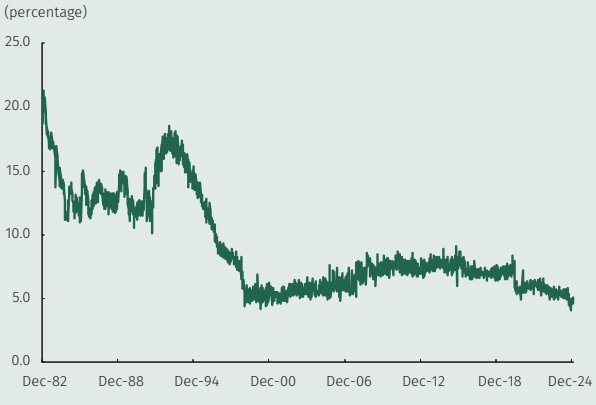
# Box 2
# Monetary Policy and Liquidity Risk Management: Analysis of the Reserve Requirement Reduction in 2024[1]

Graph B2.1
Reserve Requirement to Deposit Ratio: Colombia, 1982-2024




Source: *Banco de la República.*

Reserve requirements are an economic policy instrument that has historically played an important role in the fulfillment of the central bank's mission worldwide. This requirement, set by the monetary authority of each country, mandates that banks and other credit institutions (CIs) to maintain a liquidity reserve in cash or in their accounts at the central bank. Accordingly, the reserve requirement ratio is the ratio of the reserve associated with this policy to the total public deposits. Graph B2.1 illustrates, for the Colombian case, the historical evolution of this reserve requirement to deposits ratio, showing a downward trend over the last decades.

In line with *Banco de la República's* Strategic Plan for the 2022-2025 period,[2] it was considered appropriate to review the role of the reserve requirement as a monetary policy tool. Based on this review, on 30 August 2024, the Board of Directors of *Banco de la República* (BDBR) decided to reduce the reserve requirement by one percentage point. Accordingly, the requirement was reduced from 8.0% to 7.0% for checking and savings accounts, and from 3.5% to 2.5% for term deposits (CDTs with maturities of less than eighteen months).

This box presents the main arguments that motivated the reduction in the reserve requirement, as well as a description of the effects this reduction has had on the liquidity of financial intermediaries and the proper functioning of the payment system. According to the data observed between September and December 2024, this change released about COP 6.1 trillion (t) in liquidity to the system, without affecting the short- or long-term liquidity of credit intermediaries. Likewise, the modification did not impact the settlement of payments in the Deposit Accounts System (CUD in Spanish) in which CIs participate.

## 1. Reserve Requirements as an Economic Policy Tool

Historically, the reserve requirement has been attributed with different functions that have evolved along with the development of the financial system and the design and implementation of monetary policy, based on its simplicity of application and close

1 This box is based on the blog "Encaje bancario y administración del riesgo de liquidez," which was published on *Banco de la República's* website on 18 October 2024. The text can be consulted at: https://www.banrep.gov.co/es/blog/encaje-bancario-administracion-riesgo-liquidez

2 *Banrep's* Strategic Plan defines the strategic objectives for the coming years, framed within *Banco de la República's* mission of contributing to the well-being of Colombians by preserving the purchasing power of the currency, supporting sustained economic growth and contributing to financial stability, the proper functioning of payment systems, the generation of knowledge, and the country's cultural activity.

relationship with credit activities. Specifically, this requirement has served three main functions.

The first has been to serve as a mechanism for mitigating the liquidity risk of financial intermediaries. Reserve resources, associated with the reserve requirement, have historically enabled CIs to cover depositors' withdrawals when their liquid resources have not been sufficient to meet their customers' liquidity needs. In this sense, reserve requirements have not only functioned as a buffer to mitigate situations such as the one described above, but also as a mechanism through which depositors trust that the resources in the central bank safeguard their assets.

The second function has been as a monetary policy tool. In the past, the main methods of monetary control by central banks were based on objectives directly related to the amount of money in the economy. In this scenario, reserve requirements play an important role, since they are directly related to the growth of money in the economy due to their close relationship with credit growth. In this sense, in inflationary situations, central banks increased reserve requirements to slow down credit growth and money circulation and reduced them in situations that required monetary stimulus in the economy.

Finally, reserve requirements have been used as a macroprudential tool in scenarios of credit market imbalances. Increases in the reserve requirement force credit intermediaries to have fewer funds available for lending, a situation that can prevent unsustainable credit growth that could lead to inflationary and negative real effects on the economy. On the contrary, the requirement can be reduced in cases of significant declines in the amounts disbursed by CIs, situations that can lead to recessions under certain conditions. For example, during the COVID-19 pandemic, a reduction in reserve requirements helped provide liquidity to the financial system to facilitate credit channeling to economic agents facing this unprecedented shock to the economy.

Despite its versatility and ease of implementation, advances in liquidity risk regulation and changes in monetary policy strategy have made reserve requirements less relevant, especially in the first two functions mentioned. Regarding its use as a liquidity risk mitigator, in recent years, the Financial Superintendency of Colombia, following the recommendations of the Basel Committee on Banking Supervision, has developed indicators that mitigate liquidity risk more effectively and efficiently than reserve requirements. The first of these, which focuses on short-term liquidity, is the Liquidity Risk Indicator (LRI), which is a ratio that relates CIs' high-quality liquid assets (such as cash and public debt securities) to their short-term liquidity requirements (such as maturities of their CDT issues, or accounts payable). The second indicator, which focuses on the structural funding of intermediaries, is the Net Stable Funding Ratio (NSFR), which complements the LRI by considering both the availability of liquidity and its requirements associated with all terms. Specifically, this ratio relates the available funding that each institution has (assigning a greater weight to instruments that ensure liquidity at longer terms) to the funding needs required by its assets, both to meet potential deposit withdrawals and to disburse new loans.

These indicators offer several advantages over reserve requirements. First, they have forward-looking considerations as they seek to anticipate future liquidity requirements at seven- and thirty-day terms, based on information from the institutions, as opposed to reserve requirements, which are based on the performance of deposits in the previous two weeks. In this sense, the LRI could anticipate sudden increases in depositors' liquidity needs, while the reserve requirement would not have this advantage. Secondly, they consider broader funding than the reserve requirement, which only covers deposits and liabilities, making them more precise. In particular, the LRI considers incoming contractual income flows, which, due to their liquid nature, can be used to cover potential funding pressures. Finally, these indicators have risk mitigation considerations in stress situations, by including adjustments related to market risk, exchange rate risk, and unanticipated outflows of depositors.

With respect to its second function, the reserve requirement has also lost relevance in the implementation of monetary policy. With the inflation targeting framework adopted

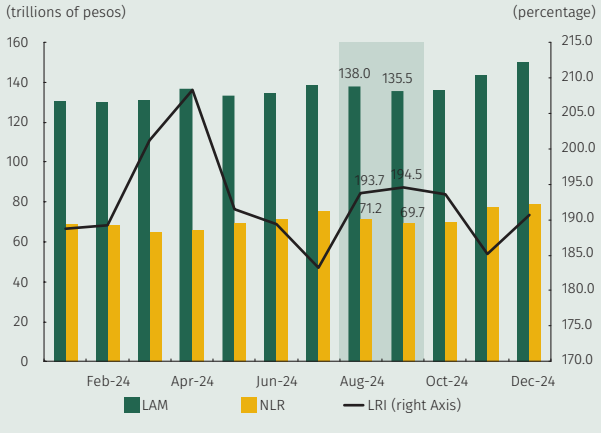
by *Banco de la República* to ensure price stability and adequate growth of the economy since 1999, the monetary policy instrument par excellence has become the benchmark interest rate (also known as the monetary policy interest rate), which led to the progressive abandonment of efforts to directly control monetary aggregates through reserve requirements. This dynamic has been implemented globally, leading countries such as Canada, the United Kingdom, and New Zealand to maintain zero reserve requirements.

In addition to the traditional functions of reserve requirements, bank reserves associated with reserve requirements continue to be important for the proper functioning of the economy's[3] payment system. In particular, CIs use their reserve resources derived from the reserve requirement to meet their intraday liquidity needs in the market (*e. g.*, to purchase TES or transfer tax collection to the national government), so any change in the requirement must take this factor into consideration to ensure the proper functioning of the payment system.

However, this remaining benefit of reserve requirements must be weighed against their costs. A high level of reserve requirements could represent a burden on financial intermediation In particular, its use entails an "opportunity cost" for intermediaries, who could receive higher returns if they were able to invest those resources at market interest rates. CIs compensate for this cost through higher interest rates on loans and lower interest rates on deposits, which makes borrowing more expensive and reduces the return on savings for households and firms.

Considering the above, and in line with *Banco de la República's* Strategic Plan for the 2022-2025 period, it was found that the level of reserve requirements needed to ensure the proper functioning of the payment system was lower than the one in force in 2024. By reducing intermediation costs through a reduction of the reserve requirement, the process of financial deepening in the Colombian economy could be supported without compromising financial stability. In this direction, on 30 August 2024, the BDBR decided to reduce the reserve requirement by one percentage point: for checking and savings accounts, the reserve requirement was reduced from 8.0% to 7.0%, while for term deposits (CDTs with maturities of less than eighteen months), it was reduced from 3.5% to 2.5%. *Banco de la República* has continued to carry out its liquidity operations to ensure that the short-term market interest rate remains in line with the policy interest rate.

Graph B2.2
30-Day Liquidity Risk Indicator and Its Components




Note: LAM refers to liquid assets adjusted for market liquidity and exchange rate risk, and NLR refers to net liquidity requirements.
Source: Financial Superintendency of Colombia; calculations by *Banco de la República.*

## 2. Effects on Liquidity and the Payment System

As described in the previous section, *Banco de la República* took into consideration the short-term liquidity of financial intermediaries and the adequate functioning of the large-value payment system when defining the reduction of the reserve requirement by one percentage point. In this sense, this section evaluates indica-

3 The economy's payment system refers to the set of instruments, procedures, and rules that allow an economy to transfer funds between or through its participants, ensuring the circulation of money. The system includes the participating agent and the entity that operates the arrangements, in an institutional and operational framework within which payments are made, the operating procedures, and the communications network for transmitting payment information and effecting settlement.

tors that measure the stability of both factors, finding no impact on the stability of the local financial system after the August 2024 modification, which released an average of COP 6.1 trillion in liquidity between September and December of the same year.

First, in order to evaluate the short-term liquidity of CIs, Graph B2.2 shows the LRI and its components throughout 2024. As can be seen in the highlighted area, between August and September of the same year the indicator increased from 193.7% to 194.5%, remaining above the prudential requirement of 100% and showing an improvement in the institutions' ability to handle potential withdrawals by depositors. Although liquid assets were reduced due to lower reserve requirements, this effect was counteracted by institutions through lower net liquidity requirements from their customers. In addition, part of this reduction in liquid assets was offset by higher holdings of liquid investments. At the individual level, the reduction in reserve requirements did not result in significant movements in the liquidity indicators of any intermediary.

On the other hand, in line with expectations, the changes introduced in the required reserve had no significant impact on the liquidity of the local large-value payment system. In particular, different monitoring indicators based on the Basel Committee on Banking Supervision[4] guidelines have shown that financial institutions did not change their payment patterns or liquidity preferences, adjusting satisfactorily to the regulatory change.

In line with these results, *Banco de la República* will continue to carry out its liquidity operations to ensure that the short-term market interest rate remains in line with the policy interest rate. Likewise, *Banrep* will continue to monitor market liquidity to guarantee the adequate functioning of the payment system and the financial stability of the Colombian economy.

4 For more information, see the liquidity monitoring metrics of the Basel regulatory framework available at https://www.bis.org/baselframework/BaselFramework.pdf, and the BIS working paper "Intraday liquidity around the world" available at https://www.bis.org/publ/work1089.htm.