and the overnight and one-month benchmark banking indicators (BBI). The BBIs for longer maturities also decreased and continue at lower levels than those of the MPR, which suggests continuing expectations of additional cuts in the latter during the coming months. For their part, deposit interest rates for maturities of less than one year continued to fall, although at a slower pace than the cuts observed in the MPR, while those for longer maturities halted their decline. Simultaneously, loan placement interest rates continued their steep downward trend for most types of loans, especially for consumer loans excluding payroll loans and credit cards, even though risk indicators continue to deteriorate. The decreases in credit interest rates are still reflecting a lower funding cost, greater preference on the part of financial entities to grant credit to agents with lower risk, and a demand for credit that remains weak. In real terms, loan placement interest rates remained relatively stable and surpassed the average of the last decade for most types of loans (Graph 3.17). This occurs against a backdrop of decreasing observed and expected inflation and with back-to-back reductions in nominal interest rates. It is worth noting that the relative risk between granting a loan or buying a public debt security (TES for its Spanish acronym) has decreased, as can be determined from the margins of the loan interest rates versus the TES interest rates. These spreads have narrowed and are approaching their historical averages, while housing loans have already moved to negative territory.

**Nominal growth in the total loan portfolio continued to be low, explained by annual declines in the consumer portfolio, in the context of continued weak demand for loans and a reticence to grant loans, constrained by the high-risk levels**

**Graph 3.18**  
Gross loan portfolio in Colombian pesos  
(Annual change, monthly averages)



a/ Adjusted housing: bank loan portfolio plus securitizations

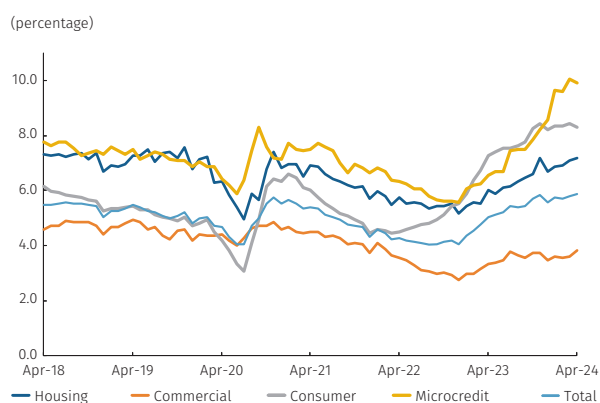
b/ Microcredit as of March 1, 2024 includes "Banco Contactar", entity that had previously operated as "Corporación de Crédito Contactar" under the oversight of the Superintendency of Corporate Affairs

Sources: Financial Superintendency of Colombia, calculations by Banco de la República.

**and the still high real lending interest rates.** During the second quarter, the nominal annual growth rate of credit remained stable at around 2.0% (Graph 3.18) but continued to contract in real terms (-5.6% annually in June). The behavior of the different loan types differed. The annual rate of the consumer non-performing loans portfolio continued to shrink at a somewhat higher pace than that registered in the first quarter (-4.7% in June compared to -3.8% in March). However, the level of commercial loans continued to decelerate in the second quarter, though at a slower rate than that observed at the beginning of the year. However, the annual increase in microcredit, which remained at around 10.0%, and a stable growth rate in housing loans expansion offset the fall in the consumer non-performing loan portfolio. In real terms, both consumer and commercial loans continued to register annual declines, while the downward trend of the first quarter leveled off. The downward trend in housing loans experienced in recent months plateaued. This, along with domestic demand that remained weak, low confidence levels, and real interest rates still at high levels, contributed to the weak demand for credit. Furthermore, the banks' stringent requirements for granting new loans<sup>7</sup> in all areas exacerbated the situation, although it appears they are relaxing their posture for consumer and commercial loans as well as microcredit.

The above, amid a backdrop of reduction in generation of profits and high levels of risk, could be limiting the growth rate of the credit supply.

**Graph 3.19**  
NPL Indicator  
(Past due loan portfolio / Total loan portfolio)



Sources: Financial Superintendency of Colombia, calculations by Banco de la República.

**Credit institutions maintain adequate solvency levels well above the regulatory minimums.** In April 2024, twelve-month cumulative profits reached COP 6.5 trillion (t), a 50% decrease versus the same period of the previous year. However, profits improved at the margin for the year's first quarter due to decreased provisions with the recent relaxation of credit restructuring regulations.<sup>8</sup> The non-performing loans indicator continued to deteriorate during the year for most types of loans, except for consumer loans, which have stabilized during the last few months (Graph 3.19). Meanwhile, data as of April shows that the total (17.7%) and basic (14.7%) solvency levels of credit institutions remain stable and are well above the regulatory minimums (9.0% and 4.5%, respectively). As such, credit institutions in Colombia have the adequate capital levels and resiliency to overcome asset risks.

7 See the results of the Quarterly Survey on Credit Institutions in Colombia for the first quarter of 2024.

8 For more information, see External Memoranda 014 of 2023 and 006 of 2024, issued by the Financial Superintendency of Colombia.

# BOX 1

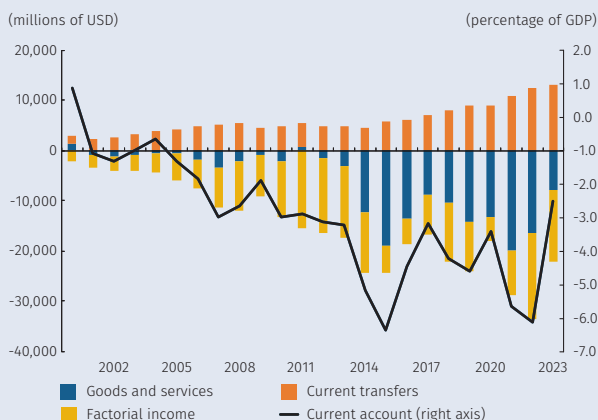
## Behavior of the current account deficit and its long-term relationship with some critical determinants in the case of Colombia and other regional countries

Johanna Barbosa Buitrago  
 Darío Perdomo Sánchez  
 Marlon Salazar Silva\*

### 1. Introduction

After facing the adverse effects brought on by the COVID-19 pandemic, in 2021 and 2022 the Colombian economy grew at a remarkable pace, reflected in a widening of the current account deficit to levels close to its historical maximums (-5.6% and -6.1% of GDP, respectively). In contrast, 2023 saw a slowdown in local economic growth due to a restrictive monetary policy and a reduction in the fiscal deficit. This, together with the revitalization of tourism and high levels of remittance income, resulted in a significant correction to the current account deficit, which reached its lowest level in the last thirteen years (-2.5% of GDP). This Box seeks to explain the dynamics that drove the widening of the deficit in 2021 and 2022 and those that facilitated its correction in 2023. It also evaluates the level of the current account deficit against a projection of its long-term relationship with some key determinants for Colombia and for other economies in the region.

Graph B1.1  
 Behavior of the current account by components



Source: Banco de la República.

### 2. Recent behavior of the external imbalance from a balance of payments perspective

In Colombia, the current account of the balance of payments has historically presented a deficit. Recently, this imbalance has been driven by the trade balance and factorial income (Graph B1.1). In contrast, current transfers have traditionally shown a surplus, driven mainly by the flow of remittances to Colombia. During 2021 and 2022, the trade deficit in goods and factorial income widened compared to that observed in 2020, which explained the more significant external current account imbalance. In the same years, the trade deficit in goods was due to accelerated growth of imports, coupled with the country's economic recovery and higher freight costs reflecting the challenges seen in global supply chains once the pandemic ended. As for factorial income, during this same period, there was an upturn in profit outflows from the mining and oil sector amid rising international commodity prices following Russia's invasion of Ukraine.

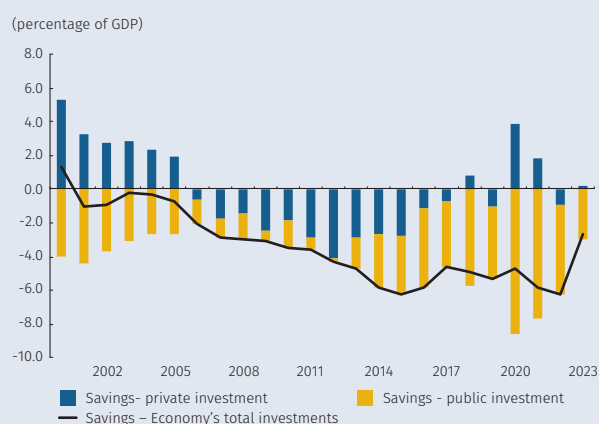
\* The authors are members of the Macroeconomic Programming Section of Banco de la República. The views and opinions expressed herein do not necessarily reflect those of the Bank or its Board of Directors.

By 2023, a correction was observed in the current account deficit under a restrictive monetary policy, which contributed to the adjustment of domestic demand, resulting in lower imports and a decrease in the goods trade deficit (Graph B1.1). Furthermore, the same year saw a significant decrease in the services deficit, mainly due to higher exports in the tourism sector, coupled with a tempering in freight rates once global supply chains stabilized. In addition, the factorial income deficit decreased in an environment of falling international commodity prices and lower profitability of foreign companies established in the country. Moreover, current transfers reached their highest historical level, driven by income from workers' remittances favored by a rebound in the migration of Colombians abroad and tight labor markets in the advanced economies where Colombian migrants work. All these factors allowed the external imbalance to close, narrowing from -6.1% of GDP observed in 2022 to -2.5% by 2023.<sup>1</sup>

### 3. Outlook from a local savings and investment perspective

The current account of the balance of payments also reflects the imbalance between an economy's investment and savings. If national savings are insufficient to finance investment, it would be necessary to resort to savings from the rest of the world, resulting in a current account deficit. From this perspective and according to National Accounts figures, since 2013 the public sector has been the primary component of the current deficit, in tandem with an increase in the level of public debt of the General Government.<sup>2</sup> In 2021 and 2022, the private sector led the expansion of Colombia's external deficit (Graph R1.2),<sup>3</sup> amid the recovery of private consumption following the savings surpluses accrued during the pandemic, the growth of credit, and higher investment above its trend, mainly in machinery and equipment. In 2023, both the public and private sectors contributed to closing the external imbalance owing to a lower public sector deficit as a percentage of GDP and a private sector whose investment fell more than its savings.

Graph B1.2  
Savings-Investment Balance



Source: DANE, own calculations.

### 4. Current deficit versus the level based on specific key determinants

To assess the current account deficit against one based on some fundamental determinants, we follow the methodology proposed by Torres and Cote (2017) to estimate the long-term relationship between the current account and a group of variables commonly used in the literature as determinants of its behavior. This estimation uses a panel data cointegration model employing the Fully Modified Ordinary Least Squares (FMOLS) methodology.

For this purpose, panel data was constructed for 26 countries<sup>4</sup> using annual information from 1980 to 2023, which, in addition to current

- 1 The current account deficit decreased from USD 21,205 million in 2022 to USD 9,154 million in 2023.
- 2 From 2013 to 2019, the increase in public debt occurred in a context of low interest rates, consistent with the recovery of Colombia's investment grade in 2011. By 2020, debt increased markedly as a direct result of the resource needs arising from the pandemic's health emergency.
- 3 The savings-investment balance is constructed from the historical series of private and public savings and investment data derived from DANE's Integrated Economic Accounts (CEI). The public sector is understood as the General Government, and the private sector is understood as all other institutional sectors.
- 4 Barbados, Belize, Bolivia, Brazil, Chile, Colombia, Costa Rica, Dominican Republic, Ecuador, Guatemala, Honduras, Jamaica, Panama, Paraguay, Peru, El Salvador, India, Indonesia, Israel, Jordan, Korea, Malaysia, Nepal, Pakistan, Papua New Guinea, and the Philippines.

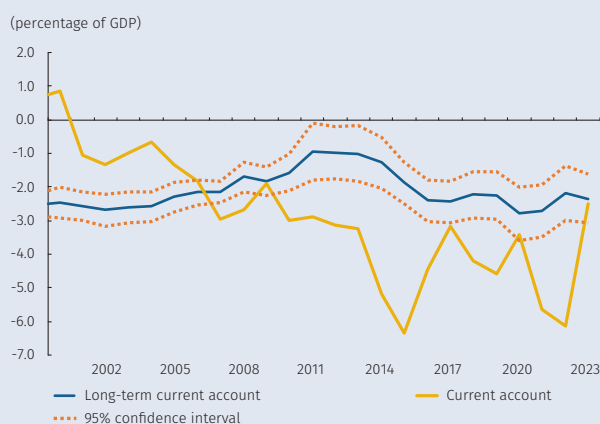
account information, includes a series of financial, demographic, and macroeconomic variables that the literature commonly identifies as determinants of external imbalance<sup>5</sup> (Arteaga et al., 2011; Gossé and Serranito, 2014; Torres and Cote, 2017). With this, the following estimate for a long-term level of the current account was made:

$$CC_{i,t} = \alpha_i + x'_{i,t} \beta + u_{i,t}$$

Where  $CC_{i,t}$  is the current account as a percentage of the country  $i$ 's GDP in year  $t$ ,  $x'_{i,t}$  is a matrix of the long-term determinants of the current account, and  $u_{i,t}$  is the error term. Consequently, the value estimated by the model corresponds to the current account level that would be compatible with its fundamentals in the long term. These values were obtained for each of the 26 countries included in the data panel.

In the case of Colombia, the results suggest that the current account deficit evidenced a particularly notable misalignment against those levels resulting from its long-term relationship with some fundamental determinants for three specific periods during the last 25 years. The first period, in the early 2000s, corresponds to the sharp economic contraction seen at the end of the last century. The second period, spanning from 2012 to 2016, suffered a significant reduction in exports following the rupture of trade relations with Venezuela, which deepened as of 2014 with the fall in international oil and other raw materials prices. Finally, the increase in the current deficit experienced in 2021 and 2022 shifted it away from the long-term relationship levels estimated for those years (-2.7% and -2.2% of GDP, respectively), while the correction observed in 2023 would have brought it considerably closer to the long-term projections (-2.4% of GDP).

**Graph B1.3**  
Current account and long-term current account as a percentage of GDP - Colombia



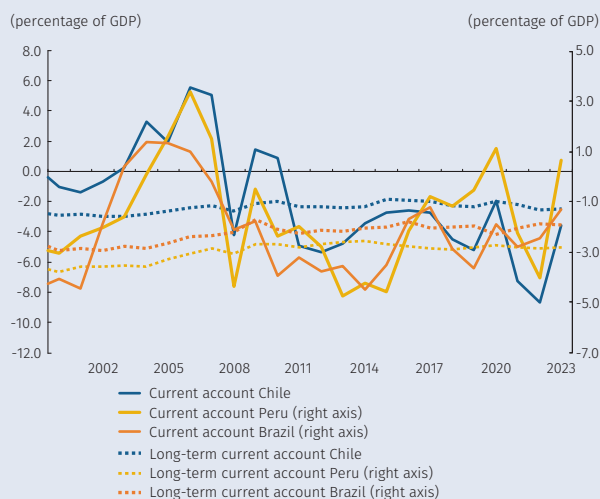
Source: Own calculations.

## 5. External imbalance of some countries in the region

Some regional countries such as Chile, Peru, and Brazil, experienced situations similar to that of Colombia, whereby the current account deficit increased in 2021 and 2022 and then fell in 2023 (Graph B1.4). Notably, among the common characteristics and events that explain the widening of these countries' deficits in '21 and '22 are the increase in imports of goods and services, together with significant recovery in economic growth and domestic demand (especially in Chile and Colombia, whose growth in private consumption was remarkable), as well as high freight costs that reflected the global supply chain difficulties and costs associated with logistics and transportation during the post-pandemic recovery. However, it is essential to note that the widening of the post-pandemic deficit in Peru and Brazil was consistent with the levels derived from the long-term estimate relationship, while in the case of Chile and Colombia, the deficit's widening conflicted with these projections. (Graphs B1.3 and B1.4)

Subsequently, among the common factors that explain the decrease of the deficit in 2023 for the aforementioned countries are the fall of imports as economic activity domestic and demand tempered, the decrease in freight costs, and the lesser factorial income (the latter being particularly significant for Colombia and Peru). Additionally, in Colombia, Chile, and Peru, higher tourism exports also contributed to closing the deficit. Colombia and Peru also benefited from the favorable performance of remittances, which further drove the

**Graph B1.4**  
Current account and long-term current account as a percentage of GDP - Latin America



Source: Own calculations.

5 Among the variables used are: private sector credit as a percentage of GDP, public debt as a percentage of GDP, the population dependency ratio as a percentage of working-age workers, the interest rate differential of each country versus the US rate, the logarithm of GDP per capita of each country relative to GDP per capita of the US., the lag of net foreign assets (excluding gold) as a percentage of GDP recovered from Milesi-Ferretti (2022), and the oil balance as a percentage of GDP.

correction of the current account imbalance. Thus, for Colombia, Brazil, and Chile, the deficit reduction in 2023 brought them close to long-term levels. The exception in this regional sample is Peru, where the surplus registered surpassed the long-term level (Graph B1.4).

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## Appendix 1

### Macroeconomic Forecasts by local and Foreign Analysts<sup>a/, b/</sup>

	Unit	Jul-24	Dec-24	Jul-25	Dec-25	Jul-26
Total CPI	Monthly variation (average)	0.28	n. a.	n. a.	n. a.	n. a.
CPI excluding food	Monthly variation (average)	0.27	n. a.	n. a.	n. a.	n. a.
CPI for goods (excluding food and regulated items)	Monthly variation (average)	0.25	n. a.	n. a.	n. a.	n. a.
CPI for goods	Monthly variation (average)	0.29	n. a.	n. a.	n. a.	n. a.
CPI for regulated items	Monthly variation (average)	0.33	n. a.	n. a.	n. a.	n. a.
Total CPI	Annual variation (average), end of period	7.12 <sup>c/</sup>	5.77	4.29	3.94	3.60
CPI excluding food	Annual variation (average), end of period	7.57 <sup>c/</sup>	5.83	4.30	3.87	3.46
CPI for goods (excluding food and regulated items)	Annual variation (average), end of period	5.94 <sup>c/</sup>	5.21	4.11	3.70	3.31
CPI for goods	Annual variation (average), end of period	5.26 <sup>c/</sup>	5.12	4.33	4.03	3.81
CPI for regulated items	Annual variation (average), end of period	12.30 <sup>c/</sup>	8.95	6.09	5.56	5.00
Nominal Exchange Rate	COP per USD, end of period	4,000	4,050	4,100	4,103	4,066
Monetary Policy Rate	Percentage, end of period	10.75	8.50	6.25	6.00	5.50

	Unit	II-2024	III-2024	IV-2024	2024	I-2025	II-2025	III-2025	IV-2025	2025	I-2026	II-2026
GDP	Annual change, original series	1.3	1.6	1.9	1.5	2.4	2.4	2.6	2.7	2.5	2.7	n. a.
Unemployment	Thirteen cities, quarterly average	10.5	10.6	10.5	n. a.	11.4	10.7	10.5	10.3	n. a.	11.0	n. a.
IBR (90 days)	Effective annual rate, end of period	n. r.	9.7	8.3	n. a.	7.2	6.4	5.9	5.8	n. a.	5.6	5.6
Fiscal Deficit (GNC) <sup>d/</sup>	Share of GDP	n. a.	n. a.	n. a.	5.6	n. a.	n. a.	n. a.	n. a.	5.1	n. a.	n. a.
Direct Account Deficit <sup>d/</sup>	Share of GDP	n. a.	n. a.	n. a.	2.8	n. a.	n. da.	n. a.	n. a.	3.3	n. a.	n. a.

n.a.: Not available.

n.r.: Not relevant, given that the data has already been observed.

a/ The survey excluded the question related to the DTF starting with the April 2023 *Banco de la República's* Monthly Survey of Economic Analyst Expectations. Expectations (EME for its Spanish acronym) conducted by *Banco de la República*.

b/ Is the response median to *Banco de la República's* Monthly Survey of Economic Analyst Expectations, except for the CPI and CPI excluding food, which are the response average.

c/ Data calculated based on the results of *Banco de la República's* Monthly Survey of Economic Analyst Expectations (EME).

d/ Positive values represent deficit and negative values represent surplus.

Sources: *Banco de la República Monthly Survey of Economic Analyst Expectations*, conducted in July 2024.

# Appendix 2

## Main Macroeconomic Forecasting Variables

		Years										
		2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
<b>Exogenous variables</b>												
External <sup>a/</sup>												
GDP of trading partners <sup>b/</sup>	Percentage, annual var., seasonally adjusted	2.0	1.6	3.2	2.5	1.5	-6.6	8.2	3.6	2.3	<b>1.9</b>	<b>2.1</b>
Oil price (Brent benchmark)	Dollars per barrel, average of the period	54	45	55	72	64	43	71	99	82	<b>84</b>	<b>81</b>
Federal funds effective rate (Fed)	Percentage, average for the period	0.13	0.39	1.00	1.83	2.16	0.37	0.08	1.68	5.03	<b>5.30</b>	<b>4.47</b>
5-year Credit Default Swap for Colombia	Basis points, average for the period	184	212	129	114	99	142	142	259	246	<b>186</b>	<b>211</b>
Internal												
Neutral real interest rate for Colombia	Percentage, average for the period	1.5	1.6	1.3	1.3	1.2	1.3	1.5	2.0	2.2	<b>2.4</b>	<b>2.5</b>
Potential GDP for Colombia (trend)	Percentage, annual change	3.3	2.8	2.4	2.3	2.3	-0.1	4.0	3.6	2.9	<b>2.9</b>	<b>2.7</b>
<b>Endogenous variables</b>												
<b>Prices</b>												
Total CPI <sup>c/</sup>	Percentage, annual change, end of period	6.77	5.75	4.09	3.18	3.80	1.61	5.62	13.12	9.28	<b>5.71</b>	<b>3.05</b>
CPI excluding food <sup>d/</sup>	Percentage, annual change, end of period	5.25	5.51	5.03	3.51	3.45	1.03	3.44	9.99	10.33	.	.
CPI for goods (excluding food and regulated items)	Percentage, annual change, end of period	7.27	5.91	3.24	1.40	2.18	0.63	3.31	15.04	7.11	.	.
CPI for services (excluding food and regulated items)	Percentage, annual change, end of period	4.64	5.26	5.38	3.13	3.45	1.29	2.18	7.41	8.96	.	.
CPI for regulated items	Percentage, annual change, end of period	4.43	5.63	6.26	6.65	4.81	0.73	7.10	11.77	17.24	<b>8.40</b>	<b>3.23</b>
CPI for food <sup>e/</sup>	Percentage, annual change, end of period	13.08	6.65	0.48	1.87	5.80	4.80	17.23	27.81	5.00	<b>5.45</b>	<b>1.19</b>
CPI for perishable food	Percentage, annual change, end of period	26.03	-6.63	5.84	8.88	8.66	2.49	24.42	36.44	-0.47	.	.
CPI for processed food	Percentage, annual change, end of period	9.62	10.74	-0.91	-0.08	5.04	5.43	15.32	25.33	6.71	.	.
Core inflation indicators <sup>f/</sup>												
CPI excluding food	Percentage, annual change, end of period	5.25	5.51	5.03	3.51	3.45	1.03	3.44	9.99	10.33	.	.
Core CPI <sup>g/</sup>	Percentage, annual change, end of period	5.59	5.98	4.21	3.22	3.78	1.88	4.42	11.55	9.46	.	.
CPI excluding food and regulated items	Percentage, annual change, end of period	5.50	5.48	4.67	2.57	3.10	1.11	2.49	9.51	8.42	<b>4.99</b>	<b>3.42</b>
Average of all core inflation indicators	Percentage, annual change, end of period	5.44	5.66	4.64	3.10	3.44	1.34	3.45	10.35	9.41	.	.
Representative market exchange rate	Pesos per dollar, average for the period	2,746	3,053	2,951	2,957	3,282	3,691	3,747	4,257	4,330	.	.
Real exchange rate Inflationary gap	Percentage, average for the period	9.6	2.5	-1.7	-0.7	3.6	6.9	2.2	6.7	1.4	<b>-6.2</b>	<b>-1.8</b>
<b>Economic activity</b>												
Gross domestic product (sats) <sup>h/</sup>	Percentage, annual change, sats	3.0	2.1	1.4	2.6	3.2	-7.2	10.8	7.3	0.6	<b>1.8</b>	<b>2.7</b>
Final consumption expense	Percentage, annual change, sats	3.4	1.6	2.3	4.0	4.3	-4.2	13.8	8.9	1.0	.	.
Household final consumption expenditure	Percentage, annual change, sats	3.1	1.6	2.1	3.2	4.1	-5.0	14.7	10.7	0.8	.	.
General government final consumption expenditure	Percentage, annual change, sats	4.9	1.8	3.6	7.4	5.3	-0.8	9.8	0.8	1.6	.	.
Gross capital formation	Percentage, annual change, sats	-1.2	-0.2	-3.2	1.5	3.0	-20.7	11.6	16.0	-25.9	.	.
Gross fixed capital formation	Percentage, annual change, sats	2.8	-2.9	1.9	1.0	2.2	-23.6	16.7	11.5	-9.5	.	.
Housing	Percentage, annual change, sats	9.5	-0.2	-1.9	-0.4	-8.9	-32.7	39.8	2.0	-1.2	.	.
Other buildings and structures	Percentage, annual change, sats	10.2	0.0	4.6	-3.5	1.1	-30.8	0.9	-4.2	-4.8	.	.
Machinery and equipment	Percentage, annual change, sats	-9.3	-7.9	1.4	8.6	12.3	-13.3	23.3	30.3	-17.6	.	.
Cultivated biological resources	Percentage, annual change, sats	2.3	13.1	0.3	-3.1	7.9	-1.8	-0.9	-12.5	4.6	.	.
Intellectual property products	Percentage, annual change, sats	1.3	-12.0	1.2	1.5	-0.7	-8.3	3.4	8.9	0.7	.	.
Domestic demand	Percentage, annual change, sats	2.4	1.2	1.1	3.5	4.0	-7.5	13.4	10.2	-4.0	.	.
Exports	Percentage, annual change, sats	1.7	-0.2	2.6	0.6	3.1	-22.5	14.6	12.3	3.4	.	.
Imports	Percentage, annual change, sats	-1.1	-3.5	1.0	5.8	7.3	-20.1	26.7	23.6	-15.0	.	.
Product gap <sup>g/</sup>	Percentage	0.9	0.2	-0.8	-0.6	0.3	-7.1	-0.8	2.8	0.5	<b>-0.5</b>	<b>-0.5</b>
Short-term indicators												
Real production of manufacturing industry	Percentage, annual change, seasonally adjusted	2.1	3.5	0.0	2.9	1.3	-8.1	16.2	10.5	-4.7	.	.
Retail trade sales, excluding fuels or vehicles	Percentage, annual change, seasonally adjusted	6.4	2.0	-0.1	5.5	8.1	-1.5	12.3	9.2	-4.0	.	.
Coffee production	Percentage, annual change, cum. for period	16.8	0.4	-0.3	-4.5	8.8	-5.8	-9.5	-11.9	2.4	.	.
Oil production	Percentage, annual change, period average	1.5	-11.9	-3.6	1.3	2.4	-11.8	-5.8	2.4	3.0	.	.
<b>Labor market <sup>h/</sup></b>												
Total national												
Unemployment rate	Percentage, annual change, period average	9.2	9.5	9.7	10.0	10.9	16.7	13.8	11.2	10.2	<b>10.6</b>	.
Occupancy Rate	Percentage, annual change, period average	61.3	60.5	60.0	59.1	57.7	50.4	53.1	56.5	57.6	.	.
Overall participation rate	Percentage, annual change, period average	67.5	66.9	66.4	65.7	64.8	60.4	61.5	63.6	64.1	.	.
Thirteen cities and metropolitan areas												
Unemployment rate	Percentage, annual change, period average	10.1	10.3	11.0	11.1	11.5	19.1	15.2	11.4	10.4	<b>10.5</b>	.
Occupancy Rate	Percentage, annual change, period average	62.6	61.7	60.5	59.6	58.8	50.8	53.8	58.1	59.5	.	.
Overall participation rate	Percentage, annual change, period average	69.6	68.8	67.9	67.1	66.4	62.7	63.5	65.5	66.3	.	.
<b>Balance of payments <sup>i/ j/</sup></b>												
Current account (A + B + C)	Millions of dollars	-18,702	-12,587	-9,924	-14,041	-14,809	-9,267	-17,949	-21,205	-9,154	<b>-11,619</b>	<b>-14,288</b>
Percentage of GDP	Percentage, nominal terms	-6.3	-4.4	-3.2	-4.2	-4.6	-3.4	-5.6	-6.1	-2.5	<b>-2.8</b>	<b>-3.4</b>
A. Goods and services	Millions of dollars	-19,004	-13,451	-8,762	-10,556	-14,148	-13,105	-20,001	-16,427	-7,989	<b>-12,008</b>	<b>-15,544</b>
B. Primary income (factor income)	Millions of dollars	-5,450	-5,312	-8,046	-11,442	-9,716	-4,950	-8,723	-17,086	-14,100	<b>-13,783</b>	<b>-13,822</b>
C. Secondary income (current transfers)	Millions of dollars	5,752	6,177	6,883	7,957	9,055	8,788	10,775	12,308	12,936	<b>14,172</b>	<b>15,078</b>
Financial account (A + B + C + D)	Millions of dollars	-18,060	-12,339	-9,625	-12,954	-13,298	-8,113	-16,693	-20,466	-8,285	.	.
Percentage of GDP	Percentage, nominal terms	-6.1	-4.4	-3.1	-3.9	-4.1	-3.0	-5.3	-5.9	-2.3	.	.
A. Foreign investment (ii - i)	Millions of dollars	-7,403	-9,341	-10,011	-6,172	-10,836	-5,725	-6,381	-13,799	-15,972	.	.
i. Foreign Investment in Colombia (FDI)	Millions of dollars	11,621	13,858	13,701	11,299	13,989	7,459	9,561	17,183	17,147	.	.
ii. Colombian abroad	Millions of dollars	4,218	4,517	3,690	5,126	3,153	1,733	3,181	3,384	1,175	.	.
B. Portfolio investment	Millions of dollars	-9,091	-4,945	-1,800	862	24	-1,768	-4,595	427	8,723	.	.
C. Other investment (loans, other credits, and derivatives)	Millions of dollars	-1,981	1,781	1,641	-8,831	-5,820	-4,949	-6,371	-7,665	-2,754	.	.
D. Reserve assets	Millions of dollars	415	165	545	1,187	3,333	4,328	654	571	1,718	.	.
Errors and omissions (E&O)	Millions of dollars	643	247	299	1,087	1,510	1,153	1,256	739	868	.	.
<b>Interest rates</b>												
Policy interest rate <sup>k/</sup>	Percentage, period average	4.67	7.10	6.10	4.35	4.25	2.87	1.91	7.22	13.04	.	.
Policy rate expected by analysts <sup>l/</sup>	Percentage, period average										<b>11.29</b>	<b>6.92</b>
IBR overnight	Percentage, period average	4.7	7.1	6.1	4.3	4.3	2.9	1.9	7.2	13.0	.	.
Commercial interest rate <sup>m/</sup>	Percentage, period average	9.4	12.8	11.1	9.3	8.8	7.4	6.2	13.3	18.7	.	.
Consumer interest rate <sup>n/</sup>	Percentage, period average	17.2	19.2	19.4	17.9	16.5	15.0	14.3	21.1	27.9	.	.
Mortgage interest rate <sup>o/</sup>	Percentage, period average	11.0	12.4	11.6	10.6	10.4	10.1	9.1	12.9	17.7	.	.

Note: values in bold are forecasts or assumptions.

sats: seasonally adjusted time series, modified to eliminate the effect of seasonal and calendar influences.

a/ Quarterly data in bold are assumptions based on the annual forecast of each variable.

b/ Calculated with the main trading partners (excluding Venezuela) weighted by their share of trade.

c/ The medium term forecast corresponds to the average of the estimates obtained from the technical staff's central models (4GM and PATACON).

d/ Calculations by Banco de la República; excluding the CPI item weight for food and non-alcoholic beverages. Consult González, E.; Hernández, R.; Caicedo, E.; Martínez-Cortés, N.; Grajales, A.; Romero, J. (2020). "Nueva clasificación del Banrep de la canasta del IPC y revisión de las medidas de inflación básica en Colombia", *Borradores de Economía*, No. 122, Banco de la República, available at: <https://investiga.banrep.gov.co/es/be-1122>.

e/ Calculations by Banco de la República; equal to the CPI item weight of Food and non-alcoholic beverages produced by DANE (does not include the subclasses corresponding to meals outside the home). See González, E.; Hernández, R. et al, *Ibid*.

f/ Calculations by Banco de la República. See González, E.; Hernández, R. et al, *Ibid*.

g/ The historical gap estimate is calculated based on the difference between observed GDP (cumulative 4 quarters) and potential GDP (trend; cumulative 4 quarters) resulting from the 4GM model; in the forecast it is calculated from the difference between the technical staff's estimate of GDP (cumulative 4 quarters) and potential GDP (trend; cumulative 4 quarters) resulting from the 4GM model. For 2023, the change in the gap estimate is explained, in part, by an upward revision of the output gap in 2022, which in turn is due to the revisions of quarterly GDP growth by the DANE in its publication of November 2023.

h/ Rates are calculated based on seasonally adjusted annual populations.

i/ The results presented follow the recommendations of the sixth edition of the Balance of Payments and International Investment Position Manual (BPM6). See additional information and method changes at <http://www.banrep.gov.co/balance-payments>.

j/ Results for 2021 and 2022 are preliminary.

k/ Corresponds to the average annual monetary policy interest rate calculated with the working days of the series.

l/ These projections are calculated as the average of the interest rate that would be in effect in each year according to the median of the monthly responses to the Monthly Survey of Economic Analyst Expectations (EME) conducted by Banco de la República in July 2024.

m/ Weighted average of interest rates on ordinary, treasury and preferential loans.

n/ Does not include loans granted through credit cards.

o/ Corresponds to the weighted average of interest rate of the disbursements in COP and UVR (real value unit for its Spanish acronym) for the acquisition of NON-VIS housing (housing that is not social interest housing).

## Appendix 2 (continuation)

# Main Macroeconomic Forecasting Variables

	2019				2020			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
<b>Exogenous variables</b>								
<b>External <sup>a/</sup></b>								
GDP of trading partners <sup>b/</sup>								
Oil price (Brent benchmark)								
Federal funds effective rate (Fed)								
5-year Credit Default Swap for Colombia								
<b>Internal</b>								
Neutral real interest rate for Colombia								
Potential GDP for Colombia (trend)								
<b>Endogenous variables</b>								
<b>Prices</b>								
Total CPI <sup>c/</sup>								
CPI excluding food <sup>d/</sup>								
CPI for goods (excluding food and regulated items)								
CPI for services (excluding food and regulated items)								
CPI excluding food								
CPI for food <sup>e/</sup>								
CPI for perishable food								
CPI for processed food								
<b>Core inflation indicators <sup>f/</sup></b>								
CPI excluding food								
Core CPI 15								
CPI excluding food and regulated items								
Average of all core inflation indicators								
Representative market exchange rate								
Real exchange rate Inflationary gap								
<b>Economic activity</b>								
Gross domestic product (sats)*								
Final consumption expense								
Household final consumption expenditure								
General government final consumption expenditure								
Formación bruta de capital								
Gross capital formation								
Housing								
Other buildings and structures								
Machinery and equipment								
Cultivated biological resources								
Intellectual property products								
Domestic demand								
Exports								
Imports								
Product gap <sup>g/</sup>								
Short-term indicators								
Real production of manufacturing industry								
Retail trade sales, excluding fuels or vehicles								
Coffee production								
Oil production								
<b>Labor market <sup>h/</sup></b>								
Total national								
Unemployment rate								
Occupancy Rate								
Overall participation rate								
Thirteen cities and metropolitan areas								
Unemployment rate								
Occupancy Rate								
Overall participation rate								
<b>Balance of payments <sup>i/ j/</sup></b>								
Current account (A + B + C)								
Percentage of GDP								
A. Goods and services								
B. Primary income (factor income)								
C. Secondary income (current transfers)								
Financial account (A + B + C + D)								
Percentage of GDP								
A. Foreign investment (ii - i)								
i. Foreign investment in Colombia (FDI)								
ii. Colombian abroad								
B. Portfolio investment								
C. Other investment (loans, other credits and derivatives)								
D. Reserve assets								
Errors and omissions (E&O)								
<b>Interest rates</b>								
Policy interest rate <sup>k/</sup>								
Policy rate expected by analysts <sup>l/</sup>								
IBR overnight								
Commercial interest rate <sup>m/</sup>								
Consumer interest rate <sup>n/</sup>								
Mortgage interest rate <sup>o/</sup>								

Note: values in bold are forecasts or assumptions.

sats: seasonally adjusted time series, modified to eliminate the effect of seasonal and calendar influences.

a/ Quarterly data in bold are assumptions based on the annual forecast of each variable.

b/ Calculated with the main trading partners (excluding Venezuela) weighted by their share of trade.

c/ The medium term forecast corresponds to the average of the estimates obtained from the technical staff's central models (4GM and PATACON).

d/ Calculations by *Banco de la República*; excluding the CPI item weight for food and non-alcoholic beverages. Consult González, E; Hernández, R; Caicedo, E; Martínez-Cortés, N; Grajales, A; Romero, J. (2020). "Nueva clasificación del Banrep de la canasta del IPC y revisión de las medidas de inflación básica en Colombia", *Borradores de Economía*, No. 122, *Banco de la República*, available at: <https://investiga.banrep.gov.co/es/be-1122>.

e/ Calculations by *Banco de la República*; equal to the CPI item weight of Food and non-alcoholic beverages produced by DANE (does not include the subclasses corresponding to meals outside the home). See González, E; Hernández, R, et al, *Ibid*.

f/ Calculations by *Banco de la República*. See González, E; Hernández, R, et al, *Ibid*.

g/ The historical gap estimate is calculated based on the difference between observed GDP (cumulative 4 quarters) and potential GDP (trend; cumulative 4 quarters) resulting from the 4GM model; in the forecast it is calculated from the difference between the technical staff's estimate of GDP (cumulative 4 quarters) and potential GDP (trend; cumulative 4 quarters) resulting from the 4GM model. For 2023, the change in the gap estimate is explained, in part, by an upward revision of the output gap in 2022, which in turn is due to the revisions of quarterly GDP growth by the DANE in its publication of November 2023.

h/ Rates are calculated based on seasonally adjusted annual populations.

i/ The results presented follow the recommendations of the sixth edition of the Balance of Payments and International Investment Position Manual (BPM6). See additional information and method changes at <http://www.banrep.gov.co/> balance-payments.

j/ Results for 2021 and 2022 are preliminary.

k/ Corresponds to the average annual monetary policy interest rate calculated with the working days of the series.

l/ These projections are calculated as the average of the interest rate that would be in effect in each year according to the median of the monthly responses to the Monthly Survey of Economic Analyst Expectations (EME) conducted by *Banco de la República* in July 2024.

m/ Weighted average of interest rates on ordinary, treasury and preferential loans.

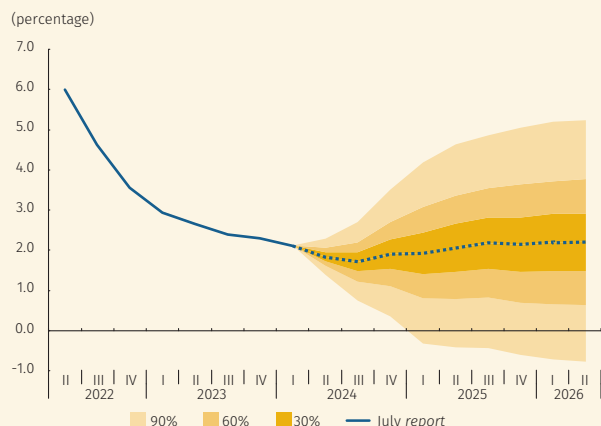
n/ Does not include loans granted through credit cards.

o/ Corresponds to the weighted average of interest rate of the disbursements in COP and UVR (real value unit for its Spanish acronym) for the acquisition of NON-VIS housing (housing that is not social interest housing).

2021				2022				2023				2024				2025				2026	
Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
5.3	7.2	7.0	5.8	0.7	2.2	4.3	1.0	3.0	2.7	1.9	-1.0	4.2	1.6	2.1	1.9	2.5	2.3	2.0	2.3	2.3	2.3
61	69	73	80	98	112	98	89	82	78	86	83	82	85	86	83	82	81	81	80	80	80
0.08	0.07	0.09	0.08	0.12	0.76	2.20	3.65	4.52	4.99	5.26	5.33	5.33	5.33	5.33	5.20	4.85	4.58	4.34	4.09	3.85	3.58
110	131	143	185	209	238	275	314	283	275	219	207	172	187	188	196	203	208	213	218	221	224
1.51	3.63	4.51	5.62	8.53	9.67	11.44	13.12	13.34	12.13	10.99	9.28	7.36	7.18	6.30	5.71	5.30	4.25	3.58	3.05	2.83	2.80
1.06	2.70	3.03	3.44	5.31	6.84	8.33	9.99	11.42	11.62	10.88	10.33	8.76	7.64	.	.	.	.	.	.	.	.
1.05	2.57	2.97	3.31	6.41	8.30	11.57	15.04	11.42	14.26	10.44	7.11	3.08	1.43	.	.	.	.	.	.	.	.
0.89	1.61	2.01	2.18	3.79	5.21	5.93	7.41	8.73	9.04	9.14	8.96	8.29	7.89	.	.	.	.	.	.	.	.
1.52	5.93	5.94	7.10	8.32	9.80	11.46	11.77	14.72	15.64	15.81	17.24	15.78	13.29	12.16	8.40	6.27	4.97	3.38	3.23	3.23	3.26
3.92	8.52	12.40	17.23	25.37	23.65	26.62	27.81	21.81	14.31	11.47	5.00	1.73	5.27	3.26	5.45	6.23	4.22	2.71	1.19	0.68	0.72
1.58	8.69	14.82	24.42	41.87	31.21	35.50	36.44	19.66	10.06	13.93	-0.47	-3.42	12.46	.	.	.	.	.	.	.	.
4.60	8.47	11.74	15.32	20.69	21.50	24.14	25.33	22.53	15.62	10.72	6.71	3.41	3.16	.	.	.	.	.	.	.	.
1.06	2.70	3.03	3.44	5.31	6.84	8.33	9.99	11.42	11.62	10.88	10.33	8.76	7.64	.	.	.	.	.	.	.	.
1.67	3.36	3.79	4.42	6.93	8.41	10.04	11.55	12.41	11.62	10.34	9.46	7.64	7.10	5.53	4.99	4.80	4.25	3.77	3.42	3.21	3.15
0.94	1.87	2.28	2.49	4.51	6.06	7.49	9.51	10.51	9.51	8.42	6.77	6.01	5.53	4.99	4.80	4.25	3.77	3.42	3.21	3.15	3.15
1.22	2.64	3.03	3.45	5.58	7.10	8.62	10.35	11.45	11.25	10.24	9.40	7.72	6.92	.	.	.	.	.	.	.	.
3,559	3,695	3,847	3,882	3,910	3,919	4,384	4,812	4,758	4,424	4,044	4,074	3,921	3,919	.	.	.	.	.	.	.	.
-0.1	2.1	3.4	3.3	2.6	1.3	7.8	15.3	12.1	3.4	-5.1	-4.6	-7.6	-8.1	-5.7	-3.4	-2.9	-1.9	-1.7	-1.0	-0.8	-0.2
1.4	18.7	13.5	11.1	8.0	12.2	7.3	2.1	2.6	0.3	-0.7	0.4	0.9	1.8	2.4	2.0	1.8	2.4	3.1	3.5	3.7	3.9
3.4	22.4	18.3	12.8	11.2	14.3	8.4	2.5	2.4	0.9	0.4	0.2	-0.3	0.2	.	.	.	.	.	.	.	.
2.8	25.4	19.5	13.8	12.1	16.2	10.6	4.6	3.2	1.2	-0.2	-0.7	-0.1	0.5	.	.	.	.	.	.	.	.
7.4	10.7	13.0	8.3	5.8	5.9	-2.8	-5.2	-1.6	-0.1	3.2	5.4	0.9	-2.0	.	.	.	.	.	.	.	.
-5.5	30.4	8.1	18.1	16.1	11.2	17.7	18.9	-12.0	-24.5	-32.9	-32.5	-14.6	8.3	.	.	.	.	.	.	.	.
3.2	42.5	15.1	13.7	8.0	13.3	14.0	10.9	-3.9	-7.4	-11.3	-15.3	-5.2	0.5	.	.	.	.	.	.	.	.
24.0	65.0	30.9	45.9	-0.3	3.3	6.5	-1.1	9.1	-1.0	-2.5	-9.6	-7.0	-2.3	.	.	.	.	.	.	.	.
-14.8	31.7	0.3	-0.8	-9.2	-1.0	5.0	-10.5	-7.0	-5.3	-9.5	3.0	4.0	6.8	.	.	.	.	.	.	.	.
8.9	55.0	23.8	14.9	31.6	32.0	25.1	32.5	-8.2	-16.0	-17.6	-27.6	-5.6	1.4	.	.	.	.	.	.	.	.
5.7	1.0	-4.1	-6.5	-16.3	-11.8	-4.3	0.6	6.2	7.2	4.7	2.4	0.9	0.9	.	.	.	.	.	.	.	.
-6.9	7.6	7.7	6.5	10.5	12.2	10.1	3.2	-0.2	1.5	-0.7	2.1	2.7	0.9	.	.	.	.	.	.	.	.
1.5	24.6	16.7	12.9	13.1	13.9	10.1	4.1	-0.4	-4.0	-6.9	-4.4	-2.6	0.3	.	.	.	.	.	.	.	.
-9.5	13.5	25.8	36.0	15.9	24.0	13.8	-1.7	3.4	2.5	0.6	7.3	2.4	2.2	.	.	.	.	.	.	.	.
-5.0	46.4	40.0	34.4	39.8	26.7	23.2	8.4	-8.0	-14.2	-23.2	-14.2	-13.3	-5.4	.	.	.	.	.	.	.	.
-7.0	-4.4	-2.5	-0.8	0.3	1.9	3.0	2.8	2.7	2.0	1.2	0.5	0.0	-0.3	-0.3	-0.5	-0.7	-0.8	-0.7	-0.5	-0.3	0.0
6.7	27.7	20.2	13.0	11.9	20.9	7.0	3.7	-1.1	-4.5	-7.1	-6.1	-4.5	.	.	.	.	.	.	.	.	.
4.2	19.3	15.9	11.1	12.5	21.8	5.8	-1.3	-1.7	-5.6	-4.8	-4.0	-4.4	.	.	.	.	.	.	.	.	.
13.3	-24.7	-1.9	-18.8	-16.3	9.7	-18.2	-17.0	-14.3	-2.1	24.9	3.5	30.3	.	.	.	.	.	.	.	.	.
-14.6	-5.1	-0.1	-1.7	-0.1	5.1	1.3	3.6	3.2	3.7	3.7	1.5	0.7	.	.	.	.	.	.	.	.	.
14.6	15.2	12.8	12.6	12.0	11.1	11.0	10.8	10.4	10.3	9.6	10.3	10.6	10.5	10.6	10.7	.	.	.	.	.	.
52.7	51.9	53.4	54.2	55.9	56.6	56.8	56.6	57.2	57.7	58.4	57.2	57.0	.	.	.	.	.	.	.	.	.
61.8	61.3	61.2	61.9	63.5	63.7	63.8	63.5	63.9	64.3	64.5	63.8	63.7	.	.	.	.	.	.	.	.	.
16.8	16.7	14.0	13.1	12.3	11.3	11.0	10.9	11.1	10.4	9.8	10.2	10.5	10.4	10.5	10.6	.	.	.	.	.	.
53.4	53.1	54.4	54.4	57.4	58.0	58.4	58.4	58.6	59.2	60.2	59.8	59.6	.	.	.	.	.	.	.	.	.
64.2	63.8	63.2	62.7	65.4	65.3	65.7	65.6	65.9	66.1	66.8	66.6	66.6	.	.	.	.	.	.	.	.	.
-3,105	-4,047	-4,835	-5,962	-5,504	-4,822	-6,179	-4,700	-2,996	-2,266	-1,758	-2,133	-1,924	.	.	.	.	.	.	.	.	.
-4.0	-5.5	-6.0	-6.9	-6.4	-5.3	-7.0	-5.8	-3.7	-2.6	-1.8	-2.1	-1.9	.	.	.	.	.	.	.	.	.
-3,688	-5,022	-5,259	-6,032	-5,065	-3,122	-4,490	-3,751	-2,228	-2,117	-1,437	-2,208	-1,932	.	.	.	.	.	.	.	.	.
-1,867	-1,652	-2,339	-2,865	-3,617	-4,531	-4,795	-4,144	-3,866	-3,182	-3,690	-3,362	-3,324	.	.	.	.	.	.	.	.	.
2,450	2,627	2,763	2,935	3,177	2,830	3,195	3,097	3,033	3,369	3,437	3,332	.	.	.	.	.	.	.	.	.	.
-2,789	-3,761	-4,504	-5,640	-5,037	-4,952	-5,736	-4,741	-2,556	-2,694	-1,522	-1,514	-1,397	.	.	.	.	.	.	.	.	.
-3.6	-5.1	-5.6	-6.5	-5.8	-5.5	-6.5	-5.8	-3.2	-3.1	-1.5	-1.5	-1.4	.	.	.	.	.	.	.	.	.
-1,438	-1,013	-2,528	-1,402	-3,651	-3,661	-2,959	-3,529	-3,564	-5,437	-3,468	-3,503	-2,533	.	.	.	.	.	.	.	.	.
2,307	1,997	2,707	2,550	4,934	5,043	3,113	4,092	4,109	5,309	3,946	3,783	3,620	.	.	.	.	.	.	.	.	.
869	984	179	1,149	1,284	1,382	154	563	545	-128	478	280	1,087	.	.	.	.	.	.	.	.	.
1,319	-6,089	851	-675	1,866	-759	-233	-447	1,111	1,520	4,531	1,561	1,589	.	.	.	.	.	.	.	.	.
-2,860	3,167	-2,981	-3,697	-3,379	-606	-2,703	-976	-468	824	-3,042	-69	-1,404	.	.	.	.	.	.	.	.	.
190	174	154	135	127	74	159	210	366	399	457	496	951	.	.	.	.	.	.	.	.	.
316	287	331	323	467	-130	443	-41	441	-428	237	619	527	.	.	.	.	.	.	.	.	.
1.75	1.75	1.75	2.40	3.69	5.68	8.56	10.81	12.53	13.17	13.25	13.23	12.82	11.93	.	.	.	.	.	.	.	.
1.7	1.7	1.8	2.4	3.7	5.7	8.6	10.8	12.5	13.2	13.3	13.2	12.8	11.9	10.92	9.50	8.17	7.17	6.33	6.00	5.83	5.50
6.0	5.7	6.0	6.9	8.6	10.8	14.2	17.8	19.9	18.6	18.6	18.0	16.2	15.1	.	.	.	.	.	.	.	.
14.0	13.7	14.3	14.8	16.7	19.1	22.9	27.2	30.1	28.5	26.7	26.3	23.9	22.5	.	.	.	.	.	.	.	.
9.2	8.9	9.0	9.3	9.9	11.5	13.4	16.4	18.2	18.1	17.5	17.1	16.4	14.9	.	.	.	.	.	.	.	.

## Appendix 3 Predictive Densities for other relevant Macroeconomic Forecasting Variables

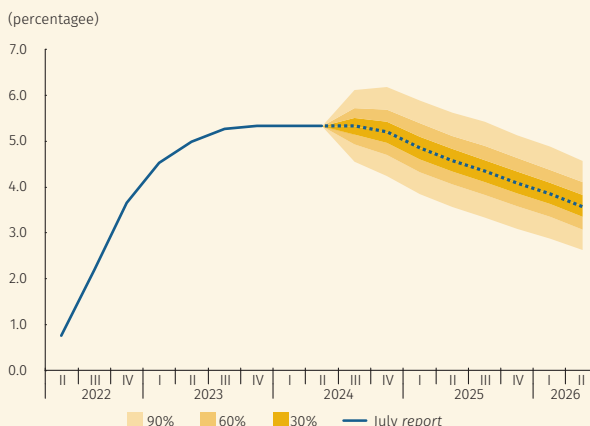
**Graph A3.1**  
Quarterly assumptions of 12-month growth of trading partners based on annual projections, predictive density<sup>a/</sup>



a/ The graph displays the probability distribution and its most likely path on an eight-quarter forecast horizon. Densities characterize the balance of potential risks with areas of 30%, 60% and 90% probability around the central forecast (mode).

Sources: Bloomberg, statistics bureaus, central banks; Calculations and projections by Banco de la República.

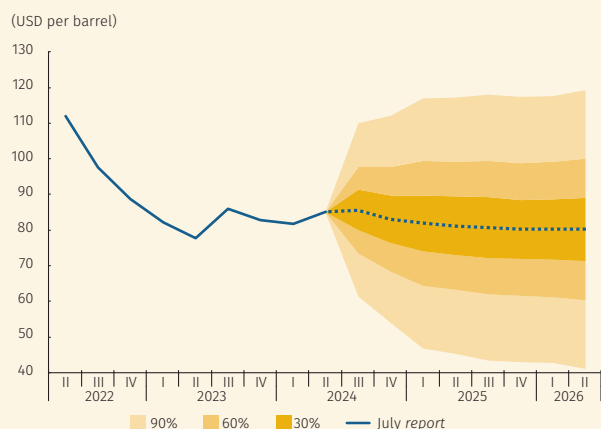
**Graph A3.3**  
U.S. Federal Reserve quarterly interest rate assumption, predictive density<sup>a/</sup>



a/ The graph displays the probability distribution and its most likely path on an eight-quarter forecast horizon. Densities characterize the balance of potential risks with areas of 30%, 60% and 90% probability around the central forecast (mode).

Source: Federal Reserve Bank of Louis, calculations and projections by Banco de la República.

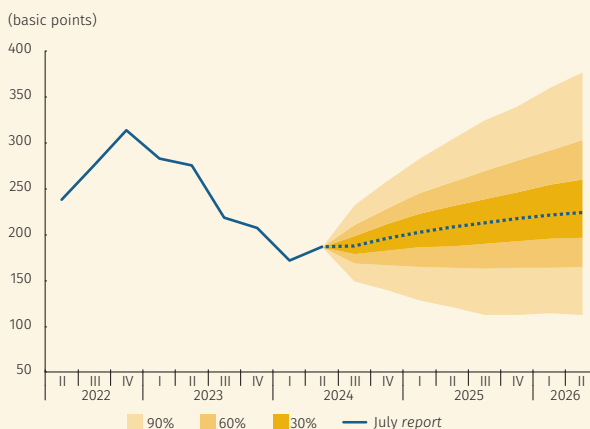
**Graph A3.2**  
Quarterly oil price assumption, predictive density<sup>a/</sup>



a/ The graph displays the probability distribution and its most likely path on an eight-quarter forecast horizon. Densities characterize the balance of potential risks with areas of 30%, 60% and 90% probability around the central forecast (mode).

Source: Bloomberg, calculations and projections by Banco de la República.

**Graph A3.4**  
Colombia's quarterly risk premium (CDS) assumption, predictive density<sup>a/,b/</sup>

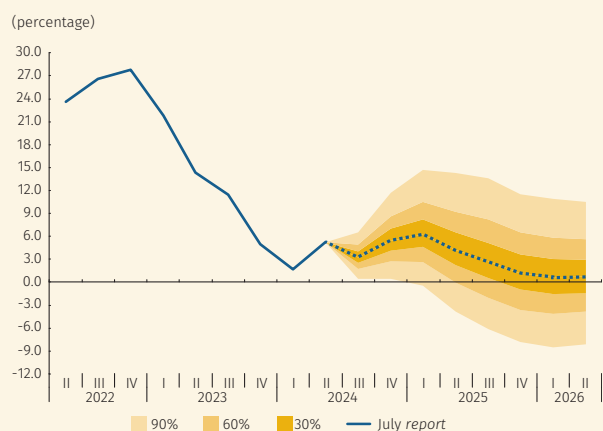


a/ Five-year credit default swaps  
b/ The graph displays the probability distribution and its most likely trajectory on an eight-quarter forecast horizon. Densities characterize the balance of potential risks with areas of 30%, 60% and 90% probability around the central forecast (mode), using a combination of densities from the Patacon and 4GM models.

Source: Bloomberg, calculations and projections by Banco de la República.

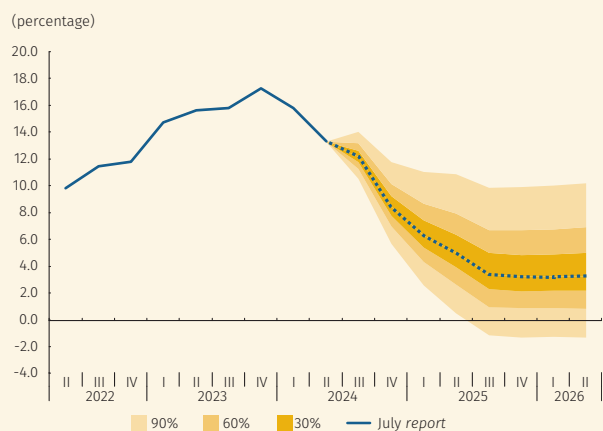
## Appendix 3 (continuation) **Predictive Densities for other relevant Macroeconomic Forecasting Variables**

**Graph A3.5**  
 CPI for foods, predictive density <sup>a/</sup>  
 (annual change, end-of-period)



a/ The graph displays the probability distribution and its most likely trajectory on an eight-quarter forecast horizon. Densities characterize the balance of potential risks with areas of 30%, 60% and 90% probability around the central forecast (mode), using a combination of densities from the Patacon and 4GM models. Source: calculations and projections by *Banco de la República*.

**Graph A3.6**  
 CPI for regulated items, predictive density <sup>a/</sup>  
 (annual change, end-of-period)



a/ The graph displays the probability distribution and its most likely trajectory on an eight-quarter forecast horizon. Densities characterize the balance of potential risks with areas of 30%, 60% and 90% probability around the central forecast (mode), using a combination of densities from the Patacon and 4GM models. Source: calculations and projections by *Banco de la República*.

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This Report was coordinated, edited, and designed by the Publishing Management Section of the Administrative Services Department, with font Fira Sans 10.

August 2024