

FINANCIAL STABILITY REPORT

FIRST HALF 2024



CAMPO DE LUPINO
San Pedro de Atacama
Región de Antofagasta



Financial Stability Report

FIRST HALF 2024

Financial policy of the Central Bank of Chile (BCCh)

The Central Bank of Chile has as its purpose to ensure the stability of the currency and the normal functioning of internal and external payments. To fulfill this second objective, it must safeguard the stability of the financial system within the perimeter of its legal powers, implemented from a macro-financial perspective. The decisions and actions derived from its powers are part of its financial policy framework. In this context, financial stability is considered to exist when the system performs its functions normally or without significant disruptions, even in the face of adverse temporary situations. Identifying potential risk events, vulnerabilities and mitigators, together with assessing their impact on the financial system, are at the core of the Central Bank of Chile's financial policy analysis.

Financial policy conduct and implementation

The BCCh conducts its financial policy seeking to contribute, within its scope of competence, to the stability of the financial system. This has been deepening and gaining stability in recent decades due, in part, to the development of financial policy tools and their adequate application, which in turn has contributed to monetary policy effectiveness and increased the economy's resilience to disruptive events.

The Bank implements its financial policy through rigorous decision-making processes, in joint and coordinated actions with the supervisor and regulator. In particular, the BCCh issues and administers financial regulations, decides on the activation and deactivation of the countercyclical capital buffer, prepares reports and issues opinions on the impact of potential legal or regulatory changes on which it is consulted. In addition to these measures, it may exercise the role of lender of last resort for banking companies and other liquidity management tools.

Information disclosure and transparency

The Financial Stability Report (FSR) is one of the BCCh's main financial policy and communication instruments. In view of its mandate, the FSR delivers the Board's view on the main risks, vulnerabilities and mitigators affecting financial stability.

The FSR is published twice a year, in May and November. In line with international best practices, it is produced by specialized professionals and is led by the Financial Policy Division. Its contents are disseminated through various channels. In this way, the Central Bank communicates its analysis and implements its financial policy in a transparent and active manner.



Cover picture: Campo de Lupino/ San Pedro de Atacama / Antofagasta Region, Chile.

Luis Oscar Herrera Barriga / Legal Representative

Institutional Affairs Division
CENTRAL BANK OF CHILE
Agustinas 1180, Santiago, Chile

Phone: 56-22388 2000
www.bcentral.cl
bcch@bcentral.cl
ISSN: 0716-2219

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*/ This is a translation of a document originally written in Spanish. In case of discrepancy, the original version prevails. The statistical cutoff date for this Financial Stability Report is April 23th 2024, except where noted otherwise.



SUMMARY

The external scenario continues to be the main source of risks for local financial stability. In a context where global financial conditions remain tight, uncertainty persists about the onset and speed of the monetary tightening cycle in the US, which has affected short-term market interest rates and may generate abrupt corrections on the high valuation of some financial assets. Additionally, long-term interest rates remain at high levels and the risks surrounding sovereign debt are relevant globally. The disparities between the economic cycles of emerging and developed economies, the high levels of debt, and the vulnerabilities in segments of the credit markets can further tighten financial conditions for emerging economies. Global geopolitical tensions remain high and their potential effects on inflation contribute to increasing uncertainty regarding the course of monetary policy in advanced economies. Internally, the economy has resolved the significant macroeconomic imbalances of previous years, although the depth of the capital market remains low. The reduction in inflation and short-term interest rates has contributed to normalizing indebtedness and the financial burden of households and firms, in a context of credit activity in line with the evolution of the economic cycle. The economy is recovering; however some sectors remain behind, which has raised delinquency to high levels in historical perspective. The banks have managed these developments adequately and preventively, accumulating relevant levels of provisions. Together with appropriate levels of liquidity and capital, this allows banks to adequately withstand stress scenarios. However, banks must continue to prepare for the upcoming challenges, associated with the convergence towards Basel III standards. Finally, the external macrofinancial situation highlights the importance of continuing to strengthen the resilience of local agents and the financial market.

SITUATION OF THE FINANCIAL SYSTEM

At a global level, uncertainty persists about the onset and speed of the monetary tightening cycle in the US, which has affected short-term market interest rates in that economy and may generate abrupt corrections in the high valuations of financial assets. Long-term interest rates in developed economies are high in historical perspective. This has permeated to the local economy, where interest rates on longer-term mortgage and commercial loans have also remained at high levels. In contrast, short interest rates have decreased in line with the MPR cuts in Chile. This has alleviated the financial situation of firms and households. However, a significant increase in delinquency rates is observed in sectors that are further behind in their recovery, banks have adequate levels of provisions and capital to face scenarios of greater deterioration.

The Federal Reserve (Fed) has adopted a more cautious tone and the markets have postponed the date in which they estimate the cuts in the Fed Funds Rate (FFR) would begin. In the US, since the beginning of the year, the persistence of services inflation, together with positive private consumption figures and a labor market that remains tight, have raised concerns about its inflationary convergence. This has led to upward corrections on growth forecasts for the current year, with market expectations indicating that the first FFR cut would occur towards the latter part of the year, later than anticipated in the previous Report.



Long-term interest rates have risen in the US and other developed countries, a development that has passed through to emerging economies, including Chile. The US ten-year term interest rate stands at 4.6%, 230bp above the average of the last decade. For the average of emerging economies, the ten-year interest rate reaches 8.5%, while for developed economies it is at 3.8%, which compares with 6.7% and 1.9% for the last decade, respectively. In particular, the rise in long interest rates in the US has occurred in an environment of greater concern about the fiscal situation in that country. Added to the above are the prospects for greater spending in advanced economies due to, among others, greater demand for resources associated with climate change and geopolitical conflicts. The future evolution of long-term interest rates also depends on structural factors such as demographic changes and global savings patterns, which contribute to greater uncertainty about interest rates levels in the coming years ([BCCh ND N°1](#)).

The valuation of some financial assets remains high globally. In line with a better economic outlook, positive firms' results and a greater risk appetite, stock markets in most economies continued to show improved performance in recent months. Besides, corporate spreads have decreased in advanced economies and volatility indicators remain around the average level of last year. However, episodes of reversal have been observed, which reflect a high sensitivity of financial markets to negative news, such as what occurred in mid-April due to increased geopolitical tensions.

At the local level, the economy resolved the significant imbalances accumulated in previous years. Inflation had a rapid decline from the 2022 highs and is at levels close to the 3% target. Domestic spending has declined, the current account deficit decreased, and the output gap has narrowed. Indicators of local stress and uncertainty are around pre-pandemic levels, while the volatility of interest rates is below the level observed in a group of comparable economies.

Short-term interest rates have dropped, reflecting the cuts in the Monetary Policy Rate (MPR). From July 2023 to date, the MPR has been reduced by 475bp, which have passed through on to short-term interest rates, such as commercial and consumer loans, which have fallen 420 and 340bp, respectively.

However, local long-term interest rates have remained high in historical perspective, reflecting the external scenario. As of the closing of this Report, the BCP10 rate was around 6%; this higher level of the base rate—together with an increase in spreads—has been passed on to the cost of long-term local corporate financing. Corporate spreads showed slight increases in the last six months, which keeps longer-term interest rates high in historical perspective, while bond issuance continues low. In turn, local banks have issued bonds at shorter terms and with spreads above what was observed in the previous Report. Likewise, financing spreads for some Non-Bank Lenders have also increased.

Higher long-term interest rates have also affected the cost of mortgage loans, in a context where the dynamism of the residential real estate sector has remained low for several quarters. The vulnerabilities identified in previous Reports are still present in this sector. The available for sale stock of finished residential units has continued to increase, rental profitability has fallen, and higher vacancy has been observed. In this environment, delinquency of firms in the sector has increased and their access to credit has been restricted. This has been partially mitigated by a lower financial burden, due to lower short-term interest rates.



Financial market depth indicators have not recovered and remain below their pre-pandemic levels. A shallower capital market affects medium and long-term financing conditions and has less capacity to mitigate external shocks that the economy may face ([FSR, first half 2022](#)). Likewise, the high stock of local public and private debt due in the future may exert greater upward pressure on financing rates and spreads given the lower demand for local financial assets.

The background information presented in the latest Public Finance Report indicates that public debt would continue at around 41% of GDP in the coming years. However, the Autonomous Fiscal Council ([CFA, April](#)) has highlighted a series of risks that could affect this trajectory, which is particularly important to consider in a scenario in which long-term interest rates remain high for a long time. Maintaining prudence in fiscal accounts is essential for the economy to have external financing available without significant increases in its cost.

The aggregate debt of non-financial firms increased at the end of 2023, reaching 114% of GDP, mainly due to the increase in Foreign Direct Investment (FDI) and the valuation effect derived from the peso depreciation. This contrasts with lending activity and bond issuance that remain low. Large firms—which report their financial statements to the Financial Market Commission (CMF)—reduced their profitability, reaching levels close to their average for the last twenty years. Likewise, they show leverage, liquidity and interest coverage ratios close to their historical averages, without relevant currency mismatches.

In the case of firms that are financed by local banks, financial indicators showed a slight improvement, although some groups remain behind in their recovery. Sales are at higher levels and operating margins have recovered. Debt service ratios are lower, because of reduced short-term interest rates. However, certain groups identified in previous Reports are lagging in their recovery, such as smaller firms, those that obtained Fogape-Covid loans and the Retail, Construction and Real Estate sectors, which has led to increases in their delinquency rates.

The financial situation of households has also been stabilizing, in a context of increased income and reduced financial burden, due to lower interest rates on short-term loans. Aggregate household debt remained stable. In the mortgage market, credit growth remains low, while in consumer loans there are no new increases in the use of revolving debt. The latter type of debt, due to its shorter term and higher relative cost than other consumer loans, is more exposed to changes in interest rates. In turn, household financial indicators, such as debt service ratios, have continued to improve. According to the Bank Credit Survey, credit supply conditions for households did not show significant changes in the first quarter of the year, remaining restrictive, while demand heightened its weakening.

Credit activity remains in line with the local macroeconomic cycle. Mortgage loans maintained positive growth rates, while consumer loans, granted by both banks and non-banks, showed low activity. Commercial loans continue to show negative growth rates, which are mainly linked to demand factors. Indeed, the Bank Credit Survey for the first quarter indicates that demand for funding is weaker compared to the previous quarter, mainly due to lower investment. Supply conditions are perceived to be similar to those of the previous quarter.



In the banking sector, delinquency rates have increased, reaching high levels in historical perspective.

For commercial loans, this increase continues to be explained mainly by firms that received Fogape loans during the pandemic, smaller firms and those in Retail, Construction and Real Estate sectors. Among households, arrears have also increased, reaching highs in the last decade for consumer loans, while mortgage delinquencies although growing, continue at relatively low levels. Likewise, consumer loan delinquency also remained high in non-bank providers.

The increase in credit risk indicators finds banks with adequate levels of provisions and increased guarantees.

Banks' profitability continues its adjustment process toward pre-pandemic levels, with lower inflation margins and interest margins that have tended to recover, in a context where banks have been adjusting their funding structure toward lower duration. However, they maintain adequate liquidity levels after the first expiration of support policies deployed during the pandemic. Banks have made progress in adapting their capital levels in accordance with the greater regulatory requirements in the process of convergence towards Basel III.

FINANCIAL REGULATION DEVELOPMENTS

At a global level, after the events of March 2023 in international banking, initiatives aimed at strengthening banking supervision are beginning to materialize.

The Basel Committee on Banking Supervision incorporated adjustments to its principles of prudential regulation and banking supervision, including the framework applicable to globally systemically important banks (G-SIB). Meanwhile, the US is in the process of leveling the regulatory framework applicable to banks according to their size.

At the local level, relevant progress has been made in the financial policy agenda, through initiatives in the areas of prudential regulation and payment systems.

Various initiatives promoted by the Central Bank were completed, such as exchange rate framework modernization, the implementation of two new infrastructures for low-value payments and operations in foreign currency, and the setting of new investment limits in alternative assets for Pension and Unemployment Funds. Regarding banking prudential regulation, the convergence to Basel III standards continues, and the application of Pillar 2 capital charges due to the supervisory process by CMF. The implementation of the FinTech and Resilience laws in the financial system is also advancing, the Framework Law on Cybersecurity and Critical Information Infrastructure was published, modifications to the Law on fraud in payment methods were approved and relevant progress was made in the bill of Consolidated Debt.

MAIN RISKS

The external scenario continues to be the main source of risks for local financial stability. Financial conditions for emerging countries may register a significant tightening if external interest rates remain around current levels for a prolonged period or increase further. Internally, the materialization of this type of scenario could cause debtors' payment capacity to worsen beyond what is anticipated. However, banks appear resilient under the stress test scenarios.

The main risk is an increase in risk aversion and an abrupt price correction in financial markets. Given the high valuations of asset prices, various factors could trigger abrupt adjustments in their prices. First, a delay in the start of FFR cuts cannot be ruled out. Added to this is an additional deterioration – or prolongation – of



the global geopolitical situation and its effects on the monetary policy of developed economies. If this scenario materializes, it could trigger an abrupt correction in the asset prices and would increase funding spreads for emerging economies. In addition, capital outflows from emerging markets would intensify and the dollar would strengthen globally. The Chilean economy would be affected by an increase in the cost of external financing and an exchange rate depreciation. However, the effects of the latter would be limited by the reduced currency mismatches in the balance sheets of both firms and banks.

Financial conditions for emerging markets would become restrictive if a scenario of high long interest rates for a prolonged period is consolidated. Fiscal spending pressures in developed economies and other factors mentioned above could translate into a permanent rise in long-term interest rates. This higher financing cost would make it difficult to renew sovereign debt and would increase risk premiums, affecting those economies with higher levels of debt to a greater extent. This increase in base rates would generally reduce the payment capacity of debtors, which could strain the balance sheets of banks globally. After a prolonged period of low interest rates, it is possible that vulnerabilities have accumulated due to excessive risk-taking in search of greater profitability. This could generate tensions in various segments of international financial markets, such as Non-banking Financial Institutions with greater leverage, exposed to illiquid assets and highly interconnected with the financial system.

To the vulnerabilities already identified in previous FSRs regarding US regional banking and the Chinese economy, there is added concern for the non-residential real estate sector in advanced countries. The latter has expanded to some European countries exposed to the North American market and has intensified in the face of the high rates scenario. Even if these risks appear to be contained, it cannot be ruled out that they could give rise to new episodes of mistrust – such as those seen in March of last year – with the risk of widespread contagion. In China, financial risks persist, due to the weakness of its real estate sector and high levels of debt. All of the above in a context of global sovereign debt that remains high in historical perspective.

In face of the materialization of an external risk scenario that significantly tightens financing conditions, it is possible that the deterioration in payment capacity of credit users at the local level could deepen. A prolongation of the scenario of high long rates that could slow down the recovery of the real estate sector would intensify the weakened situation of firms in that sector. Tighter external conditions would deteriorate activity, employment and household income, with a greater impact on the more vulnerable households and firms in more procyclical sectors, such as Retail.

Bank stress exercises show that local banks remain resilient. The results show that the system remains with adequate levels of liquidity, provisions and capital to remain solvent in the face of severe stress scenarios. However, as the Basel III implementation process continues, it will face higher capital requirements, so it will need to continue strengthening its capital base.

The external macrofinancial situation highlights the importance of continuing to increase the resilience of local agents and the financial system. The uncertainty regarding the control of inflation and its effects on monetary policy in the US, together with other sources of risk, such as geopolitical conflicts and the fiscal situation in advanced economies, suggest that financial conditions could remain tight for a prolonged time. At the local level, the resolution of significant macroeconomic imbalances has allowed the financial position of local agents to improve, such as household savings and the balance of external accounts, although certain



sectors remain behind. Capital market depth remain at low levels, which in turn has reduced the economy's ability to cushion external shocks. Thus, it is necessary to continue strengthening the resilience of the financial market with the objective of facing an uncertain international context and possible adverse shocks, without putting financial stability at risk.

The Board has decided to maintain the CCyB at 0.5% of risk-weighted assets (RWA), which will be due from the end of this month. This level is maintained as a precautionary measure in the face of external uncertainty and a balance of risks similar to that of the previous IEF. This contains the possibility of an extreme negative event, which would imply a significant decrease in credit. Having a previously established capital buffer, which can be released when an event of this nature occurs, would help mitigate impact on the provision of credit to households and firms.

As announced in the previous FSR, during this year the Board has been reviewing the CCyB implementation framework, including the definition of its neutral level.



I. TRENDS IN FINANCIAL MARKETS

In a context of still tight global financial conditions, uncertainty persists about the start and velocity of interest rate cuts in the United States, affecting short-term market interest rates and potentially triggering abrupt corrections of the high valuations of some financial assets. Long-term interest rates remain at historically high levels and the risks associated with sovereign and private indebtedness continue to be significant around the world. Geopolitical risks have also intensified. The regional banking sector of the U.S. economy maintains pockets of vulnerability, in addition to exposure to the non-residential real estate sector, while the financial risks of the Chinese real-estate sector remain in place. Locally, short-term interest rates have decreased due to a less contractionary monetary policy, while uncertainty has diminished. Long-term interest rates are high, in line with the external scenario. Stock and exchange rate volatility indicators have not changed for some months. Thus, the external scenario continues to be the main source of risks to financial stability. On the one hand, there are still areas of concern linked to the risk of asset price corrections in the face of changes in the external monetary policy outlook. On the other hand, financial conditions for emerging markets will tighten as a scenario of high long interest rates consolidates for a prolonged period of time. Finally, market depth indicators remain low from a historical perspective, maintaining a lower capacity to absorb external shocks.

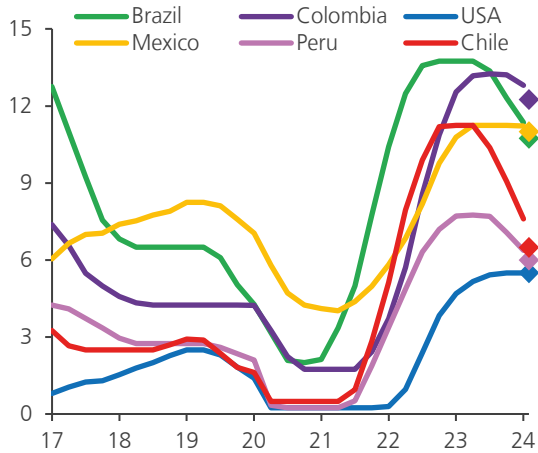
INTERNATIONAL FINANCIAL CONDITIONS

The resilience of the U.S. economy, coupled with recent inflation data, has delayed the country's monetary policy normalization, suggesting that the divergence in the monetary policy cycle between emerging and advanced economies will continue into the future. Positive private consumption figures for the fourth quarter of 2023 in the U.S., plus the still resilient labor market, have led markets to correct upward their growth forecasts for 2024 ([IPoM, 2024](#)). In addition to the above, there are positive results from the corporate sector in the last quarter of 2023, especially in tech companies. Meanwhile, inflation figures early in the year have been higher than expected, with services inflation leading the way. In this context, Fed Funds Rate futures anticipate that the Federal Reserve will begin the cycle of interest rate cuts towards the end of this year, with expected cuts of just under 50 bp. In the Eurozone, the European Central Bank (ECB) has maintained its benchmark interest rates in recent months, with declines of 75 bp expected for the rest of the year. For their part, most Latin American countries' central banks have continued to lower their monetary policy rates, in line with the signs of greater inflationary convergence, although still contractionary. In this context, the monetary policy disparity between emerging and developed countries is expected to continue during the year (Figure I.1).

Long-term interest rates remain high, and a number of factors suggest that this situation will continue for some time to come. Since the last Report, long-term interest rates have declined globally while remaining at high levels compared to the last 15 years (Figure I.2). Various factors could sustain these high interest rates for longer, including greater investment needs in the energy transition to face the costs of adapting to climate change ([IMF, 2023](#)), higher defense spending ([CBO, 2023](#)), in a context of increased geopolitical tensions (Figure I.3), as well as ongoing concerns about the sustainability of sovereign debt at a global level, which remains high (Figure I.4). The case of the United States stands out, where significant fiscal deficits are projected for the medium and long term ([CBO, 2024](#)). This fiscal environment has driven significant increases in term premia required from government bonds since 2023 and is expected to continue to exert pressure ([GFSR, April 2024](#)).

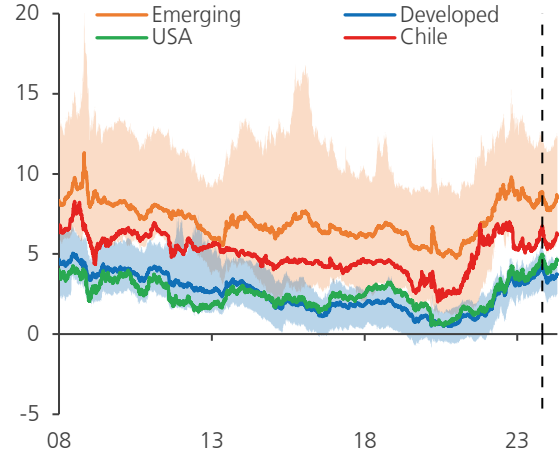


FIGURE I.1 MONETARY POLICY INTEREST RATES (*)
(percent)



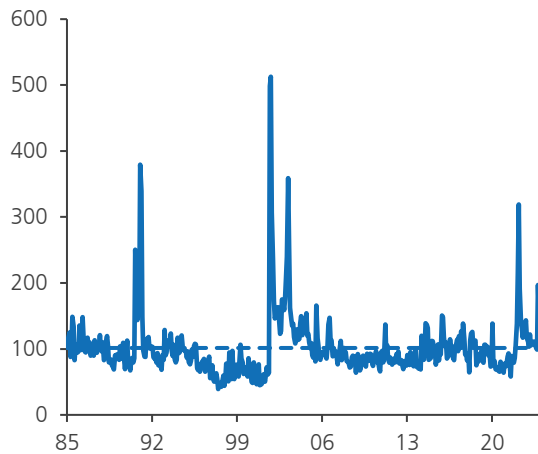
(*) Series in quarterly average of each country. Dots indicate effective value of MPR at statistical closure.
Source: Central Bank of Chile.

FIGURE I.2 SOVEREIGN 10-YEAR INTEREST RATES (*)
(percent)



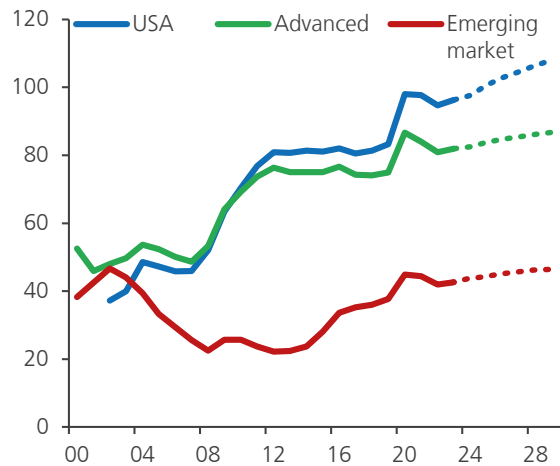
(*) Dashed vertical line marks the statistical closure of previous FSR. The width of the bands corresponds to the maximum and minimum values of emerging and developed categories. Sample of developed economies include: Australia, Canada, South Korea, Denmark, United States, Norway, United Kingdom, Singapur, Sweden and Eurozone (except Portugal and Greece). Emerging markets include: Brazil, Chile, Colombia, Hungary, India, Indonesia, Mexico, Peru, Poland, South Africa, Thailand and Turkiye.
Source: Central Bank of Chile based on Bloomberg data.

FIGURE I.3 GEOPOLITICAL RISK (*)
(index, 1985-2019 average =100)



(*) Index built on geopolitical risk news. Dashed vertical line marks 1985-2024 average.
Source: Central Bank of Chile based on information of [Caldara and Iacovello \(2022\)](#).

FIGURE I.4 PUBLIC DEBT IN ADVANCED AND EMERGING MARKET ECONOMIES (*)
(percent of GDP)



(*) Advanced and emerging market economies classified according to the IMF. Dashed lines are forecasting of [IMF, Fiscal Monitor \(April, 2024\)](#).
Source: Central Bank of Chile based on IMF Fiscal Monitor (April 2024).



The dynamics observed in long-term interest rates in developed economies have spilled over to emerging economies, including Chile. Ten-year interest rates in emerging economies remain high by historical standards, despite a decline since the last Report. At the close of this issue, average long-term interest rates in a group of emerging countries were around 8.5% (Figure I.2), in a context where the U.S. rate remains close to 4.6%, above its average of the last ten years (2.3%), while in Chile, the BCP-10 is around 6.1%, compared to averages of 4.5% for the same period.

Global financial assets have been boosted by better prospects for the U.S. corporate sector and economy. Stock markets in both developed and emerging countries have shown significant increases since the previous Report (Figure I.5), in a context in which market volatility indexes are mostly unchanged since the previous year (Figure I.6). Along the same lines, corporate spreads have decreased. Recently, there has been a partial reversal in stock markets, given the greater sensitivity of financial markets to geopolitical tensions and the course of the Fed's monetary policy. Emerging economies' currencies have presented mixed performances against the dollar, while the Chilean peso showed a 3% depreciation since the previous Report.

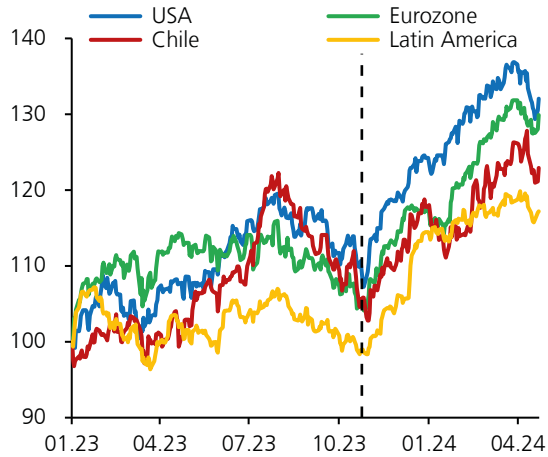
In the U.S., vulnerability in regional banking remains, especially regarding exposure to the non-residential real estate sector. A similar situation is seen in Europe. At a time when the banking sector continues to report stringent lending standards in a large number of countries ([GFSR, April 2024](#)), concerns remain about the vulnerabilities of U.S. regional banks, which is reflected in stock prices for this segment, with marginal recoveries in their valuations in recent months (Figure I.7). Banks with high unrealized losses, a large amount in uninsured deposits, and high commercial real-estate (CRE) exposures stand out as the most vulnerable ([GFSR, April 2024](#)). Similar vulnerabilities are identified in Europe, with some European banks being highly exposed to the United States ([Bundesbank, 2023](#); [BaFin, 2024](#)). This background becomes more relevant in a context where this sector is under pressure globally due to structural changes generated by the pandemic and persistently high interest rates (Box I.1).

Globally, the residential real estate sector has continued to show low dynamism. Housing prices have continued to adjust downward in most countries (Figure I.8), reflecting the lower demand for housing amid the still high mortgage rates. In China, the sector's structural imbalances are still putting pressure on the economy, with lower dynamism explained by structural challenges, such as housing oversupply and developer over-indebtedness ([FSR, second half of 2023](#)). Since the last Report, the Chinese authorities have implemented various support measures—such as lower rates, relaxation of restrictions to home purchases and measures to tone down the negative effects of developers' indebtedness on the banks' balance sheets—which have had limited effects on the sector. Furthermore, there are difficulties associated with the limited fiscal policy space available to the Chinese government due to its high debt levels, in an environment in which consumer confidence indices remain low from a historical perspective.

The increased prevalence of non-bank financial institutions (NBFIs) in the credit market could intensify financial vulnerabilities given their limited supervision. Private credit—where NBFIs lend to firms—exceeded US\$2 trillion in the last year, 75% of which was in the United States ([Cohen et al., 2024](#)). More recently, some banks have been selling complex debt instruments to private fund managers to reduce regulatory capital charges on the loans they grant ([Fed Notes, February 2024](#)). The unavailability of reliable information and data on these instruments and other sources of funding for the sector makes it difficult for policymakers to assess risks in the face of fragility episodes ([Financial Stability Board, 2023a](#)). These limitations underscore the need to continue strengthening the monitoring of this sector, understanding its interconnections with the financial sector, and developing measures to improve the resilience of NBFIs ([FSB, January 2024](#)).

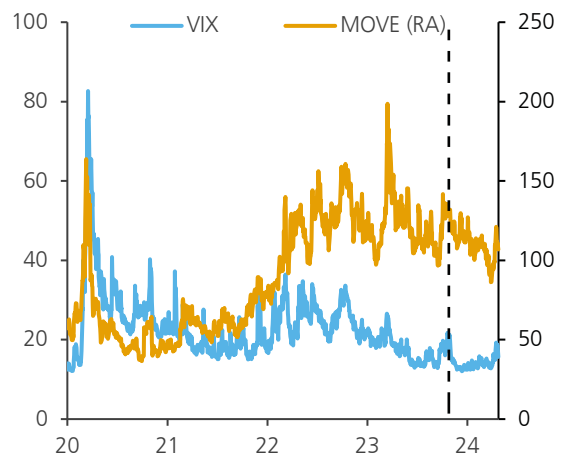


FIGURE I.5 STOCK MARKETS (*)
(index, Jan.02.23=100)



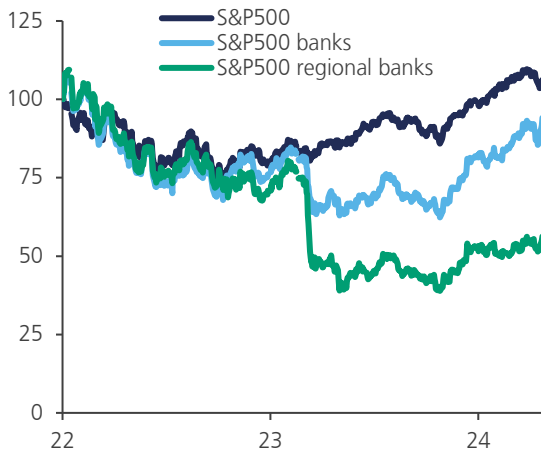
(*) Latin America as the average of Brazil, Colombia, Mexico and Peru Index. Dashed vertical line marks the statistical closure of previous FSR. Source: Central Bank of Chile based on information of Bloomberg.

FIGURE I.6 IMPLICIT VOLATILITY INDEXES (*)
(percent, index)



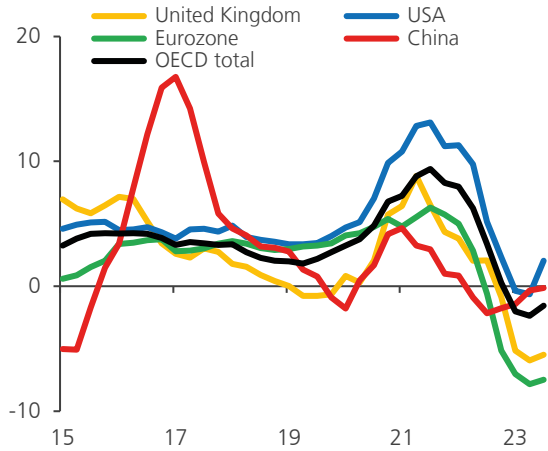
(*) Dashed vertical line marks statistical closure of previous FSR. VIX: implicit volatility in one-month options on S&P500. MOVE: index of implicit volatilities on one-month options on 2, 5, 10 and 30 years US Treasury bonds. Source: Central Bank of Chile based on Bloomberg data.

FIGURE I.7 STOCK MARKET INDEXES IN THE UNITED STATES
(index, Jan.03.2022=100)



Source: Central Bank of Chile based on information of Bloomberg.

FIGURE I.8 REAL HOUSING PRICES (*)
(annual change, percent)



(*) Latest data is from 2023Q3. Source: Central Bank of Chile based on OECD.

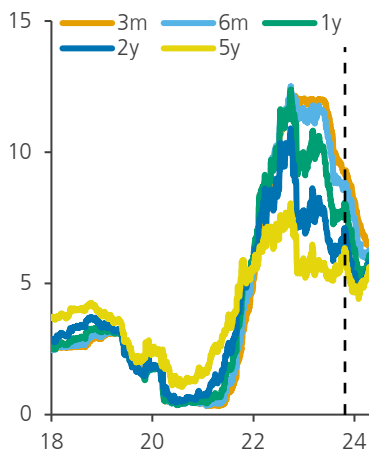


DOMESTIC FINANCIAL CONDITIONS

In the local market, short-term interest rates have responded to domestic monetary policy developments. Meanwhile, the external macro-financial scenario has influenced the dynamics of the stock market and longer-term interest rates. On the one hand, the resolution of the domestic macroeconomic imbalances of previous years has continued its course (IPoM, March 2024), allowing the CBCh Board to advance with the process of reducing the monetary policy rate (MPR), which accumulates a decrease of 300 bp compared to the last Report. The evolution of short-term interest rates has reflected this less contractionary monetary policy, with falls for several months (Figure I.9), in a context in which stress, uncertainty and sovereign risk indicators have shown moderate declines. On the other hand, the better performance of the external macroeconomic scenario in recent months has boosted the local stock market, matching the performance of external stock markets, with volatility similar to that of previous months (Figure I.10). The Chilean peso has increased its volatility (Figure I.11) and has shown a depreciation in the last months, standing at CLP\$951 per dollar at the close of this Report, consistent with a narrowing of Chile's interest rate differentials with other economies and reflecting the behavior of its other determinants.

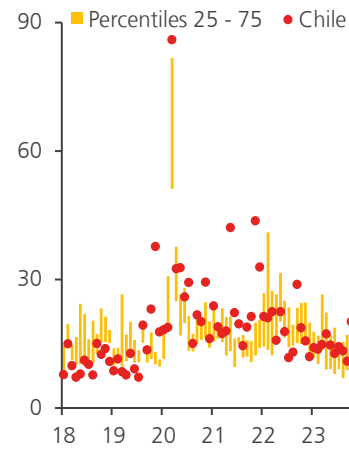
Local long-term interest rates have mirrored the dynamics of their international peers, remaining historically high, which has been passed on to the cost of corporate and mortgage financing. Long-term sovereign rates continue to be high, in a context of relatively low volatility (Figure I.12). A comparable situation is shown by inflation indexed long-term interest rates for the banking and corporate sectors (Figure I.13), and mortgage loans (Chapter II) which also remain high. In this scenario, corporate spreads remain above their historical averages, reflecting still restrictive corporate financing conditions.

FIGURE I.9 AVERAGE INTERBANK SWAP RATES IN PESOS (*)
(percent)



(*) Dashed vertical line marks statistical closure of previous FSR.
Source: Central Bank of Chile based on Riskamerica.

FIGURE I.10 VOLATILITY OF LOCAL EMERGING ECONOMIES STOCK MARKETS (*)
(percent)



(*) Bars show the difference in volatility between 25th and 75th percentile of a sample of emerging economies. Sample of emerging economies includes: Brazil, China, Colombia, Hungary, India, Indonesia, Malaysia, Mexico, Peru, Poland, Russia y Turkiye. Annualized standard deviation of daily returns during each month.
Source: Central Bank of Chile based on Bloomberg.

FIGURE I.11 VOLATILITY OF EMERGING MARKETS EXCHANGE RATES (*)
(percent)

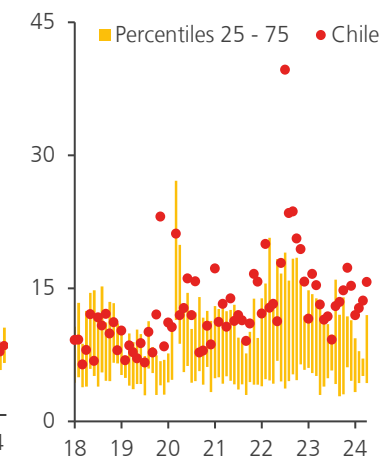
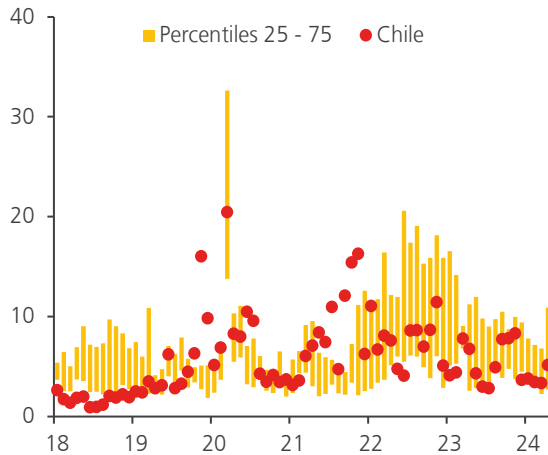




FIGURE I.12 VOLATILITY OF SOVEREIGN 10Y INTEREST RATE OF EMERGING ECONOMIES (*)
(basis points)



(*) Bars show the difference in volatility between 25th and 75th percentile of a sample of emerging economies. Sample of emerging economies includes: Brazil, China, Colombia, Hungary, India, Indonesia, Malaysia, Mexico, Peru, Poland, Russia y Turkiye. Annualized standard deviation of daily returns during each month.

Source: Central Bank of Chile based on Bloomberg.

FIGURE I.13 INTEREST RATE ON 10Y CORPORATE BONDS IN UF (*)
(percent, 90d moving average)



(*) Dashed vertical line marks statistical closure of previous FSR. Dashed horizontal line indicates averages between 2013 and 2019 of each serie.

Source: Central Bank of Chile based on Riskamerica.

Bank and corporate bond issues in the local market during the first quarter of 2024 are around the averages of recent years (Figure I.14), with shorter maturities and higher spreads than in previous years. These issues have been made at shorter maturities (Figure I.15) and with higher spreads (Figure I.16) with respect to our previous Report. Mutual funds stand out as the main counterparties to these loans, reflecting a lower share of pension funds in the primary bond market. As a result of the combination of weaker issuance, together with a greater preference for shorter-term funding, maturing loans have accumulated for the next two years. In the case of bank bonds, some 30% of the debt stock will mature in this period. For corporate bonds, this figure stands at 17%. Sovereign loans concentrated on short-term instruments in the first quarter of 2024, although with smaller amounts than those that prevailed at the beginning of 2023.

Pension funds have continued to extend the duration of their local fixed-income investments since the last Report. Pension funds were the main counterparty to long-term sovereign bond issues during the fourth quarter of 2023. Their funding came mainly from short-dated bank and sovereign bond sales, with a portfolio that has reduced its exposure to local short-term fixed income, increased its share in local long-term sovereign instruments, and increased the proportion of external equities. The longer duration of the portfolio is observed in a context in which the assets in the D fund have risen by 12%, and those in the E fund have fallen by 5%, both in real terms, since the previous Report. Part of the increase in duration has been achieved through greater exposure to interest rate derivatives. Meanwhile, the assets of funds A and B show increases of 23% and 22% (see statistical appendix) from September 2023 to March 2024, respectively, thanks to the performance of foreign equities and the depreciation of the local currency in that period. There were no major variations in the dynamics of shifts to other pension funds in recent months.



FIGURE I.14 CORPORATE AND BANK BONDS ISSUED IN THE LOCAL MARKET (1)
(billions of dollars)

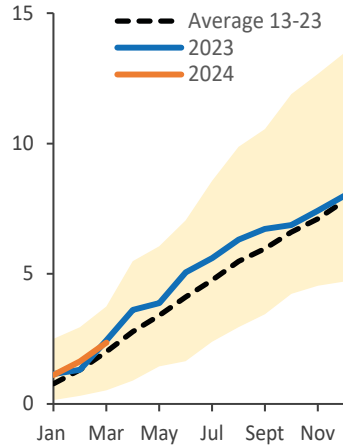


FIGURE I.15 MATURITY OF CORPORATE AND BANK BONDS ISSUED IN THE LOCAL MARKET (2)
(years)

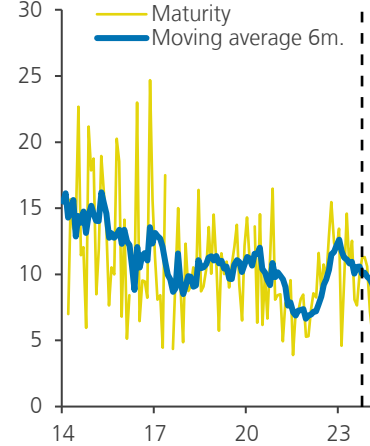
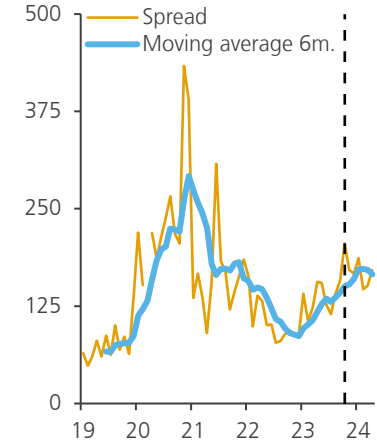
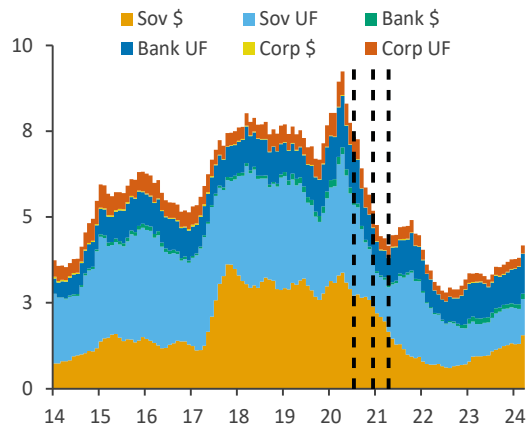


FIGURE I.16 SPREADS OF CORPORATE AND BANK BONDS ISSUED IN UF IN THE LOCAL MARKET (2)
(basis points)



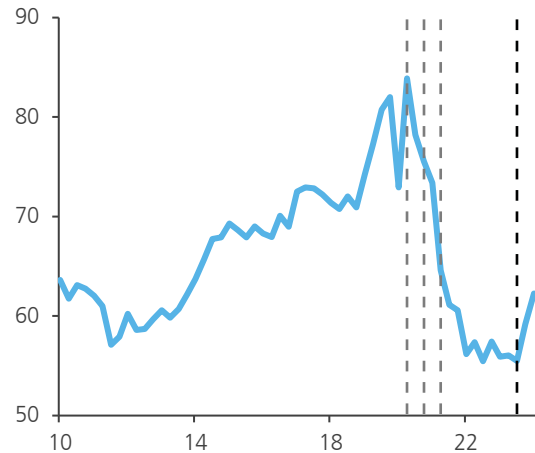
(1) Includes issues in pesos and UF in the local market. Conversion of data to pesos using exchange rate as de day of issue. Yellow area represents the range between minimum and maximum value of accumulated issues between 2013 and 2023.
(2) Dashed vertical line marks statistical closure of last FSR. Data aggregated using monthly weighted average.
Source: Central Bank of Chile based on Santiago Stock Exchange, Central Securities Depository and Riskamerica.

FIGURE I.17 FIXED INCOME AMOUNTS TRADED IN BCS AND OTC (*)
(billions of UF; six-month average)



(*) Considers transactions from Santiago Stock Exchange (BCS) and over-the-counter (OTC). Dashed vertical lines marks pension fund withdrawals.
Source: Central Bank of Chile based on Riskamerica.

FIGURE I.18 PENSION FUND ASSETS (*)
(percent of GDP)



(*) Calculated using quarterly GDP data at current prices, accumulating four moving quarters, and monthly data of total assets of the pension fund system, considering the last month of each quarter. First-quarter 2024 GDP calculated using the Economic Expectations Survey of April 2024. Dashed grey vertical lines marks pension fund withdrawals. Dashed black vertical lines marks statistical closure of last FSR.
Source: Central Bank of Chile based on data from the Superintendency of Pensions.



Local capital market depth indicators have not recovered and remain below pre-pandemic levels. After bottoming out during 2022, several market depth indicators continue to show some improvement in recent quarters, although remaining below their pre-pandemic levels, which has reduced their capacity to withstand external shocks. On the one hand, the amounts traded on the stock and OTC markets correspond to around 58% of pre-pandemic levels (Figure I.17). On the other hand, pension fund assets as a percent of GDP stand at 62% (Figure I.18), while for mutual funds they do at 18%, compared to the levels of 81% and 20% observed in the third quarter of 2019, respectively. In the case of Type 1 and 2 mutual funds, they have increased their time deposit investments since the last Report. Overall, the data for the first quarter of 2024 show a recovery in the investments of both institutional investors.

THREATS TO FINANCIAL STABILITY

The main external risk is an increase in risk aversion and a sharp price correction in financial markets.

A higher persistence of services inflation, together with a tight labor market in the United States, could modify forward guidance towards a more contractionary monetary policy. In turn, a further deterioration of the global geopolitical climate could have an impact on transportation costs and commodity prices, with inflationary impacts, thus delaying the start of monetary policy normalization in developed countries. Should this scenario materialize, it would trigger an abrupt correction in the prices of financial assets and would raise financing spreads for emerging economies. In addition, capital outflows from emerging economies would intensify and the dollar would strengthen globally. The Chilean economy would be mainly affected by an exchange rate depreciation, but its effects would be limited due to the low mismatches in the balance sheets of firms and banks.

A scenario of prolonged high long-term interest rates poses risks for sovereign, corporate and non-bank financial institutions. Debt pressures in emerging economies, in a context of high interest rates, may make it more difficult to roll over their debt, making them more vulnerable to capital outflows, exchange rate depreciations and higher future inflation expectations ([Adrian et al., 2024](#)). Added to this is the increase in the cost of corporate refinancing and the performance of non-bank financial institutions, due to the high leverage of the sector ([FSR, second half of 2023](#)). In this sense, the current threats to financial stability derived from private credit appear limited, although its interconnections with the financial system and its rapid increase could turn it into a risk going forward ([GFSR, April 2024](#)).

The banking systems in both the U.S. and Europe appear to be well positioned to cope with the aggregate losses associated with a deterioration in CRE. Nonetheless, risks should continue to be monitored. Deterioration in this sector could lead some banks to increase their credit losses. Additionally, some regional banks could become insolvent and affect market confidence in the short term. However, the U.S. banking sector is well positioned to deal with the aggregate losses from a deterioration in the sector, while regulators play their role of limiting the possibility of a systemic crisis (Box I.1).



BOX I.1:

Commercial Real State in U.S. and Europe

The Commercial Real State (CRE) has been under pressure globally, due to the structural changes that the pandemic brought about and still high interest rates. In the past year, prices in real terms have fallen globally. The deterioration in the office-space segment in the U.S. and Europe stands out, with declines of 23% and 17%, respectively (Figure I.19). This lower price of commercial properties is explained by lower demand for retail and office space. The drop in demand is due to new trends created by the pandemic—such as the greater prevalence of teleworking and e-commerce— as well as increased borrowing costs ([Deghi et al., 2024](#)).

Smaller financial institutions in the U.S. are the most exposed to the risks stemming from this sector. Total CRE debt amounts to 18% of GDP in the U.S. and 12% in Europe (Figure I.20). The main lender in the sector is the banking industry, although non-bank financial intermediaries also play an important role in some jurisdictions ([GFSR, October 2023](#)). For the United States, vulnerabilities in regional banking are linked to the high interest rate environment and significant unrealized losses ([FSR, first half 2023](#); [Jiang, 2023](#)). In Europe, bank exposures are generally more limited than in the U.S. (Figure I.20), although some German banks may be more vulnerable, given their exposure to loans with American companies ([Bundesbank, 2023](#); [BaFin, 2024](#)).

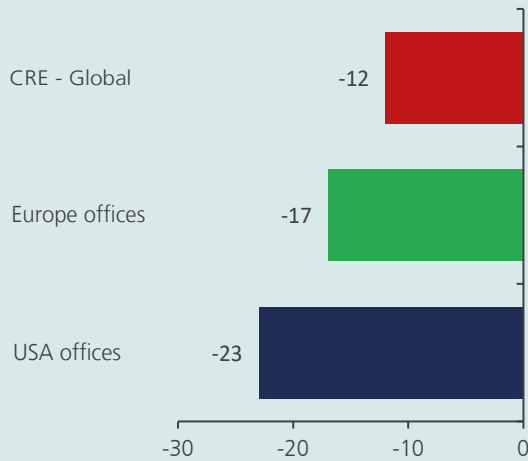
Banks in both the U.S. and Europe seem to be well positioned to absorb potential losses associated with a deterioration in the banking sector, in addition to increased supervision of banks by financial regulators. Several analyses indicate that a deterioration in the CRE would cause limited direct effects on the U.S. banking system, leading some smaller banks to suffer solvency problems, but whose total assets represent a small fraction of the system's total (Table I.1). Likewise, in Europe, various entities point out that such a scenario would not generate systemic risk for the banking sector ([ECB, 2023](#); [EBA, 2023](#)). There is also the mitigating factor of the increased supervision by financial regulators in these jurisdictions, which has forced banks to hold more capital to absorb possible losses ([ESM, 2023](#); [Financial Times, 2023](#)).

Overall, given the interconnections between the CRE and the economic and financial system, its evolution requires special monitoring from the standpoint of financial stability^{1/}([GFSR, April 2024](#); [Federal Reserve, May 2023](#)). With a further deterioration of the CRE, some institutions could increase their credit losses and decrease their capital reserves ([St. Louis Fed, 2023](#); [Jiang, 2023](#)), which would affect the supply of credit and could generate contagion effects in other sectors and asset categories, with consequent macro-financial implications ([GFSR, April 2021](#)). Similarly, banks more exposed to the real-estate sector declaring financial problems could affect confidence and increase risk aversion in the short term. At the same time, the risks associated with CRE lending may continue to generate turbulence in financial markets, so monitoring of the situation should continue.

^{1/} In Chile, the available data for the non-residential sector indicate that the risks are lower than in other economies (Chapter II).

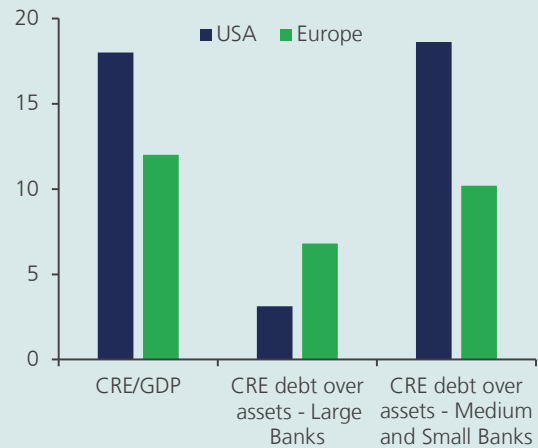


FIGURE I.19 CRE PRICE IN 2023
(real annual change, percent)



Source: Central Bank of Chile based on GFSR (April 2024.)

FIGURE I.20 CRE DEBT AS PERCENT OF GDP AND
BANKS ASSETS (*)
(percent)



(*) Left: CRE total debt as percent of GDP. Center: CRE debt in large banks as percent of their assets. Right: CRE debt in medium and small banks as percent of their assets.

Source: Central Bank of Chile based on GFSR (October 2023), FDIC fourth quarter 2023, and ECB third quarter 2023.

TABLE I.1 U.S. BANKING SECTOR ASSETS AT RISK IN A SEVERE STRESS SCENARIO IN THE COMMERCIAL REAL-ESTATE SECTOR (1)

Source	Fed St. Louis (2023)	Jiang et. al (2023)	GFSR (abril 2024)
	(2)	(3)	(4)
Bank assets at risk (billions USD)	460	500	690
Percentage of total bank assets	2	2,2	3

(1) Total assets of the U.S. banking system are around US\$23 trillion ([Federal Reserve Board](#)). (2) Stress test considers a 40% drop in CRE prices and a default rate of 10% of CRE loans. Bank sample includes only small and medium-sized banks. (3) The scenario considers bank runs of 100% of deposits not insured by FDIC-subscribed institutions and CRE defaults of 20%. (4) Corresponds to banks identified in the report as having high CRE exposure (ratio over Tier 1 capital > 300%), unrealized losses of more than 25% of Tier 1 capital, and ratio of uninsured deposits to total deposits greater than 25%.

Source: Central Bank of Chile based on information from St. Louis Fed (2023), Jiang et. al (2023) and GFSR (April 2024).



II. BORROWERS

The resolution of macro-financial imbalances accumulated in the past few years has contributed to normalizing the aggregate financial situation of credit users, reducing their financial burdens and indebtedness. However, certain groups are lagging behind in the recovery, which has resulted in rising defaults concentrated in smaller firms, those that obtained Fogape-Covid loans and in the trade, construction and real-estate sectors, especially the weakness of activity in the latter two sectors. Among households, while the aggregate savings rate has risen, there has been an increase in non-payment, mainly among those with lower income and consumer debts. Interest rates on shorter-term commercial and consumer loans continued to fall, in line with a less contractionary MPR. This occurred in a context of credit growing in line with the business cycle. As for public finances, maintaining prudence in the fiscal accounts is essential for the economy to have access to external financing without significant increases in its cost. Going forward, the evolution of global financial conditions—and their implications on credit borrowers—continues to be the main source of risk for local financial stability.

FIRMS

Aggregate indebtedness of non-financial firms increased with respect to the previous Report, reaching 114% of GDP at the end of 2023. This increase was mainly explained by the valuation effect, derived from the depreciation of the exchange rate and the higher share of external loans, external bonds and foreign direct investment (FDI)^{1/} (Figure II.1). Lending activity remains weak, although it has recently moderated its decline in the commercial portfolio (Chapter III). Likewise, corporate bond issuance, both local and external, showed low dynamism during 2023, reaching US\$2.16 billion and US\$3.6 billion, respectively, which places them below the average of the last ten years (Chapter I).

The financial indicators of bigger companies—which submit their balance sheets to the FMC—were like those seen before the pandemic. As of the fourth quarter of 2023, profitability was 6.5%, a level close to its historical average. The interest and debt coverage ratios (over equity) have remained stable and close to their averages, at 2.4 and 0.8 times, respectively (Figure II.2). Liquidity indicators also remained around their historical averages, while the forex mismatch remained close to levels that indicate appropriate currency risk hedging in the face of the exchange rate variations of recent quarters. In turn, the financial situation of the health insurance companies (Isapres) continues to weaken. However, as mentioned in previous reports, the direct exposure of the financial sector is limited and the deterioration in this sector has led banking institutions to factor greater risk into their portfolio management activities.

^{1/} The calculation of indebtedness excludes banking entities, which, in addition to certain differences in data sources and valuation methodologies, explains a large part of the difference with the National Accounts, from which other financial firms are also excluded. In this statistic, indebtedness is 98% of GDP as of the fourth quarter of 2023. For more information, [click here](#).



FIGURE II.1 DEBT OF NON-BANKING FIRMS (1)
(percent of GDP)

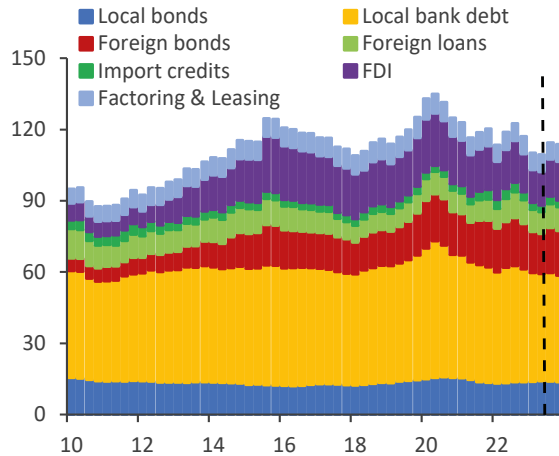
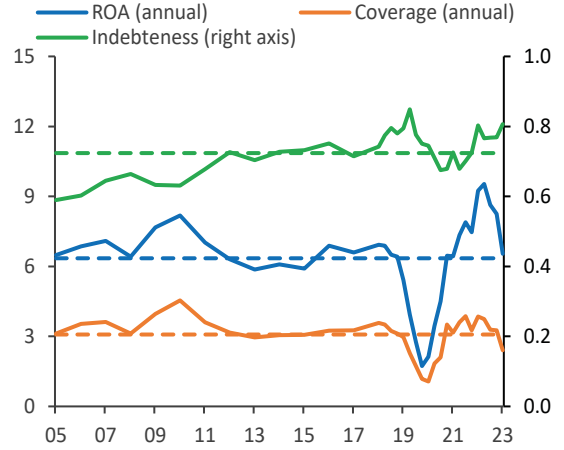


FIGURE II.2 FINANCIAL INDICATORS (2)
(percent of assets; times financial expenses; times equity)



(1) Based on firm-level information with the exception of non-bank factoring, leasing and others, securitized bonds and bills of exchange. Does not include university commercial debt. Quarterly information. Vertical line marks previous FSR publication. (2) Data at December of each year until 2018; thereafter, quarterly information. The dashed lines represent the average of each indicator between 2004 and 2023. More information in the graph set.
Source: Central Bank of Chile based FMC data.

FIGURE II.3 INTEREST RATES IN PESOS ON LOANS UNDER 12 MONTHS (*)
(percent, weighted average)

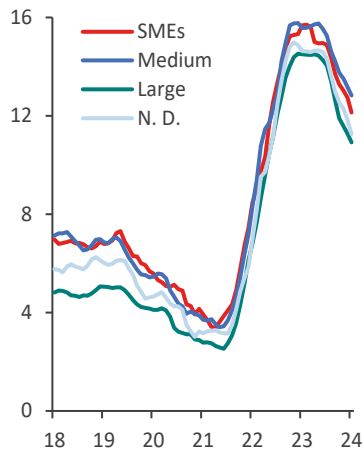
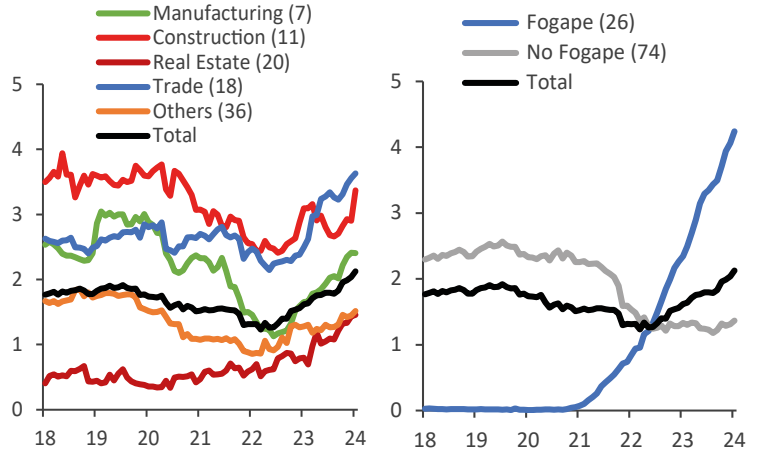


FIGURE II.4 UNPAID INSTALLMENT INDEX (*)
(percent of loans per group/sector)



(*) Considers only installment loans of locally financed firms. Firms with local bank funding. Sales strata defined as of Dec.21. For more details, see the set of figures.
Source: Central Bank of Chile based on FMC and SII data.

(*) Firms with local bank funding. In parentheses, percentage of participation in total placements as of Jan.24. For more details, see the set of figures.
Source: Central Bank of Chile based on FMC data.

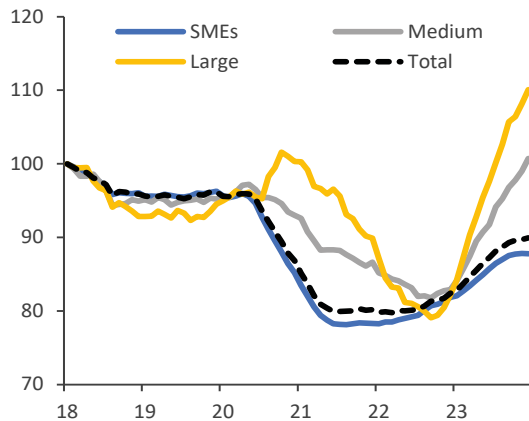


Firms relying on local bank financing show a slight improvement in their financial indicators, although certain groups are lagging behind in their recovery. Since mid-2022, the operating margin and indebtedness (relative to sales) of firms with local bank financing have been normalizing, approaching pre-pandemic levels. However, as mentioned in previous reports, there is a lag in the recovery of smaller firms, among those that received Fogape-Covid loans, and those in certain more procyclical sectors, such as trade, construction and real estate, where sales growth has been less dynamic than in other sectors. This delayed recovery of these groups has translated into higher defaults, which continue to be concentrated in the firms of the aforementioned sectors.

Short-term commercial credit interest rates continued to decrease, while banks' credit supply conditions for the first quarter were perceived to be similar to those of the close of the previous year. The reduction in commercial rates at shorter terms has been in line with a less restrictive MPR, which has translated into a lower financial burden that alleviates credit risk pressures among firms. Rates have fallen across the board, both by firm size, and by risk rating and economic sector (Figure II.3)^{2/}. The Bank Lending Survey for the first quarter of 2024 indicates that the supply of credit for large companies has somewhat less stringent standards, while for SMEs no major changes are observed, in a context where the demand for financing is perceived to have weakened ([Bank Lending Survey](#) and Chapter III)^{3/}.

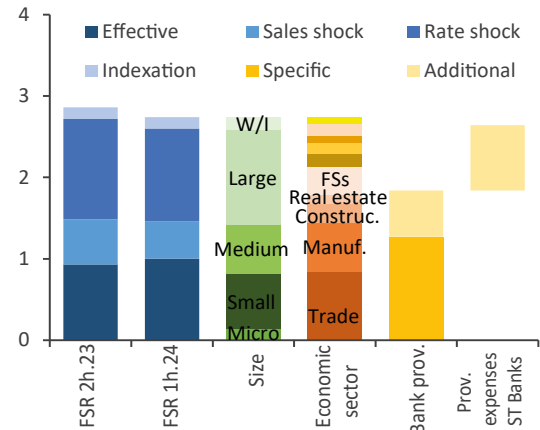
Firms' defaults have continued to grow, reaching record highs for which banks have adequate levels of provisions (Chapter III). At the end of 2023, the unpaid installment index was 2% of commercial loans and has continued to rise so far this year, while delinquency followed a similar trend (Figure III.3). This high level of default continues to be concentrated mainly in smaller firms in the trade, construction, and real-estate sectors that accessed Fogape-Covid loans (Figure II.4, panels a and b). In addition, there was an increase in the non-performing portfolio, in response to which the banks have kept their provision index stable and have accumulated guarantees (Box II.1 and Chapter III).

FIGURE II.5 OPERATIONAL MARGIN (*)
(index 100=Jan.18)



(*) Considers only installment loans of locally financed firms. Firms with local bank funding. Sales strata defined as of Dec.21. For more details, see the set of figures. Source: Central Bank of Chile based on FMC and SII data.

FIGURE II.6 COMMERCIAL DEBT AT RISK (*)
(percent of GDP, 2023)



(*) Firms with local bank funding. Last column corresponds to the additional expense in provisions that arises from the banking stress exercise (Chapter III). For more details, see the set of figures. Source: Central Bank of Chile based on FMC and SII data.

^{2/} This reduction in rates is transversal across all commercial products compared to what was observed in mid-2023 ([click here](#)).

^{3/} Lower investment needs were a relevant factor during 2023 to explain the lower demand for credit. This is consistent with the 1.1% annual drop in gross fixed capital formation (GFCF) ([Chile's National Accounts, 2023](#)).



STRESS TEST FOR FIRMS^{4/}

In the stress scenario, debt at risk is similar to that in the previous Report. Despite the higher effective default, the improved macroeconomic situation leaves companies better prepared to withstand a shock. In a severe scenario, debt at risk would reach 2.7% of GDP, compared to 2.9% in the last exercise. This exercise assumes a somewhat higher default, where the effective default has increased from 0.9% to 1.0% of GDP since the previous Report. The interest rate shock has a smaller impact due to the fall in the cost of short-term financing, which has reduced the financial burden. Meanwhile, the lower impact of the activity shock is explained by the higher sales recorded in the second half of 2023 in most sectors and sizes. This improvement has also been observed in their operating margins (Figure II.5). Of a lesser magnitude, the indexation risk is mitigated by the limited holding of UF-indexed debt and the convergence of inflation (Figure II.6)^{5/}. For reference, the debt-at-risk obtained under stress is at a level similar to the sum of the actual commercial provisions and the additional provisioning expense from the bank stress test, suggesting that the bank has hedged credit risk in a manner consistent with what is implied by this type of microdata-based exercise (Chapter III)^{6/}. These results, where the interest rate shock has comparatively a greater preponderance, show that the persistence of tight external financing conditions, and their local pass-through, is the main risk for the firms' future payment behavior.

REAL ESTATE

In the residential sector, sales continue to be below their historical averages, in a context of still high long-term financing rates. According to information from the Chilean Chamber of Construction, although in 2023 there was an increase of 24% in units sold compared to 2022^{7/}, the level of activity remains below historical patterns, around 24% lower than the average sales between 2011 and 2019. Most recently, units sold in the first quarter of this year fell 7% compared to the same period the year before. This occurs in a context where the interest rate on mortgage loans reached 4.9% in March 2024, a high figure compared with figures of the last decade. As for mortgage lending conditions, as of the first quarter of 2024, they did not present significant variations. Meanwhile, compared to the previous quarter, the demand for housing loans was perceived as weaker by banks ([Bank Lending Survey, ECB](#)).

Housing prices stabilized at the end of 2023, after the declines observed in the previous year. The national Housing Price Index increased by 4.0% in real annual terms as of the fourth quarter of 2023. By segment, used homes showed a real annual growth of 4.3% in the same period, while new homes grew by 3.4% (Figure II.7). In the rental market, prices continued to adjust downward and presented a negative real annual variation of 6.1% in apartments and 2.3% in houses as of the first quarter of 2024, in a context of more units available for rent^{8/}.

^{4/} Exercise based on [Córdova et al. \(2021\)](#). It has a one-year horizon and assumes the occurrence of three shocks: in activity, a severe scenario of falling sales is assumed, consistent with the one presented in the banking stress exercise (Chapter III); in commercial interest rates, an increase of 600 bp is assumed, and in inflation, an increase of 4pp in one year is assumed.

^{5/} This exercise considers increases in inflation that directly affect the payment of UF-denominated debt. It does not consider all the additional general equilibrium effects associated with inflationary shocks.

^{6/} This comparison should be considered only as a reference and as an upper bound. Unlike the actual constitution of bank provisions, the stress exercise with granular firm data does not consider the associated collateral.

^{7/} During 2023 there was an increase of 7% real annual increase in the flow of mortgage loans compared to 2022, almost all of which were granted at fixed rates.

^{8/} The rental advertising rate increased 0.7pp in apartments and 0.1pp in houses between 2023Q1 and 2024Q1.



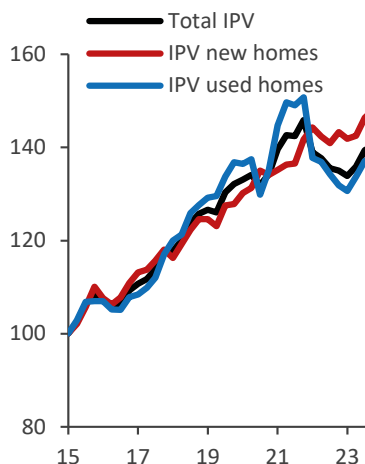
The vulnerabilities identified in previous reports are still present in this sector. Thus, the stock of finished housing available for sale and the vacancy of rental units have continued to increase, while rental profitability has fallen. The stock of finished units available for sale more than doubled between 2022 and 2024, reaching a 51% share of total new housing for sale (Figure II.8). This was compounded by lower rental prices and higher vacancy, especially in the apartment segment, where the gross profitability of buy-to-let continues to decline. It is estimated that as of the first quarter of 2024, the average gross profitability was around 4.0% for apartments and 4.5% for houses, a value similar to the cost of financing such an investment through a mortgage loan. If demand remains weak, real-estate companies may need to adjust their prices, reducing the profitability of the business and their ability to repay.

Non-payment by companies in the sector has increased, concentrated in those that received Fogape loans during the pandemic (Figure II.4, panels a and b). Since the previous Report, the unpaid installment index of real-estate firms was 1.5% of the sector's loans, the highest in the last fifteen years. At the same time, in the first quarter of 2024, credit conditions for construction and real estate companies (ECB) were reported to have become more restrictive (Bank Lending Survey, ECB).

As in other sectors, lower interest rates on shorter-term commercial loans have eased the financial burden for firms in the sector. However, other indicators reflect a tight financial situation in smaller firms, especially in the construction sector, where high indebtedness and lower operating margins compared to pre-pandemic levels are still observed.

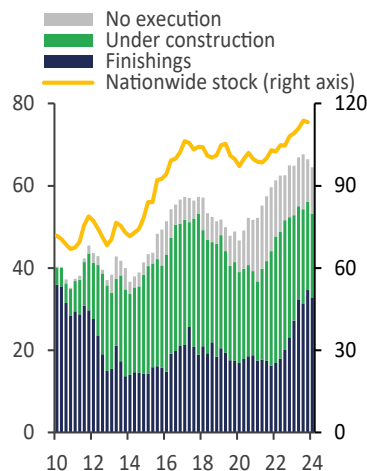
In the non-residential real-estate sector, the low dynamism continued, with high office vacancy. As of the fourth quarter of 2023, total office vacancy remained close to 12%, a high figure relative to the historical average. In particular, in the case of higher standard offices (class A/A+), vacancy decreased to 9.5%, while in class B offices it increased to 13.7%. In this context, office-space rental prices fell by around 1.1% in real annual terms in 2023. In the warehouse segment, vacancy increased from 1.2% in the previous half year to 2.5% at the end of 2023 (Figure II.9). Accordingly, their rental prices fell by 21% in real annual terms to the second half of 2023 (statistical appendix).

FIGURE II.7 HOUSING PRICE INDEX
(index, 2015.Q1=100)



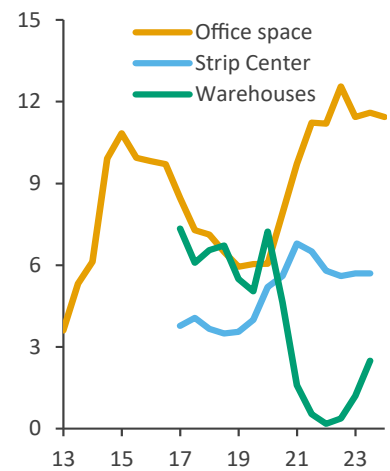
Source: Central Bank of Chile based on SII data.

FIGURE II.8 STOCK OF NEW HOMES SUPPLY (*)
(thousands of units)



(*) Bars denote stock in Metropolitan Region.
Source: Central Bank of Chile based on CChC data.

FIGURE II.9 VACANCIES IN NONRESIDENTIAL MARKET (*)
(percent)



(*) Half-year data. Provisory information on Offices until 2024.1Q.
Source: Central Bank of Chile based on CBRE, Colliers, and GPS data.



Globally, the non-residential real estate sector has been the focus of concern; however, available evidence suggests that local risks are lower than in other economies. As a result of the post-pandemic structural changes –i.e., greater prevalence of teleworking and increase in e-commerce– the non-residential sector is adjusting and facing challenges worldwide (Box I.1). At home, due to the limited exposure of the banking sector and prudential safeguards, risks are estimated to be lower than those facing developed economies. In particular, the direct exposure of the banking sector to the non-residential construction segment in Chile reached around 6% of total loans as of December 2023, while the exposure of life insurance companies was around 16% of total investments at the same date, according to [CMF](#) data.

HOUSEHOLDS

The resolution of macroeconomic imbalances has continued, reflected in increases in household income and savings. In 2023, gross household disposable income increased by 11% annually in nominal terms^{9/}. This, together with the slower expansion of consumption, implied that the savings rate of individuals continued to recover and stood at 4.7% of GDP at the end of 2023, 5.3 pp higher than it was at the end of 2022. Nevertheless, household net financial wealth is still below that observed before pension savings withdrawals (120% versus 148% of GDP).

Aggregate household debt remains slow, with demand for credit perceived by banks to be weaker. As of December 2023, total indebtedness reached 49% of GDP. By portfolio, mortgage debt grew by 2.4% in real annual terms, while consumer debt fell by 2.3% in the same period (Chapter III). This occurred in a context where, as of the first quarter of 2024, lending standards for the consumer portfolio did not present significant changes after several periods of tightening, and mortgage supply became somewhat looser with respect to the previous Report. Meanwhile, household demand for consumer loans was perceived by banks to be weaker, due to the situation of the labor market, and also weakened in housing, associated with the high level of long-term interest rates ([ECB](#) and Chapter III).

Interest rates on consumer loans have adjusted downward in line with the lower MPR. As of March 2024, the total consumer rate averaged 26% annually, which, while still high by historical standards, is 340 bp lower than it was at the beginning of 2023^{10/}. This indicates that the changes in monetary policy have been transmitted as expected to bank lending conditions ([Box II.1, Financial Stability Report, second half 2023](#))^{11/}.

Individual financial indicators, such as indebtedness and financial burden, have also continued to normalize. In lower-income households, indebtedness, i.e., the ratio of debt over labor income, decreased since the previous Report, associated with the fall in consumer debt (Figure II.10). In higher-income households, the decrease in indebtedness was mainly explained by the reduced contribution of the mortgage component. With respect to the financial burden on labor income, there was a more pronounced fall in lower-income households, both in the consumer and mortgage components, which is associated with the lower share of revolving debts –such as credit cards and credit lines– which had shown significant growth in previous years (Figure II.11).

^{9/} Explained by a 7.9% increase in production income (wages and self-employed income), which contributed 6.8 pp. to disposable income. Likewise, property income contributed 4.2 pp. positively through lower net interest paid and, to a lesser extent, through income withdrawals. Meanwhile, net current transfers fell, with a negative impact of 0.2pp. due to the cessation of benefits granted by the government during the sanitary emergency. More information in [National Accounts by Institutional Sector 2023](#).

^{10/} See full series in the [Statistical Data Base](#).

^{11/} As should be expected, the pass-through of lower rates on consumer loans depends importantly on the credit risk and credit history of the borrowers.



FIGURE II.10 BANKING DEBT TO INCOME RATIO (*)
(times monthly income, median)

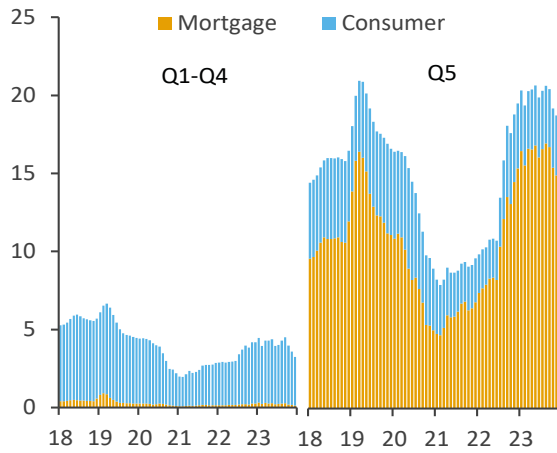
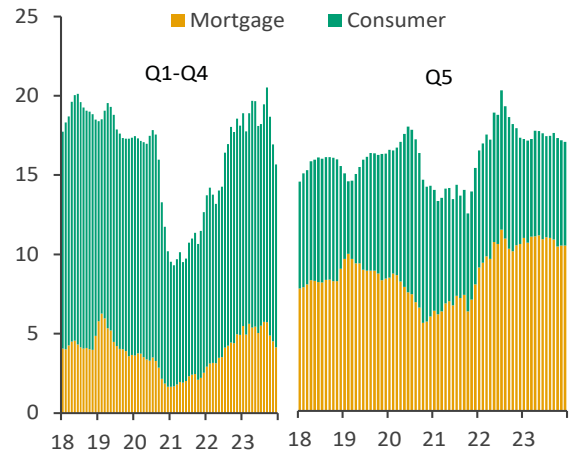
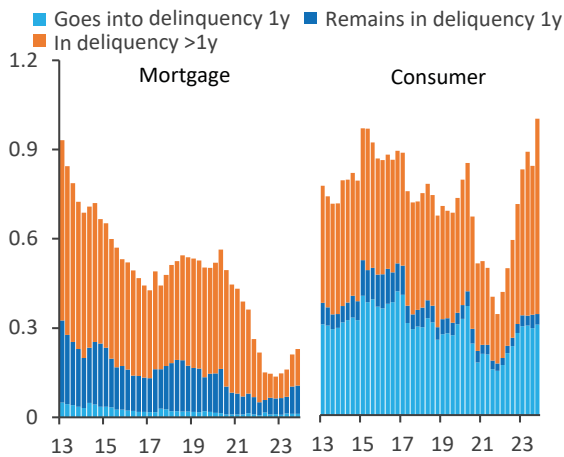


FIGURE II.11 FINANCIAL BURDEN TO INCOME RATIO (*)
(percent of monthly income, median)



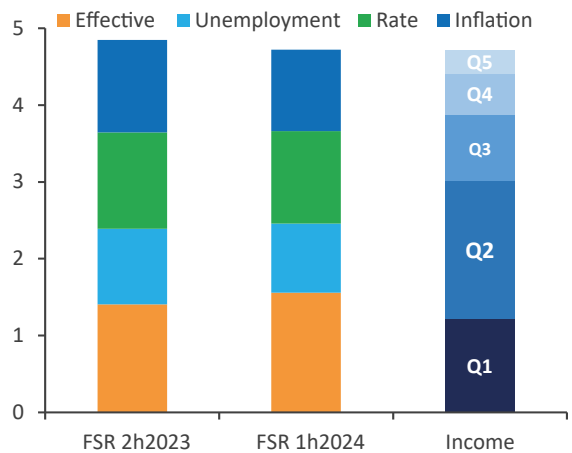
(*) Moving three-month average. 1st to 4th quintile up to clp\$1,350,000, 5th quintile between clp\$1,350,001 and clp\$2,800,000. Fifth quintile truncated to account for taxable ceiling, which could bias upward this quintile's indicators. Q stands for quintile. For more details, see the set of figures. Vertical line marks previous FSR publication.
Source: Central Bank of Chile based on FMC and SuSeSo data.

FIGURE II.12 UNPAID INSTALLMENT INDEX BY DEBTOR'S DEFAULT STATUS (*)
(percent of debt by credit)



(*) Debt in delinquency can be grouped accordingly the time of delay in payment. "delinquency>1y" contains debtors with delinquency higher than a year and part of the remaining debt with delinquency higher than 90d transiting to higher term of unpaidment.
Fuente: Central Bank of Chile based on FMC data.

FIGURE II.13 DEBT AT RISK (*)
(percent of GDP)



(*) Q1 up to clp\$210,000; Q2 between clp\$210,001 and clp\$490,000; Q3 between clp\$490,001 and clp\$805,000; Q4 between clp\$805,001 and clp\$1,365,000; Q5 between clp\$1,365,001 and clp\$2,800,000 (taxable ceiling). Q stands for quintile. For more details, see the set of figures.
Source: Central Bank of Chile based on FMC, Servel and SuSeSo data.



Household default has increased since mid-2023. While the rise in the unpaid installment rate has occurred across the board in its obligations^{12/}, the increase in non-payment of consumer debts exceeded the levels observed in the last decade. A large part of the increase was explained by the deterioration of debtors who had previously been delinquent for at least one year, without a significant flow of new delinquent consumer debtors. Meanwhile, in the mortgage portfolio, although there has been an upward trend in recent months, the indicators are still low from a historical perspective (Figure II.12).

STRESS TEST FOR HOUSEHOLDS^{13/}

Debt-at-risk (DaR) reached a value similar to that of the previous year. Thus, the higher effective default is offset by a lower impact of all shocks, mainly the indexation shock. At the end of 2023, the effective debt-at-risk starting point was somewhat higher than in the previous Report. Under the stress scenario, total debt-at-risk would amount to 4.7% of GDP (4.9% in the previous Report after revision of the National Accounts in GDP). As for shocks, these have a smaller effect under stress, given the resolution of macroeconomic imbalances and their positive effects on household finances. The indexation shock is the one that reduced its impact the most, associated with inflationary convergence and the lower impact on UF-denominated debts (Figure II.13). Job destruction also has a lower impact, reflecting the improvement in the labor market, which has sustained the recovery of income. In the case of interest rates, the effect is similar to that of the previous year.

Incoming information after the close of the stress test suggests that the DaR would remain stable going forward as a result of declining interest rates and lower inflation. The consumer credit interest rate has continued to decrease along with the MPR, while the mortgage rate has stabilized in the first quarter of 2024, due to its association with longer-term rates that have remained high in the world (Chapter III). Meanwhile, lower inflation also contributes to the increase in real wages and the lower growth of UF-denominated debts, such as housing. At the same time, the labor market has shown a rebound with employment and participation rates gradually returning to trend levels ([IPoM, March 2024](#)). However, should an unfavorable labor or rate scenario materialize –such as the one used in the stress test– banks maintain an appropriate level of provisions to cover the higher credit risk of debtors (Chapter III).

THE CENTRAL GOVERNMENT

According to the latest Public Finance Report (2024Q4), central government gross debt reached 39.8% of GDP in 2023 and is projected to average 41% over the coming years (Figure II.14). At the end of 2023, both the actual and structural balance showed deficits of 2.4% and 2.6%, respectively (Figure II.15). This was mainly explained by a 12.5% real annual drop in actual revenues and a 1.0% real annual increase in central government spending compared to 2022^{14/}.

^{12/} Index that weighs delinquent debt with respect to total debt by portfolio. For consumer debts, delinquency is considered to be between 90 and 180 days and for mortgage debts, it lies between 90 days and three years.

^{13/} / Stress tests evaluate the potential effect of shocks in extreme, low-probability, high-impact stress scenarios. These tests are partial in nature, as they do not model the reactions of agents and are not projections. For more details, see Box V.1 in the Financial Stability Report for the first half of 2023 and [Córdova and Toledo \(2023\)](#). Three shocks are presented, in line with the severe scenario considered for the bank stress test (Chapter III). The first one consists of an increase in the unemployment rate of 7 pp in one year. In the second, a 680 bp increase in consumer credit interest rates and a 350 bp increase in mortgage rates are assumed. Finally, an indexation shock of an additional 4 pp in one year is included.

^{14/} The drop in central government revenues is mainly explained by lower net tax revenue collection, particularly from non-mining taxpayers, and to a lesser extent, from gross copper (transfers from Codelco, the state-owned copper company).



The level of long-term interest rates has implications for the refinancing cost of the Treasury and the rest of local agents. In the current context of still high long-term interest rates, the maturities of the fiscal debt over the next few years will imply a higher refinancing cost. Thus, the estimated rollover cost for a ten-year period would have increased from US\$2.8 billion in September 2019 to US\$14.9 billion by December 2023, mainly explained by debt in pesos. It should be noted that this amount is lower than estimated one year ago (Figure II.16). This projection assumes, as usual, that the composition of the public debt portfolio remains unchanged.

Despite progress in consolidation, some risk elements could affect the fiscal position. Externally, the uncertainty about the global macro-financial situation, together with a lower interest rate differential between developed and emerging economies, could increase volatility in financial markets, impacting the value of public debt in foreign currency (Chapter I). Locally, although official projections indicate that the prudent debt level would not be exceeded in the 2025-2028 period^{15/}, risk scenarios exist. As pointed out by the Autonomous Fiscal Council (CFA), these risks include a lower than estimated growth of tax revenues, or an increase in capital expenditure requirements such as recognition bonds, purchase of State-guaranteed credit portfolio (CAE), capitalization of public companies, among others (CFA, 2024).

Sustainable sovereign indebtedness improves the perception of risk facing the local economy, improving financing conditions. Maintaining fiscal consolidation, with expenditures that are consistent with long-term structural revenues, is essential for the economy to have the capacity to mitigate the impact of future shocks, as pointed out by the CFA.

FIGURE II.14 CENTRAL GOVERNMENT GROSS DEBT (*)
(percent of GDP)

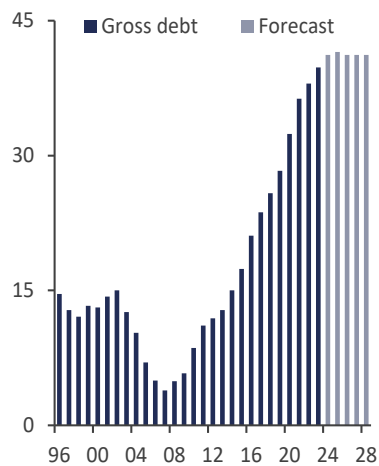


FIGURE II.15 ACTUAL AND STRUCTURAL FISCAL BALANCE (*)
(percent of GDP)

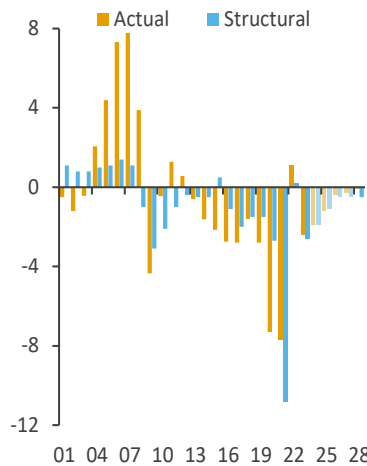
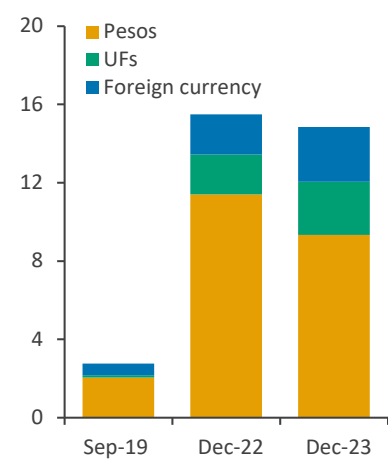


FIGURE II.16 COST OF DEBT REFINANCING OVER THE NEXT 10 YEARS (*)
(billions of dollars)



(*) Light-colored bars show forecasts in Public Finances Report, fourth quarter 2023, DIPRES.
Source: Central Bank of Chile based on data from Finance Ministry budget office DIPRES.

(*) Scenarios created using the cost of refinancing Treasury bonds maturing in the next 10 years. For more details, see the set of figures.
Source: Central Bank of Chile based on Finance Ministry and Bloomberg data.

^{15/} Within the framework of Law 20.128 (on fiscal responsibility) and through Decree 755, the current government administration establishes the basis for fiscal policy for the period 2022-2026. In this context, a prudent debt level of 45% of GDP is determined.



BOX II.1:

Evolution of default and nonpayment of the commercial portfolio

This box provides additional background on the recent trajectory of non-payment in the commercial portfolio and the behavior of banks in the face of this phenomenon^{1/}. Based on administrative information reported by banks to the FMC, the aim is to replicate the default portfolio. With this default index, a comparison is made with traditional default measures, such as the Default Indicator detailed below, and its implications for the future evolution of bank delinquency and credit are discussed.

It is relevant to consider that the non-performing portfolio is one of the inputs used by banks in the calculation of provisions and includes not only non-performing loans, but also those with a low probability of recovery. The non-performing portfolio includes “debtors and their credits whose recovery is considered remote, since they show a deteriorated or null payment capacity” (CMF). In other words, in addition to debtors in default, it includes debtors that have required restructuring or that have ceased or are expected to cease repayment to their creditors^{2/}. In order for a debtor to cease to be in this portfolio, certain conditions must be met—in addition to ceasing to be in default—such as having paid four consecutive monthly installments in the case of having a loan in this modality. Briefly, it includes debtors in default and others at risk of default, measured according to certain parameters.

In turn, the default indicator replicates commercial arrears using administrative data. More specifically, these data are used to construct the debtor default index (DDI), which measures all the debt of firms that are more than 90 days in arrears (Fernández and Vásquez, 2019). The DDI shows a very similar dynamic to the commercial portfolio delinquency indicator that banks report in their financial statements (Figure II.17).

Since 2020, the difference between the default index and the non-payment index (DDI) has exceeded that of previous years. This difference suggests that there is a higher proportion of debt in firms that have not defaulted but are considered to be in non-payment. These firms are more likely to default, which would anticipate that commercial delinquency will continue to increase in the future if the amount of write-offs or defaults remains at the levels observed lately.

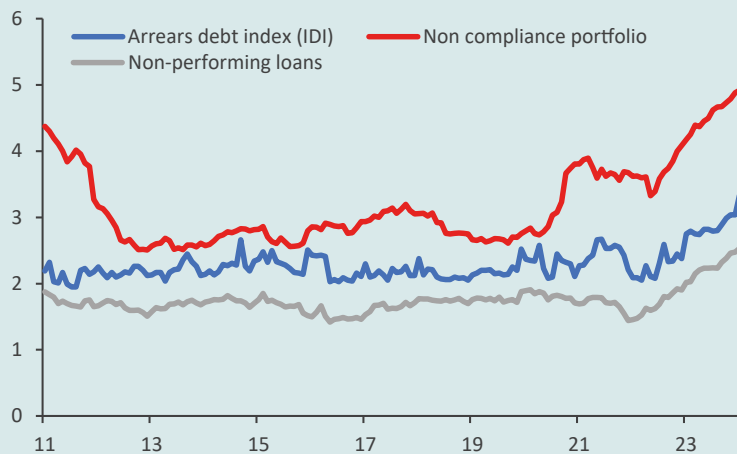
^{1/} For more information on the methodology, see [technical note](#) published together with the Financial Stability Report.

^{2/} According to FMC regulations, this refers to “debtors who have stopped repaying their creditors (in default) or with evident indications that they will stop doing so, as well as those for whom a forced restructuring of their debts is necessary, reducing the obligation or postponing the payment of principal or interest, and, in addition, any debtor who is 90 days or more in arrears in the payment of interest or principal on any loan.” (FMC).



All in all, banks are prepared for a deterioration of the payment capacity suggested by the non-performing portfolio. According to current regulations, the value of the non-performing portfolio is relevant for the calculation of the specific provisions that banks must constitute. In particular, as noted in a previous Report (Box III.1 FSR, second half 2017), the provisions correspond to the percentage of the commercial portfolio not covered by guarantees, or recoverable amount, in the case of the portfolio in default. Thus, the non-performing portfolio should be covered considering the recoverable amount of the loan and/or provisions. Most recently, the increase in the portfolio at risk^{3/} has been covered mainly by guarantees, rather than provisions. The incidence of the deterioration in the payment capacity of debtors and higher collateral requirements on future credit growth is an element that should continue to be monitored.

FIGURE II.17 DEFAULT AN NON PERFORMING LOANS EVOLUTION (*)
(commercial debt percentage)



(*) IDI and non compliance portfolio are based on administrative data including only firms' information. Non performing loans includes others debtors and products. Source: Central Bank based on FMC data.

^{3/} This portfolio corresponds to the expected loss in portfolios A and B plus the total of portfolio C.



III. LENDERS

Bank credit remains with a dynamic in line with the evolution of the business cycle. Commercial loans continue to contract, mainly due to still weak demand. In the household segment, consumer loans have softened their declines, while housing loans are growing steadily, albeit slowly by historical standards. Consumer and commercial loan delinquency rate have increased beyond previous patterns. The banking system has adequately and preventively managed these developments, keeping their loan loss provisions index stable at high levels and has increased collateral requirements. The banking system maintains liquidity and solvency levels in accordance with returns that are back to pre-pandemic levels, while stress tests show a still resilient local banking system. Under a severe stress scenario, losses due to the materialization of risks remain stable from the previous semester. Banks should continue to prepare for the upcoming challenges associated with convergence to Basel III.

LENDERS' SITUATION

The dynamism of bank lending activity remains in line with the evolution of the local macroeconomic cycle. Commercial loans have maintained negative growth since the last Report (Figure III.1). According to the Bank Lending Survey (ECB) for the first quarter, this is mainly explained by a weaker demand with respect to the previous period, attributable to lower financing needs for investment (Figure III.2). In the consumer portfolio, installment loans have eased the declines observed in previous months, while the use of credit cards continues to contract, especially those issued by business support firms. Among the non-bank credit providers (NBCPs), loans granted by entities specializing in car purchase financing continue to see annual declines, in contrast to loans granted by savings & loans cooperatives and clearing houses, which continue to show positive growth. Meanwhile, housing loans show positive expansion rates, but continue to be low from a historical perspective (Figure III.1). According to ECB results, this situation could be explained by lower demand due to unfavorable interest rate conditions, which are sensitive to the trajectory of long-term benchmark rates (Chapter I). It should be noted that bank credit should show higher expansion rates going forward in line with the growth assumed in the central scenario of last March's IPoM.



The delinquency rate indicators increased in all segments, which would be covered by guarantees and accumulated provisions. Since the last Report, non-performing loans have grown in all portfolios, to very high levels in the consumer and commercial segments. In the latter, the deterioration has been significant among debtors that accessed government guarantee programs which support financing during the pandemic (Chapter II). Thus, firms that accessed Fogape loans increased their share of non-performing loans to 38%. The higher delinquency indicators in the consumer segment are mainly explained by installment loans, while rolling loans are comparatively more stable. As for NBCS segment, the retail financial consumer portfolio maintains high levels of non-payment and the car purchase lenders maintain the growing trend in their indicator. In this context, the banking system maintains a sum of specific and additional provisions equivalent to 3.9% of total portfolios, accounting for 1.6 times non-performing loans. In particular, the coverage ratio of the commercial portfolio is around its pre-pandemic average, with a greater contribution of additional provisions in recent years (Figure III.3).

Banking profitability continues its process of adjustment to pre-pandemic levels due to lower indexation and interest rate margins, which have tended to recover. Banking profitability indicators have been adjusting, as a result of lower inflation, partially offset by an increase in interest rate margins (Figure III.4). Meanwhile, credit risk provisions and operational support expenses have not changed significantly. Thus, the annualized return on equity (14.4%) and on assets (1.1%) are around their historical averages.

The funding structure of the banking sector remains with a low duration. In general, the composition of bank liabilities has remained stable since the last Report, with the share of time deposits by individuals exceeding their pre-pandemic levels. To date, US\$1.84 billion of perpetual bonds have been issued, and there is an additional US\$960 million registered in the market^{1/}. Insofar as a greater volume of issues of this type of instruments materializes, the average maturities of liabilities will tend to be extended. The assets in the banking statements also show a decrease in their average maturities, particularly for loans, a dynamic that has been stable since 2021.

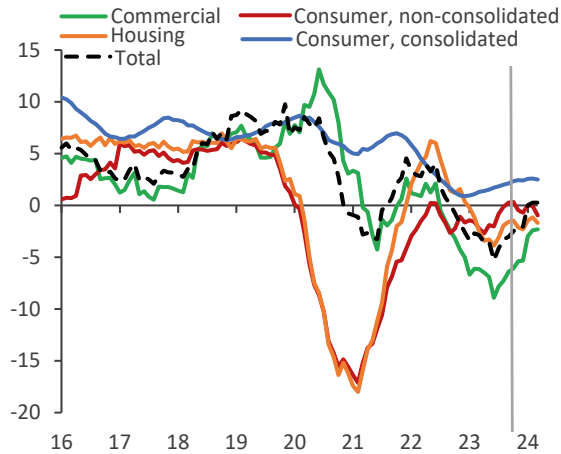
The liquidity position of the banking system has maintained its liquidity buffers following the payment of the first phase of the FCIC. Payment made at the beginning of April for more than US\$18 billion. This reflects the banks' efforts to replace long-term funding sources in preparation for the expiration of this facility. Thus, the accumulation of liquid assets of more than US\$40 billion over the last two years held liquidity levels above the required minimums. Thus, the 30-day net liquidity coverage ratio (LCR) and net stable funding ratio requirements (NSFR) remain above their historical averages (statistical appendix).

Banks have made progress in adapting their capital levels in accordance with the increased regulatory requirements in the process of convergence towards Basel III, which concludes at the end of 2025. Since the last Report, capital solvency indicators have risen slightly. Thus, between September 2023 and February this year, the system's core capital (CET 1) and effective equity increased from 11.4% and 15.7% to 11.8% and 16.1%, respectively, both measured against risk-weighted assets (RWA).

^{1/} These instruments, aside from having debt characteristics, are admissible as Tier 1 additional regulatory capital (AT1).

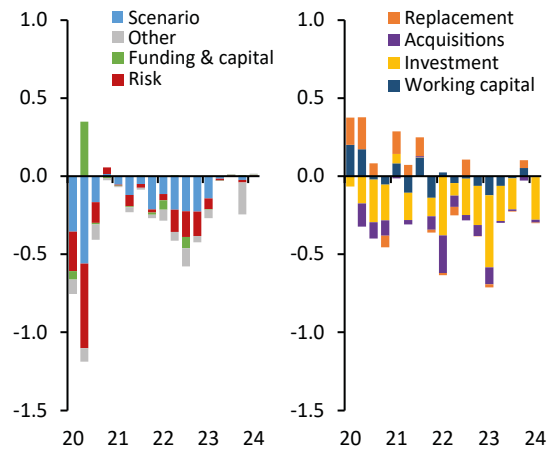


FIGURE III.1 LENDING GROWTH (*)
(real annual change, percent)



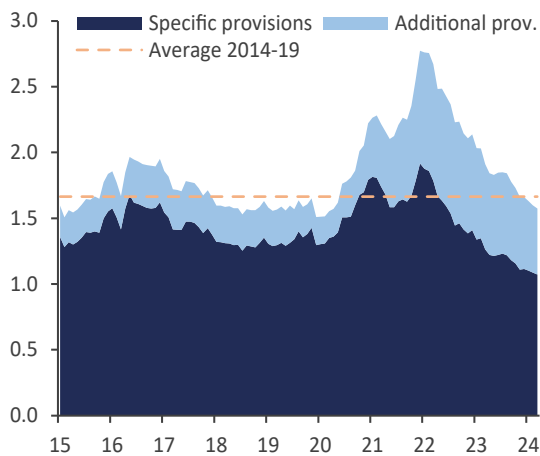
(*) Based on individual financial statements. Consolidated local consumer loans include credit of business support entities. Vertical line marks statistical cutoff of previous IEF. Source: Central Bank of Chile based on FMC data.

FIGURE III.2 FACTORS OF LARGE FIRMS' CREDIT CONDITIONS (*)
(index)



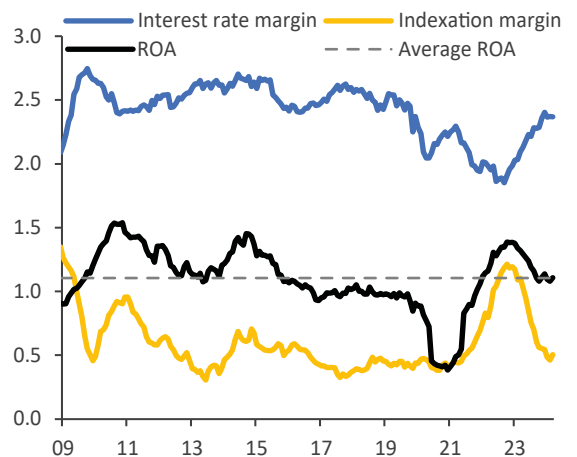
(*) The indicator represents the net value of responses weighted by the bank's share in the commercial portfolio. Negative (positive) values indicate greater restriction (flexibility) or weakness (strength) with respect to the previous survey. Source: Central Bank of Chile.

FIGURE III.3 COMMERCIAL PROVISION COVERAGE
(times default 90d)



Source: Central Bank of Chile based on FMC data.

FIGURE III.4 MAIN ROA COMPONENTS (*)
(percent of assets)



(*) Profits calculated as the 12-month moving sum. Average ROA calculated from 2009 to date. Source: Central Bank of Chile based on FMC data.



EVALUATION OF STRESS SCENARIOS^{2/}

The results of the stress tests indicate that the banking system would maintain sufficient solvency and liquidity levels to face credit and market risks materialization. This tool uses accounting data of the banking system and the market as of December 2023, considering an adverse and a severe stress scenarios (Figure III.5 and statistical appendix). The adverse scenario assumes a slow and persistent deceleration^{3/}, while the severe scenario depicts an abrupt contraction of activity, accompanied by an increase in funding costs and a decrease in investment. In both scenarios, the fall in external demand and the deterioration of financial conditions have an effect on the cost of funding and the exchange rate. Given the recent development of external factors (Chapter I), as in the previous Report's exercise, a stronger shock on interest rates than in previous tests is considered, of 200 bp in long-term and 300bp in short-term rates, an exchange rate volatility of 16%, and a depreciation of 30%, also higher than the usual 20%, is maintained.

Credit risk remains high, back to similar effects to those of the years preceding the pandemic. In the severe scenario, this risk is estimated to lead to a potential loss of 18.9% of the system's capital, similar to the results of the previous exercise (Figure III.6). In the adverse scenario, losses associated with credit risk would amount to 16.1% of capital, somewhat lower than that observed in the previous half-year Report. Thus, as has been observed for a few years, the slow lending activity in the commercial and consumer portfolios, together with the accumulation of provisions, has reduced the exposure of banks to these risks.

Market risk^{4/} is stable, although more exposed to interest rate risk. In the last exercise, there was a slight increase in repricing risk with respect to the previous Report, while asset valuation and currency risks remained stable. Meanwhile, the banking system maintains a small maturity mismatch compared to the years before the pandemic, which reduces its exposure to market risk (Figure III.6). Liquidity-related tests suggest that the banking system would maintain appropriate levels of liquidity, which would help them cope with periods of stress (Figure III.6).

The banking system remains resilient under stress scenarios. Initial solvency increased with respect to the previous Report, with the capital adequacy ratio (CAR) rising from 15.6 to 16.2. In the severe scenario, the difference between initial and final capital reaches 3.1 pp, similar to the previous Report (Figure III.7). Meanwhile, capital buffers, as measured by the CAR, would allow banks to confront this scenario (Figure III.8).

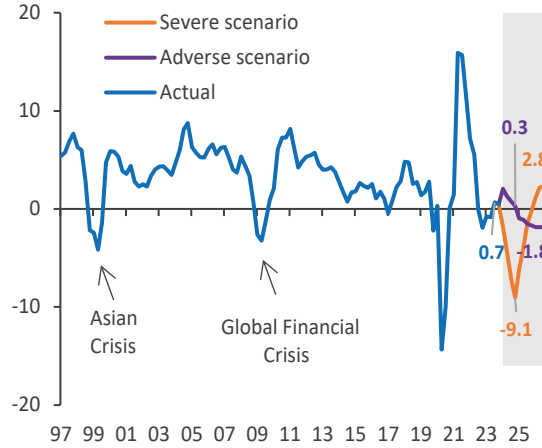
^{2/} Based on the methodology described in the [Financial Stability Report of the second half of 2013](#) and in [Martínez et al. \(2017\)](#). Based on a sample of banks representing about 99% of the system's risk-weighted assets. Both the analysis and its results are routinely reported to the FMC. Moreover, given their nature, they should not be considered as forecasting exercises.

^{3/} The adverse scenario is based on the fifth percentile of the [March 2024 IPoM](#) projections.

^{4/} Market risk means the current or future risk to the bank's earnings or capital due to adverse fluctuations in interest rates and exchange rates.

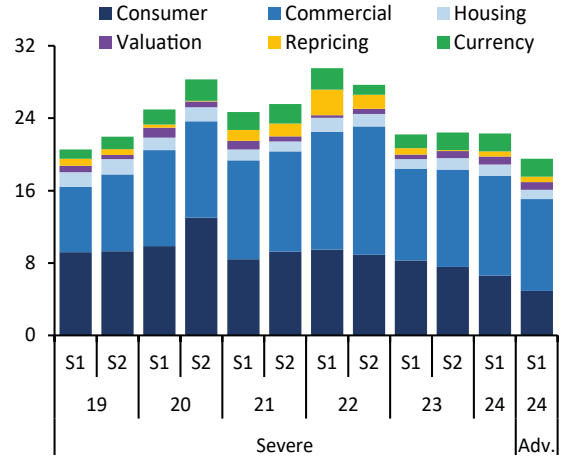


FIGURE III.5 SCENARIOS OF ANNUAL GDP GROWTH (*) (quarterly data, percent)



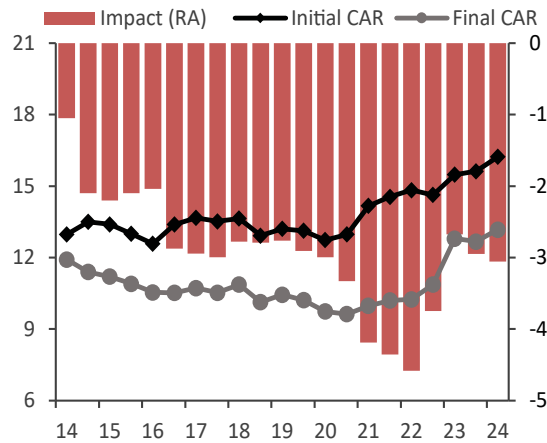
(*) Data are de-seasonalized. Shaded area indicates exercise window.
Source: Central Bank of Chile.

FIGURE III.6 SYSTEM'S CREDIT AND MARKET RISKS (*) (percent of core capital)



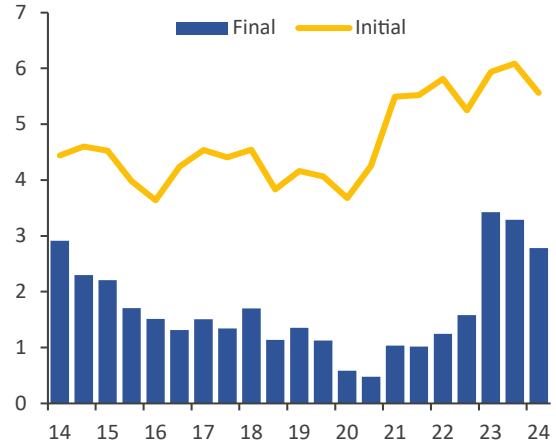
(*) Starting in 2021, consumer SAGs are considered in credit risk.
Source: Central Bank of Chile.

FIGURE III.7 IMPACT OF THE SEVERE SCENARIO ON THE CAPITAL ADEQUACY RATIO (*) (percent of risk-weighted assets)



(*) Considers profit reinvestment.
Source: Central Bank of Chile based on FMC data.

FIGURE III.8 CAPITAL BUFFERS UNDER SEVERE STRESS CONDITIONS (*) (percent of risk-weighted assets)



(*) Excess of effective net worth over the regulatory minimum. Considers the particular limits of each bank. As from 2021, Business support entities are considered.
Source: Central Bank of Chile based on FMC data.



RISK FACTORS

A worsening of external conditions would have an impact on the cost of bank funding. The funding of longer-term credit and the perpetual bond issuance process, in the context of Basel III implementation, may be affected by greater restrictions in the external market. This would have implications for the volume and interest rates of liabilities, which would be passed on to local credit, or would imply a reduction in interest spreads for banks, which are now showing a recovery (Figure III.4).

In addition, a further deterioration in the repayment capacity of some segments, particularly firms with a more limited sales recovery, would increase credit risk. A delay in the economic recovery, which would have an impact on the firms' employment and sales, together with tighter external conditions that would be passed on to local financing, would erode debtors' repayment capacity, resulting in higher levels of delinquency rates. Thus, although provisions have been accumulated and collateral requirements have increased, banks could face greater than expected levels of non-payment and falls in the value of collateral. Meanwhile, the risk of a weaker labor market remains, which would drive up household defaults (Chapter II) and would limit the recovery of lending activity in this portfolio.

Banks are also challenged by increases in their operating costs, mainly due to rising costs as a result of external fraud and cybersecurity risk management. In particular, in the last 12 months, the costs attributed to external fraud have grown steadily, amounting to around US\$375 million, a figure that accounts for about 1% of the banking system's capital, and a substantial part of these losses is explained by fraud allegations associated with the use of digital means of payment. Although this circumstance has yet to have a significant impact on operational continuity and customer relations, it is important to reverse this trend. In this regard, an adequate implementation of the amendments to Law No. 20.009 (Chapter IV), together with the banks' investments in safety, would contribute to mitigate this kind of risks.



BOX III.1:

Effects of recent policies on the supply of commercial bank credit

The standardization of FCIC-eligible collateral, the establishment of the Basel III Capital Conservation Buffer (CCB) and the activation of the Countercyclical Capital Buffer (CCyB) do not appear to have significantly eroded the supply of commercial bank credit at the aggregate level.

A number of policy actions, taken between the second half of 2022 and the first half of 2023, with potential impact on banks' balance sheets, may have affected the supply of commercial credit. The FCIC eligible collateral standardization program, announced in November 2022^{1/} in preparation for the expiration of the FCIC facility, established a gradual replacement of collateralized pledged loans with more liquid instruments, which could have affected the relative cost of granting new commercial loans. In turn, the introduction of the CCB by the Basel III implementation schedule, announced in March 2020 and effective gradually by December 2022^{2/}, may have contributed to increasing the banks' cost of capital, despite having been perfectly anticipated. Similarly, the announcement of the activation of the Countercyclical Capital Buffer (CCyB), in May 2023^{3/}, established a level of 0.5% of risk-weighted assets enforceable as of May 2024, which could also have contributed to raising the cost of capital for banks.

These policy actions do not appear to have significantly hindered the supply of banks' commercial credit at the aggregate level. Two complementary exercises analyze the impact of these policy actions on the supply of commercial credit from banks. The former compares the effects of the FCIC collateral standardization program and the activation of the CCyB, at the balance sheet level, among banks with different degrees of exposure to each of these actions. The exercise finds that collateral replacement may have generated a moderate decrease in commercial credit from banks with a higher percentage of pledged loans prior to the actions, while the activation of the CCyB does not seem to have had a significant effect. The second exercise uses debtor-bank level micro-data and the methodology proposed by [Khwaja and Mian \(2008\)](#) to identify the effects of these policy actions on bank credit supply. We use banks' capital buffers before the actions to measure the exposure to these actions. Specifically, we study whether those banks with greater slack in terms of their capital, exhibited higher growth in the supply of commercial credit. This exercise finds that the level of banks' prior slack does not have a positive effect on commercial credit growth when weighting loans according to size (Figure III.9)^{4/}.

However, policy actions may have had an impact at the individual level. In particular, they may have encouraged a reduction of risk-taking capacity in banks with lower capital buffers and a tighter credit supply for firms with less capacity to replace their funding sources. The micro-data exercise shows that the level of banks' previous slack does have a positive effect on commercial credit growth at the debtor-bank level, which is explained by lower credit growth in riskier firms. In addition, following the methodology proposed by [Jiménez et al. \(2020\)](#), the exercise finds that the policy actions, taken together, do not seem to have had a significant effect on the supply of credit for firms with multiple banking relationships (Figure III.10), but they did have a significant effect on that for firms with less capacity to replace funding sources (Figure III.11).

^{1/} For further information, [click here](#).

^{2/} The Capital Conservation Buffer is effective on a calendar basis as from December 2021. This box refers to the additional 0.625% increase between December 2021 and December 2022. For further information, [click here](#).

^{3/} For further information, [click here](#).

^{4/} For more information on the two exercises, see the [technical note](#) published together with the Financial Stability Report.



A high level of slack on the part of banks, and a weak demand for credit, could explain the absence of significant effects of these policy actions at the aggregate level. According to the international literature, the magnitude of the effects of policies such as the CCyB activation on credit supply depends on the macroeconomic context and also on the specific situation of each bank (Fang et al., 2022). In the Chilean case, at the time of the policy actions, the banking system's slack was above its historical average (FSR, second half 2022), while the demand for commercial loans was less active (FSR, second half 2023).

Going forward, the Central Bank of Chile will continue to monitor the impact of other policy actions according to the Basel III implementation.

FIGURE II.9 AGGREGATE EFFECT (*) (percent)

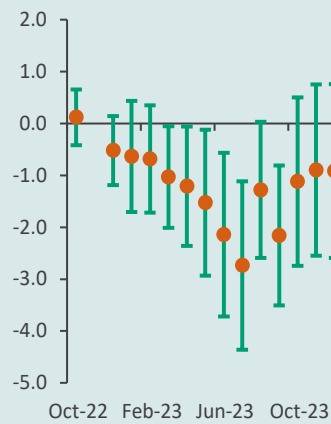


FIGURE II.10 FIRM LEVEL EFFECT (MULTIPLE BANKING RELATIONSHIPS) (*) (percent)

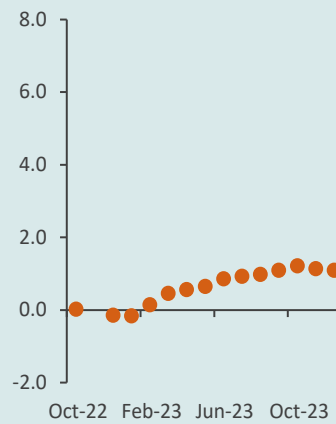
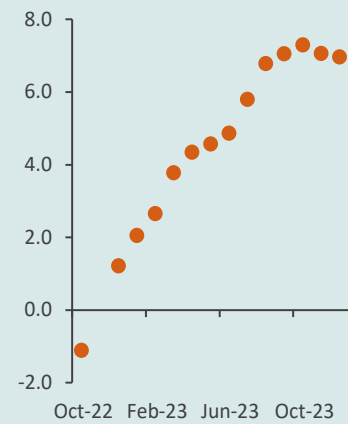


FIGURE II.11 FIRM LEVEL EFFECT (SINGLE BANKING RELATIONSHIP) (*) (percent)



(*) This figure shows the cumulative effect of a 1% increase in the capital surplus in the base period on commercial credit growth at the firm-bank level for different periods. Each regression weights observations by the size of the loan in the base period. Firms in the sample have two or more banking relationships in the base period. The base period is November 2022. Source: Central Bank of Chile based on CMF data.

(*) This figure shows the cumulative effect of a 1% increase in the capital surplus in the base period on commercial credit growth at the firm level for different periods. Firms in the sample have two or more banking relationships in the base period. The base period is November 2022. Source: Central Bank of Chile based on CMF data.

(*) This figure shows the cumulative effect of a 1% increase in the capital surplus in the base period on commercial credit growth at the firm level for different periods. Firms in the sample have one banking relationship in the base period. The base period is November 2022. Source: Central Bank of Chile based on CMF data.



IV. FINANCIAL POLICY DEVELOPMENTS

At the Financial Policy Meeting of the first half of 2024, the CBCh Board decided to maintain the Countercyclical Capital Buffer (CCyB) at the level of 0.5% of risk-weighted assets (RWA) considering that the current risk scenario did not change substantially from the previous period. Meanwhile, the CBCh's Financial Policy Agenda made significant progress through the final issuance of new regulations that allow banks to issue self-securitized instruments to be used as collateral in liquidity operations with the Bank, the extension of the maximum investment limit in alternative assets for pension funds, the closure of the exchange rate modernization process, and the incorporation of new business models and redefined standards for low-value payment processing service providers into the payment card regulations. Likewise, modernizations to the network of financial infrastructures available in Chile were consolidated, with the start-up of the first Clearing House for Low Value Payments and the new Clearing House for High Value Payments in Foreign Currency. Regarding other regulatory and financial legislation developments in Chile, the recent definition of the FMC on banking capital requirements for Pillar 2, progress in the implementation process of the Resilience Law and Fintech Law, and the approval of the new legal framework for cybersecurity and amendments to the Law on Fraud in means of payment stand out. Finally, among the main international regulatory developments are improvements to the global standards for prudential regulation and financial supervision and liquidity regulation processes in response to the global banking events of March 2023.

COUNTER-CYCLICAL CAPITAL BUFFER

At its Financial Policy Meeting, the Board of the Central Bank of Chile agreed to maintain the Countercyclical Capital Buffer (CCyB) at 0.5% of risk-weighted assets, which will be enforceable at the end of May 2024. In the financial policy meeting of the first half of 2023, the Board of the Central Bank of Chile agreed to activate the CCyB, establishing a capital charge of 0.5% of risk-weighted assets (RWA) to the banking system, with a term of twelve months to become enforceable. On that occasion, a precautionary criterion prevailed in the face of greater external uncertainty, so the Board considered it appropriate to initiate the construction of the CCyB to strengthen the resilience of the local banking system and to have a buffer that could be released during severe stress events, thus avoiding a sharp contraction of credit in such circumstances. Subsequently, at the November 2023 meeting, the Board decided to maintain the CCyB level and implementation timeline as already announced, seeking to reconcile resilience objectives and compliance with the gradual increase in Basel III requirements towards 2025. At the latest financial policy meeting, the Board of the Central Bank of Chile decided to maintain the CCyB at the level defined in May 2023 as a precautionary measure in the face of external uncertainty and a balance of risks similar to that of the previous Financial Stability Report.



Since the previous FSR, most jurisdictions active in the use of the countercyclical capital buffer have maintained their required CCyB levels unchanged. According to the latest available data, twenty-one of the thirty countries in the European economic area will have a positive CCyB by the end of 2024, with levels between 0.5% and 2.5%. Jurisdictions registering movements in their CCyB level are the Czech Republic, which reduced it from 2% to 1.75% of RWA in consideration of its assessment of the state of the cycle, while only Slovenia and Cyprus have announced increases from 0.5% to 1.0% of RWA. Other jurisdictions such as Australia, Hong Kong, the United Kingdom, and Uruguay have opted to keep their respective CCyBs activated, with no changes to their respective levels. Meanwhile, in Italy and Spain the authorities have announced a review of their methodological framework, noting that the use of a possible positive neutral CCyB level is under review ([Banca d'Italia, 2023](#)) (table IV.1). Throughout 2024, the CBCh will continue to deepen the CCyB implementation framework, including a definition of its neutral level, in accordance with international best practices, the idiosyncratic aspects of the Chilean economy and its financial system, and the progress status of Basel III.

The entry into force of the CCyB incorporates into the capital requirements for banks a charge that has the exclusive characteristics of releasable capital buffers, allowing regulators to broaden their options for safeguarding and preserving financial stability. The composition of capital requirements in the Basel III framework considers a combination of minimum capital requirements, which banks must observe at all times, and additional capital charges configured as buffers, which in the event of a shortfall generate restrictions on banks in terms of dividend payments and share purchases by the controller. These additional capital buffers, composed in Chile by the Capital Conservation Buffer (CCB) and the CCyB, giving banking institutions that incur losses during a period of stress the possibility of using them, without falling into non-compliance with minimum capital requirements, avoiding the consequences that such a situation may entail^{1/}, assuming only the aforementioned constraints that are oriented to the recovery of the buffers^{2/}.

Additionally, the CCyB has the characteristic of being “releasable” as the CBCh has the power to define its deactivation, eliminating this capital requirement simultaneously for the entire banking system and allowing banks to make use of the cumulative capital as a buffer without facing the associated constraints mentioned before. The objective of financial stability pursued by these additional capital requirements is closely linked to their release and the usability of the previously accumulated capital for compliance, understood as the possibility for banks to use the accumulated capital to maintain a constant flow of credit to the real economy in stressful circumstances. Conversely, if the usability of these buffers is low, banks would have greater incentives to reduce their leverage in the face of adverse economic events^{3/}, by developing a procyclical behavior and affecting the provision of credit. Although these tools are of recent introduction and use, the evidence suggests that the use of additional capital buffers by financial institutions is not a common practice, due to associated negative effects, such as the stigma effect —particularly in the case of CCB, uncertainty regarding future losses, and possible uncertainty about the supervisor’s expectations regarding the re-composition of the buffers^{4/}. In general, banks in Chile have been gradually adapting their capital structure to comply with buffers and other Basel III requirements by replacing the historical slack of available core capital and new capitalization processes (Box IV.1).

^{1/} Early regularization in accordance with the provisions of [Title XIV of the General Banking Law](#).

^{2/} According to current regulations, in order to maintain a Solvency Level A rating, banks must fully meet the additional capital requirements, including the buffers Chapter 21-12 of the FMC’s Updated Compilation of Rules (RAN) “[Additional Core Capital, articles 66 bis and 66 ter of the General Banking Law](#)”.

^{3/} Pablo Hernández de Cos: [The role of macroprudential policy in the stabilization of macro-financial fluctuations](#).

^{4/} José Abad and Antonio García Pascual. (2022). “[Usability of bank capital buffers: the role of market expectations.](#)” IMF Working Paper No. 2022/021”



TABLE IV.1 CCyB ACTIVITY IN SELECTED JURISDICTIONS.

<p>Active jurisdictions that have established greater than zero CCyB levels.</p>	<p>28</p>	<p>Jurisdictions that actively use and report CCyBs and have at some point defined charges greater than zero. Most active jurisdictions apply quarterly frequency.</p> <p>The preventive and resilience approach has a strong presence, with twelve of the twenty-eight jurisdictions applying a neutral CCyB policy.</p>
<p>Jurisdictions are active, but keep their CCyB at zero.</p>	<p>9</p>	<p>Jurisdictions that communicate decisions with a frequency of under one year but have never defined a charge greater than zero.</p> <p>The original Basel approach, which considers application only during the credit expansion cycle, still dominates.</p>
<p>Inactive jurisdictions (*)</p>	<p>14</p>	<p>Jurisdictions that state that they consider CCyB among their macroprudential tools but communicate decisions less frequently than once a year or irregularly.</p> <p>They all maintain CCyB= 0.</p>

(*) This group includes Canada and Switzerland, which use other macroprudential tools.

Source: Central Bank of Chile based on information from BCBS, ESRB and websites of the relevant financial authority in each jurisdiction.

FINANCIAL POLICY AGENDA OF THE CBCh

The CBCh will soon issue the regulation applicable to retained or self-securitization to be used as collateral in transactions with the Central Bank of Chile or other financial institutions. The amendment of Chapter B.4 of the Compendium of Financial Regulations (CNF) of the CBCh will set forth the special conditions that banking institutions must comply with for the structuring and retention of a securitized bond that would potentially be considered adequate collateral for accessing certain liquidity facilities of the CBCh. Among the necessary conditions that the bonds must meet for these purposes are the requirements of independent valuation and a minimum risk rating of AA. Additional eligibility requirements to be met by self-securitized debt securities to be used as collateral in liquidity operations with the CBCh will be established in the Compendium of Monetary and Financial Regulations (CNMF).

The CBCh established new investment limits in alternative assets for Pension Funds and for the Individual Unemployment Fund (CIC). Alternative assets cover a broad spectrum of instruments, transactions and contracts representing real estate, private equity, private debt, and infrastructure. In this regard, last April the CBCh established a program to gradually increase these limits for Pension Funds between 2024 and 2027, to 20%, 16%, 12%, 7% and 6% for Funds A, B, C, D and E, respectively. In addition, a limit of 3% was established for the first time for the Individual Unemployment Fund. In addition, the CBCh delivered its prior favorable report on the Pension Superintendency (SP)'s decision to authorize investment in two new instruments, namely: shares in the ScaleX venture capital market and securities representing Endorsable Mutual Mortgages. The CBCh's considerations for adopting these decisions are reviewed in Box IV.2 below.



The CBCh submits favorable prior reports to the FMC to designate systemic banks and their corresponding capital charges for 2024. In February of this year, the FMC, with the prior favorable agreement of the CBCh, introduced modifications to the methodology for designating systemic banks in order to: (i) provide more granular information to the supervisor, and (ii) generate greater stability in the classification of systemically important banks by reducing the lower threshold for such classification. Regarding the designation process and charges, in March of this year the CBCh granted the prior favorable agreement to the FMC that maintained for 2024 the banks designated as systemic and the capital charges applied to each one of them. These charges must be 75% completed by 1 December this year, in accordance with the Basel III gradual implementation schedule that ends in 2025.

Last January, the CBCh published the new version of its Compendium of Foreign Exchange Regulations (CNCI). Thus concludes the process of modernization of the CBCh's forex regulations, the phases of which have been communicated in previous reports. The new CNCI will be associated with a new Foreign Exchange Information System (SICAM) so that respondents can comply with their reporting obligations in a more efficient manner. Considering that this requires IT developments, both for the CBCh and for respondents, the new CNCI will come into effect on 1 January 2026. This modernization introduced policy modifications, including the authorization for cross-border transactions to be conducted using Chilean pesos, which contributes to the internationalization of the Chilean currency; it streamlines the forex information to be reported to the CBCh and relaxed the requirements to enter the formal foreign exchange market. This process is a necessary but not sufficient condition for the exchange market to become more liquid.

In the coming weeks, the CBCh will publish the final version of the adjustments to its rules for issuing and operating payment cards, to incorporate new business models. In order to promote the development of efficient, safe, and inclusive means of payment, so that a greater proportion of the population can benefit from the use of digital means of payment, without neglecting their safety and efficiency, the CBCh will adjust its rules on payment cards, specifying the standards applicable to payment processing service providers (PSP), then regulating the so-called cross-border acquiring; and incorporating specific adjustments for the issuance of prepaid cards under a closed or semi-closed (“on us”) modality, where the use of the means of payment is mainly oriented to payments between clients of the same issuer.

FINANCIAL MARKET INFRASTRUCTURES

In March this year, fundamental milestones were achieved to expand the network of financial market infrastructures available in the country. After more than two years of regulatory and operational developments by the CBCh and interaction with participating private entities, the first Clearing House for Low Value Payments (CPBV) and the Clearing House for High Value Foreign Currency Payments (CCAV FX) began operations. The first clearing house to start operating is the CPBV, managed by the Automated Clearing House (CCA), which clears 98% of the payment orders originated in digital fund transfers, a particularly relevant and widely used payment method in Chile. Subsequently, the CCAV FX, which clears payments originated in peso-dollar spot transactions, began operations. The start of operations of these new infrastructures represents a substantial advance in the risk management done by organizations both for the processing of low value payments and for local forex operations that until now were conducted exclusively in the OTC modality. The main characteristics of these advances and their potential for the development of the CBCh's Payments Agenda will be reviewed in detail in the next Payments Report to be published in August^{5/}.

^{5/} For more information on these clearing houses, see [ISiP 2023](#).



The Law to Strengthen the Resilience of the Financial System and its Infrastructures came into force on 30 December 2023, and its implementation by the financial authorities will require the issuance of various regulatory bodies and, in the case of the CBCh, also operational adjustments regarding the payment systems it administers. The CBCh's technical teams are currently coordinating internally and with other authorities and planning the creation of new regulations and relevant developments for the correct implementation of the different aspects contemplated in the Law.

Among other initiatives, this legislation empowers the CBCh to interoperate with non-banking institutions, incorporates a legal framework for the management of repurchase agreements between financial institutions (Repos) and facilitates the opening of bank checking accounts for non-residents^{6/}. This law would allow, under certain conditions, to expand access to settlement accounts in the RTGS System, among others, to savings & loans cooperatives, as well as to non-bank participants of CPBVs and their administrators. Also, the law amends the Tax Code and facilitates non-resident financial institutions to carry out operations in pesos, which were authorized by the CBCh back in 2020^{7/}. Adequate tax regulation under this legislation, which among other things generates a procedure for obtaining a taxpayer identification number (RUT) to comply with the tax obligations arising from these new operations, will allow the opening of current accounts in pesos for non-residents, which is essential for carrying out the operations. Finally, this implementation contributes to the objectives of financial integration and internationalization of the peso, which bring with them a series of benefits for the local financial market and represent the last regulatory step necessary for the operation of the CLS System^{8/}.

TABLE IV.2 FINANCIAL POLICY INITIATIVES OF THE CBCH

	2023	24.H1	
	New initiatives programed and in progress	Public consult initiated	Regulation or final report disclosed
Banking and financial markets regulation			
Retained enablement of securitization operations			
Modernization of forex information reporting systems			
Expansion of operations registered in the SIID			
New investment limits in AA for pension funds and unemployment insurance.			
Prior report to the Pension Superintendency for investment in new instruments Scale X and MHE securities			
Previous report to the CMF for the designation of systemic banks and capital charges.			
Payment systems and market infrastructures			
Second CBDC Report			
Regulation for cross-border acquiring of payment cards and closed models			
Regulation for payment initiators			
Phase 2, regulation of Low Value Payment Houses (CPBV)			
Implementation of current CPVB regulation			
Development of FX Clearing House regulation and implementation			
Implementation of changes under the Resiliency Law			

Source: Central Bank of Chile.

^{6/} For more information on these clearing houses, review ISiP 2023 [ISiP 2023](#).

^{7/} For more details on the objective and implications of the Law, see [FSR 2H.2022](#), [Box IV.2 de FSR 1H.2023](#), [Box IV.1 de FSR 2H.2023](#) y [Box III.2 ISiP 2023](#).

^{8/} See [Press release, December 2020](#).



OTHER ADVANCES IN FINANCIAL REGULATION AND LEGISLATION IN CHILE

The FMC defined for the first time the application of “Pillar 2” capital charges, as a result of its effective equity supervision process, and will issue a regulatory amendment that will introduce improvements to this regulation. During 2023, the supervisory review process carried out by the FMC included the first complete effective equity self-assessment report (IAPE) submitted by the banks, strengthening the analysis of the specific risks corresponding to each institution. Consequently, the FMC decided to apply additional equity requirements to nine banks^{9/}. These requirements will be implemented gradually over a period of four years, starting with 25% of the applicable enforceable requirement due on or before 30 June 2024. All in all, this Pillar 2 capital charge is contingent on the annual supervision process conducted by the FMC and may therefore change in future exercises^{10/}. In addition, the FMC will amend specific elements of the regulation, which will come into effect for the 2025 assessment period. Among the most significant elements are the level of charges that the FMC will be able to define based on the Market Risks of the Banking Book (RMLB) and the greater detail for the definition of the banks’ internal equity objective.

In order to improve the quality of information to the market, the FMC updated its Pillar 3 regulations in February 2024. In line with the Basel III implementation process in Chile, on 1 December 2022, the provisions to promote market discipline and financial transparency through the disclosure of meaningful and timely information from banks to market agents under the so-called Pillar 3 framework came into force. The corresponding quarterly reports began to be published in 2023, to provide the market with information on banks’ risk profile, position, and capital structure, in a simple and easy-to-understand format. Last February’s regulatory update focused on improving the delivery of information by banks, incorporating greater detail in the description in some of the information requirement forms, in order to ensure its greater standardization^{11/}.

The FMC finalizes the process of strengthening the banking provisioning framework, by applying a standard model for consumer loans. The main objective of including the standardized method is to adequately estimate and establish minimum provisions for consumer loans, thus promoting prudent credit risk management by banks. The standardized methodology will take effect in 2025 and, according to FMC estimates, the application of this methodology would imply an increase of 16.4% in the level of provisions of the banking system^{12/}. This decision closes a process that began in 2011 with the incorporation of standard methodologies for the individual commercial portfolio and in 2014 and 2018 for the mortgage and group commercial portfolios, respectively.

The implementation of the “Fintech Law” progresses with the publication of the regulatory framework for new financial service providers. Last January, the FMC published General Rule No. 502, which governs financial service providers under the Fintech Law^{13/} and considers safeguards for its clients by establishing requirements in matters such as: inscription in the Registry of Financial Service Providers; authorization to provide regulated services; disclosure and delivery of information to clients and the general public; corporate governance and risk management requirements; and capital and liquidity requirements, among others.

^{9/} FMC (2024). [Exempt Resolution No. 779 of 17 January 2024](#).

^{10/} See [FMC, Pillar 2 communiqué](#).

^{11/} See [FMC, Pillar 3 communiqué](#).

^{12/} See [FMC’s standardized methodology communiqué on provisions for consumer loans](#).

^{13/} Crowdfunding platforms, alternative transaction systems, credit counseling, custody of financial instruments, order routing, brokerage of financial instruments, and investment advisory services.



The FMC published in consultation the regulation for the Open Finance System (SFA). The Fintech Law also contemplates the establishment of an OFS that will allow the exchange of information of financial clients who have expressly consented to it, between different regulated financial institutions and financial service providers. This exchange of information must be done through remote and automated access interfaces, under appropriate security standards and subject to compliance with the requirements and conditions set forth in the law and rules issued by the FMC. Thus, the regulation under consultation, which considered the discussion in working groups with the industry, will establish requirements for participating in the OFS, risk management obligations and operating standards for the system's participants.

The OFS also includes the general framework for payment initiators, entities that can increase competition in the retail payment system. As noted in previous Reports, payment initiators are part of the OFS and should be regulated by the FMC, and in a complementary manner by the CBCh insofar as their operating model contemplates holding their clients' money on a transitory basis. These entities allow their clients to instruct fund transfers from their accounts, but without the need to access the systems of the provider of such accounts. This may facilitate the use of fund transfers as a means of payment not only between individuals, but also between individuals and retailers, which would increase the number of digital means of payment that are accepted on a massive scale and thus introduce more competition to the payment card system.

The Framework Law on Cybersecurity and Critical Information Infrastructure establishes the institutional framework, principles, and general regulations for structuring the cybersecurity actions of government agencies. This law was enacted in March and creates a National Cybersecurity Agency, which may classify services as essential and institutions as Operators of vital importance and must issue protocols and instructions for compliance with this law, aside from overseeing it. Considering that there are sectoral authorities, such as those in the financial sector, whose regulatory framework contemplates provisions on cybersecurity for their regulated parties, the law establishes the need for the principles of cooperation and collaboration between the rules issued by these authorities and the Agency to prevail. This also considers that the Agency must communicate and request a prior report when it issues rules of a general nature that may have application in the area of competence of the sectors' authorities. Likewise, when sectoral norms establish obligations with equivalent effects to those of the Agency, the provisions of the corresponding sectoral authority shall prevail. The law also contemplates mechanisms to better prevent cyber threats by improving communication, coordination and collaboration among various institutions, organizations, and firms. Financial sector cyber resilience can have financial stability effects^{14/} and is a growing concern in the world. In a context of increased digitization, new technologies, and growing geopolitical tensions, strengthening resilience in this area requires, among other measures, national cybersecurity strategies, plus appropriate regulation and oversight (GFSR, 2024), which is provided for in the new legal framework.

In recent years there has been an increase in losses associated with fraud with digital means of payment, which may have negative effects on financial stability and inclusion as well as on the development of the payment system. After amendments to Law 20.009 in 2020 came into force, losses due to external fraud and cases of transactions with means of payment unknown to users reported by banks and other providers have been on the rise. Reversing this trend is important to avoid financial exclusion or increased costs for users of digital payment methods. Hence, all those involved (i.e., individuals, retailers, issuers, and operators of means of payment) should adopt measures to prevent the malicious use of means of payment, and the protection of users against unauthorized transactions should be adequately reconciled with the treatment of moral hazard and the risk of fraudulent conducts.

^{14/} See [Box I.1 in Financial Stability Report, 2H.2018](#).



Recent adjustments to Law No. 20,009 seek to reverse the aforementioned trend. As part of a bill that seeks to combat over-indebtedness, Congress approved the modification of some aspects of Law No. 20,009, although the law had not been enacted at the date of publication of this Report. The changes seek to alter the expected cost/benefit balance of committing or participating in fraud, while protecting the defrauded users. For example, it incorporates the obligation for the user to file a fraud report before authorities with criminal jurisdiction; it creates a procedure that allows the suspension of reimbursements when there is sufficient evidence of guilt and fraud; a regulation of the Ministry of Finance may lower the threshold for immediate restitution of claimed transactions, which must be between 15 and 35 UFs and may be differentiated by means of payment; and it creates a system of legal presumptions of fraud or gross negligence regarding the user's actions, which, in any case, admits proof to the contrary. These changes may contribute to reducing fraud, but it is important to implement them and monitor their effects.

INTERNATIONAL REGULATION DEVELOPMENTS

As a result of the March 2023 turmoil in international banking, lessons have emerged mainly related to supervisory aspects; however, a relevant analysis also emerges regarding the implementation of regulatory tools for liquidity risk management. The events in U.S. regional banking have prompted a broad debate on supervisory processes and how to understand proportionality schemes for the application of prudential standards based on the size of institutions, in order to balance the costs and benefits of regulation for financial institutions with different characteristics, while maintaining appropriate protection for financial stability. In connection with the debate on the design of regulatory frameworks, cases in both the U.S. and Swiss drew attention to the current potential for volatility in the traditional sources of bank funding, particularly in the United States in terms of retail deposits, resulting from technological progress and the digitization of banking services. Consequently, the re-evaluation of some of the factors associated with the stability of deposits and other sources of bank funding for the calculation of liquidity indicators such as the LCR and NSFR is the subject of analysis in international financial regulation forums such as the Basel Committee^{15/}. Also, as noted in the previous Report, the possibility of supplementing the Basel III liquidity ratios with non-risk-weighted indicators to monitor or assess a bank's liquidity position in stressful situations is being considered.

In parallel, the Basel Committee on Banking Supervision incorporated adjustments to its "principles for banking supervision" and other relevant reference documents, in view of the events of March 2023. Last April, the BCBS published a revised version of its banking supervision principles^{16/}, a document that provides guidelines for prudential banking supervision that are typically followed by banking supervisors in developed countries and used by the International Monetary Fund and the World Bank in financial systems assessment programs (FSAPs). Its review and update seek to incorporate those elements that have been identified as relevant for strengthening supervision since 2012, the year of its last update so far. This review has a broad scope, including aspects of financial risk management, operations, climate, macroprudential supervision, and digitization, among others. In addition, the BCBS is revisiting its disclosure guidelines, in the context of Pillar 3, to improve the information available on banks' exposure to crypto assets.

In this context, in the U.S. the process of leveling the regulatory framework applicable to the biggest banks in the country is moving forward. The prudential banking regulatory framework in the U.S. has a proportional application according to the size and complexity of the banks, which has been subject to review during the last few months with the aim of generating a more homogeneous framework for the segment of banks with more than US\$ 100 billion in assets. A proposal along these lines was published for consultation during the second half of 2023 and the U.S. authorities have stated that the process should be completed shortly.

^{15/} BIS (2023), "[Report on the 2023 banking turmoil](#)". Bailey, A. (2024). "[Loughborough lecture: Banking today - speech by Andrew Bailey](#)." Barr, M. (2024). "[The Intersection of Monetary Policy, Market Functioning, and Liquidity Risk Management](#)." Wildmann, N. et al (2024). "[Objectives and limitations of the liquidity coverage ratio](#)." ECB Macroprudential Bulletin.

^{16/} BCBS (2024). "[Core principles for effective banking supervision](#)" April, 2024.



In addition, the BCBS published for consultation a proposed amendment to strengthen the framework for determining global systemically important banks (G-SIBs). The BCBS has noted that the use of year-end financial information may encourage large banks to strategically adjust their balance sheets to reduce the likelihood of being considered G-SIBs. The proposal published for consultation last March is aimed at addressing this issue^{17/}. It should be noted that the possible modification to the G-SIB framework may have important consequences on the criteria established by the BCBS for the domestic systemically important banks (D-SIB) framework, as the latter is an extension of the former.

The Financial Stability Board (FSB) reviews risk management practices in the mutual fund industry and its recommendations to strengthen the resilience of the sector. According to the FSB's analysis, the most advanced economies are in the process of adopting measures to strengthen liquidity risk management and mitigate dilution risks when faced with significant fund withdrawals in money market mutual funds, which may affect the share value of investors who do not liquidate their positions. In addition, the FSB revised its policy recommendations to address vulnerabilities arising from liquidity mismatches in other types of open-end funds^{18/}. It should be noted that in the case of Chile, the Resilience Law grants additional powers to the FMC for the regulation of liquidity risk issues in mutual funds, which is expected to be developed during this year.

^{17/} BCBS (2024). ["Consultative Document Global systemically important banks – revised assessment framework."](#) March 2024.

^{18/} FSB (2024). ["Thematic Review on Money Market Fund Reforms: Peer review report"](#) and FSB (2023). ["Revised Policy Recommendations to Address Structural Vulnerabilities from Liquidity Mismatch in Open-Ended Funds."](#) In the case of Chile, the approval of Law No. 21,641 strengthened the powers of the FMC to determine minimum investment requirements in liquid assets.



BOX IV.1:

Evolution of bank capital requirements in Chile and stress testing development based on core capital.

The demands for greater and better-quality capital levels imposed by Basel III require supplementing bank stress tests^{1/}. Consistent with these new requirements, from the next Report onwards, stress tests will be presented for the banking system to better determine the adequacy of the system's core capital (equity capital and retained earnings) in the face of unlikely but plausible financial disruptions. The Basel Committee on Banking Supervision (BCBS) confers, in Basel III, substantially greater importance to core capital (CET1) in the effective equity required of banks, which allows partial supplementation with perpetual bonds (Additional Tier 1 Capital or AT1), while restricting the use of subordinated bonds (Tier 2 Capital or T2). This box reviews these fundamental elements that define Basel III and its application in Chile.

Preliminary measurements of core capital adequacy in Chile according to Basel III requirements suggest that the banking system remains resilient. The banking system has sufficient solvency according to traditional CBCh capital adequacy measurements, which include both Tier 1 capital (CET1 + AT1) and Tier 2 capital (Chapter III)^{2/}. According to preliminary solvency analyses under stress scenarios considering only Tier 1 capital, the banking system remains resilient. These measurements closely follow the experience of other jurisdictions that advanced more rapidly to Basel III than Chile and have since been considering stress tests for Tier 1 capital, while the incorporation of Tier 2 capital into this type of exercise has lost relevance^{3/}.

The Basel Committee on Banking Supervision (BCBS), following the Global Financial Crisis (GFC), thoroughly revised the Basel Accord under which international bank capital requirements have been defined since the early 1980s. The Basel III agreement retained fundamental components of Basel II, such as the three-pillar structure: Pillar 1 for solvency requirements, Pillar 2 on supervisory processes, and Pillar 3 on disclosure and transparency^{4/}. However, it introduced important innovations, mainly through additional core capital requirements for different purposes, such as charges for systemically important banks and buffers or "capital cushions".

^{1/} For the purposes of assessing the resilience of the financial system, stress testing is considered a critical and increasingly important element, as well as for the risk management of banks. [Adrian et al. "Good Supervision: Lessons from the Field". IMF 2023.](#)

^{2/} The FMC publishes the level of regulatory compliance with both the CAR and CET1 standards on a monthly basis since December 2020.

^{3/} FSI Insights on policy implementation No 12 Stress-testing banks – a comparative analysis.

^{4/} [Basel III: international regulatory framework for banks \(bis.org\)](#)

^{5/} Basel II already incorporated market and operational risks, in addition to credit risks in RWAs. In Chile, prior to the 2019 General Banking Law reform, only RWA credit risks were considered and market risks were addressed through a complementary regulation of the CBCh.



For Pillar 1, Basel III requires higher levels of capital and of higher quality, raising core capital requirements and reducing the possibility of using subordinated bonds. Basel III defines minimum effective equity, measured on Assets Weighted by Credit Risk, Market Risk and Operating Risk^{5/}. The higher quality of effective equity is required through a higher CET1 composition, with respect to other quasi-capital or hybrid instruments. Following this logic, Basel III requires a minimum effective equity of 8%, consisting of a CET1 requirement of 4.5%, an Additional Tier 1 Capital (AT1) requirement of 1.5% (hybrid instruments that can be preemptive shares or perpetual bonds) and Tier 2 Capital (T2) of 2% (subordinated bonds and voluntary provisions). Both AT1 and T2 must be covered by core capital in case a bank lacks these instruments.

Basel III also adds new requirements with specific objectives that must be constituted with core capital (CET1). These are the capital charges for systemically important banks (defined by the authorities in a range up to 3.5%) and the buffers, i.e., the capital conservation buffer (CCB, 2.5% of RWA) and countercyclical buffer (CCyB, defined by the authorities in a range up to 2.5% of RWA) (Table IV.3)

Buffers (CCB and CCyB) operate as additional layers of CET1 capital that banks must hold above the minimum regulatory requirements. They are designed to act as shock-absorbers—available to be consumed in times of financial stress—and avoid an amplification of the shock via abrupt or excessive deleveraging. These buffers, in the event of a shortfall, trigger actions to restore lost solvency (mainly restrictions on dividend payouts, proportional to the level of the shortfall), but without involving more complex regularization measures or signaling that a bank is in breach of its capital requirements (Table IV.4). The international experience accumulated so far in the use of these buffers suggests that, although they are designed to be used in situations of financial stress, banks may be reluctant to use the CCB to avoid potential signaling or stigma effects^{6/}. In this sense, it is considered that the operation of the CCyB as a buffer has the advantage of reducing this stigma effect, since it is designed to be released for the entire system in times of stress due to a decision adopted by the authorities.

The implementation of Basel III standards in Chile, through an amendment to the General Banking Law in 2019, is based on a framework that basically corresponds to Basel I and is implemented gradually. In addition to incorporating all the main components of Basel III, elements of Basel II that were not available in the local legal framework are added. A definition of RWA that incorporates market and operational risks is introduced^{7/}, in addition to credit risks, subject to methodologies, weightings and risk models that can be defined and adapted by the supervisor through regulation (until 2019, the General Banking Law defined fixed weightings only applicable to credit risk). Additionally, the possibility of complementing the Pillar 2 supervisory process through capital charges in a range up to 4% of RWA was added. A gradual implementation plan was established^{8/} (Figure IV.1).

^{6/} José Abad and Antonio García Pascual. (2022). "Usability of bank capital buffers: the role of market expectations." IMF Working Paper No. 2022/021

^{7/} Prior to the amendment of the General Banking Law in 2019, the CBCh regulation on measurement and control of market risks, contained in Chapter III.B.2.2. of its Compendium of Financial Regulations, made it possible to remedy the legal impossibility that existed in Chile to incorporate the mediation of such risks directly in the measurement of solvency following Basel standards, allowing only credit risks to be considered.

^{8/} See [Basel III implementation timetable](#).



TABLE IV.3 TYPES OF CAPITAL ACCORDING TO BASEL III

	Objective/Definition	Composition	Requirement (% of RWA)
Common equity Tier 1 (CET1)	CET1 is the highest-quality component, absorbing losses immediately as they occur.	Mainly common shares, reserves and withheld profits.	Regulatory minimum (4.5%) + Systemic charge (up to 3.5%) + Pillar 2 charge (up to 4%) + CCB (2.5%) + CCyB (Up to 2.5%)
Additional equity tier 1 (T1)	AT1 capital is that which, like CET1, absorbs losses when the bank is in operation, but subject to the activation of triggers defined by the regulations and the issuer of the instrument.	Pre-emptive shares and bonds with no fixed maturity.	1.5%
Equity Tier 2 (T2)	T2 capital is primarily designed to absorb losses when the bank goes into liquidation.	Subordinated bonds and voluntary provisions	2.0%

Source: Central Bank of Chile.

Banks have addressed the growing core capital requirements, as a result of the gradual implementation of Basel III, through previously available core capital, a lower RWA density over total assets and effective capital increases. The levels of core capital over RWA, prior to the GBL reform is between 9% and 10%, which was 5 or 6 percentage points above the minimum requisites at the time. In 2020, a process of gradual implementation of new Basel III requirements began, which have been addressed by the banks through the previously available core capital stock and increases in the CET1 over RWA ratio to levels close to 11.8% in 2024^{9/}. The increase in this indicator is related both to a lower RWA density and to increases in effective capital. Actually, RWA density (measured as RWA over total assets) is reduced by the implementation of lower credit risk weightings, not fully offset by the incorporation of RWA for market and operational risk^{10/}. Additionally, if the incidence of RWA accounting is removed, effective capital increases are identified considering that bank leverage ratios (CET1/Total Assets) have recovered after the pandemic and the social crisis to levels of 7.6%.

TABLE IV.4 COMPONENTS AND OBJECTIVES OF CAPITAL REQUIREMENTS ACCORDING TO BASEL III

Components	Objective/ Definition	Compliance
CET1 and AT1 plus Pillar 2 and Systemic charge.	Core capital, or Tier 1 capital, represents the basis of a bank's regulatory capital.	Mandatory, falling below limits implies early regularization of the organization.
Capital buffers: CCB and CCyB.	Additional core capital is a supplementary layer of capital designed to further strengthen the bank's loss-absorbing capacity.	Required for Solvency A level. In case of falling below limits, it generates restrictions to capital distribution.

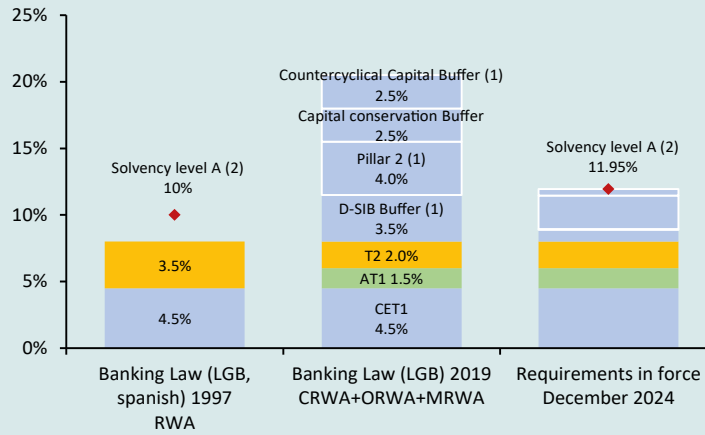
Source: Central Bank of Chile.

^{9/} The Tier 1 Capital (including AT1)/APR ratio is 12.2%. Based on February 2024 data, published by the FMC.

^{10/} FMC calculations prior to the entry into force of the standardized methodologies for measuring credit, market, and operational risk estimated a decrease of roughly 26% in assets weighted by credit risk compared to those calculated under the standard in effect at that date. However, it was noted that the inclusion of market and operational risk would partially offset this decrease at the system level. At the consolidated level, for the implementation of Basel III standardized methodologies, considering credit risk-weighted assets, market risk-weighted assets, and operational risk-weighted assets, the FMC estimated a total decrease in RWA of 9%.



FIGURE IV.1 MINIMUM AND ADDITIONAL CAPITAL REQUIREMENTS
PRE AND POST BASEL III
(percentage of risk-weighted assets)



(1) Maximum possible charges. (2) Solvency level A for LGB 1997 requires an Regulatory Capital over RWA equal to 10%. For LGB 2019 it implies compliance with minimum capital requirements + D-SIB Buffer, Pillar 2 and Buffer (CCoB & CCyB).

Source: Central Bank of Chile based on information from the FMC.



BOX IV.2:

New Investment Limits in Alternative Assets for Pension and Unemployment Funds

NEW INVESTMENT LIMITS IN ALTERNATIVE ASSETS

Alternative Assets (AA) were incorporated in 2016 into the legal framework in force (DL 3,500) as an investment option for Pension Funds (PF), subject to maximum limits established by the CBCh. AAs correspond to a broad spectrum of instruments or contracts such as private equity, private debt, real estate, infrastructure, and other types of assets as may be determined by the investment regime. The arguments for introducing this investment alternative into the legal framework consider especially its potential to contribute positively to the diversification of portfolios, with better combinations of risks and returns of the funds in a long or medium term investment horizon^{1/}. Because they are investments in private markets, the share of PFs in this asset class takes place in conjunction with specialized counterparties that provide specific expertise and access to a broad portfolio, allowing for a better risk assessment. In the last few years, the participation of AA in the PF portfolio has grown to levels close to 6% of the portfolio, as a result of legal and regulatory changes. (Figure IV.2).

Investments in this type of assets are made in accordance with the regulatory and supervisory framework defined by the Pension Superintendency (SP). This framework considers safeguards associated with the particularities of this asset class, such as valuation, conflicts of interests, investment policies, security, limits by instrument and issuer, treatment of overinvestment and, most recently, requirements to provide information on costs and performance.

Last April, the CBCh raised for the second time the investment limits in the AA of the PFs and set the maximum investment limit in this asset class for the Individual Unemployment Fund. The CBCh decided to progressively raise these limits, within the legal thresholds, to the extent that such investments do not imply risks to the stability of the entire financial system, nor interfere with the conduct of its monetary and forex policy. In this context, the SP's opinion regarding the risk/return ratio of the investments and those aspects that may directly affect the best interest of the affiliates is essential. Thus, with the corresponding prior favorable report from the SP, gradual increases are defined until 2027, consistent with the risk profile of each type of fund (table IV.5). This generates an additional buffer of approximately US\$6.0 billion, minimizing possible disruptions due to eventual adjustments in the investment portfolios of the funds that may affect the stability of the overall financial system. In addition, within the same framework of general considerations, the CBCh defined the new investment limit in the AA of the Individual Unemployment Fund at 3% of said fund^{2/}.

^{1/} The Pension Superintendency is responsible for defining, through the investment regime, the types of alternative assets in which pension funds may invest. In turn, the CBCh must define the maximum limits for investment in alternative assets considering a range between 5% and 20%. For more information, see "Alternative Assets: a new investment option for pension funds," presentation by the Superintendent of Pensions in November 2017 in the following [link](#).

^{2/} For explanatory minute [link](#).

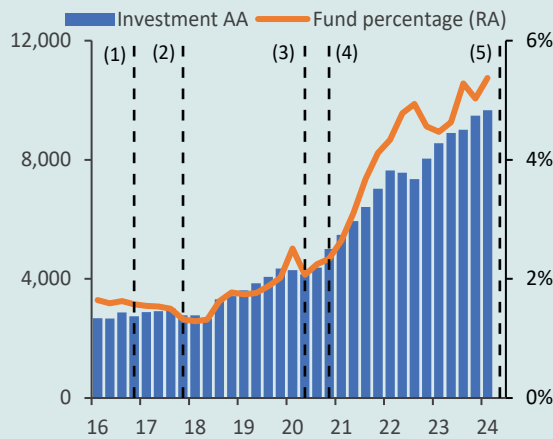


POWER TO INVEST IN NEW INSTRUMENTS

In addition, the Board ruled in favorable terms regarding the SP's request to authorize PFs to invest in new instruments. In particular, the Superintendency requested the prior report of the BCCh for these purposes regarding Representative Securities of Residential and Non-residential Endorsable Mortgage Mutual Funds, registered and tradable in commodities exchanges constituted according to Law 19,220; and shares traded in the ScaleX segment of the Santiago Stock Exchange; stating that their incorporation to the investment portfolio of the Funds would contribute to their diversification and better risk/return combinations, also having the appropriate safeguards. It is worth noting that this mechanism was used in 2021 for the authorization of Invoice Representative Securities registered and tradable in commodities exchanges, but the PFs have not yet ventured into this area investment.

The instruments would be traded exclusively in regulated secondary markets, and the investments would be subject to valuation, custody, and information requirements, among other important aspects from the security and transparency standpoint of these investments; these two types of instruments would be subject to the 1% limit of each fund defined in the Investment Regime.

FIGURE IV.2 INVESTMENT IN ALTERNATIVE INVESTMENTS BY PENSION FUNDS (millions of dollars, percentage) **TABLE VI.5** PROGRAM OF LIMIT EXTENSION FOR INVESTMENT IN ALTERNATIVE ASSETS BY PENSION FUNDS



(1) Productivity Law, October 2016, introduces investment limit in Alternative Investment (AA, spanish). (2) In October 2017, BCCh defines investment limit structure in AA for the first time. (3) In April 2020, the BCCh increases investment limits in AA. (4) In October 2020, a legal change increased the legal maximum possible for setting the investment limit in AA from 15% to 20% of each Fund. (5) In April 2024, the BCCh once again increases the investment limits in AA.

Source: Central Bank of Chile based on information from the Superintendency of Pensions.

In force up to	Decision of the Central Bank of Chile				
	Cap on investment in alternative assets, by pension funds				
	A	B	C	D	E
Current limit	13%	11%	9%	6%	5%
August 1, 2024	15%	12%	10%	6%	5%
August 1, 2025	17%	14%	11%	6%	5%
August 1, 2026	19%	15%	12%	7%	6%
August 1, 2027	20%	16%	12%	7%	6%

Source: Central Bank of Chile.



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