

12° Annual Conference BCC



Policy Panel 2:

Do the analytical tools of central banks need to be adjusted, and how?

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*The opinions contained in this presentation are the responsibility of the author and do not commit the Banco de la República or its Board of Directors.



COLOMBIA CENTRAL BANK AND MONETARY POLICY

ECONOMIC CONTEXT AND INFLATION TRAJECTORY

FORECAST ERRORS BANREP

SOME LESSONS AND FUTURE CHALLENGES





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Central Bank independence and Inflation Targeting

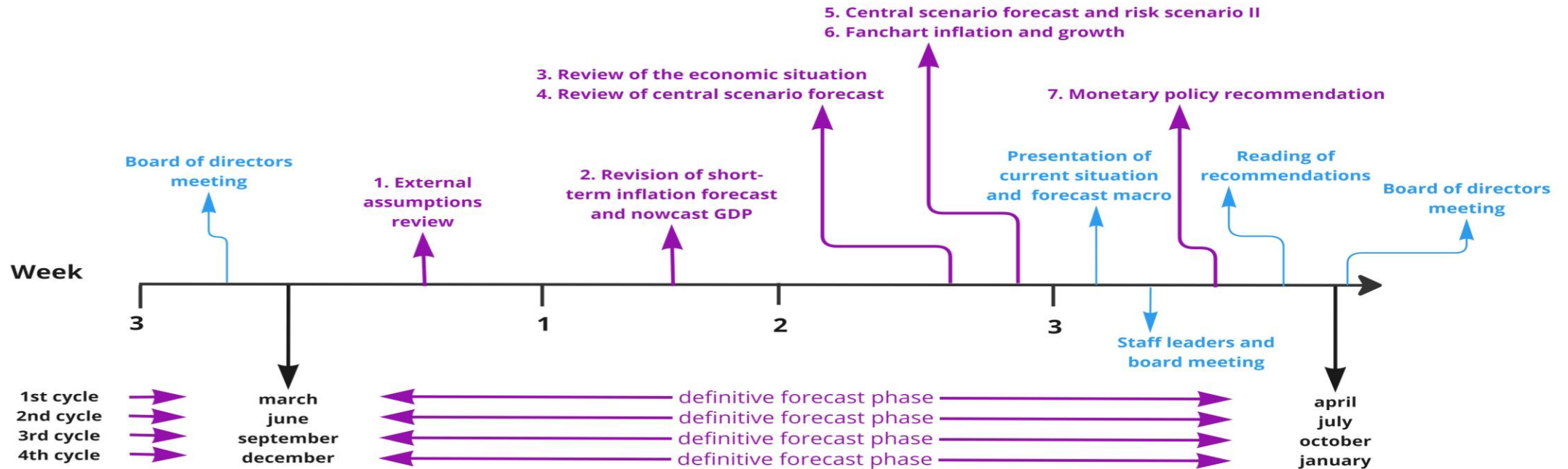
The 1991 constitutional reform of the Central Bank of Colombia established its Board of Directors as the country's monetary, exchange, and credit authority, **granting both the Bank and its Board significant autonomy from the government.**

Since 2001, the Central Bank of Colombia has followed an **inflation targeting framework.** Adopted after the 1999 economic crisis, this framework enabled countercyclical policies. **A long-term inflation target of 3% was set,** with the monetary policy interest rate (MPR) as the main tool.

The Board Directors meets **eight times a year to make monetary policy decisions,** during which it reviews the state of the economy and macroeconomic forecasts of the Monetary Policy Department, a summary of which is published in the **Monetary Policy Report (MPR).**

Decision making process: Followed very strictly. MPR is the staff's forecast and analysis, but there is interaction with the board and feedback

Final phase, staff meetings and presentations to the Board of Directors



Monetary policy communication channels



Source: Banco de la República. (2019). *Proceso de toma de decisiones de política monetaria del Banco de la República y comunicación sobre política monetaria*. <https://www.banrep.gov.co/es/proceso-toma-decisiones-politica-monetaria-del-banco-republica-y-comunicacion-sobre-politica>



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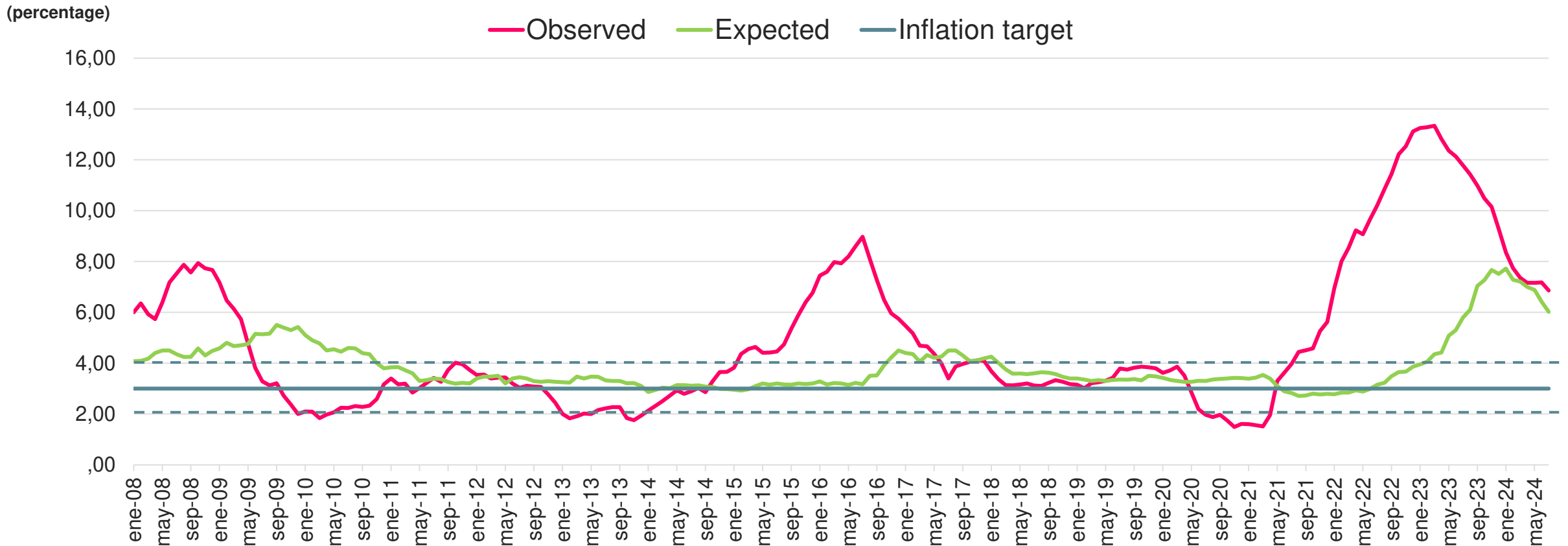
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Inflation long term trajectory and... inflation surge 2021-2024

Observed and expected inflation for Colombia based on monthly one-year expectations surveys

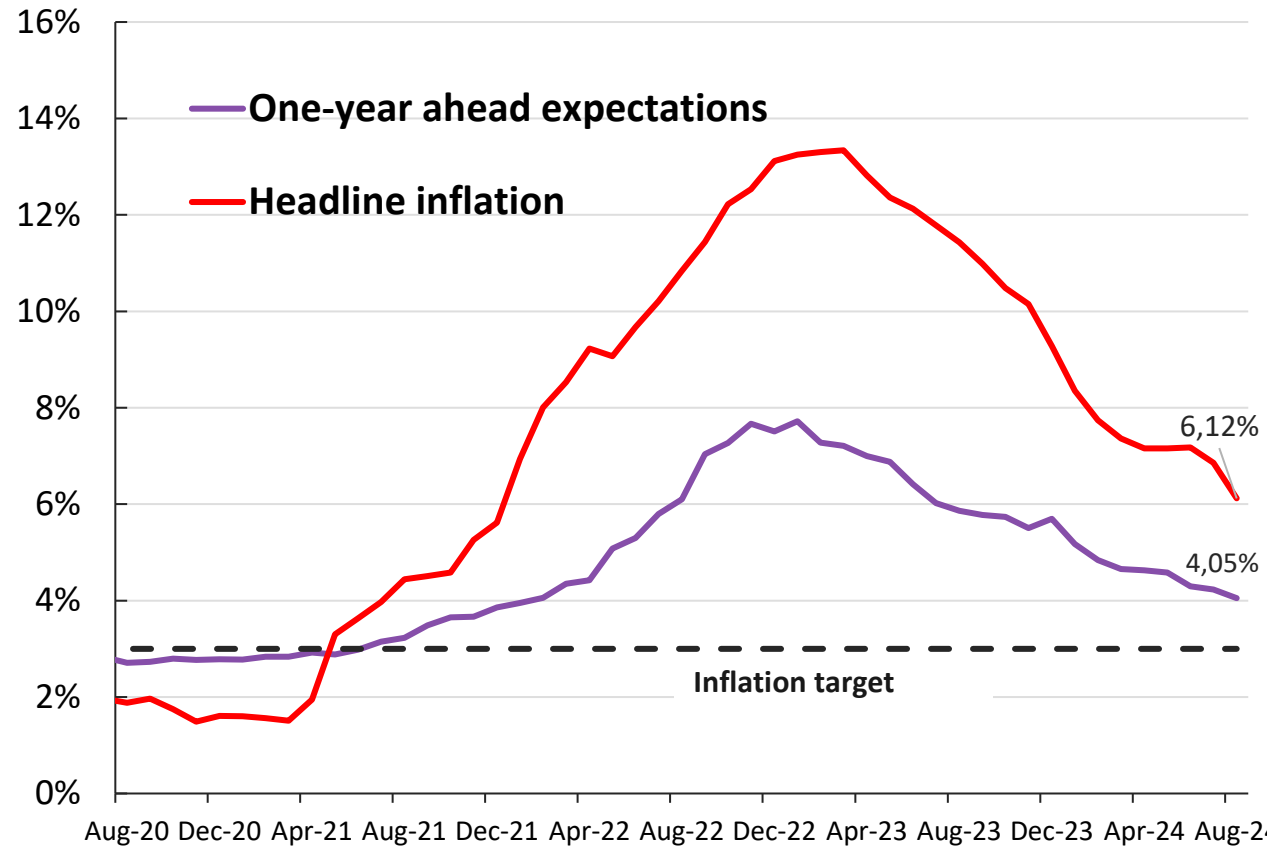


Source: DANE, Boletín Técnico Índice de precios al Consumidor (IPC), and Explicit Expectations, 12-month inflation expectations, gathered from central bank surveys, are calculated at the end of the period (eop).



.....inflation surge 2021-2024

Observed and expected inflation for Colombia based on monthly one-year expectations surveys



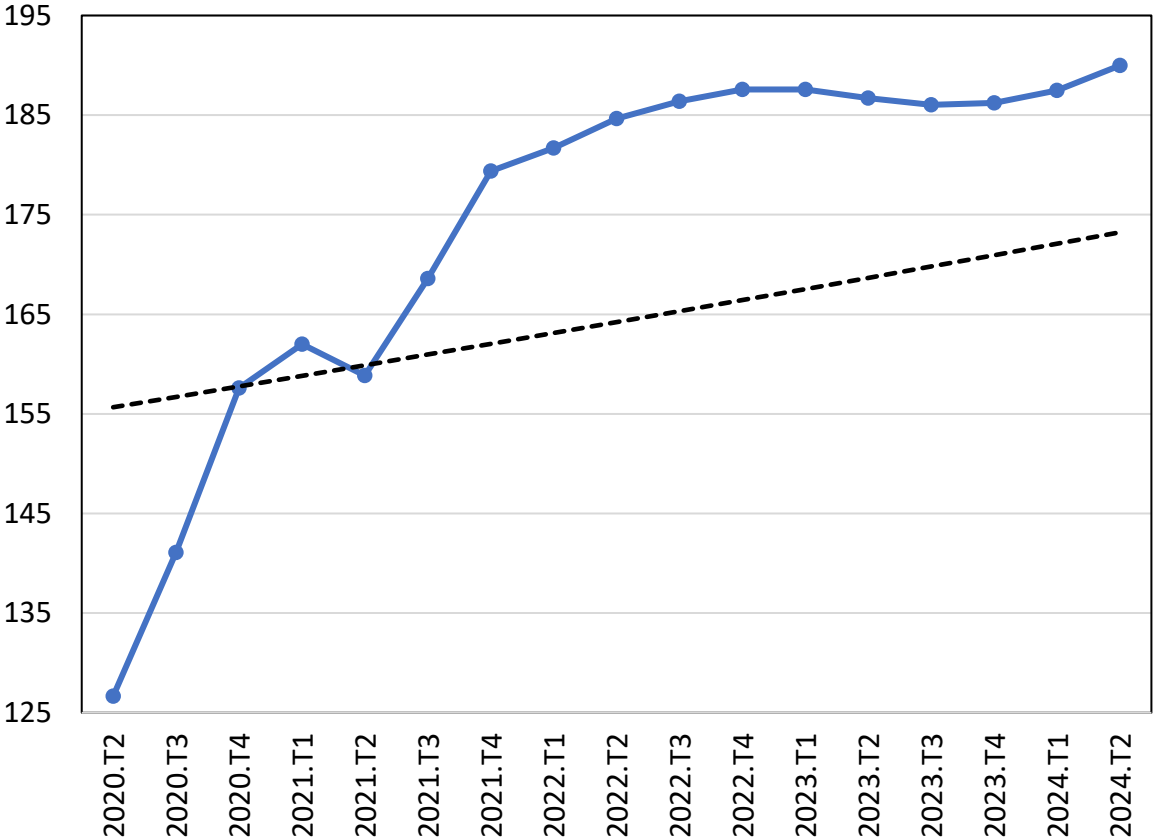
Source: DANE, Boletín Técnico Índice de precios al Consumidor (IPC), and Explicit Expectations, 12-month inflation expectations, gathered from central bank surveys, are calculated at the end of the period (eop).



Strong rebound in economic activity and aggregate demand

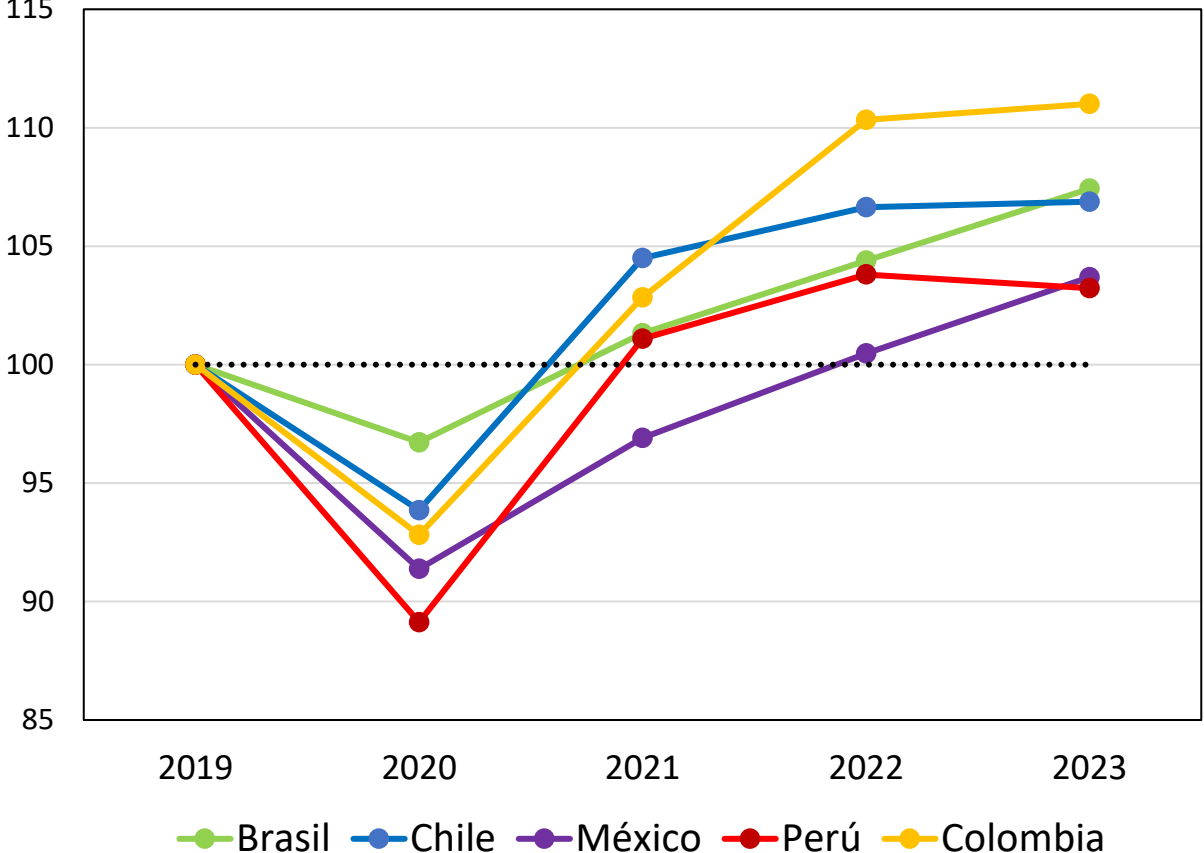
Colombia: Private consumption vs pre-pandemic trend

(seasonally and calendar-adjusted series)



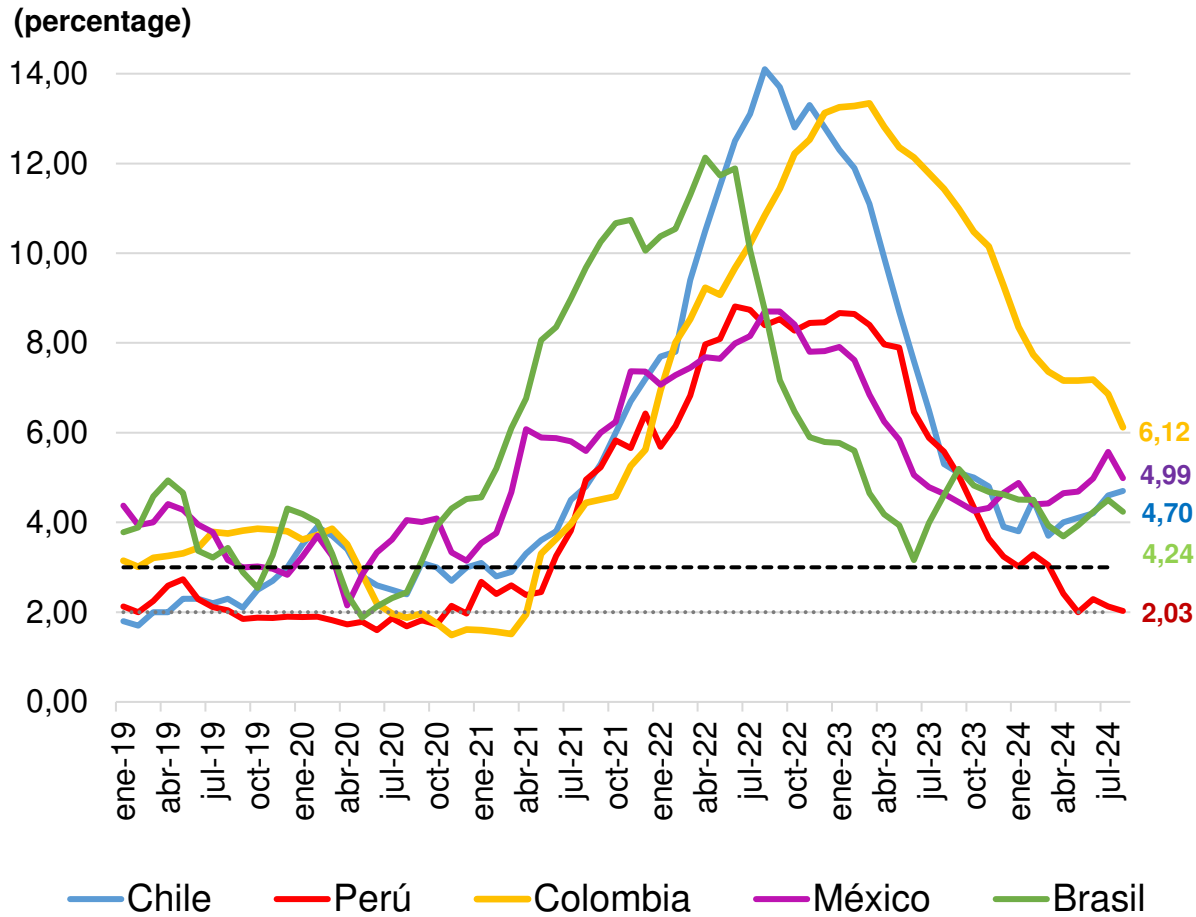
Real GDP for Some Latin American Economies

(2019=100)



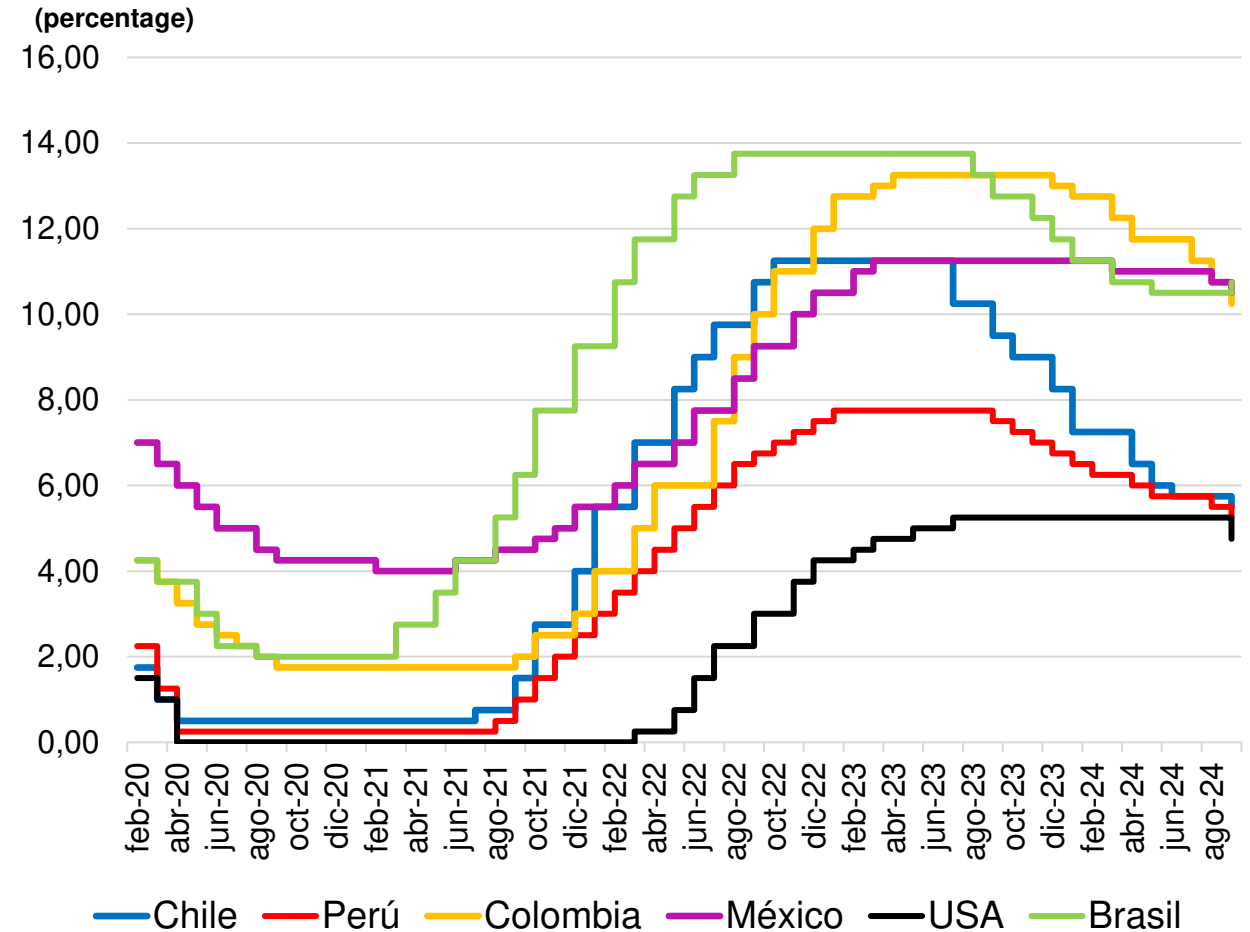
Colombia shows a slower deceleration of inflation since its peak (13.3%) in March 2023, compared to its peers in the region.

Inflation in countries of the region, annual variation 2020-2024



Source: Central Bank of each country.

Monetary Policy Rate countries in the region 2020-2024



Source: Central Bank of each country.





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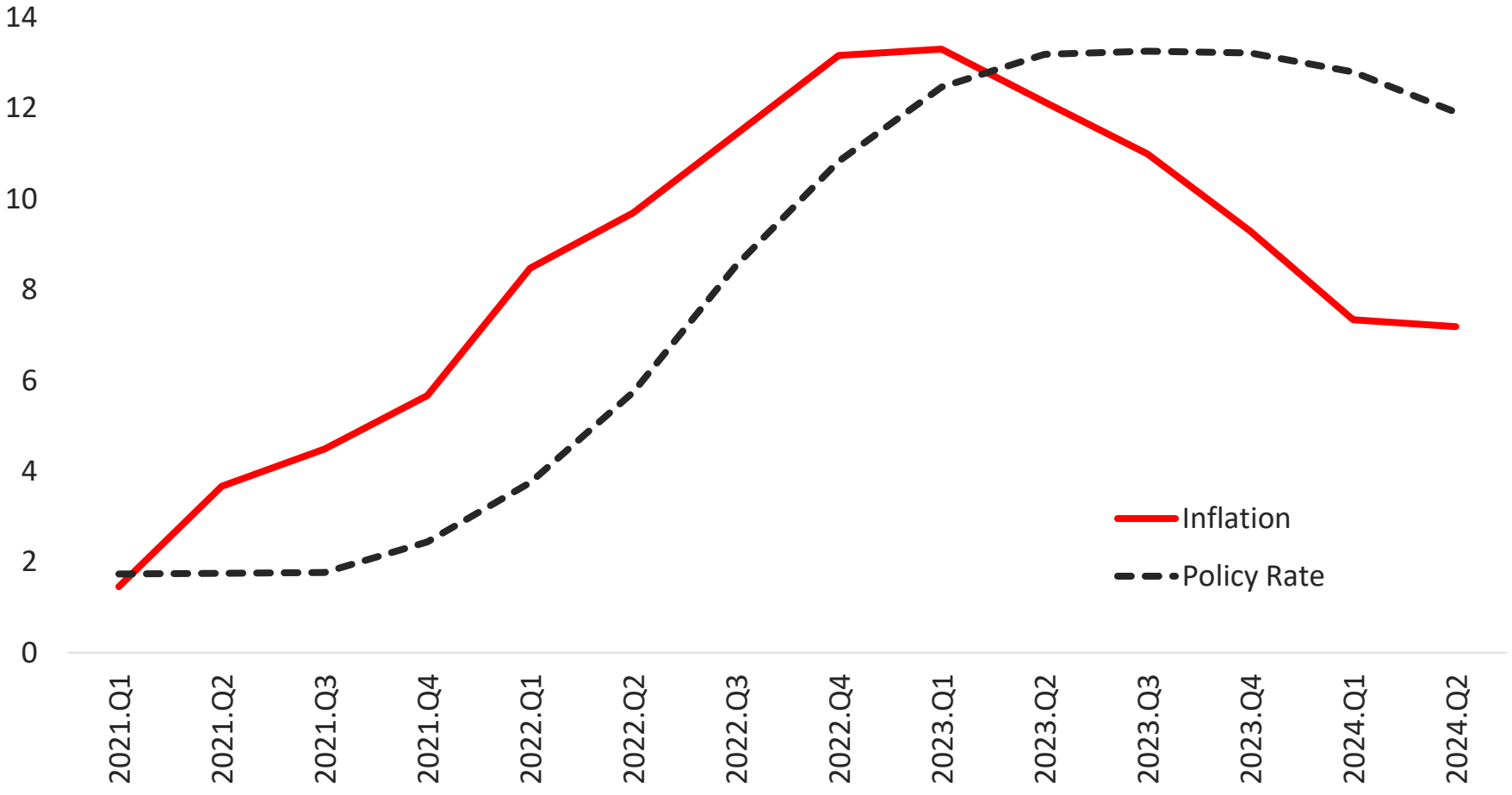
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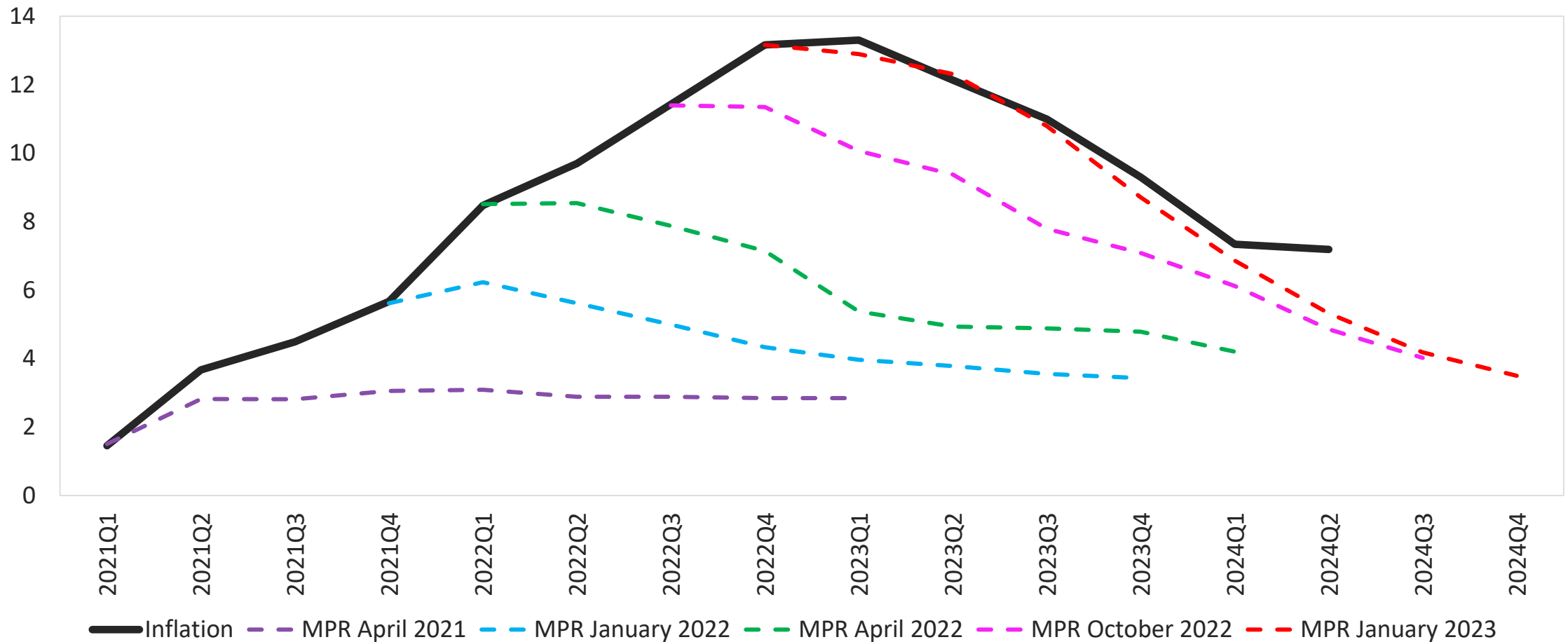
After the pandemic something went clearly wrong for central banks...

Inflation and Policy Rate in Colombia Since 2021



The forecasts were inaccurate... but it is hard to tell what went wrong... models? Maybe...

Realized Inflation and Inflation Forecasts for Different Monetary Policy Reports

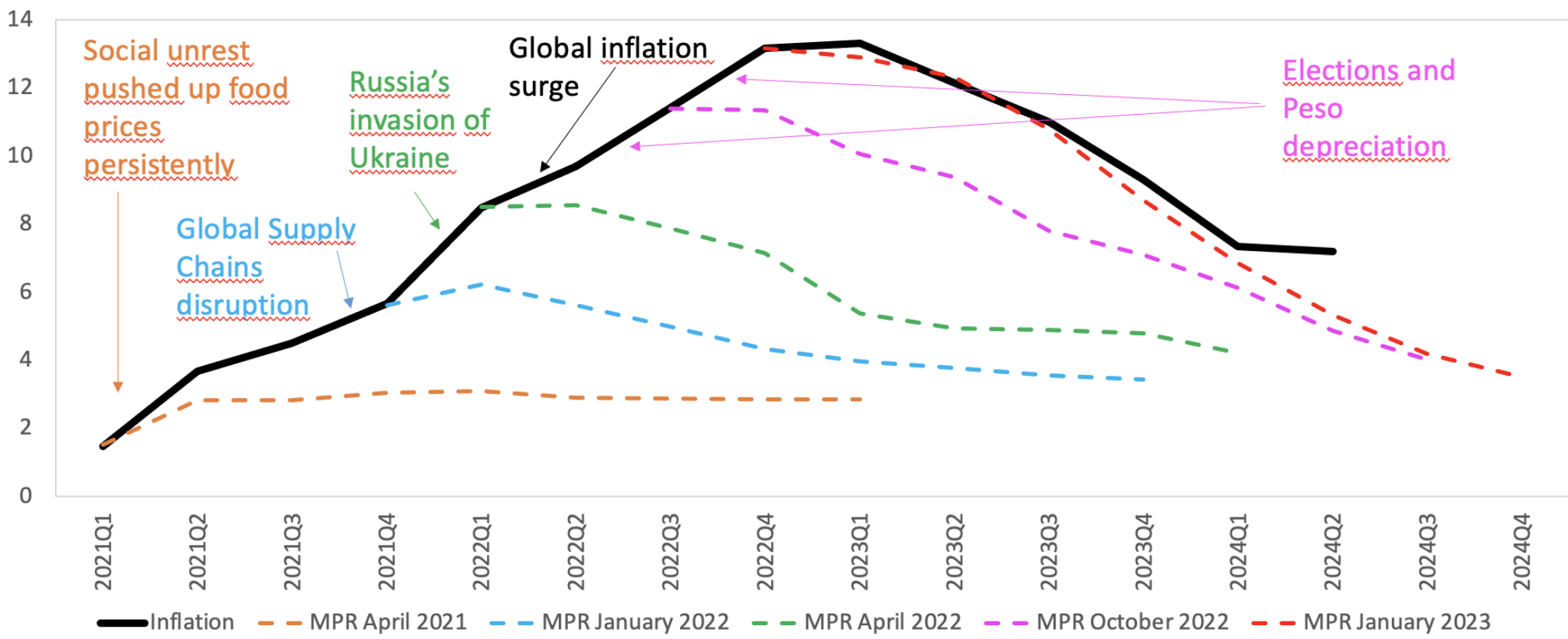


Source: Juan José Ospina, Policy Panel The Inflation Surge 2021-2023: Managing Expectations. Sep 18 of 2024



So yeah, our analytical tools need to be adjusted..but the story is much more complicated....First, there were lots of successive, truly unexpected shocks

Realized Inflation and Inflation Forecasts for Different Monetary Policy Reports



Source: Juan José Ospina, Policy Panel The Inflation Surge 2021-2023: Managing Expectations. Sep 18 of 2024



Two other factors to consider in the discussion

- Central Banks' forecasts **are generally judgmental forecasts not model forecasts**... maybe what was wrong was the analysis and/or the judgements, not the models
 - ✓ Examples: persistence of supply shocks, strength of demand after covid amid monetary and fiscal stimuli
- Some situations were **unique and beyond the scope of the models**
 - ✓ Examples: supply chain disruptions after the pandemic
 - ✓ Perhaps central banks and economists should have spent more time thinking about the issues when the pandemic and the related restrictions were ending



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The Central Bank of Colombia has adjusted some of its tools

- Since July 2021, **BanRep has strengthened its forecasting process and communication tools by incorporating predictive densities into the projections of its macroeconomic models**, (PATACON and 4GM), contributing to a more robust monetary policy in uncertain environments.
- The predictive densities **allows to quantitatively reflect the “story” of the factors that introduce uncertainty around the central forecast** and helps with communication to the public
- In the forecast evaluation conducted in 2023 since April, **the predictive densities captured the observed data for all the variables presented, and the risks materialized** in the direction indicated by the biases of the predictive densities

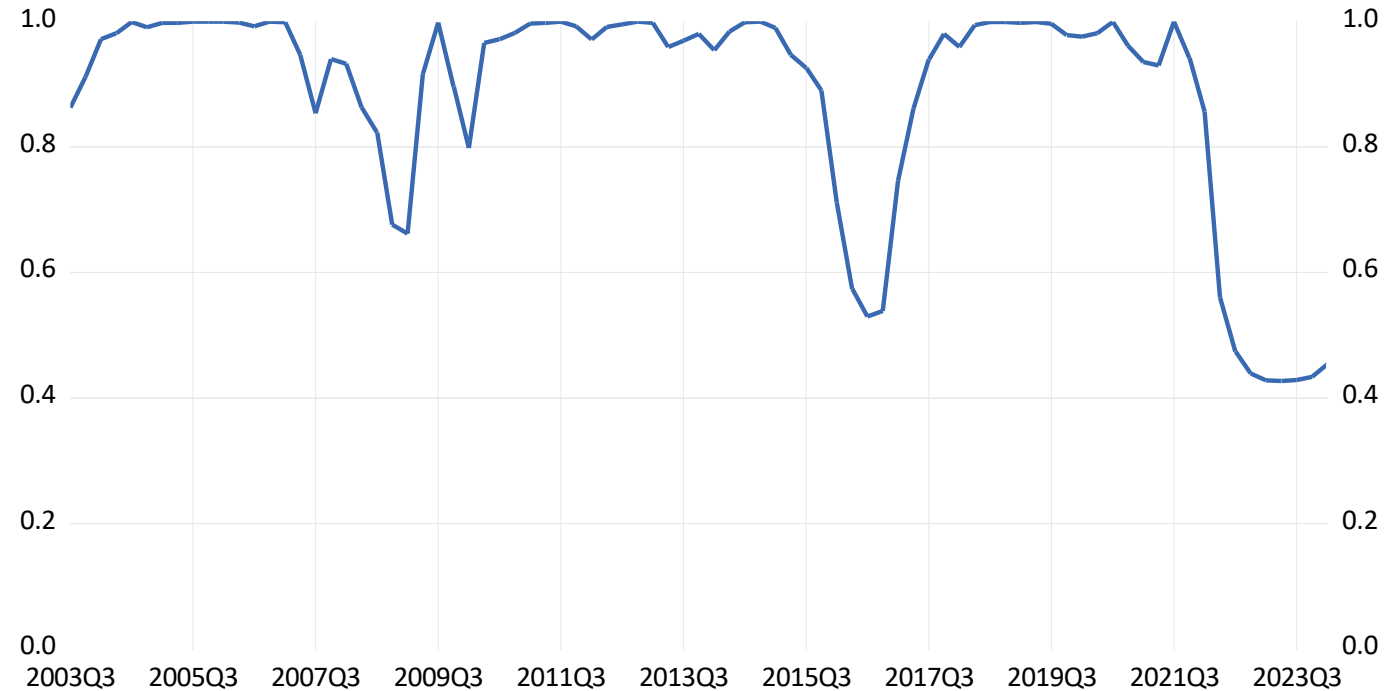
Source: Méndez-Vizcaíno, J. C., Guarín, A., Anzola-Bravo, C., & Grajales-Olarte, A. (2021). *Characterizing and Communicating the Balance of Risks of Macroeconomic Forecasts: A Predictive Density Approach for Colombia*. Banco de la República. <https://repositorio.banrep.gov.co/handle/20.500.12134/10117>



The Central Bank of Colombia has adjusted some of its tools

- One of the main forecasting models now **has variable credibility to account for possible credibility losses during the 2021-2023 inflation surge**

Credibility Stock 2003-2023



Implementations and challenges in monetary policy communication

- To this end, the efforts made by the bank to enhance credibility are acknowledged, including the publication of **board minutes, monetary policy reports, and board reports to Congress.**
- However, the Board of Directors identify the need to continue advancing in **achieving better communication of the bank's decisions to the general public,** not just to a specialized audience, in order to meet the targets of monetary policy¹.
- The Board of Directors receives **recommendations from three senior researchers** who simulate the monetary policy decision with the available information.

¹ Taboada-Arango, B., & Villamizar-Villegas, M. (2024). Retos de la comunicación en la política monetaria. Mitos y realidades de la comunicación en la política monetaria. <https://www.banrep.gov.co/es/publicaciones-investigaciones/documentos-tecnicos-presentaciones/mitos-retos-comunicacion-politica-monetaria>

Future Challenges

- How to deal with supply shocks?
 - ✓ The framework and policy tools at the disposal of central banks are not enough... **changing the models will not solve this problem**
 - ✓ **Central banks need to open and take the policy conversation** beyond the central bank's walls. For example: how should countries build more resilience to deal with supply shocks? Most policies will be out of central banks mandates and capabilities
- How to deal with stuff that we do not know about?
 - ✓ **Changes in the economy's structure:** services consumption versus goods consumption
 - ✓ **Changes in the real economy** such as trade fragmentation that may affect inflation and for which relative prices may need to be allowed to adjust
 - ✓ **New developments:** AI, climate change, population decline

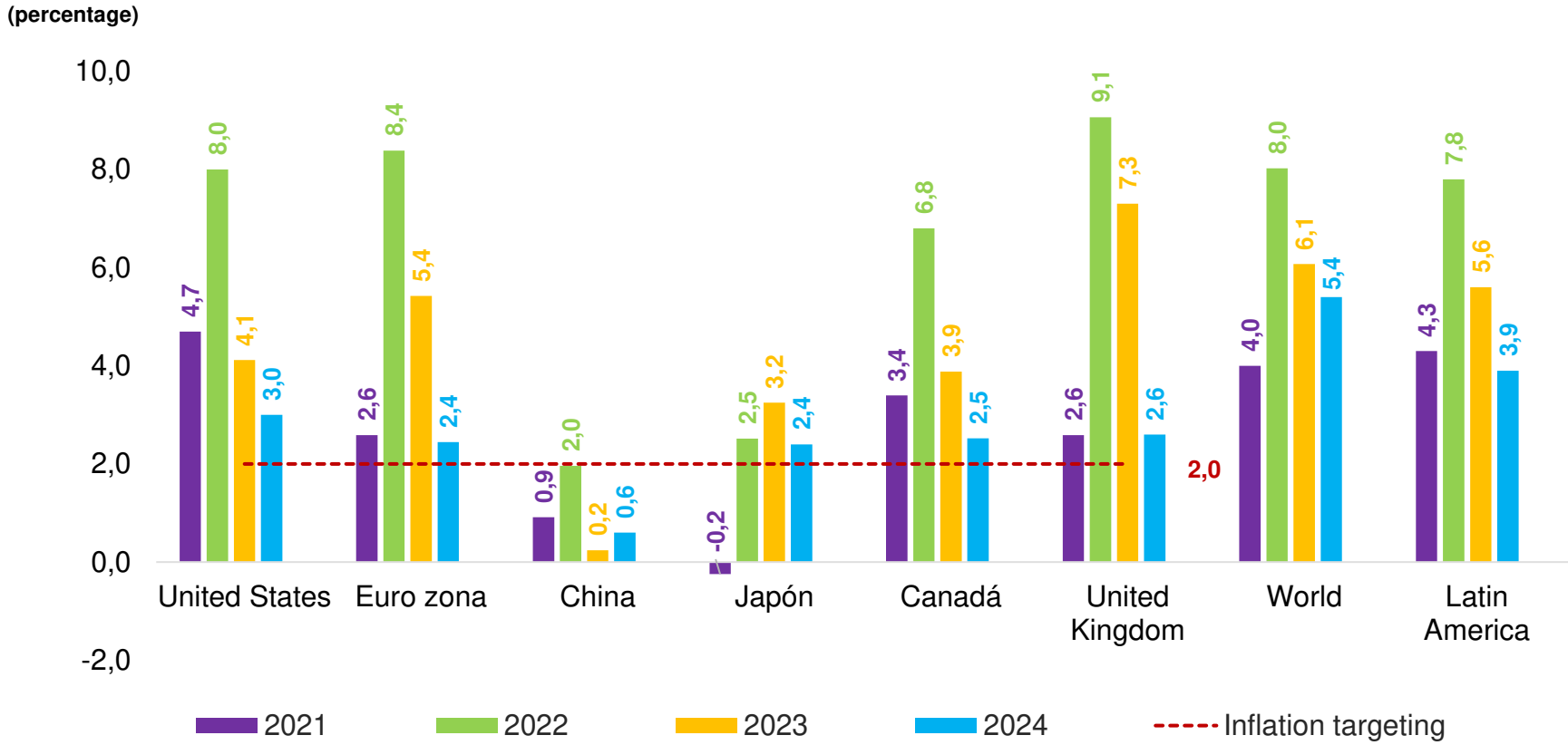


THANK YOU



Inflation moderated in 2023, but it has been slower to reach the target during 2024.

Inflation , annual variation 2021-2024

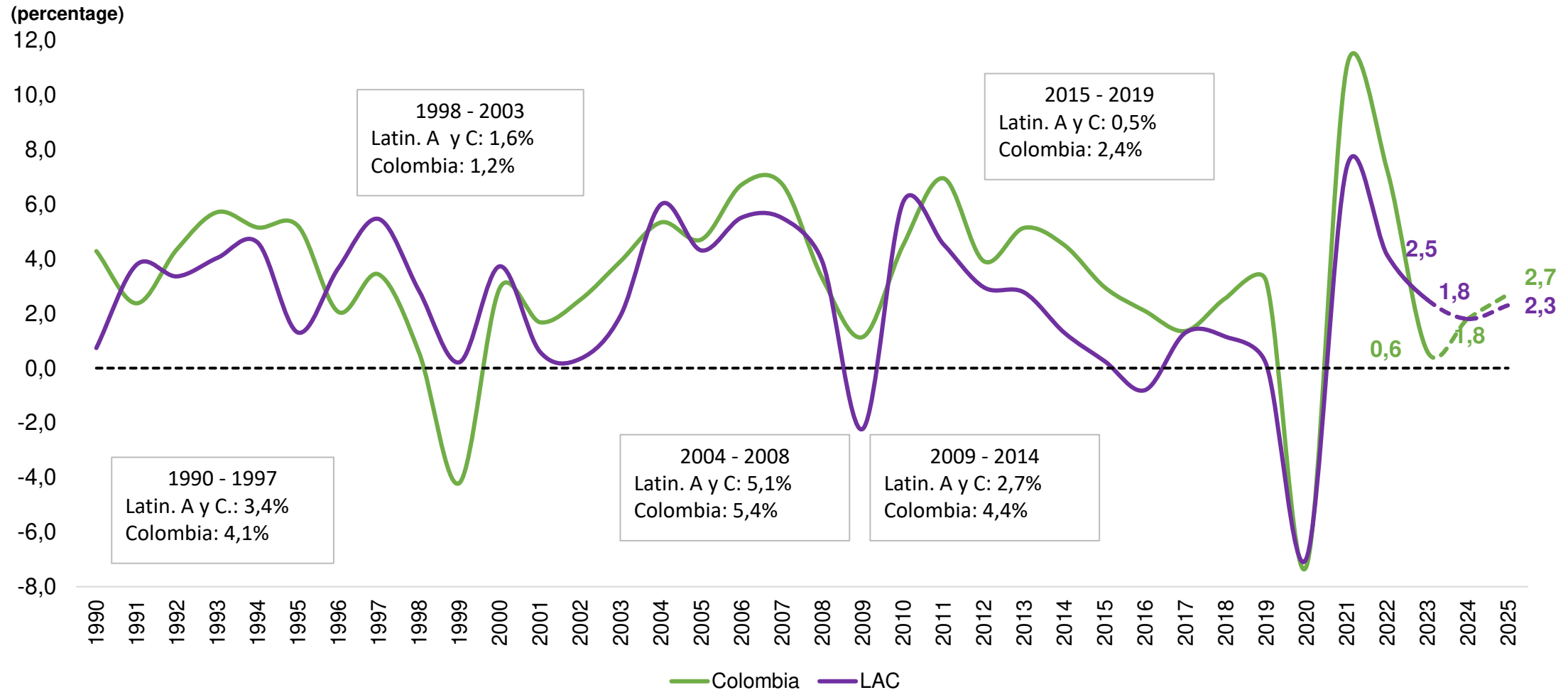


Source: Focus Economics, LatinFocus Consensus Forecast.
 Argentina and Venezuela were not included in the calculation for Latin America.



Colombia grew faster than the rest of the region. Strong rebound in 2021 and 2022, low growth in 2023 and in the 2024 projection.

GDP growth, annual variation 1990-2025

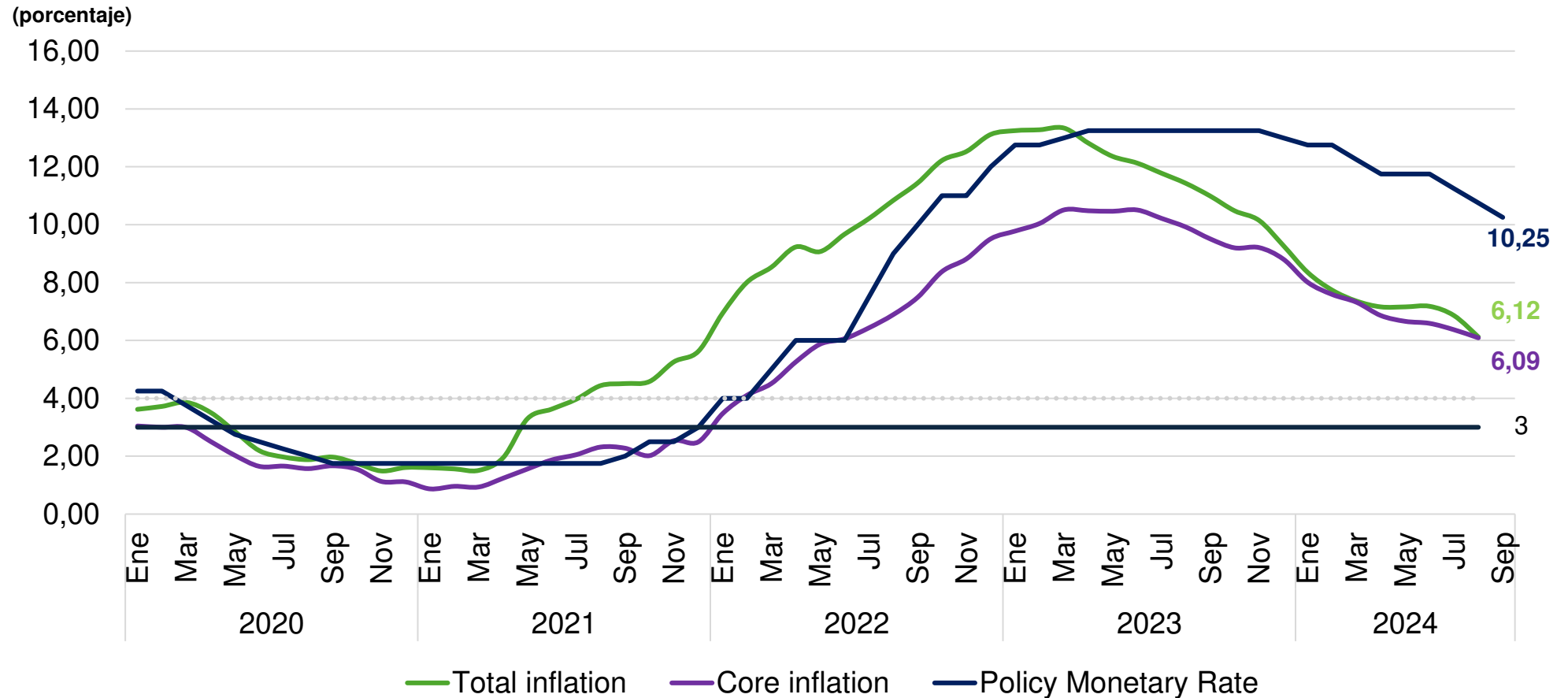


The dotted lines correspond to projections from Banco de la República, Projected GDP 2024 and CEPAL.
 Source: Monetary Policy Report July 2024 and Economic Survey of Latin America and the Caribbean.



Headline inflation has continued to decline since its peak (13.3%) in March 2023.

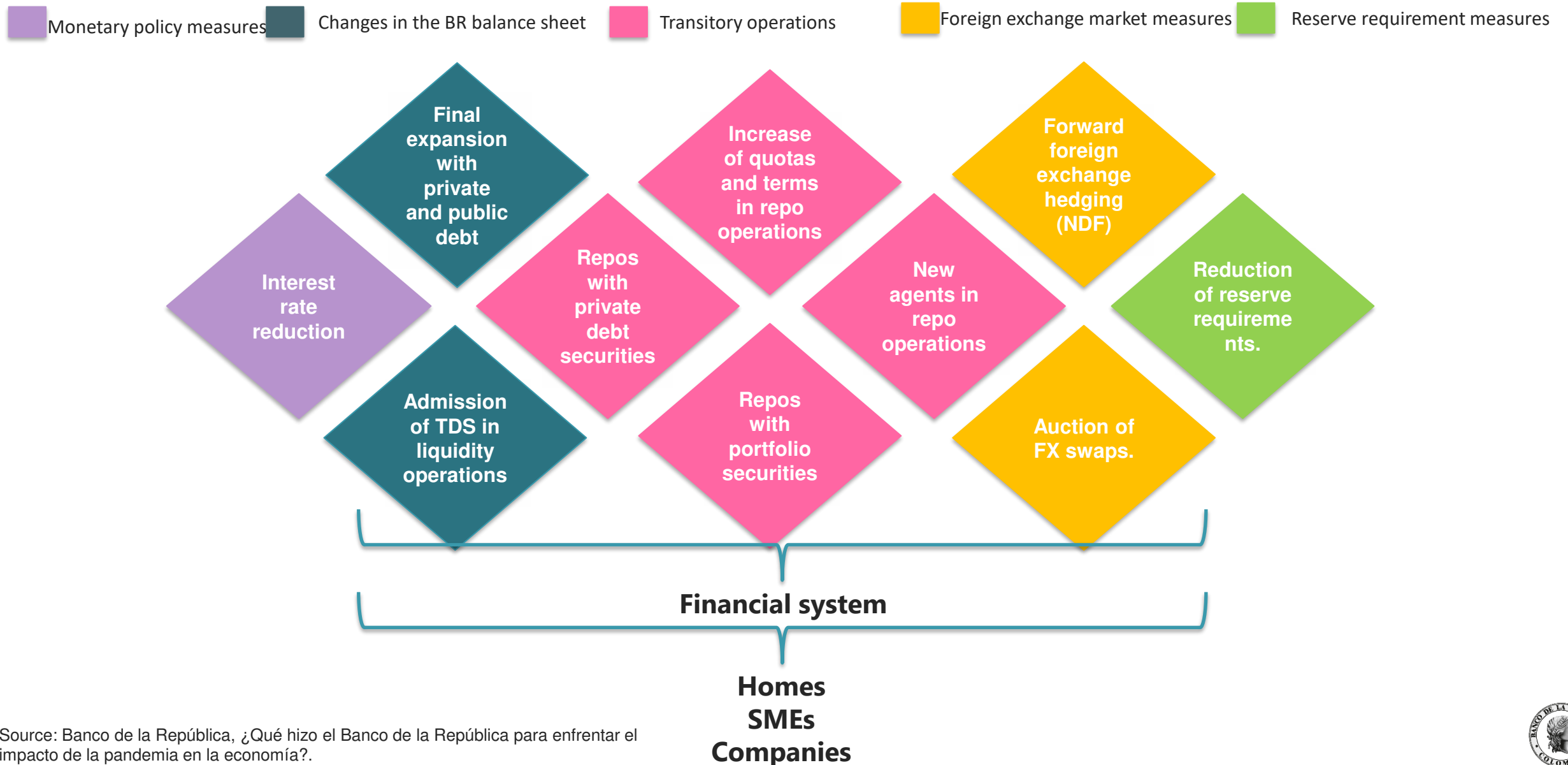
Headline inflation vs. Core Inflation, variación anual 2020-2024



Source: DANE, Boletín Técnico Índice de Precios al Consumidor, august 2024.



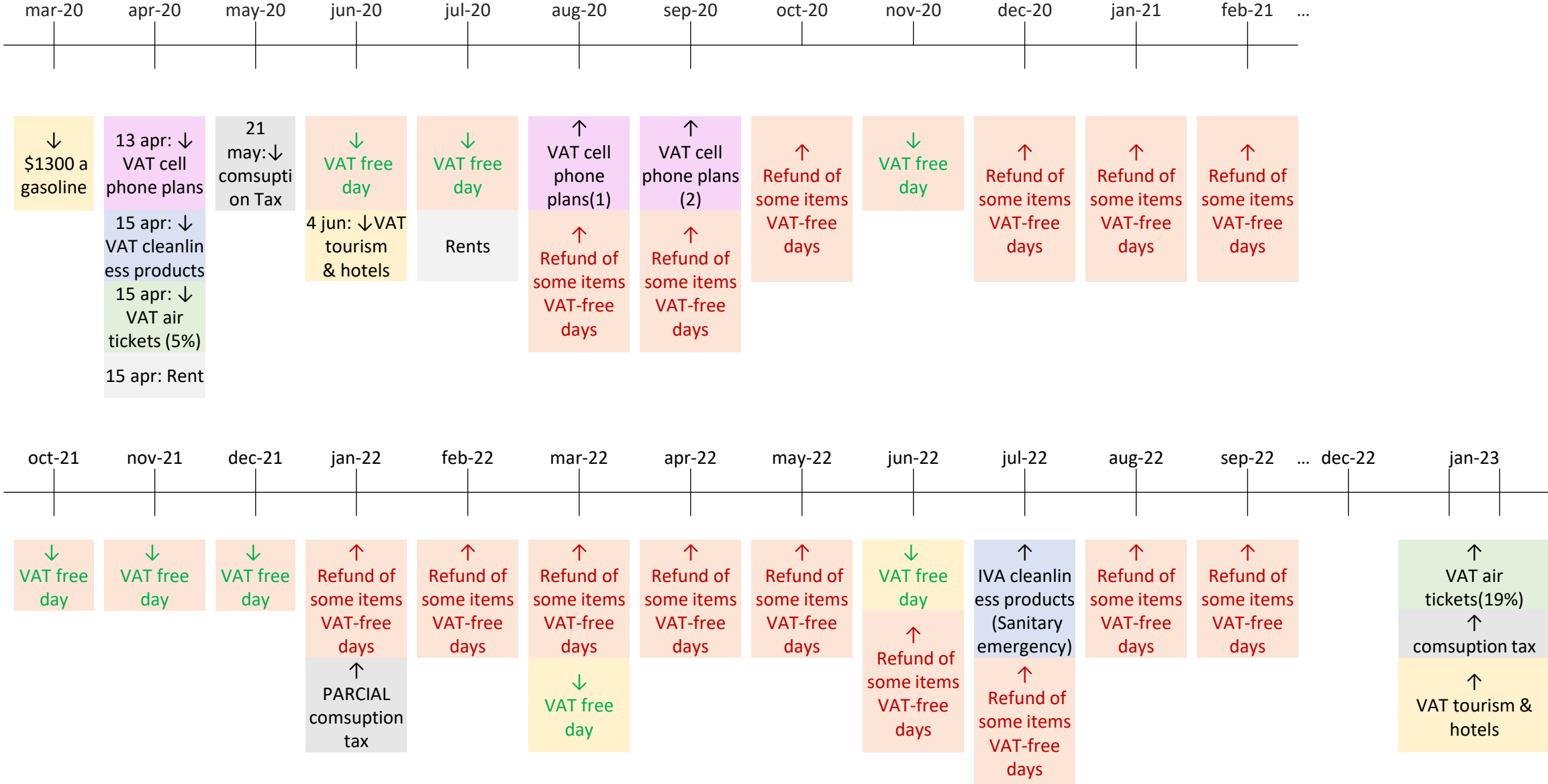
Actions taken by the Board of Directors to face the pandemic



Source: Banco de la República, ¿Qué hizo el Banco de la República para enfrentar el impacto de la pandemia en la economía?.



Many relief measures were implemented through prices



Source: Juan Jose Ospina, Policy Panel The Inflation Surge 2021-2023: Managing Expectations. Sep 18 de 2024.