banco central Chile

MONETARY POLICY REPORT

DECEMBER 2021

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The Central Bank of Chile's Monetary Policy

Money plays a fundamental role in the proper functioning of any economy. To preserve such role, the monetary policy of the Central Bank of Chile (CBCh) must protect the value of the national currency —the peso—, in its quest to keep inflation low and stable. Achieving this fosters the population's wellbeing by safeguarding their income's purchasing power and making the economy function better. When inflation is low and stable, monetary policy can also moderate fluctuations in employment and production.

The inflation target and the monetary policy interest rate (MPR)

The Bank conducts its monetary policy seeking that, irrespective of the current level of inflation, its forecast for a two-year horizon will be 3%. This is similar to the practice of other countries in the world that have, as does Chile, a floating exchange rate; this is the so-called inflation targeting scheme.

The MPR is the main instrument used by the Bank to achieve the inflation target. Its level is decided at the Monetary Policy Meeting, which is held eight times a year. In practice, the MPR is a reference interest rate to determine the cost of money and other financial prices, such as the exchange rate, and longer-term interest rates, among others. In turn, these variables affect the demand for goods and services and, thereby, prices and inflation. Monetary policy decisions take several quarters to be fully reflected in the economy, which warrants that monetary policy be made from a forward-looking point of view, having as its primary focus the inflation projection two years ahead, and not just today's inflation.

Communication, transparency and the Monetary Policy Report

Since the Central Bank makes its monetary policy decisions autonomously, it must constantly account for them and their results to the general public. This is so not only because it is a government agency within a democratic society, but also because a credible monetary policy, understood by the people, helps to keep inflation low and stable. Through the Monetary Policy Report (MP Report), the Bank communicates to the general public its view of the recent evolution of the economy, its projections for the coming years and the way in which, in this context, it will conduct monetary policy in order to meet the inflation target.

The MP Report is published four times a year (every March, June, September, and December) and is put together by a team of around 60 persons.

Cover picture: Ojos de Caburga /Araucanía Region

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*/ The Report includes the monetary policy decision of 14 December. For the construction of the central scenario, the statistical cut-off date is 7 December.This document was originally written in Spanish. In case of discrepancy or difference in interpretation, the Spanish version prevails.

SUMMARY

Since the last MP Report, the economy has remained on a path of strong expansion driven by private consumption. Thus, growth in 2021 will exceed our September forecast, closing the year with activity levels significantly higher than those prior to the crisis and its estimated potential. Inflation has continued to rise, hitting over 6.5% annually, mainly because of the extraordinary expansion of domestic demand and the depreciation of the peso caused by idiosyncratic factors. These factors have been compounded with global phenomena such as stronger world demand, pandemic-related disruptions in the international value chains of goods and commodity price increases. In addition, higher inflation has been prolonged enough to risk second-round effects through contract indexation and wage increases. The costs of inflation on the economy are already visible, and have become a major economic concern for households and businesses.

Keeping inflationary pressures in check will require the removal of the domestic demand stimulus measures deployed during the crisis. On the fiscal side, this implies that public spending will be adjusted to the budget approved for 2022, initiating a convergence path towards the structural balance target. On the monetary side, after having moved from its technical minimum to 4.0% in the second half of 2021, the Board estimates that the MPR should be further increased in the short term, to remain above its nominal neutral value—that which is consistent with the 3% inflation target—for the better part of the monetary policy horizon. This adjustment of fiscal and monetary policies will contribute to a gradual closing of the output gap, helping to prevent the recent inflationary dynamics from having a persistent impact on the price formation process.

The Board foresees important risks surrounding this scenario, given the deterioration of the local capital market and the persistent uncertainty. This has led to significant increases in long-term interest rates and a lower appetite for Chilean financial assets, which has not allowed the economy to adjust as it did in past episodes. In addition, there are risks of worsening external financial conditions as a response of the central banks of the main economies to the rise in inflation.

Since the last Report, economic activity has remained very dynamic, even exceeding expectations. After surpassing the pre-crisis activity level in the second quarter, GDP accelerated its quarterly expansion in the third quarter to an annualized 21%. In turn, the October Imacec rose 15% in twelve months (17% annualized for the non-mining sector), although with slower-than-before monthly growth rates. In addition, private consumption has continued to be the most dynamic component of spending, growing 27.5% annually in the third quarter. On the supply side, this has been reflected in the continued expansion of the trade sector and the acceleration of services.

Annual CPI inflation increased further, to 6.7% in November. Worth noting was the rise in volatile prices—most related with food and energy—whose annual variation rate has escalated rapidly to reach 10.5%. Although core CPI—which excludes volatile prices—posted a more contained annual rate of expansion (4.7%), it has risen

steadily during 2021 and is at its six-year peak. Within the core CPI, the annual variation in goods prices exceeds that of services, although both have been on an upward path across the year.[1]/

Together with the increase in inflation, expectations have risen significantly. Various indicators—i.e., surveys and financial asset prices—point to annual CPI inflation closing 2021 near 7%, while at the same time they have been increasing their one-year-ahead forecasts, approaching values in the order of 5%. Although private expectations foresee a downtrend in inflation towards 2023, they are still above 3% in the twenty-four-month term.

The main factors behind the faster price hikes have been local. Chile stands out as one whose currency has depreciated the most, where the most significant income-support measures have been implemented, where private consumption has increased more, and where the rise in inflation is among the sharpest.

The dynamism of spending has placed Chile's GDP growth among the highest in the world for 2021, causing the economy to operate well above its short-term capacity and exacerbating the cost pressures that have accumulated. An unmistakable reflection of the excess domestic demand is the higher current-account deficit, despite a high copper price and the sharp depreciation of the peso. The high current-account deficit measured at trend prices, which will reach 6.7% of GDP this year, is worth noting. Thus, the strong increase in national income in 2021—thanks to the cyclical recovery and the increase in the copper price—has been more than offset by the behavior of private and public consumption, depressing national savings.

Durable goods consumption has already accumulated several quarters of expansion at very significant rates, exceeding by more than 60% its level of before the social crisis and the pandemic. Consumption of non-durable goods and services increased significantly in the third quarter, which continues to be sustained in the most recent data. The sum of the different extraordinary contributions to household liquidity—resources provided by the State and pension fund withdrawals—yields a resource accumulation of close to US$85 billion in 2020-2021, equivalent to 33% of last year's GDP. Most of the resources that have not yet been consumed are still in people's current and demand accounts, which suggests that higher spending will persist in the coming quarters.

Labor supply by individuals has put a damper on the recovery of employment, leading to higher nominal wage growth than the 2020's. Vacancies have seen a significant increase over the year, which has been reflected in an increase in employment with respect to its drop that accumulated as of mid-2020. Such recovery, however, has been held back by still tight labor supply. According to the November Business Perception Report (IPN), this is evidenced across a wide range of sectors, particularly in lower-skilled occupations. According to INE data, there are about one million more inactive people than in January 2020 and the willingness to work more hours is at record lows. While the labor participation rate has narrowed the gap with respect to its pre-pandemic level, women and 55-year-olds or up of both genders still show significant lags, a phenomenon common to several other economies.

Investment continued to recover in the third quarter, with significant dynamism in all lines. The machinery and equipment component maintained high growth, especially for industrial use and cargo vehicles. In construction and other works, the reactivation of building projects and mining-related engineering works has been key. In fact, according to the third quarter CBC survey, the 2021 investment figure is one of the highest in the last five years.

[1]/ In any case, several administered prices and utilities have seen no increases according to their usual inflation-correction rules for several quarters now. In fact, when these items are excluded from the inflation of services, their annual rate of change becomes significantly higher.

The macroeconomic scenario has been marked by the sharp deterioration of local financial conditions in the last year. There are multiple factors behind this phenomenon, particularly the impact of the massive liquidation of pension savings and the persistence of political-legislative uncertainty. Worth noting is the rise in long-term interest rates, which is double that observed in a group of comparable economies. With a high degree of volatility, 10-year peso bond yields (BTP-10) have risen around 300bp during 2021, a significant part of which is explained by higher risk perception. The increase in long rates has resulted in a loss of value of the most conservative pension funds, in continuous redemptions of type-3 mutual funds and in higher costs of mortgage loans and other long-term credit instruments. Short-term rates have also shown significant increases in recent months, linked to the change in the monetary policy stance. This factor, however, has been less significant for long-term rates.

High uncertainty and increased risk perception regarding the Chilean economy has reduced appetite for local assets and long-term assets. In this context, the preference for foreign currency assets has been rising, with a greater demand for deposits and current accounts in dollars and for financial instruments that invest abroad, a phenomenon that has occurred across the board. Thus, despite the high copper price and the bigger rate differential, the peso has seen a significant depreciation (almost 18%) during 2021, and the level of the real exchange rate is well above its average of the last two decades.

The increased cost of bank funding, together with the higher degree of uncertainty regarding the future evolution of the economy, have contracted the supply of credit in a context in which demand also remains subdued. The Bank Lending Survey (BLS) and the IPN report that uncertainty regarding the economic environment and the rise in banks' funding costs are the main reasons behind the greater restrictions on financing in all the loan portfolios. For the housing segment, in particular, they reveal the increase in the required down payment and the shortening of terms, among other factors. Both sources agree that demand for credit is contained, due to both high liquidity and sustained uncertainty. The central scenario projections described in the following section reflect the negative impact of these factors on the outlook for investment.

On the external front, although the world economy is steadily recovering from the impacts of the pandemic, the data for the last few months have been weaker than expected, with third-quarter activity in the main economies falling of projections. Beyond the swings in pandemic control, demand remains dynamic while supply has been having increasing problems. Worth mentioning are disruptions in supply chains stemming from restrictions that remain in place—some have escalated in several economies most recently—, shortages and higher prices of various commodities, and still-tight labor markets in the face of the slow recovery of labor supply.

Inflation has continued to rise around the world, in both developed and emerging economies, changing the perception of the transitory nature of the inflationary phenomenon. The sustained high level of global demand for goods, against a supply whose capacity to respond remains constrained, has continued to push up the prices of various commodities, goods and key services, such as freight—although the increases in the latter have been moderating most recently. In several developed countries, there have been significant surprises in recent months' data, and in some of them annual inflation is at its highest of more than a decade. This trend has also been seen in emerging countries, especially in Latin America. In any case, the increase in inflation has been very heterogeneous across countries, and higher in those economies where stimulus policies have been stronger.

In this context, a growing number of monetary authorities have announced, initiated, or continued to remove their monetary stimulus measures. The Federal Reserve slowed the pace of its asset purchases, and recent statements by its policymakers have signaled the possibility of an accelerated stimulus withdrawal.

Among commodity exporters, Norway and New Zealand began raising rates in recent months. In Latin America, where significant exchange rate depreciations have been noted, Colombia has already started an upward cycle and both Brazil and Chile have accelerated it in recent months. The European Central Bank is one of the few banks that still view the current inflation as transitory and maintain their commitment with expansionary policies.

Central scenario projections

The central projection scenario assumes that headline CPI inflation will remain around 7% for a few months, to then begin to decline to 3% over the two-year policy horizon. In the short term, the projection is revised upward with respect to September in response to the sustained dynamism of activity and spending, the additional depreciation of the peso, the already observed increase in energy prices, the upward inflation surprises of the last few months, and the effects of indexation. Core inflation is expected to exceed 6% by the first half of 2022, driven by widespread indexation and the pass-through of the exchange rate depreciation.

In the medium term, a key assumption for the convergence of inflation to the target is the resolution of the imbalances in the Chilean economy. The evidence suggests that in the third quarter of 2021 the economy operated well above its potential (chapter V). In the central scenario, the gap will close gradually from the first quarter of 2022, returning to near zero between the end of 2022 and early 2023. This movement assumes the end of the massive government transfer programs motivated by the health emergency, and of the extraordinary withdrawals from pension funds. This scenario also implies a more contractionary monetary policy and the return of two-year inflation expectations to the 3% target. Even so, the central scenario maintains uncertainty above its historical levels, which affects particularly investment and job creation.

In this scenario, the economy is expected to grow between 11.5 and 12.0% in 2021. This range is above the September forecast (between 10.5% and 11.5%), reflecting the aforementioned greater dynamism of activity and spending, with significant revisions in private consumption and investment in machinery and equipment.

Between 2022 and 2023, the economy's annual expansion rates will see a significant slowdown, consistent with the expected change in macroeconomic momentum and the closing of the activity gap. Thus, the economy is projected to grow between 1.5% and 2.5% in 2022, and between 0.0% and 1.0% in 2023. On this trajectory, negative seasonally adjusted quarterly expansion rates are possible, although the economy's activity level by the end of the forecast horizon will be quite similar to the projections in the June and September MP Reports.

The high comparison base, the extinction of direct fiscal transfers, the use of the liquidity accumulated over the past few quarters, tightened financial conditions, and the action of monetary policy will result in a contraction of private consumption in the next two years. The central scenario assumes that it will drop by 0.2% in 2022 and 1.5% in 2023, explained by a drastic fall in durable goods consumption after its substantial accumulation during 2021.

Gross fixed capital formation will also underperform in the next two years, a behavior in which tighter financial conditions derived from the structural changes that have taken place in the local capital market, as well as the persistently high uncertainty, play a fundamental role. The central scenario assumes that investment will fall by 2.2% in 2022, before picking up marginally in 2023. In these projections, public investment and the drag of large-scale projects will not be enough to offset the impact of local uncertainty and high long-term interest rates on other components of private investment. In addition, there is the effect of the peso depreciation and the poor performance of the stock market, as well as the limited prospects of local economic expansion for the next couple of years. In fact, various sources of information—CBC, OGPS, and the IPN—point to lower investments in the next two years.

The central scenario assumes that fiscal policy will be executed in accordance with the approved budget for 2022 and the convergence path outlined therein. This implies a significant drop in spending as the massive transfer programs motivated by the sanitary emergency come to an end. Thus, there will be a significant reduction in the effective and structural fiscal deficit for next year. In the medium term, the scenario assumes that the path laid out in the latest Public Finances Report will be followed, which is consistent with a gradual convergence towards sustainable public debt levels, consistent with the recommendations of the Autonomous Fiscal Council. Deviations from this path will be particularly important for monetary policy, not only because of their impact on private spending, but also because of their implications for financial market variables, particularly the evolution of long-term interest rates and the exchange rate.

The central scenario considers that by the end of the projection horizon, the RER will still be above its averages of the last fifteen to twenty years. Since the last MP Report, the exchange rate has risen again, to around 840 pesos per dollar at the statistical close of this Report. At the same time, the real exchange rate is around 110 in its 1986=100 index. The return to historical levels of the real exchange rate will be constrained by the changes in national savings generated in the last two years.

On the external scene, the central scenario foresees a reduced momentum for the next two years. The average growth of Chile's trading partners is revised down to 3.6% (4% in September) for the period 2022-2023. While developed economies continue to present a favorable outlook, in the U.S., fiscal and monetary policy is expected to be less expansionary than expected, thus lowering growth prospects. In emerging economies, high inflation and a less expansionary monetary policies anticipate a lower growth scenario. In China, uncertainty about the continuation of bottlenecks, energy shortages and the slowdown in the real estate sector point to a weaker outlook. The terms of trade would remain high, albeit lower than estimated in September, as copper prices are projected to remain virtually unchanged, while oil prices are somewhat higher: on average, US$3.83 per pound and US$68 per barrel for 2022-2023.

Sensitivity scenarios

The central scenario is based on a set of assumptions regarding the economic environment, agents' behavior and the policy stance. Sensitivity exercises can be performed on these assumptions, which, while keeping GDP growth around the expected ranges, call for a somewhat different monetary policy action. These scenarios make up the MPR corridor presented in chapter V (figure 1).

There are scenarios in which the evolution of domestic spending could give way to trajectories that pull the MPR in opposite directions, marking the lower and upper limits of the MPR corridor. On the one hand, the adjustment of private consumption from its current high levels could take longer than expected or be less intense, which would delay the closing of the activity gap, generating additional inflationary pressures. Such a scenario would require a more contractionary monetary policy, placing the MPR at the upper limit of the corridor. On the other hand, a scenario in which the persistent uncertainty that has affected the Chilean economy in recent quarters would have a more negative than anticipated effect on consumption and investment cannot be ruled out either. In this scenario, medium-term inflationary pressures would be reduced, leading to a monetary policy that would return more quickly to levels around neutral. This scenario marks the lower boundary of the MPR corridor.

Also, a scenario in which idiosyncratic uncertainty subsides would take pressure off short-term inflation, which has been strongly driven by the evolution of the exchange rate, while at the same time boosting the dynamism of activity in the medium term. In this context, it is expected that a less contractionary monetary policy than assumed in the central scenario would be required.

Risk scenarios

In addition to the sensitivity exercises, we analyze risk scenarios in which changes in the economy would be more significant and where the monetary policy reaction would exceed the limits of the MPR corridor.

Locally, the main risk remains that the evolution of public finances is unclear as to their long-term stabilization. In such a situation, higher spending pressures than foreseen in the central scenario would be observed, together with a sharper deterioration of the local financial market and in the value of the peso. In that case, higher inflationary pressures would necessitate an increase in the MPR above the upper limit of the corridor, despite which inflation may not be able to converge to the policy target within the two-year horizon.

Abroad, the main risk has to do with the possibility of a hasty removal of the monetary stimulus in the U.S., amid the apparent weakness of the Chinese economy. A scenario where the inflationary outlook in the U.S. becomes more complicated could lead the Federal Reserve to withdraw the stimulus more aggressively and to a significant deterioration in financial conditions facing emerging economies. Its negative effects could be amplified by recent weakness in the Chinese economy and financial problems in some of its bigger companies. Such a scenario would aggravate the negative effects on external demand and commodity prices, leading to a drop in local activity that would quickly turn the activity gap negative. In such a scenario, the MPR could cross the lower limit of the corridor.

Monetary policy stance

At its October and December meetings, the Board made a faster adjustment to the MPR than had been foreseen in the central scenario of the September Report, in response to the increasing risks facing the convergence of inflation to the target. On the one hand, domestic demand has been very dynamic, which has led the activity gap, after closing rapidly towards the middle of the year, to much more positive levels than expected in the second half of this and early next year. On the other hand, headline inflation data surprised on the upside in several months, with market expectations rising in both the short and medium term. Actually, in the two-year term, expectations measures based on surveys and in financial asset prices are above 3%. Added to this is the decline in the domestic capital market and the persistent uncertainty throughout this year, which has prompted a significant depreciation of the peso.

The projections in this Report assume that the economy requires an adjustment the spending of 2022 and 2023 to undo the imbalances that have incubated in recent quarters. Monetary policy will cooperate in this, taking the MPR above the level indicated in the September Report. In the central scenario, the Board estimates that the MPR will continue to be increased in the short term, to be above its nominal neutral level—that which is consistent with the 3% inflation target—during most of the monetary policy horizon. With his the output gap will gradually close, helping to prevent the recent inflationary dynamics from having a persistent impact on the price formation process. The convergence of inflation to the target is important not only for the fulfillment of the Central Bank's mandate, but also to alleviate the economic situation of households, which have already endured the impact of the Covid-19 crisis.

During the last few months, several expectations indicators show that market agents expect inflation to be above 3% by the end of the two-year monetary policy horizon, in contradiction with the Central Bank's inflation target. So far, there is no evidence that this is influencing inflation dynamics, which, together with the significant expected slowdown in the economy and a monetary policy that responds to the changing scenario, suffices to guarantee the convergence of inflation within the next two years.

However, in a scenario where inflation expectations remain high and hamper the convergence of inflation over the policy horizon, further MPR increases will be necessary in the short term. As always, the implementation of monetary policy will be contingent on the effects of incoming information on the projected inflation dynamics.

SUMMARY OF FORECASTS

	2021 (f)	2022 (f)	2023 (f)
GDP (annual change; %)	11.5-12.0	1.5-2.5	0.0-1.0
Current Account (% of GDP)	-4.5	-3.0	-2.9
Average CPI (annual change; %)	4.5	5.9	3.2
Average core CPI (annual change; %)	3.7	5.8	3.6
CPI in around 2 years (%) (*)	--	--	3.0
World GDP growth at PPP (annual change; %)	5.8	4.2	3.4
Copper price (average; US$cent/pound)	425	405	360

(*) Inflation forecast for the fourth quarter of 2023.
(f) Forecast.
Source: Central Bank of Chile.

BOX:

Annual Conference of the Central Bank of Chile

The XXIV Annual Conference of the Central Bank of Chile was held on November 22-23 online and focused on the credibility of emerging markets, foreign investors' risk perceptions and capital flows. The conference was prepared over the last two years in collaboration with leading University of Maryland economist Sebnem Kalemli-Özcan. Leading international experts on these topics participated in the conference and presented a series of research papers prepared for the event. In addition, Maurice Obstfeld and Carmen Reinhart participated as plenary presenters. Each paper was examined by a specialized discussant and will be published in a forthcoming book in the Central Banking series[1]/. The opening speech, given by the Governor of the Central Bank of Chile, Mario Marcel, discussed the recent evolution of capital flows to and from emerging economies, with a special focus on the Chilean case.

Research papers presented

The Conference's central theme is of particular relevance for Latin American economies that in recent months have faced exchange rate depreciations, capital outflows, declines in local stock markets and increases in risk perception. Phenomena such as these were analyzed in the work of Bajraj and others (2021), who showed that the global financial cycle and international prices, such as commodity prices, are the primary determinants of capital flows, which in turn have an impact on the economic cycle of emerging economies. Related to this, Fernández and others (2021) reported that transitory commodity price shocks and changes in the international interest rate explain around 50% of the variance in the growth of small, open economies.

Although an important part of capital flows to emerging economies can be explained by global factors beyond their control, their structural characteristics continue to play a preponderant role. In fact, the development of the capital market, the strength and credibility of its institutions and the policy instruments (monetary, fiscal and macro-prudential) available make it possible to attenuate the economic cycle in the face of local and international shocks[2]/. The inflation-targeting scheme with floating exchange rate adopted by the Central Bank, combined with a fiscal rule and a deep capital market, allowed the country to conduct an independent monetary policy, keeping inflation expectations anchored to the 3% target, while allowing for an expansionary fiscal policy when the economic situation so required, as during the global financial crisis and the Covid-19 crisis. The work of

[1]/ The speakers' presentations are available on the Bank's website.

[2]/ Fonseca and Papaioannou (2021) investigate in detail corporate ownership structures in a broad sample of countries, a relevant topic to understand how globalization has led to an internationalization of corporate ownership with the consequent effect on the shocks' pass-through across different economies. They find that there is wide heterogeneity among countries, related to characteristics such as the tax and legal system, their size and the degree of corruption.

Kalemli-Özcan (2021) shows that, even though in emerging economies the effectiveness of monetary policy is strongly tied to investors' risk perception and influenced by U.S. monetary policy, in Chile this has been less prevalent. This has avoided having to use policy tools such as capital controls, which can be very effective in economies with underdeveloped capital markets, but are less necessary when they are deep[3]/.

Since the end of 2019, however, the political, social and institutional configuration of the country has changed. The scenario of social and political tension, coupled with the high uncertainty stemming from the Covid-19 pandemic, have resulted in disparate behaviors of resident, non-resident, and institutional investors. For some segments of businesses, it has been more difficult to access international capital markets, which is reflected in the decrease in capital inflows and the higher risk premiums demanded by foreign investors[4]/. Policies such as Fogape loans, backed by the FCIC, have mitigated these effects, expanding credit volume and making it cheaper, particularly for small and medium-sized companies. The work of Acosta-Henao and others (2021) shows how the complementarity between these policies also affected larger companies, encouraging foreign debt to be replaced by local debt, and cushioning the real effects of the reduced inflow of capital when the pandemic struck.

In view of the worsening of investors' risk perception, with the resulting increase in exchange rate volatility and lower capital inflows, the ability to predict capital movements needs to be improved in order to design mechanisms to mitigate possible sudden stops of capital flows. Equally important is to design instruments that facilitate the funding of companies and the government in an environment of high interest rates. The former was the reason for the work of Burger and others (2021), who proposed a measure of the "natural level of capital flows" with high predictive power and which could be added to the projection tools currently available for this variable. The latter was explored by the work of Aguiar and others (2021), who proposed that long-term government bonds with variable interest rates are instruments that allow combining the lower rates of short-term bonds with the greater safety provided by long-term instruments. Although this type of instrument is very little used at present, it may become relevant because the high debt levels of emerging countries will require rethinking the forms of financing for the Treasury.

Plenary presentations and general messages

Both Maurice Obstfeld and Carmen Reinhart, in their plenary presentations, emphasized the future risks that may impact the global economy. Obstfeld spoke of the vulnerability of emerging economies to the way that central banks of developed countries may respond to inflationary pressures. This could put an end to the current expansionary phase of the global financial cycle and create abrupt reversals of capital flows, putting emerging economies in a precarious situation. Reinhart places the current scenario in a wider context, arguing that since

[3]/ The works by Gourinchas (2021) and Basu et al. (2021) explore the optimality of capital controls in weaker financial markets.

[4]/ As described in the *Financial Stability Report* of the second half of 2021, this has been accompanied by capital outflows, mainly from firms and households.

2015 there has been a reversal of the benign tendencies of convergence between rich and poor countries and less crises in the emerging world. Said reversal would be characterized mainly by plummeting commodity prices and would have accelerated with the recent sanitary crisis.

The present global situation makes emerging countries especially vulnerable to shocks, more so because of their recent fiscal deterioration and inflationary pressures. Therefore, it is particularly important to have sound financial markets; an inflation-targeting monetary and macro-prudential policy, a flexible exchange rate and, in countries with shallow financial markets, capital controls[5/]; plus disciplined fiscal policy and a restructuring of sovereign debt if dangerously high. These tools should enable a fast and effective reaction to potential shocks. In the case of monetary policy, moreover, it is crucial that the central banks of emerging countries act promptly so as to maintain the credibility of its inflation targets.

More generally, rebuilding the strengths of many emerging countries depends on restoring the leeway that permitted them to confront the latest crisis. For that, fiscal rules must be established that are consistent with sustainable debt trajectories, while strengthening the capital markets, and restore the confidence in local institutions, ensuring that the policies implemented are credible and predictable. In this sense, it is key that said institution are able to transmit clearly and for a wide-ranging public the scope of their functions, decisions, and fundamentals behind them, as will as the mechanisms for checks and balances[6/].

[5/] Implementing capital controls must follow a cost-benefit analysis. The costs include the possible loss of confidence of foreign investors to reinvest in the country.

[6/] This was one of the points discussed by the economist Charles Engel on the work by Itskhoki and Mukhin (2021), who explore what is the optimal combination of monetary policy and foreign exchange intervention in emerging economies.

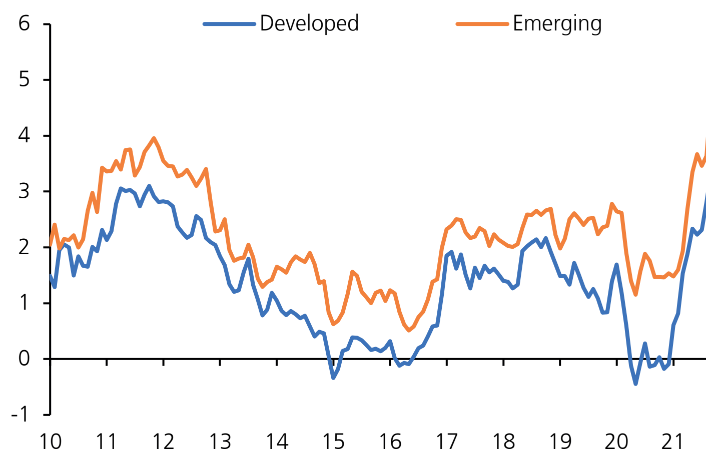
I. INTERNATIONAL SCENARIO

The global economic recovery has lost momentum in recent months. This slowdown is partly explained by persistent supply disruptions amid continued high demand. This has been compounded by renewed sanitary restrictions and self-care measures by individuals due to Covid-19 outbreaks in some countries. Although these have had a limited effect on mobility, they have restricted the resumption and/or continuity of activities in certain sectors, especially services. Moreover, the pressure on supply chains, the substantial increase in energy prices and the strong dynamism of demand have continued to drive global inflation. This has led to a change in the perception of inflation as transitory, and a growing number of monetary authorities have announced, initiated, or continued to phase out the monetary stimulus. Along these lines, the Fed slowed the pace of asset purchases and in recent statements its authorities have signaled the possibility of an acceleration of this pace. Consequently, financial conditions in emerging markets have continued to deteriorate, while the risk of an abrupt reversal of financial conditions has increased, derived from a faster-than-expected withdrawal of monetary stimulus in the U.S. in the face of more persistent inflation.

GLOBAL INFLATION AND MONETARY POLICY

Inflation has continued to rise globally, in both developed and emerging economies (figure I.1). The sustained and high level of global demand for goods, given a supply whose capacity to respond remains constrained, has continued to push up the prices of commodities and goods. In several developed countries —the U.S., Germany, Spain, and the U.K., among others— there have been significant surprises in the data of recent months, and in some of them the annual rate of change has reached levels not seen in more than a decade. This trend has also been observed in emerging countries, especially in Latin America, whose main economies are having annual inflation rates above the targets set by their central banks.

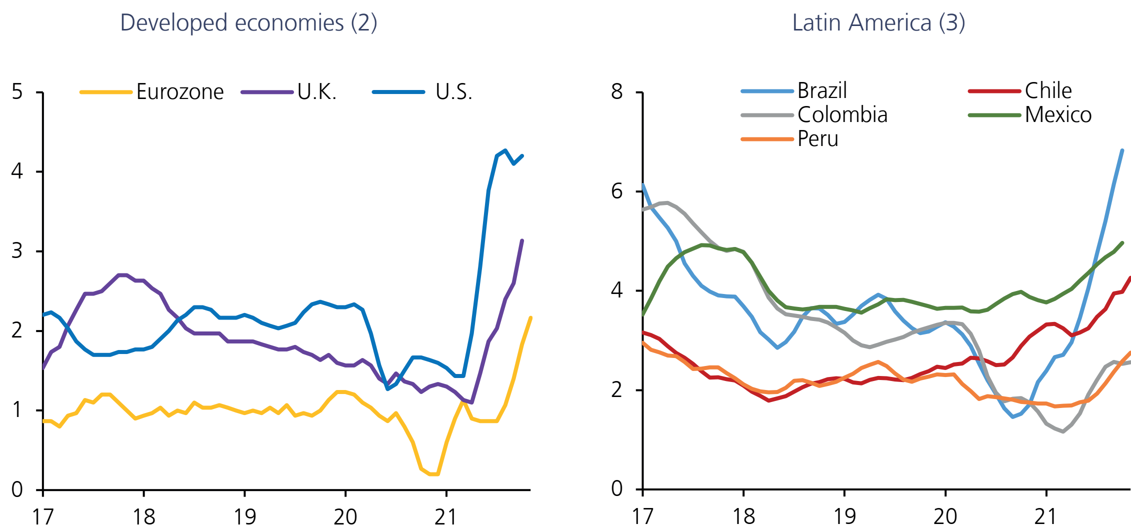
FIGURE I.1 WORLD INFLATION (1) (2)
(annual change, percent)



(1) Based on Bajraj, Carlomagno and Wlasiuk (2021). (2) Median of respective group of countries.
Source: Central Bank of Chile using official data of each country.

In any case, core inflation indicators show more heterogeneous behavior among economies (figure I.2). The acceleration in the U.S. stands out, where inflation growth has expanded beyond its volatile components and the categories associated with the economic reopening. In the Eurozone, the rise in the core portion has been more limited and less generalized, and includes a baseline effect in Germany due to the temporary reduction of the VAT during 2020. In Latin America, the significant increase in core inflation in Brazil stands out above the rest of the countries in the region.

FIGURE I.2 CORE WORLD INFLATION (1)
(annual change, percent)



(1) Three-month moving average. (2) Excludes foodstuffs and energy. (3) Core CPI excludes: for Chile, volatile prices; for Brazil, foodstuffs, energy and vehicles; for Colombia, basic foodstuffs, energy and public utilities; for Mexico energy and agriculture and livestock products; Peru uses core inflation of Metropolitan Lima, which excludes foodstuffs and energy.
Source: Bloomberg.

Several common factors explain global inflationary dynamics. These include high energy and, to a lesser extent, food prices. Tight fuel supplies, in a context of global recovery, have continued to push up prices. Gas shortages have been an international phenomenon, exacerbated mainly in Europe and Asia. In Europe, strong demand, coupled with production downtime in countries such as Norway and Russia, contributed to a significant increase in prices. This has led to rationing and halted operations at factories in some of the most affected regions in Europe and China. Oil prices have also risen, and are close to US$70 per barrel at the close of this Report (+7% for the WTI-Brent average since the close of September). In addition to demand maintaining its recovery path, OPEC+ has refused to accelerate crude oil production, leading the U.S., in coordination with China, Japan and India, among other countries, to announce the release of part of its strategic reserves in order to stop this upward trend. Most recently, the barrel of crude oil has fallen back in an environment of high volatility, a trend linked to a resurgence of restrictions derived from the arrival of the Omicron variant.

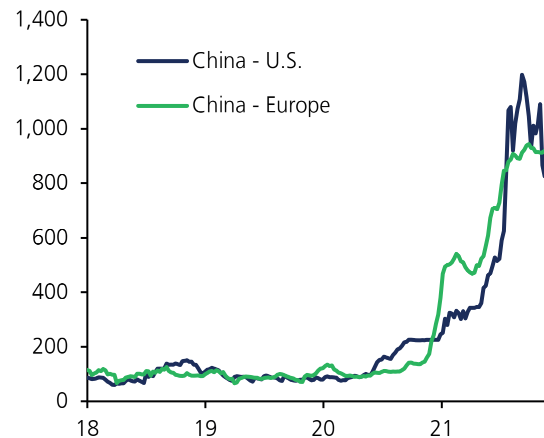
The prices of other commodities and inputs have remained high in general, which has also put pressure on global production costs. Among metals, copper rose to US$4.4 per pound at the close of this Report (+4% since the close of September), consistent with stock market inventories that have remained low and have even fallen recently. Meanwhile, the new upward cycle in the price of lumber stood out, accumulating an increase of close to 80% from the September Report. The higher price of wheat also stood out, in a context in which climatic phenomena have affected the harvests of producing countries, faced with persistently high world demand. Thus, wheat accumulated an increase of 10% since the September Report.

Bottlenecks continue to put pressure on global logistics and production chains in various industries, in a context in which transportation costs remain high (figure I.3). This has been reflected in inventory shortages and persistent backlogs in purchase orders. One example of this is the global shortage of chips that has harmed production in the automotive and technology industries. This has taken place in an environment where shipping costs remain high and where container shortages and port congestion persist, especially in some regions of Asia. In this regard, information from the OECD indicates that this situation could stretch over a longer period of time and that only in 2023 could significant additional capacity be seen in terms of international shipments[1]/.

FIGURE I.3 BOTTLENECKS

PMI global manufacturing: Suppliers' delivery time (1)
(diffusion index)

Maritime transportation cost (2)
(index, 2018 average=100)



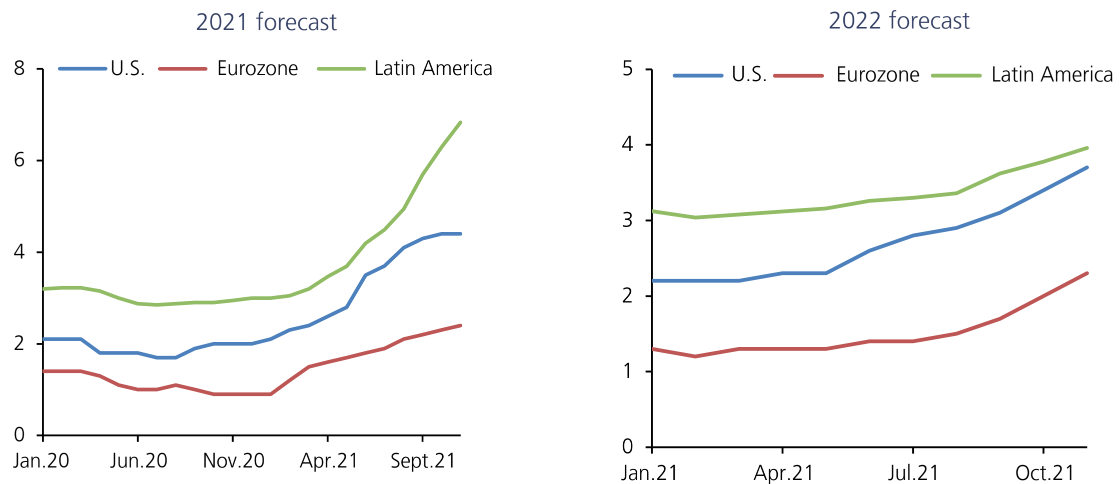
(1) A lower index means longer waits and vice-versa. (2) Cost of shipping a 40-ft container by respective route.
Sources: JP Morgan, IHS Markit and Bloomberg.

[1]/ See Keeping The Recovery On Track | OECD Economic Outlook, Interim Report September 2021.

Employment is picking up in several economies, although the increased demand for labor by companies has been met with a still-contained supply in some countries. This has put pressure on wages, especially in the U.S. where, despite the November slowdown, job creation has continued to recover, especially in areas that are intensive in social contact. However, the participation rate shows no major changes, which could be reflecting somewhat more permanent effects on the labor supply and, therefore, less slack in the labor market. In addition, labor cost pressures have intensified in the U.S., with wages growing more strongly and across the board in recent months. In the U.K., companies continue to report difficulties in finding workers, in a context where unemployment benefits have already expired. In the Eurozone, hiring has accelerated in recent months, with employment approaching pre-pandemic levels. In Latin America, on the other hand, the recovery of employment still shows significant lags in some countries and, according to the World Bank and UNDP, the quality of jobs has worsened compared to the pre-pandemic period, which is weighing down the recovery process[2]/.

In addition to the aforementioned common factors, there are particular elements that explain the rise in inflation and anticipate a greater persistence of inflation in various economies. The magnitude of the inflationary increase in each country has depended significantly on idiosyncratic characteristics, including the impulse to consumption derived from the expansionary policies applied and the evolution of the value of parities (box IV.1). In the U.S., the activity gap has closed faster than in the rest of the developed economies. In addition, U.S. inflation expectations, as captured by surveys and financial instruments, have continued to adjust upward. In emerging economies, especially in Latin America, the depreciation of local currencies has put further pressure on inflation, influencing expectations in several economies in the region. In this context, the market outlook for global inflation this and next year has been repeatedly adjusted upward over the past year (figure I.4).

FIGURE I.4 MARKET INFLATION EXPECTATIONS (*)
(average annual change, percent)

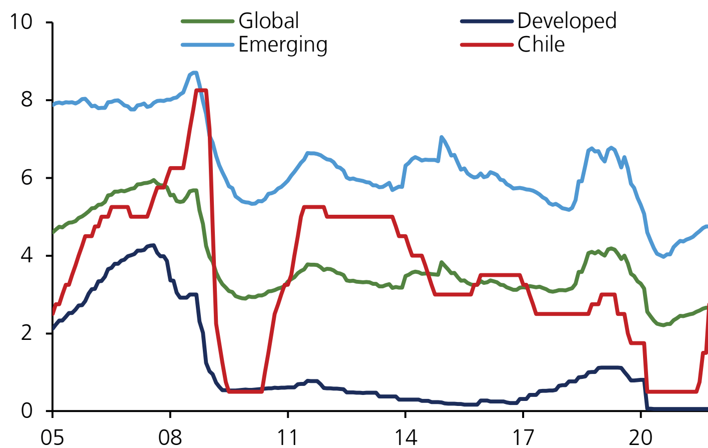


(*) Latin America uses geometric average of annual inflation at December for Mexico, Colombia, Brazil and Peru.
Source: Consensus Forecast.

[2]/ See An uneven recovery: taking the pulse of Latin America and the Caribbean following the pandemic, The World Bank.

In this scenario, the perception of inflation as of transitory nature has been changing, leading to more monetary authorities announcing, initiating, or continuing the withdrawal of monetary stimuli (figure I.5). The Fed reduced the pace of asset purchases, amid still highly expansionary conditions. Moreover, the minutes of the November meeting and recent statements by Fed officials have pointed to the possibility of an accelerated withdrawal of the stimulus. Among commodity-exporting countries, Norway and New Zealand stand out, having initiated rate hikes after the September Report. In Europe, Poland and Romania joined the trend. In Latin America, Colombia initiated the upward cycle and Brazil accelerated the pace of rate increases due to increased concerns about inflation. On the other hand, the European Central Bank is one of the few banks that maintain its view on inflation as transitory and its commitment to expansionary policies.

FIGURE I.5 MONETARY POLICY RATES (*)
(percent)

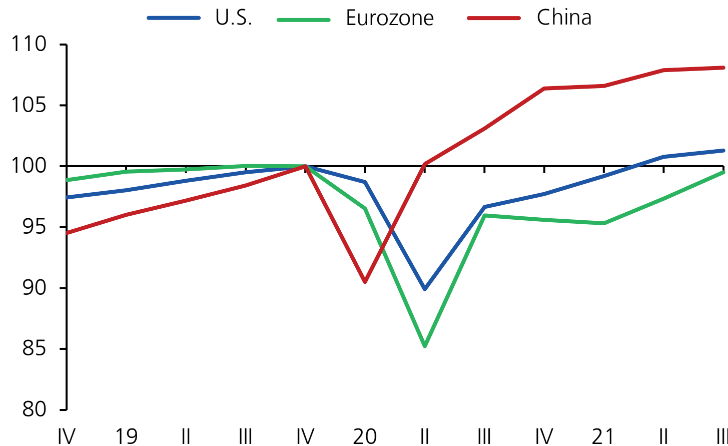


(*) For both developed and emerging economies, GDP weighted rates at each country's PPP.
Source: Central Bank of Chile based on Bloomberg, IMF and BIS data.

GLOBAL ACTIVITY

Third-quarter figures reflected a slowdown in the recovery of the main economies (figure I.6). In the U.S., consumption slowed down, as a result of less dynamism in the goods component and a pace of expansion in services that was affected by renewed mobility constraints and people's cautious behavior in the face of new outbreaks of Covid-19. In China, there was a generalized slowdown in activity as a result of the restrictions imposed by the zero-tolerance Covid-19 policy, as well as supply-side frictions that affected various sectors and the slowdown in the real-estate sector, which is said to have affected investment. The Eurozone maintained its pace of recovery, although with heterogeneity among countries, with France's greater dynamism standing out in contrast to the performance of Germany and Spain. In Latin America, Colombia and Peru recovered, while Mexico and Brazil contracted in quarterly terms. All in all, short-term indicators —retail sales and industrial production— in October surprised on the upside and showed greater resilience in both the U.S. and China.

FIGURE I.6 WORLD ACTIVITY
(index 4Q.19=100, seasonally-adjusted series)



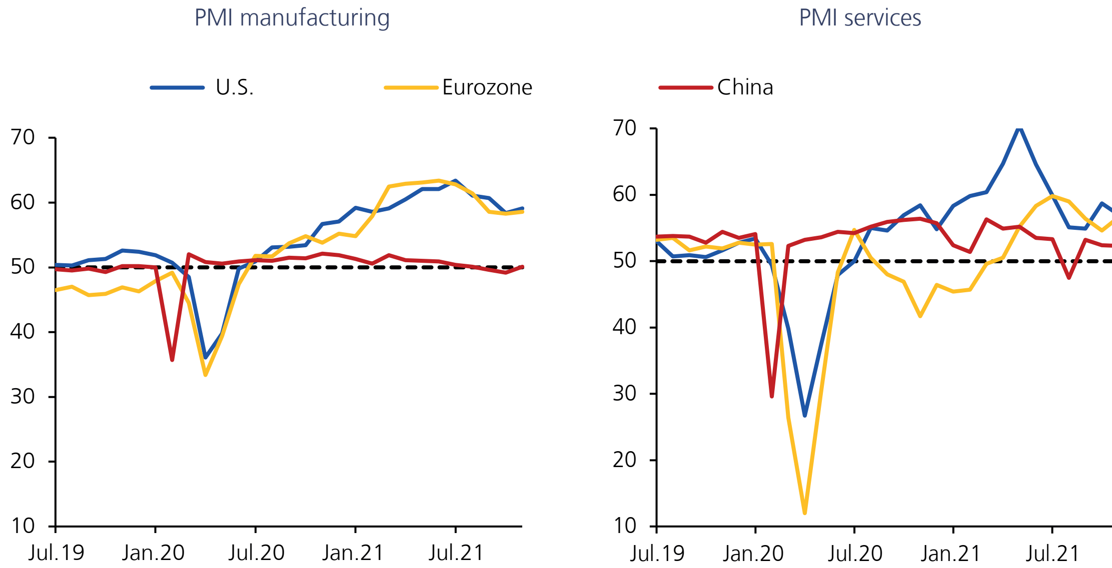
Source: Bloomberg.

Global growth prospects for the next two years are less favorable than in the September Report. In the developed world, expectations of a recovery rely on the dynamism of private spending, based on a high level of savings and an ongoing recovery of the labor market. However, in the U.S., fiscal policy is expected to be less expansionary than previously anticipated, which marginally reduced the outlook for growth in the near future. In China, uncertainty about the extension of bottlenecks, energy shortages —largely due to government restrictions imposed to meet environmental targets— and the real-estate sector's slowdown are expected to be less dynamic. Nevertheless, the business outlook (PMI) remains in expansionary territory in the main economies (figure I.7). In the rest of the emerging world, high inflation and a less expansionary monetary policy are foreshadowing a lower growth scenario. In Latin America, idiosyncratic factors are added, such as fiscal concerns and aggressive monetary tightening in Brazil, political uncertainty in Peru and next year's presidential elections in Colombia.

Financial conditions have turned less favorable, especially in emerging economies. Since the September Report, several currencies have depreciated against the dollar, accompanied by rises in long rates, mainly in emerging economies. In Latin America, the less expansionary monetary stimulus and domestic tensions have driven up the cost of financing, resulting in higher sovereign spreads in some countries and lower capital inflows (figure I.8). In any case, the effect of the Evergrande situation and the Chinese real-estate sector has remained contained in the region.

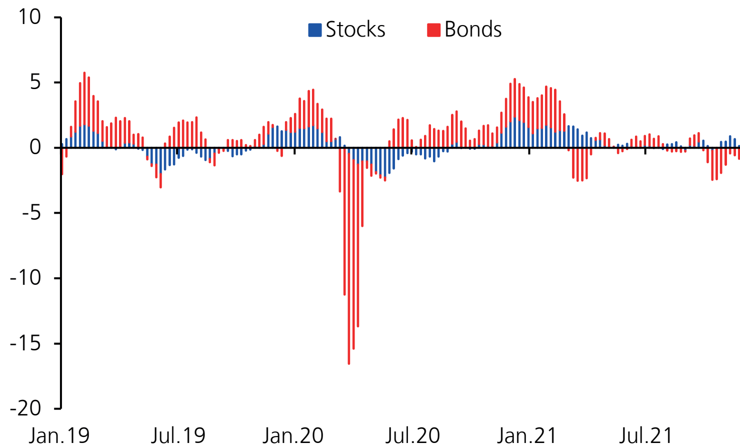
In this context, the external impulse that the Chilean economy will receive will be milder than forecast in the September Report. World growth for 2021 is projected at 5.8%, and at 4.2% for 2022 (6.2% and 4.8%, respectively, in the September Report) (table V.2, chapter V). The copper price projection shows no major changes and oil is corrected upwards to US$70 per barrel in 2021 and 2022, for the WTI-Brent average (US$66 and US$65, in the September Report). With this, the terms of trade are expected to change by 13.6% in 2021 and -2.8% in 2022 (14.1% and -3.0%, in the September Report).

FIGURE I.7 BUSINESS PROSPECTS (*)
(diffusion index)



(*) Value below (above) 50 indicates pessimism (optimism).
Source: Bloomberg.

FIGURE I.8 CAPITAL FLOWS IN LATIN AMERICA (*)
(billions of US$)



(*) Cumulative of four moving weeks. Considers cumulative flows up to December 1st, 2021.
Source: Emerging Portfolio Fund Research.

RISKS

The risk of an abrupt reversal of financial conditions, triggered by the accelerated withdrawal of monetary stimulus in the face of more persistent inflation in the U.S., has increased. In addition, there are risks associated with China's real-estate sector. To the extent that the factors behind the inflationary increase have lasted longer than expected and additional pressures have arisen, the Fed has changed its tone regarding the transitory nature of inflation and has begun to adjust the magnitude of the monetary impulse. Thus, the scenario of accelerated withdrawal has been steadily gaining ground. The risk of a reversal of the high valuation of financial assets points in the same direction. Concerns about China's real-estate sector also pose significant risks to financial conditions and growth, especially in emerging countries.

The advent of new Covid-19 variants confirms that the uncertainty regarding the evolution of the pandemic remains latent. There are still important gaps in vaccination levels among countries, so that a worsening of the pandemic would deepen the differences in recovery. In addition, there is uncertainty about the effectiveness of vaccines in the face of the arrival of new variants. This situation would also result in longer-lasting and intensified bottlenecks, aggravating the risks associated with high inflation at the global level.

II. FINANCIAL CONDITIONS

The financial conditions facing the Chilean economy have become less favorable. On the one hand, at a global level, the higher inflation outlook has led to a less expansionary current and expected monetary policy, with widespread increases in interest rates at different maturities and an appreciation of the multilateral dollar. In Chile, a budding inflationary phenomenon, in which the influence of idiosyncratic elements has played an important role, was diagnosed earlier than in other countries. As a result, the Central Bank has been withdrawing the strong monetary stimulus since mid-2021 and, in fact, it is expected that the monetary policy rate (MPR) will continue to rise in the short term, remaining above its nominal neutral level for most of the monetary policy horizon. On the other hand, the massive liquidations of pension savings, the higher fiscal indebtedness and the persistence of political-legislative uncertainty have caused a substantial deterioration in several indicators of the local financial market. During this year, long-term interest rates have risen more than in other comparable economies, largely due to a greater perception of risk, while the peso is one of the currencies that have lost the most value in the world. The domestic credit market has felt these impacts, as is visible mainly in the evolution of lending interest rates and in credit requisites and terms. On top of all this, there is a significant risk scenario, both due to the doubts concerning different aspects of the local scenario and to the evolution of global monetary conditions.

EVOLUTION OF FINANCIAL MARKETS

A string of domestic factors has led to a sharp deterioration of the domestic capital market. As highlighted in previous Reports and in the latest editions of the Financial Stability Report (FSR), several events have converged, such as the impact of pension savings withdrawals and the weakening of Chile's fiscal position, which has had an impact on domestic savings. All this is having a direct effect on the access to and cost of financing for all types of economic agents.

The rise in long-term interest rates accumulated this year deserves mention, as it outpaced a significant number of countries (figure II.1). With a high degree of volatility, the yield of 10-year peso bonds (BTP-10) has risen by around 300 basis points (bp) throughout 2021, to temporarily reach values not seen in more than a decade, close to 7% in recent months. The analysis based on structural models suggests that in its recent evolution the effect of local monetary policy and the higher expected growth are comparatively minor with respect to the contribution of risk channels (box V.1). The difference with its U.S. counterpart was around 420bp at the close of this Report versus 170bp in the 2021 item. As detailed in the FSR for the second half of this year, the increase in BTP-10 rates has had various repercussions, such as the drop in value of funds invested in fixed income, and significant redemptions of type 3 mutual funds[1]/, and the increase in the cost of mortgage loans and other long-term financing instruments.

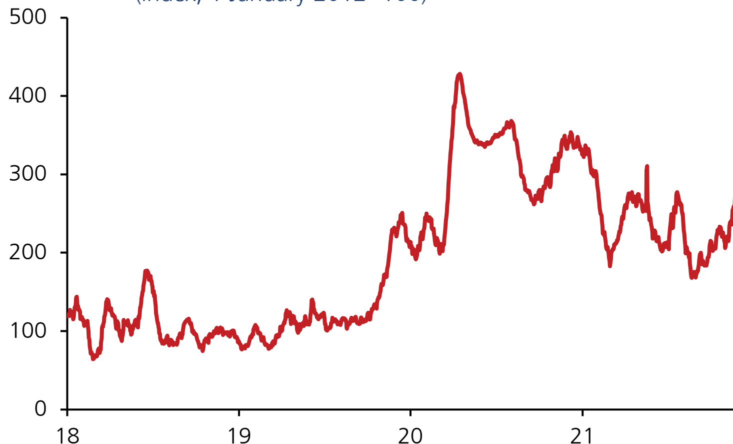
[1]/ Medium- and long-term debt. The minimum duration of the portfolio must be longer than 365 days. Invests in short-, medium, and long-term debt instruments with a minimum duration of 365 days (Financial Market Commission).

FIGURE II.1 10-YEAR BTP ZERO RATE WITH RESPECT TO COMPARABLE ECONOMIES (1) (2)
(percent)

(1) For all countries, zero-coupon bond interest rates are considered, which correct for market rates of bond coupon payments.
(2) The basket of comparable economies combines Latin American countries and commodity exporters (Brazil, Colombia, Mexico, New Zealand, and Peru). The weights are the coefficients of a cointegration relationship with Chile's interest rate.
Sources: Central Bank of Chile, Bloomberg, and RiskAmerica.

These developments have taken place in a scenario of high uncertainty and greater risk perception regarding the Chilean economy, where the appetite for local and long-term assets has been dwindling. Economic and political uncertainty (measured by the Depuc) has risen in recent months and remains above its values prior to the social outbreak (figure II.2). The same is true for country risk (CDS) (+45bp since the beginning of this year), whose recent evolution, however, has also been affected by some external events. In this context, as the latest FSR indicates, the preference for foreign currency assets has been increasing, with a greater demand for deposits and current accounts in dollars and for financial instruments that invest abroad, a phenomenon that has been observed across the board.

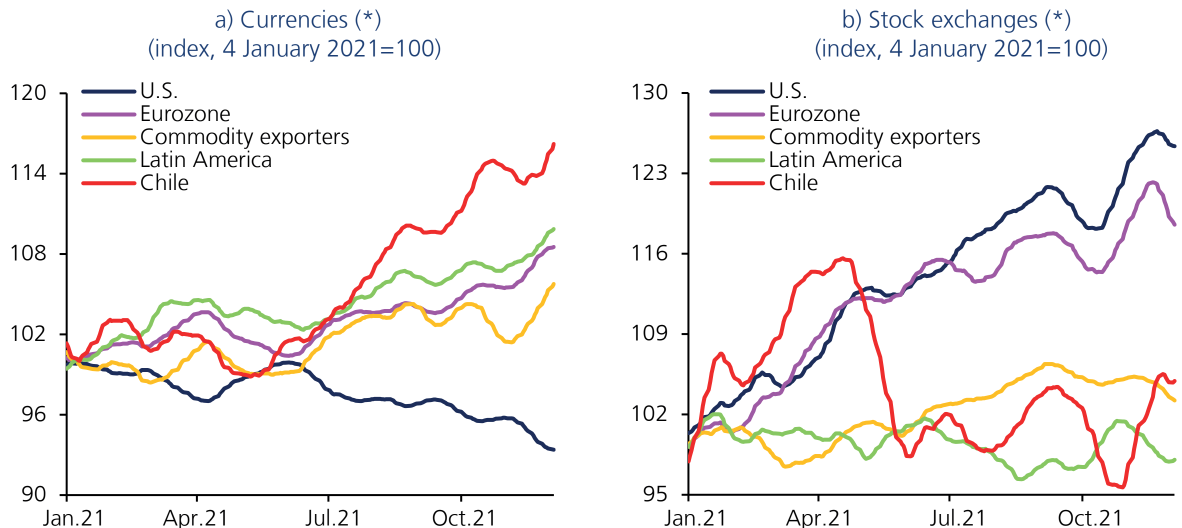
FIGURE II.2 DAILY INDEX OF ECONOMIC AND POLITICAL UNCERTAINTY (DEPUC) (*)
(index, 1 January 2012=100)



(*) Moving 30-day average. As from December 2021, the Depuc includes an update to the dictionary of words used for its construction and detailed in Working paper DTBC 883. This, as a way of introducing new elements that influence the local conjuncture. From December 2021 on, the data dictionary will be subject to periodic updates based on the content of the corresponding news.
Source: Becerra and Sagner (2020).

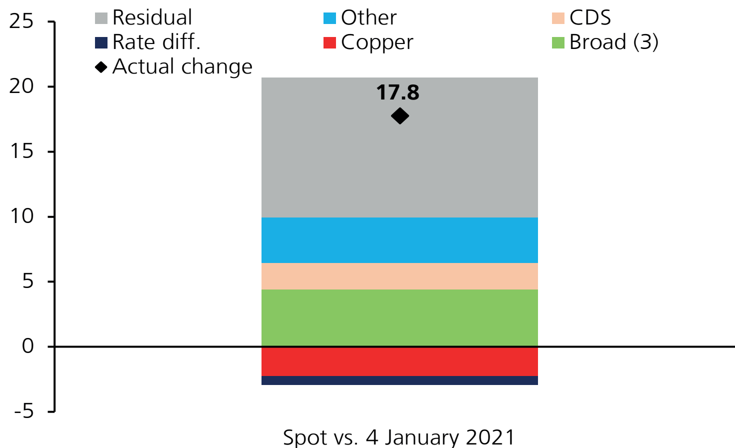
In this scenario, the Chilean peso is among the currencies most depreciated around the world, while the local stock market has failed to improve its performance in the second part of the year (figure II.3). The peso/dollar parity has increased almost 18% during 2021, despite the fact that the copper price has remained high, even approaching again record highs in the last few months (figure II.4). Moreover, this has coincided with massive liquidations of foreign investments by the Treasury to finance its bulky deficit, as well as with those that pension funds have had to make to pay for the withdrawals of pension savings. In multilateral terms, the deterioration of the peso has been slightly lower (+14% on average MER, MER-5 and MER-X in 2021), amid a stronger global dollar. The real exchange rate is well above the average of the last two decades, approaching the highs of the early 1990s and 2000s (Figure II.5). The IPSA, meanwhile, with marked fluctuations, continues to show poorer results than those of the main stock markets. In its recent sectoral performance, some stocks have received a greater boost from external factors, such as the rise in commodity prices, compared to the stocks of companies whose operation relies more on the local economy. All this in the midst of a strong dividend distribution this year, which could be associated with a lower volume of investment projects in the pipeline, given the perception of greater uncertainty in the medium term.

FIGURE II.3



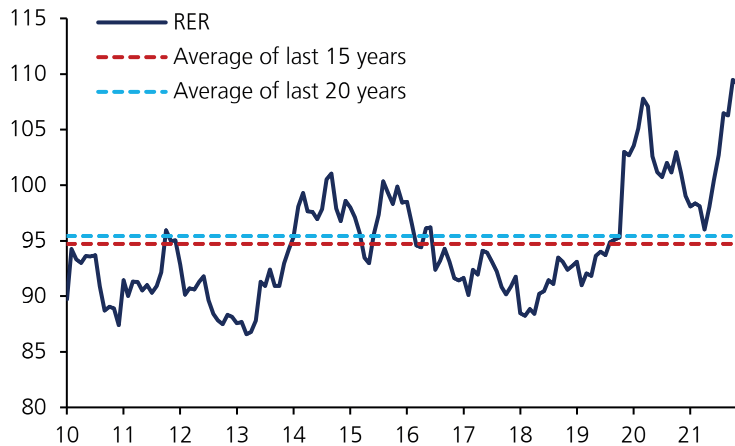
(*) Moving 15-day averages for each series. For Latin America it uses the simple average between the indexes of Brazil, Colombia, Mexico, and Peru; for commodity exporters, the simple average between the indexes of Australia and New Zealand.
Sources: Central Bank of Chile and Bloomberg.

FIGURE II.4 CONTRIBUTION TO CUMULATIVE CHANGE IN NOMINAL EXCHANGE RATE (1) (2)
(percentage points)



(1) Spot data corresponds to the statistical closing. (2) Estimate based on a high-frequency model of the nominal exchange rate, which captures the movement or trend that it should follow according to its fundamentals, such as the copper price and the domestic price level. For further details, see "Use of Macroeconomic Models in the Central Bank of Chile" (2020). (3) Refers to the parity between the U.S. dollar and a basket of Latin American countries and commodity exporters.
Source: Central Bank of Chile based on Bloomberg and RiskAmerica data.

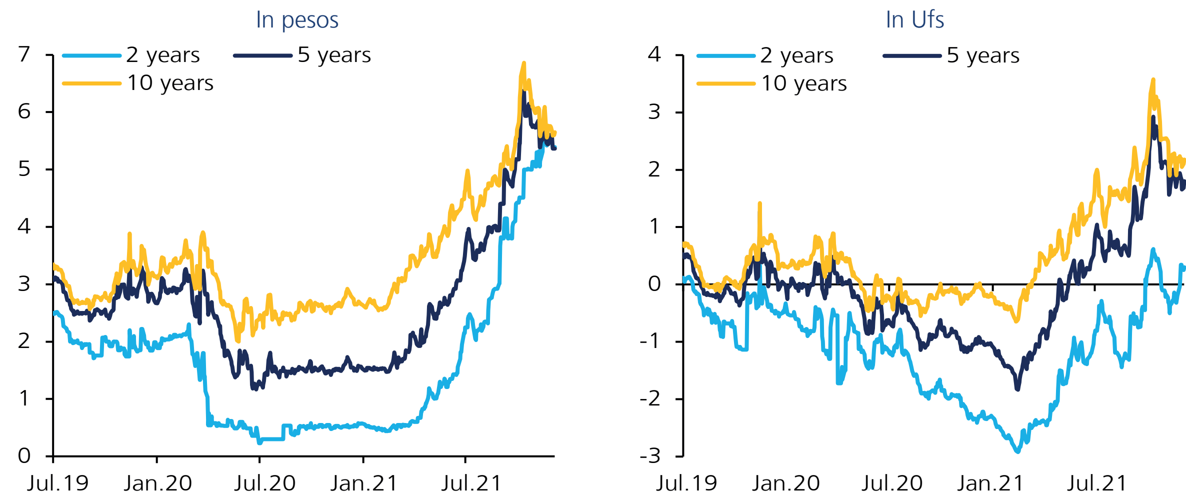
FIGURE II.5 REAL EXCHANGE RATE (RER) (1) (2)
(index, 1986 average =100)



(1) November and December 2021 RER data are the preliminary average of the month and of the data available at the statistical closing, respectively. (2) Averages for the last 15 and 20 years consider the periods Dec.06-Nov.21 and Dec.01-Nov.-21, respectively.
Source: Central Bank of Chile.

On the other hand, stronger inflationary pressures have consolidated a change in the monetary policy stance and outlook, which has been clearly reflected in short-term interest rates. Between July and December, the Bank has been withdrawing the strong monetary stimulus in place since March 2020. Thus, the MPR went from 0.5% in June to 4.0% at the December monetary policy meeting. The Board anticipates that it should continue to rise in the short term, to remain above its nominal neutral value —that which is consistent with the 3% inflation target— for most of the monetary policy horizon. These adjustments have been transmitted mainly to the short end of the nominal benchmark curve (approximately +480bp in two-year rates during 2021), which has continued to flatten (Figure II.6). Meanwhile, UF bond yields have risen less than their peso counterparts, partly influenced by the rise in inflation expectations.

FIGURE II.6 INTEREST RATES ON LOCAL BENCHMARK BONDS
(percent)



Source: Central Bank of Chile.

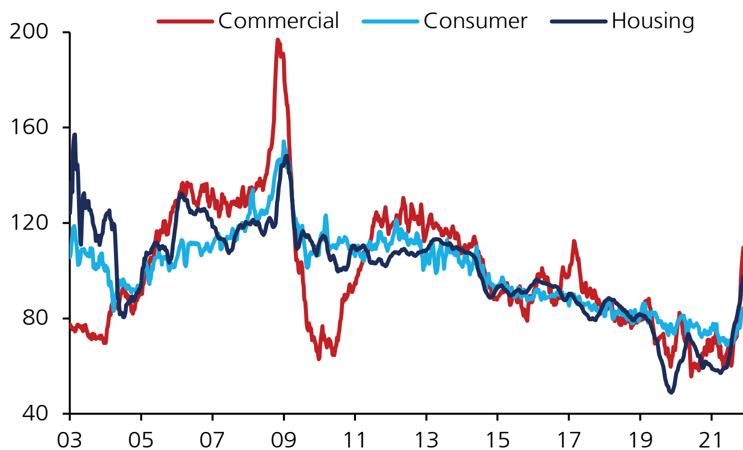
These movements occur amid unfavorable external financial conditions, mainly for emerging countries. The more persistent rise in inflation has led to the effective and expected tightening of monetary policy around the world, which has driven interest rates up across the board. Expectations about the pace of stimulus withdrawal, especially in the U.S., have dampened global risk appetite. Other elements have also caused noise in international markets, such as fears about China's performance or news regarding the ongoing pandemic. In this context, the multilateral dollar strengthened and sovereign spreads rose in many markets. Stock prices have had mixed performances, with renewed highs in the U.S. The financial outlook in Latin America is one of the worst performers, in response to ongoing political, social, and fiscal risks.

LIQUIDITY AND FINANCING

In the country, lending conditions have tightened in several portfolios, especially in mortgages and, in general, in longer-term loans. In households and companies, the uncertainty regarding the economic environment and the increase in banks' funding costs are the main reasons behind the greater restrictions, according to the most recent information from the Bank Lending Survey (ECB) and the Business Perceptions Report (IPN). For the housing segment, in particular, both measurements reveal the increase in the required down payment and the shortening of terms. In fact, the IPN and other sources report a significant reduction in the supply of 20- and 30-year loans. This has had repercussions in related sectors, such as real estate. Recent data show a considerable drop in housing sales.

Lending rates have risen across the board, in line with the rise in the local fixed-income curve. Since mid-year, they have accumulated rises of 285bp, 340bp, and 140bp in the consumer, commercial, and housing categories, respectively, bordering or approaching their historical averages (figure II.7). In the housing portfolio, there is a greater share of variable- and mixed-rate products in their composition —although these loans still represent a smaller fraction of the total housing debt outstanding—, consistent with the changes in banks' requirements noted by the special ECB reported in the recent FSR.

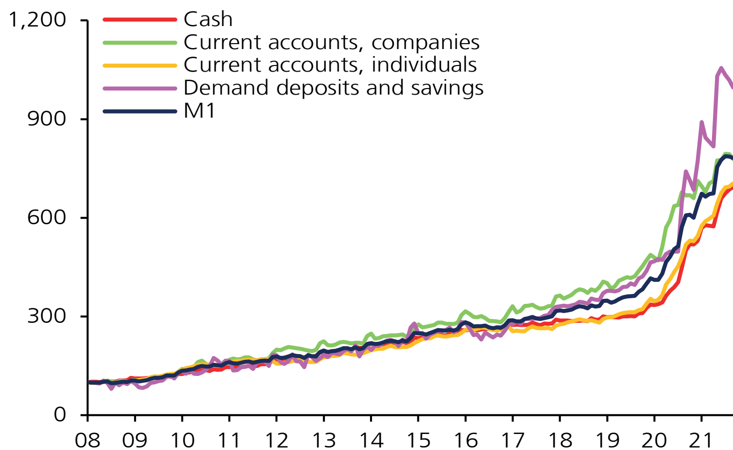
FIGURE II.7 LENDING INTEREST RATES (1) (2)
(index, 2003-2021=100)



(1) Weekly data, weighted average rates of all transactions carried out in each period. Housing loans are UF-indexed. (2) Moving 4-week average.
Source: Central Bank of Chile based on Financial Market Commission data.

At the same time, the demand for credit remains sluggish, in a context in which agents maintain high levels of liquidity. This reflects the various support measures implemented during the pandemic and the impact of the reopening of the economy on corporate cash flows. This greater availability of resources continues to underpin the performance of the most liquid monetary aggregates (figure II.8). Furthermore, as the IPN reiterates, the tightening of supply conditions could be influencing borrowing intentions in certain cases, as could the present high level of uncertainty.

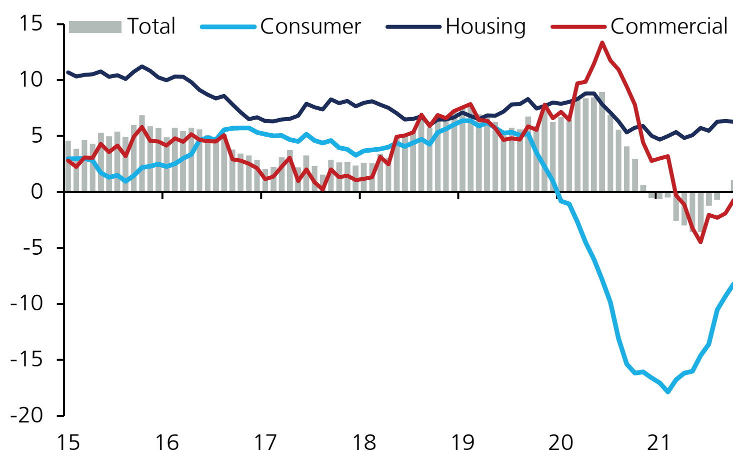
FIGURE II.8 M1 AND COMPONENTS (AVERAGES)
(index, January 2008=100)



Source: Central Bank of Chile.

These factors combined keep the performance of credit as a whole weak (figure II.9). Flows of loans to households remained fairly stable, although with an incipient moderation in the mortgage portfolio, particularly in the debt tranches below five thousand UFs. The consumer portfolio continued to reduce its annual contraction rates, especially in the credit card component due to a low comparison base. On the commercial side, Fogape-Reactiva operations continued to decelerate. The rest of corporate lending showed some recovery, but remains below last year's levels.

FIGURE II.9 REAL LOANS (*)
(annual change, percent)

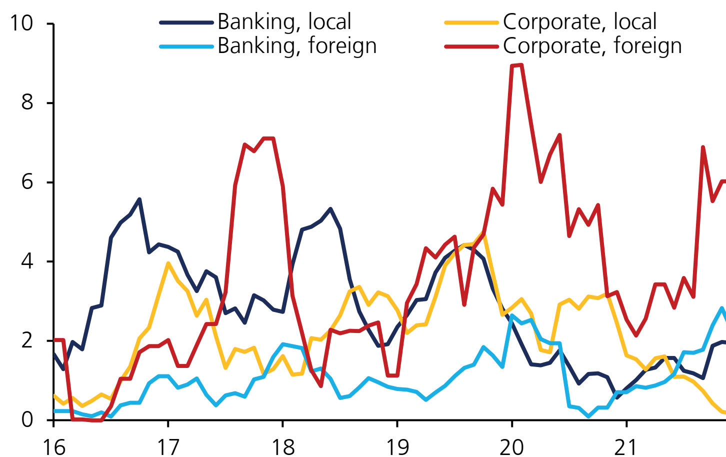


(*) Real data constructed by splicing with CPI of 2018 annual base, at monthly frequency.
Source: Central Bank of Chile based on Financial Market Commission data.

Non-performing loans continue to be low, although other indicators point to a more cautious view of portfolio risks. Households and businesses have continued to comply with their payments, and in both cases, debt levels have decreased in recent quarters, favored in part by the aforesaid ample liquidity of the different agents. However, the recent increase in provisions, particularly additional ones, points to a deterioration in the outlook for bank defaults, related to the prevailing uncertainty and the change in financing conditions that may affect the renewal of commitments, as reported in the recent IEF. The IPN highlights the concern of the respondents about the evolution of delinquency in 2022, in view of a possible deterioration of the economic outlook.

In recent months, external bond placements by local agents, especially in the non-financial corporate sector, have recovered strongly (figure II.10). This is evidence of relatively better financing conditions abroad than at home, but also takes place in a context of limited purchasing power of local institutional investors. As for placements in the Chilean market, there has been a slight rebound in bank issues since October, which have been absorbed especially by pension funds. The spreads of locally placed bonds remain below its numbers prevailing at the beginning of the pandemic.

FIGURE II.10 BOND ISSUES (*)
(accumulated in six moving months, billions of dollars)



(*) December 2021 figure uses data up to the 7th.
Sources: BCS, Bloomberg, and RiskAmerica.

RISKS

On the internal front, the main risk remains that the evolution of public finances will not be clear about their long-term stabilization, leading to higher spending pressures and a deeper deterioration of the local financial market. Maintaining a path of fiscal consolidation contributes to financial conditions' favorable performance. According to the Budget Law approved in Congress, fiscal spending is estimated to fall by around 19% nominal by 2022, bringing the effective fiscal deficit down to 2.8% of GDP (8.3% in 2021).

Also, the persistence of today's high uncertainty and its effect on long-term interest rates could have a negative impact on the growth capacity of the Chilean economy going forward. This would occur mainly through a fall in investment, whose prospects were already reviewed in the central scenario of this Report, taking into account the effect of the decaying financial conditions. Although part of the interest rate hike responds to a better outlook for the domestic economy, the bulk of the increase is explained by the doubts surrounding the domestic scenario on several fronts. Likewise, it is possible that as these doubts are dispelled, this trend and the consequent damage to activity will be reversed (box V.1).

In the external scenario, the risk associated with the possibility of a hasty withdrawal of monetary stimulus in the U.S. stands out. The greater persistence of the ongoing inflationary phenomenon has allowed consolidating a not-so lax tone of the global monetary policy. Faster Fed tightening could trigger abrupt reversals in financial conditions, especially for emerging countries. The negative impacts of this scenario could be amplified by the recent weakening of the Chinese economy and the financial distress in some of its bigger companies linked to the real-estate sector.

BOX II.1:

Business-support policies during the Covid-19 crisis

The Chilean authorities responded to the Covid-19 crisis by deploying a range of policies to mitigate its economic impacts. This box analyzes the effects of two of these policies that were directly targeted at firms: the Fogape-Covid program of state guarantees for loans to businesses, and the Employment Protection Law (EPL) that allowed firms to temporarily suspend relations with their workers[1]/. This analysis is based on anonymized microdata at the firm level and complements the analysis presented in the Monetary Policy Report September 2020 and the Financial Stability Report of the second half of 2021, as well as the evaluation of policies using the Central Bank's models presented in the September 2021 MP Report[2]/.

The Fogape-Covid credit policy[3]/

Companies accessed the Fogape-COVID program on a massive scale. Since its inception (May 2020), to May this year, close to 250,000 companies had obtained a loan, with a large proportion of them doing so during the first three months of the program (figure II.11). Most were micro and small enterprises, with the commerce and manufacturing sectors leading access. In aggregate terms and up to May 2021, loans granted under the Fogape-COVID program amounted to almost 6% of 2020 GDP.

One consequence of the broad access to this program was the rise in corporate leverage. The figures show that, although the debt-to-sales ratio expanded substantially, the distribution of credit among firms meant that macroeconomic risk and the risk of the banking system as a whole did not rise significantly, since most of the program's amount was channeled to lower-risk firms[4]/.

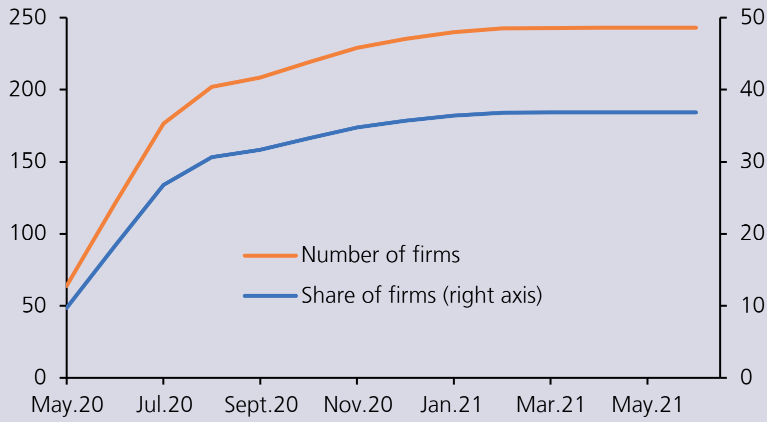
[1]/ The Fogape-Covid credit program was complemented with the Central Bank of Chile's FCIC program with regulatory flexibilization, which eased access to credit.

[2]/ The results presented herein summarize the evidence found by Albagli et al. (2021).

[3]/ The Fogape-Covid program provided state collaterals for credits to firms with up to one million UF in annual sales. Loans ranged between 5,000 UF for small enterprises and a top of 250,000 UF for big ones. The program guaranteed between 60% and 85% of the amount of each loan, depending on the size of the firm. The interest rate for Fogape-Covid-guaranteed loans was equal to the MPR plus three percentage points.

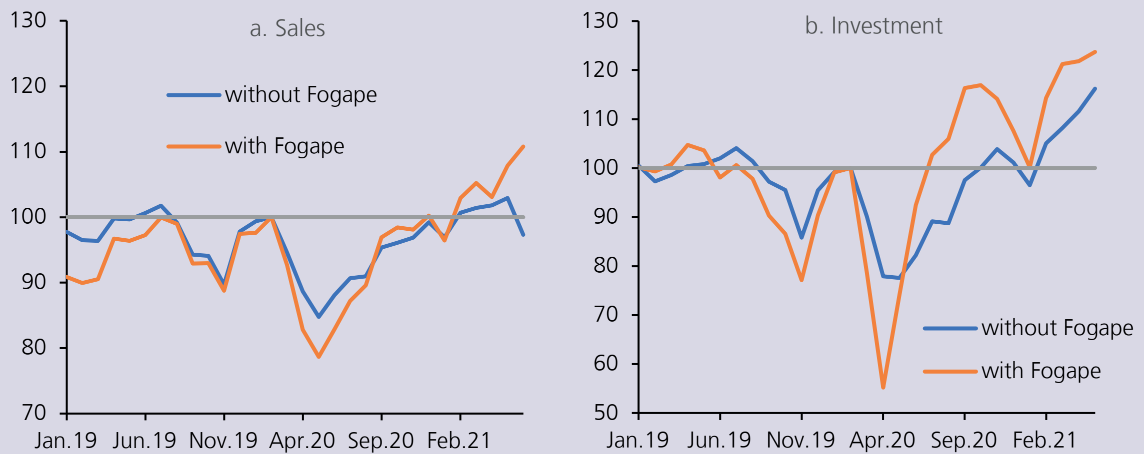
[4]/ See the forthcoming supplement "Financial Intermediation and Central Banking in Chile" and the Financial Stability Report for the second half of 2021 (chapter 2).

FIGURE II.11 FIRM ACCESS TO FOGAPE-COVID LOANS (*)
(thousands; percentage)



(*) Cumulative number and proportion of firms that obtained at least one Fogape-Covid credit. The proportion is calculated with respect to the number of firms that reported positive sales in February 2020.
Source: Albagli et al. (2021).

FIGURE II.12 PERFORMANCE OF FIRMS WITH ACCESS TO FOGAPE-COVID LOANS (*)
(index Feb.20 = 100, seasonally-adjusted series)



(*) Total sales and investment of firms that never took a Fogape-Covid credit and those that did take a Fogape-Covid credit at some point.
Source: Albagli et al. (2021).

The data shows that the firms that received a Fogape-Covid loan were those that saw their sales fall more compared with those that did not (figure II.12). Also, their sales recovered faster[5]/. Investment showed a qualitatively similar behavior, with firms that received a Fogape-Covid loan showing a more pronounced fall and rebound than those that did not access the policy (figure II.12).

The evidence also shows that firms that accessed the Fogape-Covid program at the start of Covid were less likely to stop reporting sales in the following months, and more likely to resume reporting if they had stopped after the onset of the pandemic (September 2020 Report and updates in Albagli et.al, 2021). This is indicative of the effectiveness of the program in reaching the businesses facing the greatest difficulties and its ability to support them in their recovery during the reopening of the economy. To a large extent, this is explained by the intermediary role of the banks, which used their knowledge of their clients to channel the loans[6]/.

Employment Protection Law (EPL)[7]/

As of December 2020, around 120,000 companies had at least one worker under the EPL. Most of the companies that accessed the EPL did so in the first three months of the policy's operation (figure II.13). As with the Fogape-Covid loans, micro and small enterprises used it in the greatest number. Among the firms that accessed the policy, an average of between 60% and 80% of the payroll was covered by the policy at different times. In aggregate terms, the number of labor relations under the LPE is substantial, accumulating more than 800 thousand as of December 2020, which represents around 15% of the labor relations registered in the Unemployment Insurance base, and around 10% of the total employment estimated by the INE's National Employment Survey[8]/.

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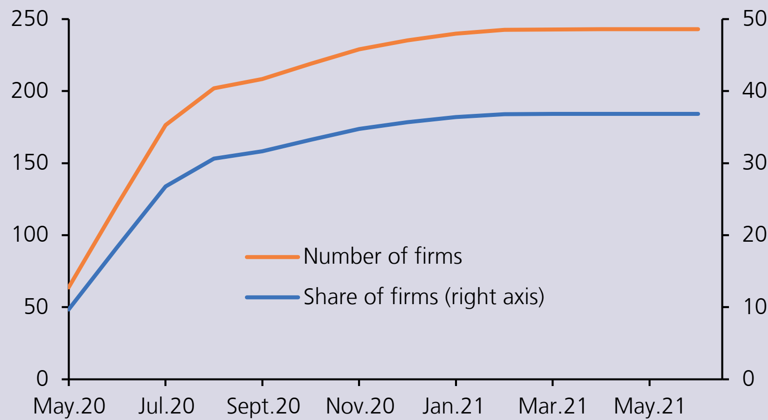
[5]/ This was also documented in the Financial Stability Report for the second half of 2020 (box II.1).

[6]/ The forthcoming supplement "Financial Intermediation and Central Banking in Chile" shows that aspects such as the duration and concentration of bank-firm relationships were important factors in the allocation of credit during the Covid-19 crisis.

[7]/ The EPL allowed workers contributing to the Unemployment Insurance to have access to the benefits of the Insurance without the need to terminate their contract. The specific requirements regarding the number of contributions varied according to the type of EPL benefit; for example, whether it was a suspension of contract or a reduction in working hours. In order to take workers under the EPL, companies were obliged to continue paying their social security and health care contributions.

[8]/ Labor relations under the EPL and total labor relations in the Unemployment Insurance base exclude household help. The total number of labor relations in the Unemployment Insurance base in December 2020 was 5,114,887 persons. For the October-December 2020 moving quarter, the INE reported slightly more than 8 million employed. This total does include household help, so the estimate that labor relations under EPL in this analysis represents about 10% of the employed in the economy is a slight underestimation.

FIGURE II.13 FIRM ACCESS TO EMPLOYMENT PROTECTION LAW (EPL) (*)
(thousands; percentage)



(*) Cumulative number and proportion of firms that applied to the EPL. The proportion is calculated with respect to the number of firms at reported positive sales in February 2020 and had al least one worker.
Source: Albagli et al. (2021).

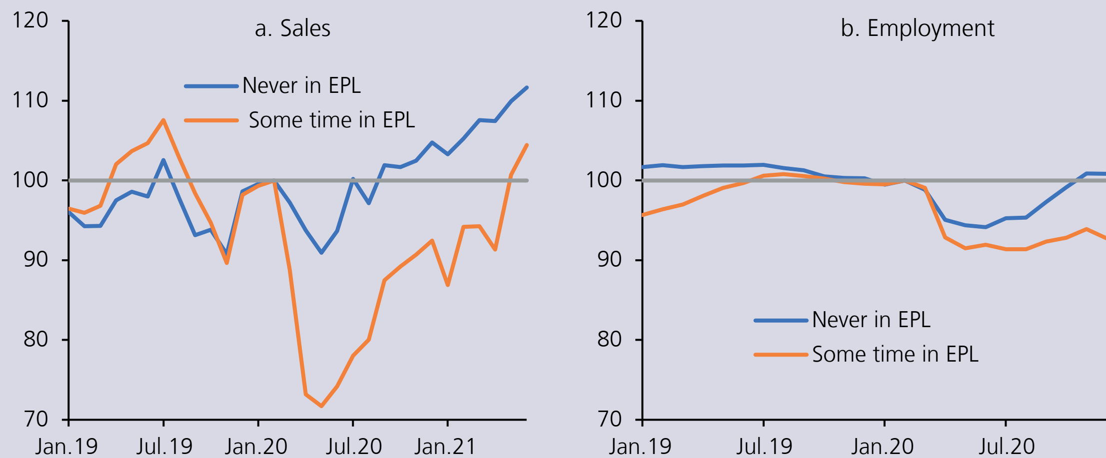
Figure II.14 illustrates the sales and employment performance of firms that accessed the EPL. Panel (a) shows that those that benefited from the EPL had experienced a substantially larger drop in sales than those that did not. At the point of greatest impact of the crisis, the drop in sales of those firms that availed themselves of EPL was three times stronger than that of those that did not. Panel (b) shows a much smaller difference in total employment performance for firms that accessed the policy relative to those that did not, suggesting that the EPL contributed significantly to mitigating the impact of the crisis on employment[9]/.

The evidence also indicates that, of the labor relationships that availed themselves of the EPL between March and May 2020, more than 75% were still active within the firm in December of that year, with more than 50% having left the EPL, i.e., with workers reintegrated back into their jobs. This retention is similar to that observed in the same period of months in a normal year, reinforcing the conclusion that the EPL helped mitigate the impact of the crisis[10]/.

[9]/ Workers under the EPL are considered employed.

[10]/ Albagli et al. (2021) document that there was complementarity between the policies as 21% of the companies accessed both, while 54% accessed only Fogape-Covid and 25% accessed only the EPL. See also the Financial Stability Report for the second half of 2021.

FIGURE II.14 PERFORMANCE OF FIRMS WITH ACCESS EMPLOYMENT PROTECTION LAW (EPL) (*)
(index Feb. 20 = 100, seasonally-adjusted series)



(*) Total sales and employment of firms where no worker benefited from the EPL, and of firms where at least one worker did at some point in time.
Source: Albagli et al. (2021).

Finally, more formal evaluations of the effect of the EPL also find that access to the policy in the first few months is associated, all else constant, with a smaller fall in employment at the firms (Albagli et al., 2021)[11]/.

Conclusion

At least two of the policies deployed to respond to the Covid-19 crisis were business-oriented: the Fogape-Covid program and the Employment Protection Law. Based on anonymized microdata, this box documents that: (1) there was widespread access to these programs, with significant participation of micro and small firms; (2) the available evidence suggests that both policies contributed to significantly mitigate the adverse effects of the crisis on the situation of firms and their ability to retain employment.

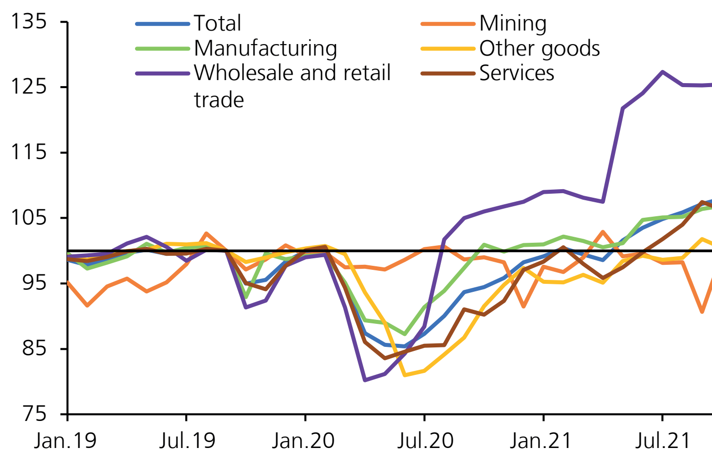
[11]/ Para evaluar el impacto de la LPE en el empleo de las empresas, Albagli *et al.* (2021) controlan por características de las empresas como tamaño, sector económico, edad, y comuna.

III. ACTIVITY AND DEMAND

The economy has continued to show significant dynamism, particularly in private-consumption-related areas. On the demand side, this has been reflected in a strong expansion of spending on tradable goods, with durable consumption growing exceptionally fast and imports of machinery and equipment also remaining dynamic for several quarters. At the same time, the lifting of sanitary restrictions has contributed to a significant increase in the consumption of services and non-durable goods. Investment in construction and other works shows a recent recovery, associated with the reactivation of several projects, especially in the mining sector. In the labor market, the increase in demand for labor continues to be constrained by still weak supply, marked by the participation rate that has not yet recovered and a low number of job applications. On the other hand, sustained uncertainty, rising inflation and worsening financial conditions have deteriorated consumer and business expectations in recent months, which, among other facts, is reflected in the lower dynamism foreseen for investment in the coming year.

In the third quarter, the economy continued to show strong dynamism, with an ongoing impulse especially in all the lines that rely on private consumption. Discounting seasonality, in the third quarter GDP expanded 4.9% with respect to the previous quarter (1.6% in the second quarter), posting an annual variation of 17.2% in the original series. The greater speed of expansion of activity has been seen in a context in which progress in the handling of the pandemic has allowed for a significant increase in mobility, and the end of quarantines and the curfew. In fact, the easing of restrictions has made it possible to resume a greater dynamism in the activity of an important group of services, particularly personal health services and leisure activities. At the same time, wholesale and retail trade has sustained a strong expansion, with activity levels —seasonally adjusted— that continue to outpace their mid-2019 numbers by close to 25% (figure III.1).

FIGURE III.1 IMACEC
(index, September 2019 = 100, seasonally adjusted)

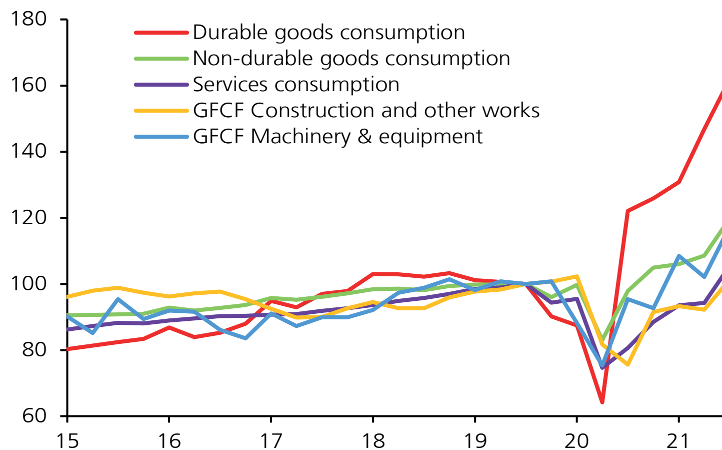


Source: Central Bank of Chile.

Partial fourth-quarter data show some moderation, though annual growth rates continue to be very high. In October, the Imacec showed an annual increase of 15%, and in seasonally-adjusted terms a monthly growth of 0.8%, with a drop of 0.2% in the non-mining Imacec. The December Economic Expectations Survey (EES) forecasts annual growth of 12.1% for November 2021.

Regarding domestic demand, spending related to private consumption continues to be particularly high, well above historical averages. The behavior of durable goods consumption stands out, as it has accumulated several quarters of expansion at very significant rates, reaching a level —adjusted for seasonality— that exceeds by more than 60% the one recorded two years ago (figure III.2). Consumption of non-durable goods and services rose significantly in the third quarter, favored by the regained mobility and adjustments to the Step-by-Step plan. Incoming data reflect the persistent dynamism of private consumption, with high annual growth rates in the Retail Trade Activity Index (22.7% in October) and in new car sales (32.2% in November) (ANAC), among others. In addition, the digital bill data show that retail trade remained strongly dynamic in November.

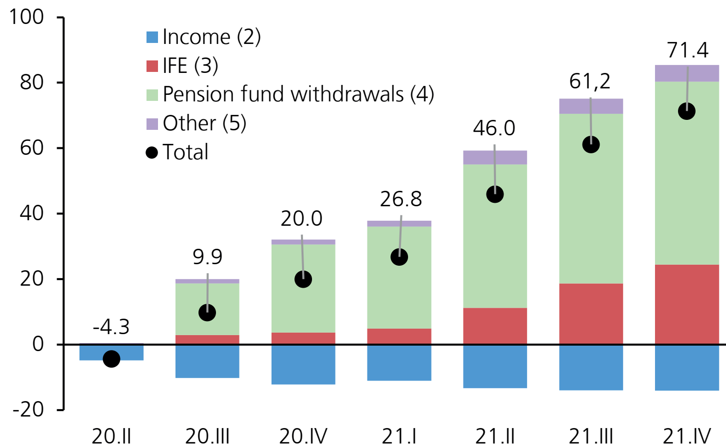
FIGURE III.2 DOMESTIC DEMAND
(index, 3Q2019 = 100, seasonally adjusted)



Source: Central Bank of Chile.

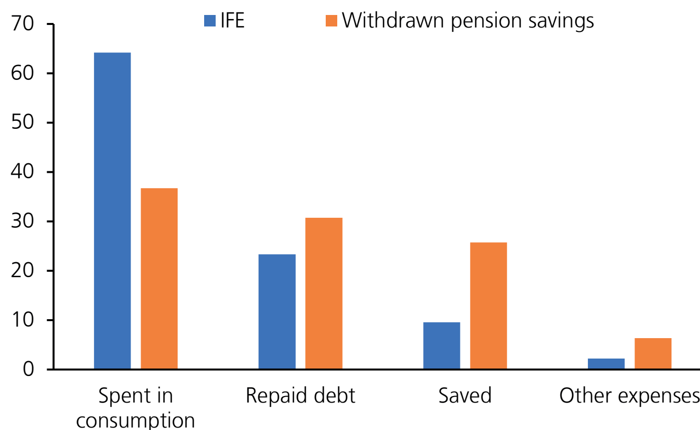
The abundance of liquidity held by households continues to be the main factor driving consumption behavior. The sum of the different sources of household liquidity —including regular income plus the resources provided by the State and pension fund withdrawals— yields cumulative resources of close to 71 billion dollars between 2020 and 2021, equivalent to 28% of last year's GDP (figure III.3). Consistently, at the end of November of this year, the current and demand account balances of individuals had doubled with respect to their January 2020 levels, an increase of close to US$ 19 billion (figure II.8, chapter II). The Employment and Unemployment Survey (EOD) in Greater Santiago shows that around two thirds of those who receive the Emergency Family Income (IFE) and one third of those who have withdrawn part of their pension savings devote these resources mainly to consumption (figure III.4). Moreover, these proportions increase for the lowest income quintiles. **In** any case, the same study shows that a significant part of the funds is either saved or used to reduce debts. In fact, from early 2020 to October 2021, the balances of the AFP voluntary savings accounts and term savings accounts also doubled, with an increase of roughly 10 billion dollars. Also, according to the CMF, Suseso, and the Superintendency of Pensions, between the first quarter of 2020 and the second quarter of this year, the non-mortgage debt of households had been reduced by more than US$ 6 billion.

FIGURE III.3 CUMULATIVE HOUSEHOLD INCOME AND LIQUIDITY INJECTIONS (1)
(billions of dollars)



(1) Estimates of household liquidity growth and support measures from 21.III to 21.IV are based on projections consistent with the central scenario of this Report. (2) Sum between labor income and other income (production and property income consistent with CNSI households and IPSFL). Quarterly values are differences with respect to same quarters of 2019. (3) IFE has grown in amounts and coverage, from over 6 million average beneficiaries from May 2020 to March 2021 to over 16.5 million in October 2021. Per capita amounts have increased from $US 70 initially to $US 200 in October 2021. By November, expansion of IFE Universal (US$ 3.2 billion) will be added. (4) Pension savings withdrawals are amounts paid according to SP statistical files as of 10-22-2021. The 21.III to 21.IV figures weight the difference between total estimated amounts to be withdrawn and amounts actually paid as of 10-22-2021. (5) Others refers to Covid-19 bonus, middle-class bonus, 3rd pension-fund withdrawal bonus, additional use of unemployment insurance, and workers' IFE.
Sources: Finance Ministry, Superintendency of Pensions, and Central Bank of Chile.

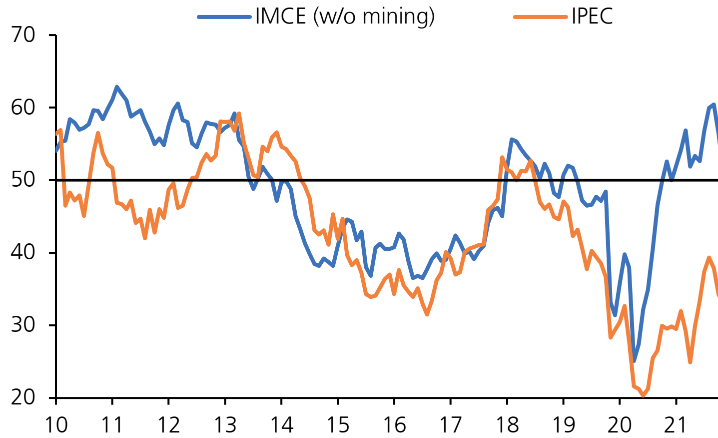
FIGURE III.4 MAIN USE OF IFE AND PENSION FUND WITHDRAWALS (1) (2)
(percent of total beneficiaries)



(1) Responses to questions: "How have you spent, or how do you plan to spend most of your IFE amount?" and "How have you spent, or do you plant to spend most of your withdrawn pension savings? (2) Other expenses include: investments, inputs to develop enterprises, transfers to family members, payment of rents or mortgage installments, and education, among others.
Source: Employment and Unemployment Survey in Greater Santiago , University of Chile.

All this is occurring in the midst of an environment of greater pessimism among consumers. Thus, between September and November, every indicator in the Consumer Confidence Index (IPEC) deteriorated, especially those related to the country's inflation and future economic conditions (figure III.5).

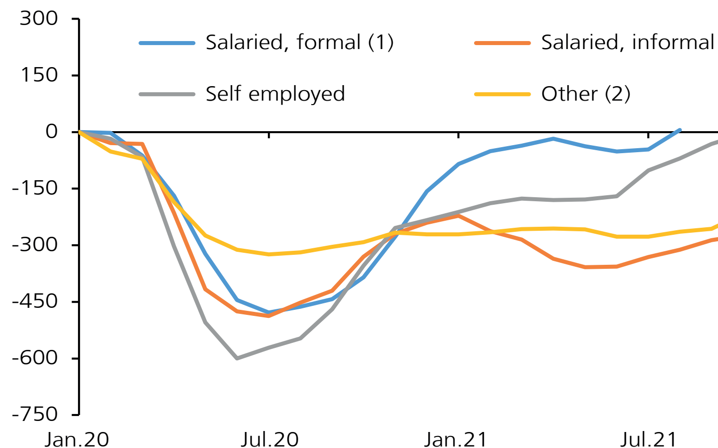
FIGURE III.5 BUSINESS AND CONSUMER CONFIDENCE (*)
(diffusion index)



(*) Value above (below) 50 indicates optimism (pessimism).
Sources: UAI/Icare and Gfk/Adimark.

This behavior of consumption has taken place while the jobs lost during the pandemic have been recovering steadily, and demand for labor by companies are showing significant dynamism. On the one hand, Internet job posting data continues to exceed its historical averages and companies continue to foresee an increase in hiring in the next three months (IMCE). Thus, the different sources of information show that formal salaried employment is still on the rise. Also, the informal salaried and self-employed categories have continued to improve. The latter, which in the moving quarter ending in October had already returned to its early 2020 level stands out (figure III.6). In any case, according to INE data, the recovery of employment continues to be heterogeneous across sectors. Thus, while construction has surpassed the number of jobs prior to the pandemic, commerce —while dynamic— is lagging behind somewhat, as are other sectors.

FIGURE III.6 EMPLOYMENT BY OCCUPATION CATEGORY
(difference in thousands of persons with respect to January 2020, seasonally adjusted)



(1) Estimated using Pension Funds data. (2) Sum of household help, employers, and unpaid family work.
Sources: National Statistics Institute and Superintendency of Pensions.

In any case, the weak labor supply on the part of individuals is holding back the recovery of employment, in a context of high labor demand. Data from the Sence Labor Observatory reflect a sustained increase in the number of vacancies available since April of this year, while applications show no clear signs of recovery (figure III.7). Respondents to the November Business Perceptions Report (IPN) reported that this phenomenon is occurring in a wide range of sectors —commerce, industry, agriculture, mining, and services, among others—, especially in lower-skilled occupations. In this scenario, according to INE data, despite some recovery in recent months, inactivity remains high (around one million more people than in January 2020) and the willingness to work more hours is at record lows. In any case, the labor participation rate has narrowed the gap with respect to its pre-pandemic level, especially in the group of men 25 to 54 years of age. However, women and other age brackets are lagging behind (figure III.8). All in all, it is important to note that this phenomenon of low labor supply is common to several other economies (chapter I).

FIGURE III.7 JOB POSTINGS AND APPLICATIONS ON THE INTERNET (*)
(index, 3/3/20 = 100, moving 15-day average)

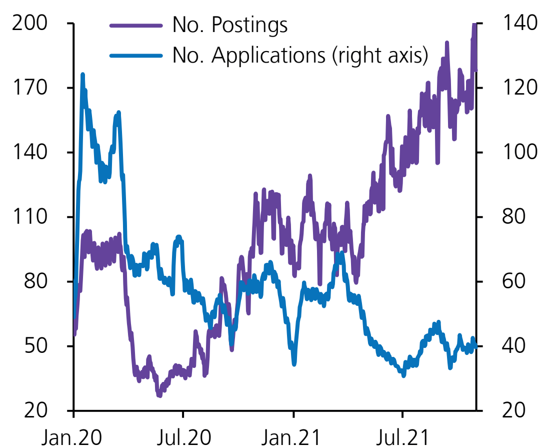
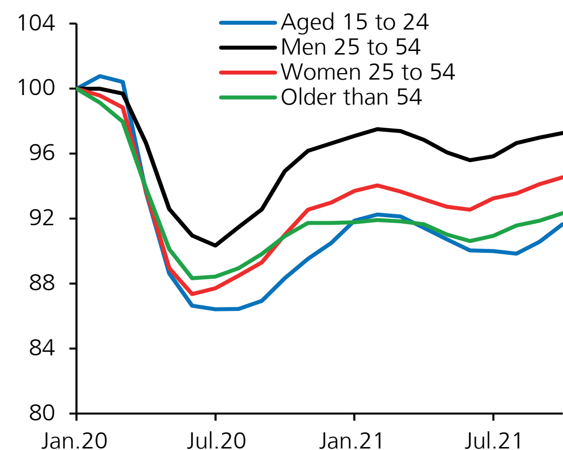


FIGURE III.8 PARTICIPATION RATE BY AGE BRACKET
(index, January 2020 = 100)



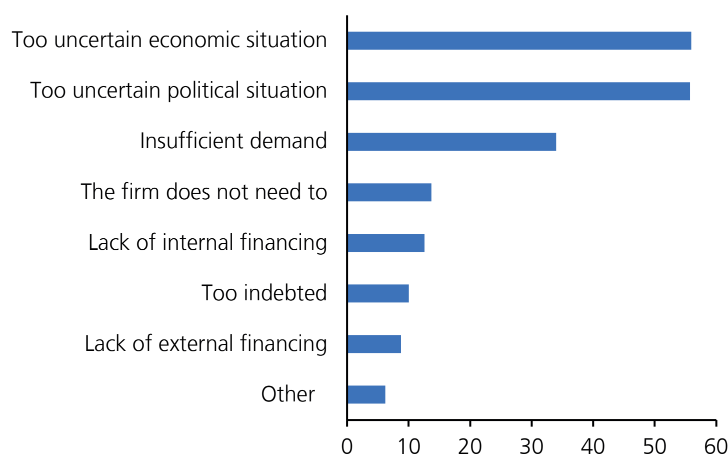
(*) Information from the System of Analysis of Employment Boards, of the Sence Labor Observatory. Indexes constructed using information from trabajando.com and laborum.cl with nationwide coverage. The number of postings is number of ads published by firms, and the number of applications is the number of total applications made by applicants. Last data available as of 31 October.
Sources: System of Analysis of Employment Boards, SENCE Labor Observatory and National Statistics Institute.

The mismatch between labor supply and demand is putting upward pressure on wages. INE data indicate that in October the annual variations of the cost of labor (CMO) and the remuneration index (IR), in nominal terms, were 6.0% and 5.9%, respectively, around their highest levels in the last five years. Data from the Unemployment Insurance Administrator (AFC) support these trends and also show that, between May and August, a significant part of the increase in wages went to the two lowest quintiles. Furthermore, in the November IPN, companies report wage increases and new increases ahead, which are also reflected in the IMCE.

Investment continued to recover in the third quarter, with significant dynamism in all its components (figure III.2). In construction and other works, the reactivation of building projects and mining-related engineering works played a key role. In fact, sales of construction materials (INE) up to October remained strong and well above their historical evolution. Moreover, according to the third-quarter survey of the of Capital Goods Corporation total investment in 2021 is among the highest in the last five years. The machinery and equipment component continued to show significant dynamism, supported by investment in industrial machinery and freight vehicles. Consistently, capital imports have continued to rise and in October were at their highest in almost ten years.

However, the outlook for investment in the coming year has weakened, with high uncertainty and the associated deterioration in financial conditions, particularly the increase in long-term interest rates, playing a big part. Uncertainty is still high, which is reflected in various figures, including the local political and economic uncertainty indicator (Depuc) and the relapse in expectations about the country's global situation in the IMCE. Rampant uncertainty has led to a deterioration in financial conditions (chapter II and box V.1), including the sharp depreciation of the peso, low stock-market yields compared to other countries, and the steep rise in long-term interest rates. Added to the limited prospects for expansion of the local economy for the next two years, this scenario anticipates a less dynamic performance of investment, reflected in a GFCF contraction in 2022 and zero growth in 2023, according to the central scenario of this report (chapter V). Actually, according to the CBC survey, given the low total inflow of initiatives so far this year, investment in large-scale projects in 2022 would be 17% less than the amount invested in 2021. In line with this, the November IPN reports that more than two-thirds of respondents believe that their company will not make investments during 2022 —in January it was less than half—, and give as the main reason the high political/economic uncertainty (figure III.9), while business confidence in construction took a significant pessimistic turn in November.

FIGURE III.9 WHY DO YOU THINK YOUR FIRM WILL MAKE NO INVESTMENT DURING 2022?
(percent)



Source: Business Perceptions Survey, November 2021.

Public spending has continued to grow, in a context of important fiscal impulses. The Dipres Public Finance Report (IFP) for the third quarter forecasts a 32.1% real annual increase in fiscal spending in 2021, exceeding the 27.3% estimated by the Dipres the quarter before. Thus, the effective deficit for this year would be close to 8.3% (forecast at 7.1% in the second quarter IFP). However, the budget approved in November shows a significant contraction in fiscal spending by 2022, close to 19% in nominal terms.

The substantial increase in the demand for imported goods has resulted in a rapid deterioration of the current-account balance. In the third quarter, the value of goods imports rose by 67.2% annually, influenced by the strong expansion of consumer and intermediate goods (81.1% and 73.9% annually, respectively). In addition, the recovery in services imports (60.2% annually), due to maritime freight services, business services and increased tourism abroad, is also worth noting. These increases far exceeded the increase in the value of exports, so that the cumulative current-account balance posted a deficit of 3.5% of GDP in the last moving year (1.1% in the previous quarter). This is an unequivocal reflection of excess domestic demand. Thus, the strong increase in national income in 2021 —thanks to the cyclical recovery and the increase in the copper price— has been more than offset by private and public consumption, thus depressing national savings.

IV. PRICES AND COSTS

Inflation has continued to rise, and stood at 6.7% in November. Although a significant part of this increase came from volatile prices (10.5% annually at November), annual core price inflation has also increased significantly (4.7% in November), bringing it close to its six-year record. The main cause behind the accelerated price increases are local factors. On the one hand, the strong dynamism of activity and domestic demand, particularly private consumption, which drove the activity gap positive in the third quarter. On the other, a significant depreciation of the peso, which has responded to mainly domestic factors. All this in a scenario of world supply that has been unable to fully recover from the effects of the pandemic and with costs on an upward trend. The sum of all these elements, plus the impact of the usual indexation processes, will cause inflation to remain near 7.0% for several months to come. Actually, together with the increase in inflation, private expectations have risen considerably. In the central scenario, inflation's convergence to the 3% target will begin only in the second half of 2022. Fundamental in this process will be the reduction in inflationary pressures once the economy resumes a growth pace more in line with its potential capacity. Macroeconomic policy adjustment will be crucial in this result. The central scenario assumes that fiscal policy will be applied in accordance with the budget approved for 2022, and that the monetary policy rate will remain above its neutral level for several quarters.

RECENT EVOLUTION OF INFLATION AND COSTS

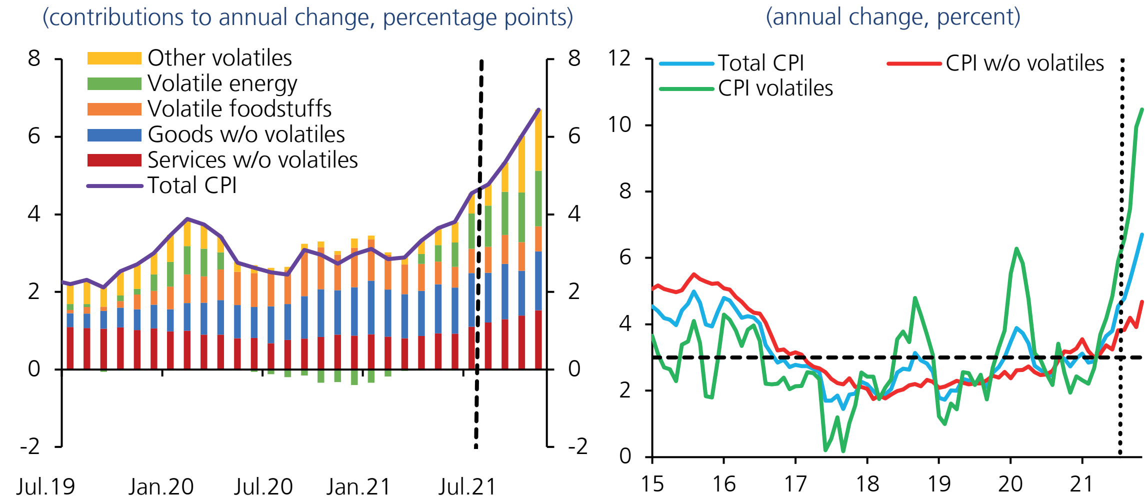
Annual CPI inflation continued to rise in recent months, up to 6.7% in November this year (3% in December 2020), with increases in most of its components. Core CPI —which excludes volatile prices—, rose to 4.7% annually in November and is at its peak of six years, driven mostly by the prices of goods and services. The volatile CPI showed widespread increases, particularly in fuels, foodstuffs, and two items that posted atypical increases, namely tourist packages and air fares. Hence, the annual variation of this component of the CPI rose to 10.5% in November (figure IV.1).

Chile stands out as one of the countries where inflation has risen the most this year, which coincides with the fact that it is one of the economies with the greatest increase in private consumption (box IV.1). In the third quarter, activity had an annualized quarterly increase —seasonally adjusted— of around 20%, which led to the activity gap not only closing, but also to the economy operating well above its short-term capacity. The dynamism of spending, especially in private consumption, has occurred in a context in which the economy has accumulated substantial levels of liquidity and in which progress in the handling of the pandemic has led to a significant increase in mobility, the lifting of quarantines and the end of the curfew.

The easing of restrictions, coupled with abundant household liquidity, has boosted the activity of an important set of services, which at the same time have shown significant increases in their prices. Of particular note is the increase in the prices of non-volatile services, a category that rose across the board and which includes businesses related to restaurants and hotels, automobile and home repair services, and payment of fees, among others[1]/. It should be noted that several administered prices and utility rates have not been subject to increases in accordance with their usual inflation-adjustment rules for several quarters. In fact, when these items are excluded from non-volatile services inflation, their annual rate of change is much higher (figure IV.2).

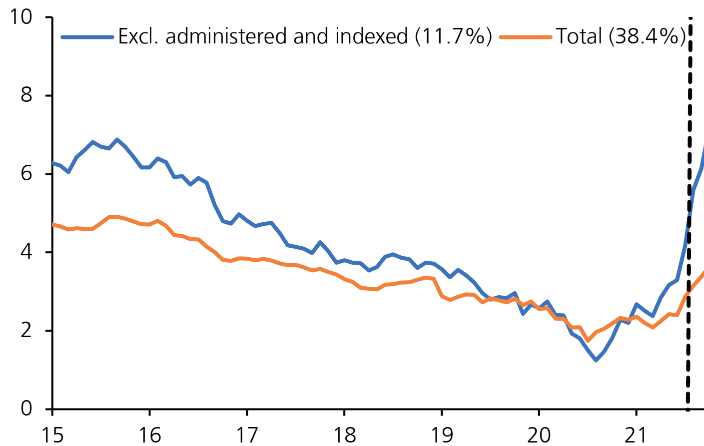
[1]/ The progress of the vaccination process and the improved sanitary situation have allowed services to sustain a greater operational continuity, leading to a reduction in price imputation as reported by the National Statistics Institute (INE).

FIGURE IV.1 INFLATION INDICATORS (1) (2)



(1) Dashed vertical line marks statistical closing of September 2021 MP Report.
(2) For more detail on the different groupings and their share in the total CPI basket, see box IV.1 in December 2019 MP Report, Carlomagno and Sansone (2019) y Economic Glossary.
Sources: Central Bank of Chile and National Statistics Institute.

FIGURE IV.2 SERVICES CPI WITHOUT VOLATILES (*)
(annual change, percent)



(*) Dashed vertical line marks statistical close of September 2021 MP Report. In parentheses, share in total CPI basket.
Sources: Central Bank of Chile and National Statistics Institute.

Another important element in the evolution of inflation, which also has a local origin, is the pass-through to prices of a significant depreciation of the peso, which has responded to idiosyncratic factors. For several quarters now, the high uncertainty and the greater perception of risk regarding the Chilean economy have reduced the appetite for local assets, leading to said peso depreciation, despite the high copper price and the higher interest rate differential. Thus, the peso/dollar parity accumulated an increase of almost 18% during the year, where a large part responds to local factors. Furthermore, the pass-through to final prices of an idiosyncratic depreciation is greater than that of an average depreciation[2]/ (figure II.4).

In this context, annual core goods inflation has risen steadily for several quarters. The rise in the prices of some imported goods such as automobiles and some housing equipment stands out (figure IV.3), amid the prolonged global production and transportation difficulties and a perception that current demand is still high. In fact, stock levels continue to be rated as insufficient (IMCE), despite the 71.4% annual growth in imports of consumer goods as of November. In any case, there are differences among the different items that make up the basket of goods, as some of them have shown a somewhat more stable dynamic.

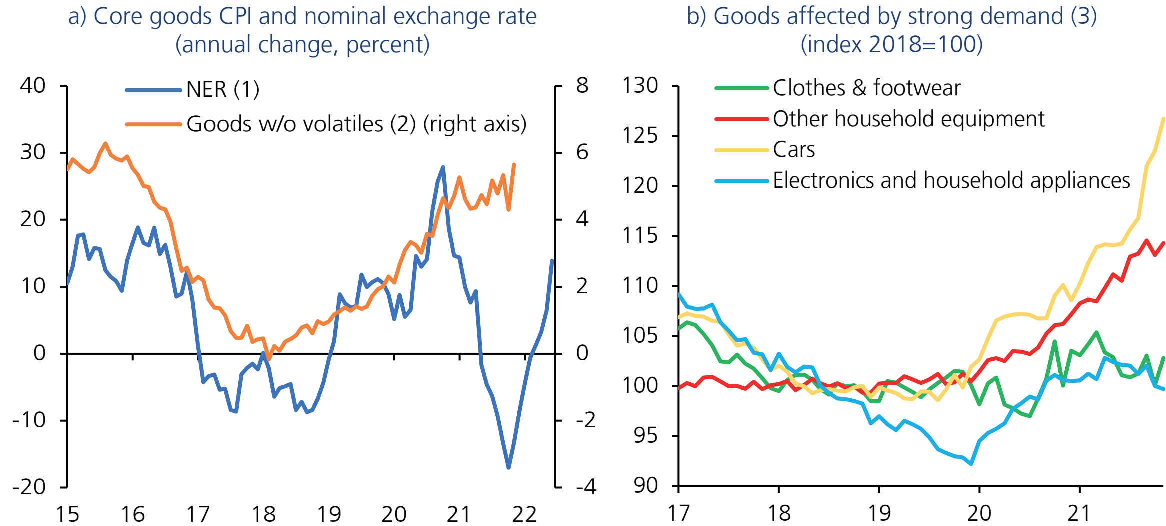
The cost pressures affecting businesses have increased and have become more widespread. Internationally, logistic problems and high transportation costs have persisted, especially maritime shipments from China. Added to this is the increase in commodity prices. Qualitative information published by other central banks reports higher cost pressures caused by transportation and labor constraints, as well as shortages of raw materials[3]/. Locally, nominal wages (ICMO and IR, published by the INE) continued to grow at around 6% annually, close to the five-year high, amid the rise in the transportation costs and producer price indexes for manufacturing industries (INE). The Business Perceptions Report (IPN) also shows the persistent pressure on costs that businesses have faced this year (figure IV.4a).

The sharp increase in demand has exacerbated bottlenecks in global and local input and output supply chains. Waiting times (PMI) persist at record highs (figure I.3). Qualitative information included in the IPN shows that companies even expect less availability of raw materials, inputs, or inventories in the future. Moreover, the persistence of bottlenecks has been increasing uncertainty as to when such situations will be normalized (figure IV.4).

[2]/ Box IV.1 of the March 2018 MP Report estimated that the average pass-through coefficient of the nominal exchange rate to inflation is between 0.1 and 0.2 after one year. In addition, it was estimated that a 10% increase in the nominal exchange rate is associated, one year later, with an increase in inflation of 0.5% when originated by a multilateral shock to international prices, and of 2.6% when it responds to an idiosyncratic shock to the interest rate parity.

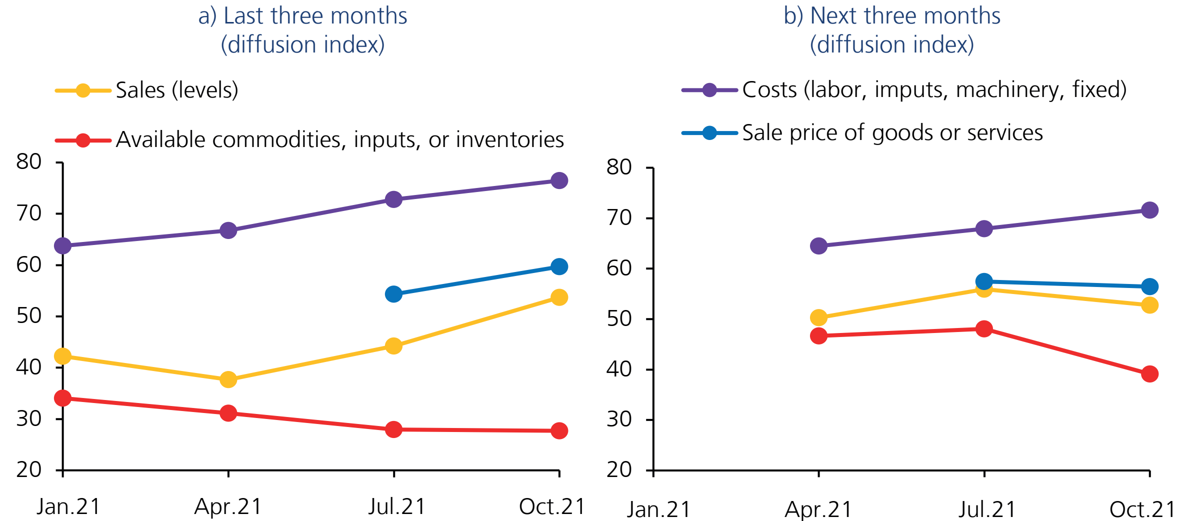
[3]/ See *Agents' Summary of Business Conditions* of the Bank of England, *The Beige Book* of the U.S. Federal Reserve, *Regional Network Report* of the Bankf of Norway, and the *Business Leaders Survey* of the New York Federal Reserve.

FIGURE IV.3



(1) Lagged six months. December 2021, considers information up to the statistical close.
(2) Accounts for 26.7% of CPI basket.
(3) Shows evolution of CPI sub-indexes of respective categories.
Sources: Central Bank of Chile and National Statistics Institute.

FIGURE IV.4 IPN: EVOLUTION OF BUSINESS FACTORS (*)

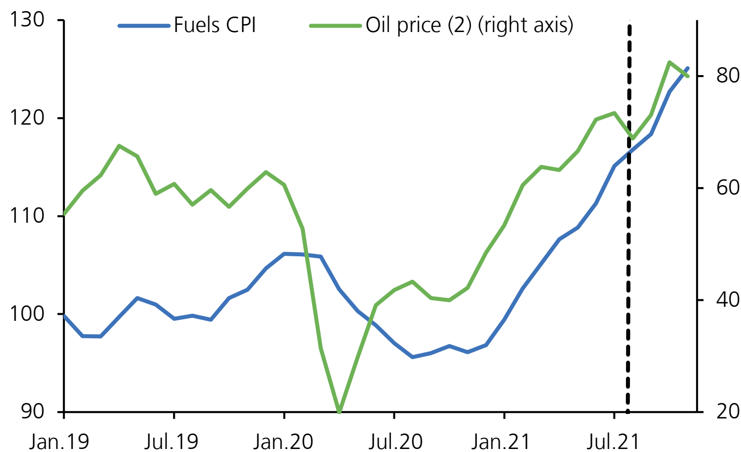


(*) Value above (below) 50 represents a bigger proportion of "increase" ("decrease") answers. Includes weight by firm size.
Source: Business Perceptions Report (IPN).

The increase in fuel prices has also driven inflation (figure IV.5). The CPI for fuels rose by 8.7% with respect to the end of September, accumulating an increase of 29.2% during the year. With this, plus the depreciation of the peso, the annual variation of the energy CPI exceeded 20% in November.

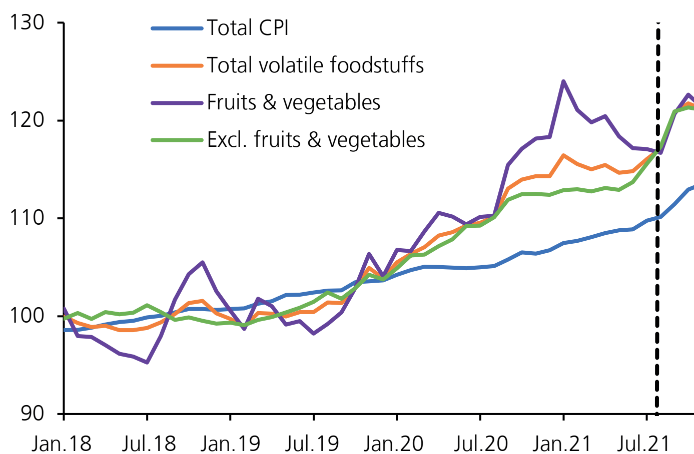
Food prices have also risen, amid international indexes that sustain high annual growth rates not seen since 2011. The annual variation of the CPI of volatile foods reached 6.0% in November, with meat, beef jerky and tomatoes leading the way in recent months (figure IV.6). Likewise, in November, the food price index (FAO) expanded 27.3% annually (28.7% on average during 2021). In the last few months, this has been mainly due to the increase in the prices of vegetable oils, cereals and dairy products, influenced by their reduced availability in international markets and strong global demand.

FIGURE IV.5 FUELS CPI AND OIL PRICE (1)
(index, 2018 base=100; dollars per barrel)



(1) Dashed vertical line marks statistical closing of September 2021 MP Report.
(2) Brent-WTI average oil price.
Sources: Bloomberg and National Statistics Institute.

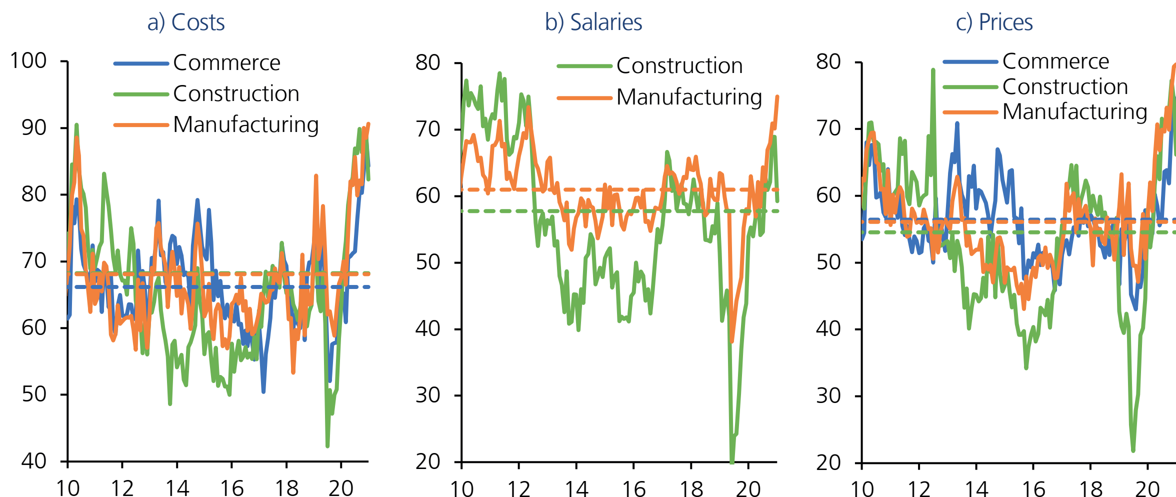
FIGURE IV.6 VOLATILE FOODSTUFFS CPI (*)
(index, 2018 base=100)



(*) Dashed vertical line marks ststitical closing of September 2021 MP Report.
Sources: Central Bank of Chile and National Statistics Institute.

The pass-through of higher costs to prices has become more frequent both in the country and abroad, exacerbated by the aforementioned supply difficulties and the strength of demand. According to different international sources of information, this has continued to translate into increases in the prices of imported goods and inflation during the last year, which could be prolonged for some time[3]/[4]/. The same is true locally. The consumer goods import price index increased 11.2% annually in the third quarter (8.2% annually in the previous quarter). A large portion of the companies surveyed in the November IPN reported that they had maintained or raised their prices in recent months, adjustments that were mostly not in line with the usual movements for that time of year. In addition, almost all of the firms noted that they would raise or maintain their selling prices, which also did not correspond to a usual adjustment for that time of year (figure IV.4b). Expectations for costs, wages and prices (IMCE) continued to rise in trade and industry, although all sectors remain above their historical averages (figure IV.7). Twelve-month consumer (IPEC) and firm (IMCE) inflation expectations are at their highest levels since 2008.

FIGURE IV.7 IMCE: EXPECTED COSTS, SALARIES, AND PRICES (1) (2) (3)
(diffusion index)



(1) Value above (below) 50 indicates expected expansion (contraction).
(2) Dashed horizontal lines show historical averages from January 2004 to November 2021 for each series.
(3) Expectations are six months ahead for wages and three months ahead for costs and prices.
Source: Icare/Universidad Adolfo Ibáñez.

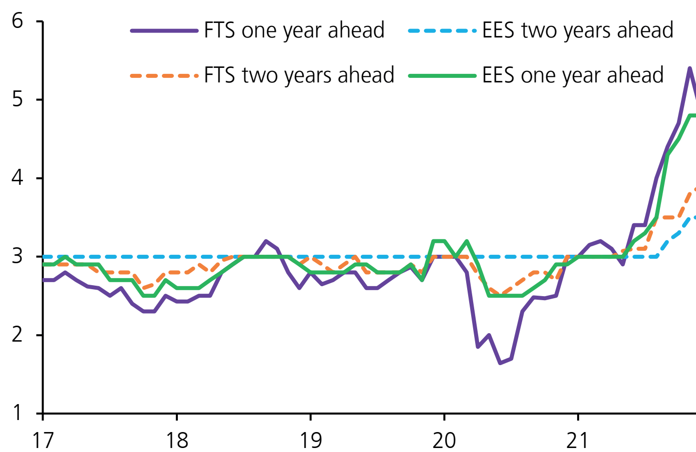
INFLATION OUTLOOK

The short-term inflationary outlook is again corrected upward in this Report, in response to higher-than-expected inflationary figures in recent months and the behavior of some prices and cost factors, such as the exchange rate. These elements are incorporated into the short-term projection, to which is added a higher projection for the exchange rate and fuel prices compared to the last Report. In the case of tourist packages and air fares, it is assumed that as of January 2022 they will begin to gradually undo the positive surprise they accumulated. This means that inflation will end this year at around 6.9% annually (+1.2pp with respect to the September forecast), and will remain in the vicinity for some more time, where the usual indexation mechanisms applied during the early months of each year will also have an impact.

[4]/ See *Box.1: The impact of commodity prices and shipping costs on inflation* (OECD Economic Outlook, Interim Report September 2021) y *Bottlenecks: causes and macroeconomic implications* (BIS - Bulletin N° 48).

Again, market expectations have risen significantly, with annual CPI inflation expected to end this year at close to 7%. In the one and two-year terms, the outlook has also increased, and although it foresees a moderation towards 2023, in the two-year term it remains above 3%. In fact, the December Economic Expectations Survey (EES), the Financial Brokers Survey (FBS) prior to the December Meeting and inflation hedging place it between 4.8 and 4.9% at twelve months (between 3.5 and 4.4% in the previous Report). In the two-year term, inflation compensations and surveys —EES and FTS— rose to figures between 3.5 and 4.2% (between 3.0 and 3.6% in the previous Report) (figure IV.8), to reach values around 3% in 35 months according to the EES.

FIGURE IV.8 INFLATION EXPECTATIONS IN SURVEYS (*)
(annual change, percent)



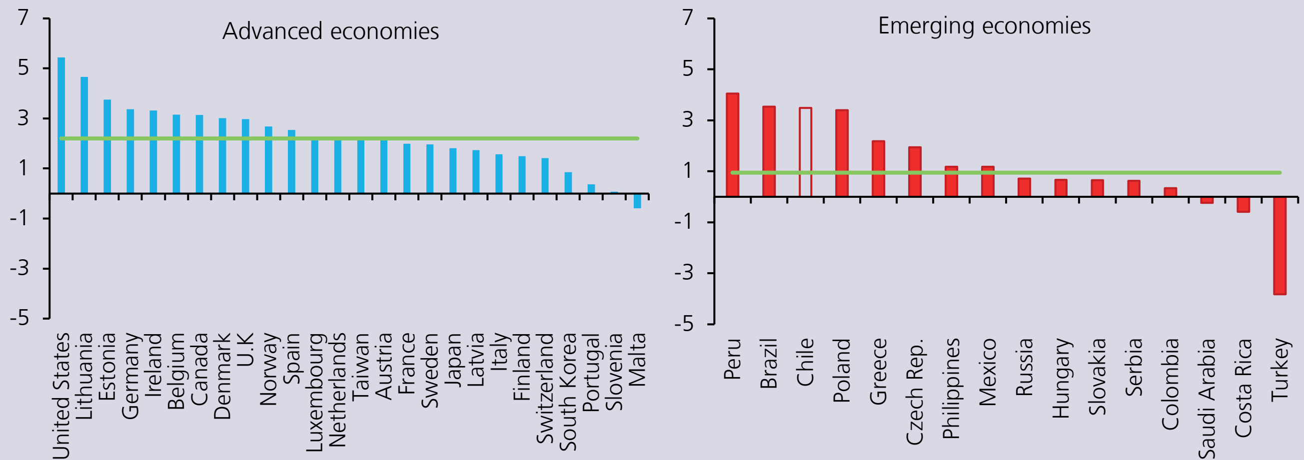
(*) The FTS considers the survey of the first two weeks of each month until January 2018. From February 2018 onwards, it considers the last survey published in the month, including the one prior to the December 2021 Meeting. In the months in which no survey is published, the latest available survey is used. The EES, meanwhile, considers the survey published in December 2021.
Source: Central Bank of Chile.

BOX IV.1:

Relevance of global and local factors in the recent evolution of inflation

In recent months, inflation has accelerated in most economies, with many of them surpassing the peaks of the aftermath of the 2008-2009 global financial crisis. This phenomenon owes both to global factors, which affect all countries, and country-specific ones. Among the former, the behavior of energy and food prices, stand out, as do the higher costs derived from the inability of the suppliers of some manufactured goods to respond to the higher demand. Within the latter, the intensity and form shown by aid policies during the pandemic play a major role, and explains much of the heterogeneity of the inflationary phenomenon across countries. This has been particularly intense in the U.S. among developed countries, and in Chile among emerging ones (figure IV.9).

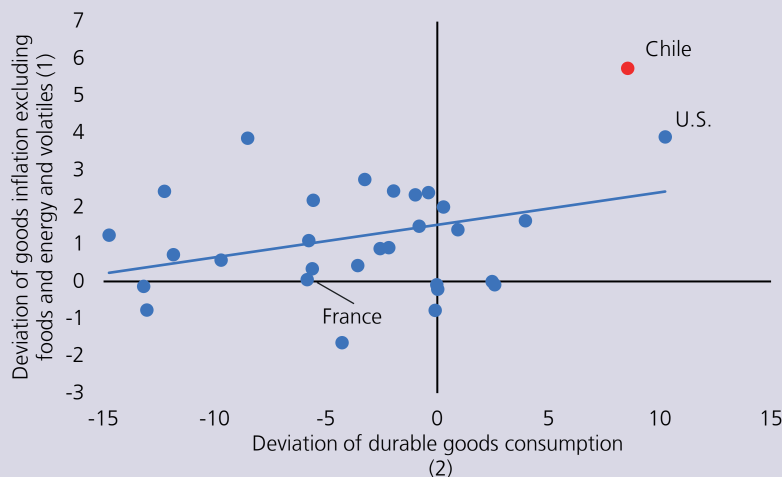
FIGURE IV.9 INFLATION IN A SAMPLE OF COUNTRIES (*)
(October 2021 figure with respect to 1998-2019 average, percentage points)



(*) Economies classified as advanced or emerging using definition of the IMF. The Philippines' inflation figure covers up to September. Green line shows group median.
Source: Bajraj, Carlomagno y Wlasiuk (2021).

The cross-country comparison suggests that local factors explain part of the difference in the observed inflation evolution during 2021. In particular, the magnitude of the increase in the prices of goods would be correlated with the increase in demand in each country. In a sample of 30 countries, this relationship is found to be non-linear, i.e., it would manifest itself more clearly in the case of higher increases in durable consumption (figure IV.10)[1]/. A more formal statistical analysis, done with the methodology of Bajraj, Carlomagno y Wlasiuk (2021), finds that global and local factors have played different roles in the evolution of inflation in different countries. In these results, the local factor has had a considerable weight in the increase of non-volatile inflation in Chile and the U.S., while in other countries, such as France, global or common factors among economies have mattered more (figure IV.11)[2]/. It is important to note that although the contribution of the global factor is relevant for most economies, this does not mean that in these countries the origin of inflation is completely imported, but rather that it has been caused by a factor that is common to several economies worldwide, such as the relatively synchronized opening up of economies.

FIGURE IV.10 GOODS INFLATION W/O VOLATILES AND CONSUMPTION OF DURABLES
(average increase in 2019-2021 with respect to 1998-2021 average, percentage)



(1) Uses methodology and database presented in Bajraj, Carlomagno, and Wlasiuk (2021). The axis shows the deviation of annual price growth between the third quarters of 2019 and of 2021 from average annual growth between 1998 and 2021. (2) Figures from OECD data library, DANE, Central Bank of Chile, and Bloomberg are used for durable goods consumption. The axis shows deviation of annual consumption growth between first halves of 2019 and of 2021 from average annual growth between 1998 and 2021.
Source: Central Bank of Chile.

[1]/ Adrian y Gopinath (2021) find a positive correlation between post-pandemic inflation and the velocity of the recovery of economic activity.

[2]/ In the case of Germany, the contribution of local factors at the end of the sample reflects the downward reversal of VAT implemented early on in the pandemic.

FIGURE IV.11 DECOMPOSITION OF ANNUAL VARIATION OF THE CPI W/O VOLATILES (*)
(percentage points - deviation from average inflation between 2001 and 2021)

Local | Global | Residual | Total

United States | Germany | France | Chile | Brazil | Colombia

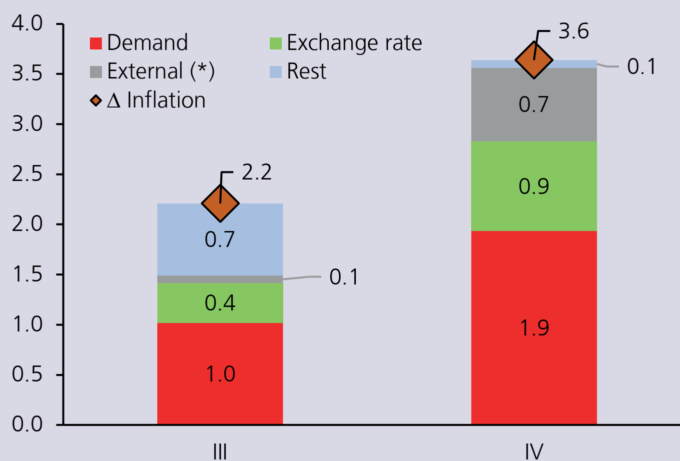
(*) Contributions are calculated using the Bajraj, Carlomagno, and Wlasiuk (2021) database and factor model. The bars indicate the contribution of (a) global factors (sum of a factor common to all countries and series, and of a set of global sectoral factors), and (b) local factors (country factor, common to all CPI series of each country). The residual can also be interpreted as a local component, but not common to all CPI series. Data for the fourth quarter of 2021 calculated based on average quarterly velocity up to October 2021.
Source: Central Bank of Chile.

For Chile, the contribution of external and local factors to the increase in inflation can also be analyzed with the models that the Bank frequently uses in its forecasting process (Macroeconomic Models at the Central Bank of Chile). These tools quantify how much of the observed increase in inflation can be attributed to local elements, such as demand growth, and how much is due to external factors, such as higher oil prices. The decomposition of the Semi-Structural Model of Projections (MSEP) shows that the increase in domestic demand explains half of the higher inflation in the third and fourth quarters of 2021 with respect to the same quarters the year before. The depreciation of the Chilean peso, whose movements have also been driven by local factors, would explain about 20% of the increase in inflation (figure IV.12).

The inflation increase of recent months has been significant. Although part of the higher price pressures has an external component, the evidence presented in this box suggests that in Chile the bulk of the effect lies in local factors, mainly the very significant increase in spending derived from policies to stimulate private consumption, which place Chile as one of the countries with the highest growth in 2021 (figure IV.13). In quantitative terms, of the 3.6 percentage points (pp) increase in inflation estimated for the fourth quarter of 2021 with respect to the same period of 2020, half (1.9 pp) is due to the increased dynamism of demand.

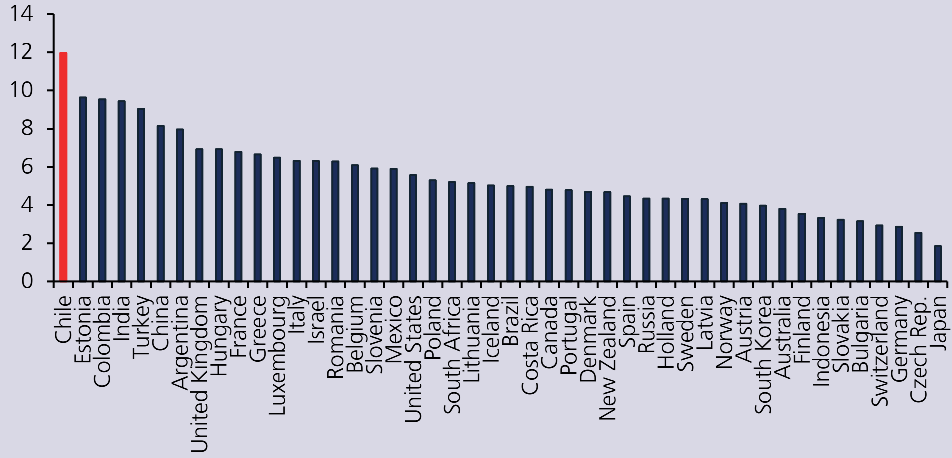
Understanding the origin of the inflationary increase is relevant to determine its persistence and to deliver an adequate monetary policy response. However, that inflation has an external component does not invalidate the fact that this phenomenon may have implications for monetary policy. Thus, in economies where indexation is significant, inflation increases tend to perpetuate themselves, making price increases more persistent. Likewise, countries in which inflationary expectations rise more as inflation increases will suffer greater complications in the convergence of the inflationary process. This will involve greater adjustments in monetary policy to prevent these second-round effects or via expectations from generating deviations of actual inflation from the defined target. Thus, in many countries, the market has corrected upward the expectations on the monetary policy rate in line with the higher expected inflation.

FIGURE IV.12 CHANGE IN 2021 ANNUAL INFLATION WITH RESPECT TO SAME QUARTER A YEAR BEFORE (quarterly data, percentage points)



(*) External includes oil and copper prices, trading partners´activity and other external factors.
Source: Central Bank of Chile.

FIGURE IV.13 2021 GDP GROWTH FORECAST
(annual change, percent)



Source: OCDE (2021).

V. FUTURE EVOLUTION OF MONETARY POLICY

For the central scenario, the Board assumes that, to ensure the convergence of inflation to the target, the monetary policy rate (MPR) will be raised further in the short term, placing it above its nominal neutral value —that which is consistent with the 3% inflation target— for most of the two-year policy horizon. Inflation has exceeded expectations, leading to an increase in its private expectations and projections above 3% in the two-year term. The main reasons behind the higher cumulative inflation of recent months are basically local. On the one hand, the extraordinary expansion of domestic demand, which has pushed activity significantly above its potential and, on the other hand, the sharp idiosyncratic depreciation of the peso. In the central scenario, headline CPI inflation will remain at around 7% for some months, and will then begin to decline towards 3% and settle there within the two-year policy horizon. In addition to the MPR increase, a key assumption for the convergence of inflation to the target is the end of the fiscal stimulus policies applied during the crisis. The end of macroeconomic impulse policies will help a gradual closing of the output gap, helping to prevent the recent inflationary dynamics from having a persistent impact on the price formation process. As long as this occurs and the risks to inflation convergence diminish, the Board will be able to gradually lower the MPR until it is back to values around its nominal neutral level by the end of the monetary policy horizon. In any case, the deterioration of the local financial market, the persistent uncertainty, and the worsening of external financial conditions, lead us to foresee lower dynamism in the medium term. This poses important challenges for the calibration of future monetary policy.

MONETARY POLICY STRATEGY

The Board raised the MPR by 250 basis points between its meetings in October and December, placing it at 4.0%, i.e., above the forecast in the September MP Report.

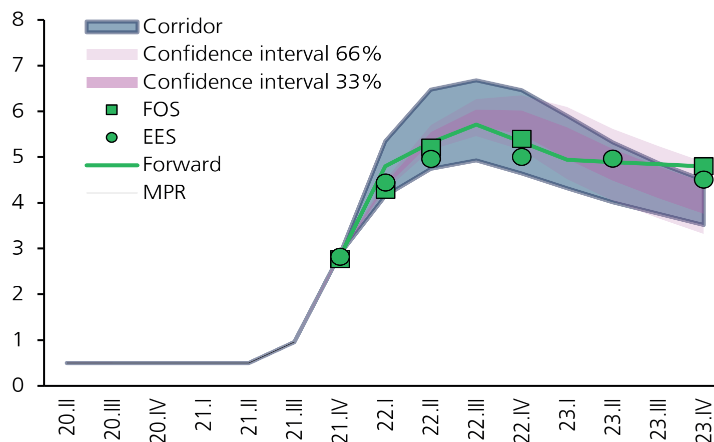
The faster adjustment of monetary policy responds to intensified inflationary pressures, in a context in which annual CPI variation is already around 7%. This is mainly due to the sustained dynamism of domestic demand, which has led the activity gap, after having closed rapidly towards mid-year, to reach much more positive levels than expected in the second half of this year and into next. This occurs in a context in which headline inflation data presented significant upward surprises in several months, while market expectations have increased in both the short and the medium term. In fact, in the two-year term, expectations measured in both surveys and through financial asset prices are above 3%. In addition, the deterioration of the domestic capital market and the persistent uncertainty that has been observed this year have led to a significant depreciation of the peso. The latter has occurred despite the higher copper price and a wider interest rate differential.

In the central scenario, the Board estimates that the MPR will be further raised in the short term to exceed its neutral value during the better part of the policy horizon (figure V.1). With his the output gap will gradually close, helping to prevent the recent inflationary dynamics from having a persistent impact on the price formation process. As long as this occurs and the risks to inflation convergence diminish, the Board will be able to gradually lower the MPR until it is back to values around its nominal neutral level by the end of the monetary policy horizon.

The Board foresees significant risks surrounding the central scenario, considering the doubts concerning the duration of demand dynamism, the worsening of the local capital market and the persistent uncertainty. This is so mainly because the Chilean economy continues to be marked by significant tension. On the one hand, the strong short-term dynamism of activity, demand and inflation —largely associated with the demand stimulus measures deployed during the crisis— have required a much faster removal of the monetary impulse than anticipated in the first half of the year. On the other hand, the persistent uncertainty and the deterioration of the local capital market have led to significant increases in long-term interest rates and eroded appetite for Chilean financial assets. Plus risks of a worsening of external financial conditions considering the way the main central banks may respond to the rise in inflation. All this point to lower dynamism in the medium term, with important challenges for the calibration of future monetary policy.

In recent months, several indicators of expectations show that, although inflation is expected to moderate in the longer term, it is still expected to remain above 3% over the 24-month policy horizon. So far, there is no evidence that this is affecting price formation, which, together with the significant slowdown expected for the economy and a monetary policy that will continue to respond to changes in the scenario, suffices to guarantee the convergence of inflation within the next two years. However, in a scenario where inflation expectations remain high, making it difficult for inflation to converge over the policy horizon, further MPR hikes will be needed shortly.

FIGURE V.1 MPR CORRIDOR (*)
(quarterly average, percentage)



(*) The corridor is built using the methodology described in Box V.1 in the March 2020 MP Report. Includes the FTS previous to December Meeting, the December EES, and the quarter's average smoothed forward curve at 7 December. The methodology corresponds to the extraction of the implicit MPR considering the forward curve on the interest rate swap curve up to 2 years, discounting the fixed rates for each term at the simple accrual of the ICP. For the current quarter the surveys and the forward curve consider the average of daily effective data and are completed with the respective sources.
Source: Central Bank of Chile.

CENTRAL SCENARIO ACTIVITY AND DEMAND PROJECTIONS

In the third quarter, the economy showed significant dynamism, with a particularly strong momentum in all lines linked to private consumption. In that period, GDP grew 17.2% annually, increasing its expansion rate with respect to the previous quarter (21% annualized versus 6.6%). This has occurred in a context in which the advances in the handling of the pandemic have allowed for a greater opening of the economy and a reduction of restrictions, such as the end of quarantines, changes in the permitted capacity and the end of the curfew. In fact, activity in an important set of services has resumed strong dynamism, particularly personal services. Partial fourth-quarter data shows more limited dynamism, although activity levels remain well above pre-pandemic levels.

In the central scenario, this year the economy will grow between 11.5% and 12.0%, slightly exceeding the September forecast (table V.1). In any case, non-mining GDP, especially in sectors linked to domestic demand, will expand considerably more than projected. At the domestic demand level, this is reflected in a significant dynamism of private consumption, which will increase by 21% in 2021. This increased spending is associated with the fact that households are using up a larger than expected portion of the liquidity they got from the massive income support measures. Therefore, compared to the forecast in the September MP Report, the central scenario of this Report considers about US$4 billion more consumption by households this year. The projection for gross fixed capital formation (GFCF) is also revised upwards again, due to the dynamism of its machinery and equipment component.

TABLE V.1 ECONOMIC GROWTH AND CURRENT ACCOUNT

	2020	2021 (f)	2022 (f)	2023 (f)
		(annual change, percent)		
GDP	-5.8	11.5-12.0	1.5-2.5	0.0-1.0
National income	-4.7	13.9	1.4	0.2
Domestic demand	-9.1	21.6	-0.5	-0.7
Domestic demand (w/o inventory change)	-7.9	18.9	-0.9	-0.6
Gross fixed capital form	-11.5	17.6	-2.2	0.1
Total consumption	-6.8	19.2	-0.5	-0.7
Private consumption	-7.5	21.0	-0.2	-1.5
Goods and services exports	-1.0	-0.7	6.0	4.4
Goods and services imports	-12.7	32.0	-2.0	0.9
Current account (% of GDP)	1.4	-4.5	-3.0	-2.9
Gross national saving (% of GDP)	21.2	18.1	19.3	19.5
Gross national investment (% of GDP)	19.8	22.6	22.3	22.4
GFCF (% of nominal GDP)	20.9	21.3	20.7	20.9
GFCF (% of real GDP)	20.7	21.8	20.9	20.8
		(US$ million)		
Current account	3,370	-14,100	-9,800	-10,200
Trade balance	18,369	12,400	16,700	14,400
Exports	73,485	95,000	97,200	97,100
Imports	55,116	82,600	80,500	82,700
Services	-4,998	-8,000	-8,800	-8,500
Rent	-10,964	-18,900	-18,500	-17,200
Current transfers	963	400	800	1,100

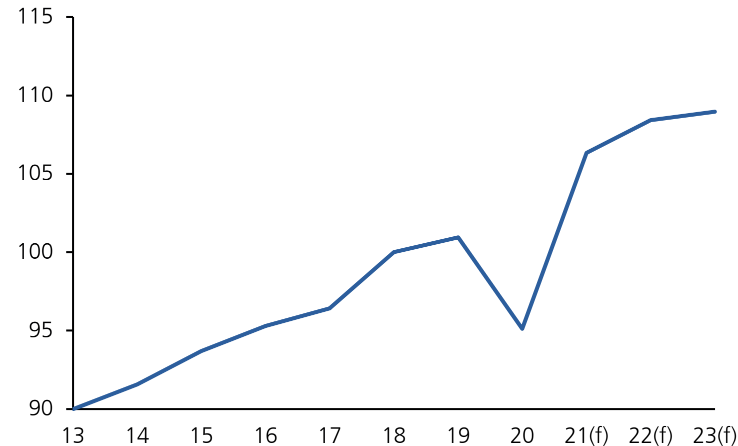
(f) Forecast.
Source: Central Bank of Chile.

Between 2022 and 2023, the annual expansion rates of the economy will see a significant reduction. The economy is thus projected to grow between 1.5% and 2.5% during 2022 and between zero and 1.0% in 2023. This trajectory will possibly see negative quarterly expansion rates, although the activity level that the economy will reach at the end of the projection horizon will be very close to the one forecast in the June and September Reports (figure V.2).

The outlook for the evolution of activity considers that, once the resources obtained from income-support measures are exhausted, private consumption will slow down. This will be seen more clearly in the consumption of durable goods, which has been growing well above its historical levels and whose replacement, due to the very nature, is sporadic. In any case, the aforementioned assumption of a greater use of liquidity leads to high private consumption remaining during the first half of 2022. The higher level of the exchange rate combined with the tightening of financial markets and policy monetary action will also influence the trajectory of the private consumption. In addition, consumer confidence (IPEC) has deteriorated in all its

indicators, especially those related to the future situation of the economy of the country. Accordingly, in the central scenario, private consumption will fall by 0.2% and 1.5% in 2022 and 2023, respectively, thus returning to levels close to September's projection.

FIGURE V.2 GROSS DOMESTIC PRODUCT
(index, 2018=100)



(f) Forecast.
Source: Central Bank of Chile.

A key assumption behind the moderation of private consumption is that the fiscal-stimulus policies implemented during the crisis will come to an end. The central scenario considers that the massive direct fiscal transfers that took place this year will not be repeated. According to the Budget Law approved in Congress, fiscal spending will fall by around 19% in nominal terms in 2022, reducing the effective fiscal deficit from 8.3% to 2.8% of GDP. In the medium term, the scenario assumes that the path laid out in the latest Public Finances Report will be followed, which is consistent with a gradual convergence towards sustainable public debt levels, consistent with the recommendations of the Autonomous Fiscal Council.

The central scenario assumes that employment will continue to increase and the participation rate will steadily approach pre-pandemic levels. Information from different sources shows that in recent months employment has continued to recover from the effects of the crisis. In any case, it has been met with a still tight labor supply on the part of individuals. This phenomenon can be perceived in many economic sectors and it especially affects lower-skilled occupations (Business Perceptions Report (IPN) November 2021). Moreover, this fact is common to several other economies (Chapter I). Although the participation rate of men between 25 and 55 years of age has recovered, women, young people and people of both genders aged 55 and over still show significant lags. In the central scenario, it is assumed that this lag will shorten in the coming quarters.

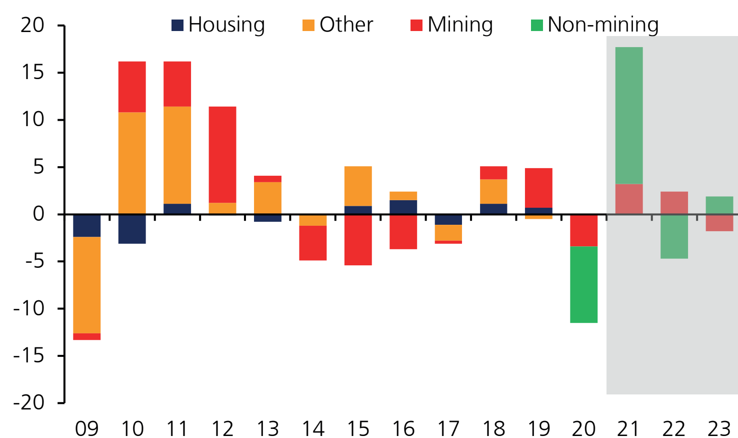
Investment is expected to contract next year, affected by the persistence of high uncertainty and deteriorated financial conditions. On the one hand, the massive forced liquidations of financial assets due to the successive withdrawals of pension savings, the higher fiscal indebtedness and the sustained increase in domestic uncertainty have caused a significant and persistent degradation of several indicators of the local financial market. Of particular relevance is the rise in long-term interest rates, which in October climbed to levels not seen in over a decade, with the BTP-10 rate approaching 7%. An important part of this increase has been explained by the rise in risk premiums, which by their very nature entail substantial negative effects on the expected performance of investment (Box V.1). The increase in the price of capital goods due to the depreciation of the peso and the evolution of the stock market also contribute to the weak outlook for investment, especially in its tradable

component. On top of it, external financial conditions are less favorable, as a result of the widespread hikes in long-term interest rates in several economies.

Several sources of information agree on a weak investment outlook. The October CBC survey reports that investment in major projects in 2022 will be 17% lower than in 2021. The November IPN shows that more than two-thirds of respondents believe that their company will not make investments during 2022, citing high political-economic uncertainty as the main reason. In terms of business confidence of the construción sector, the IMCE data shows a significant pessimistic turn in November.

Therefore, in the central scenario, GFCF will contract 2.2% in 2022, and will expand marginally in 2023 at 0.1% (0.3 and 0.6% respectively in the September Report (figure V.3). Thus, GFCF will stand at 20.9% of GDP in nominal terms in 2023.

FIGURE V.3 REAL ANNUAL CONTRIBUTIONS TO GROSS FIXED CAPITAL FORMATION (*)
(percentage points)



(*) The Other GFCF component is treated residually. For the 2020 the sectoral decomposition is estimated consistently with National Accounts GFCF revisions. Central Bank projection models and sectoral sources, such as investment plans and the CBC Survey, are used to inform our forecasts for 2021, 2022, and 2023.
Source: Central Bank of Chile.

The central scenario continues to consider that the control of the pandemic and the adaptation of individuals and businesses to the new circumstances will prevent possible new restrictions to mobility from affecting the economy as harshly as they did in 2020. This is based, as noted by the health authority, on the positive impact of the high rate of vaccination and the significant progress in the booster dose. Added to this is the remarkable adaptation of households and businesses to operate in pandemic conditions.

The excessive increase in domestic demand, driven by temporary increases in liquidity, has resulted in a sharp deterioration of the current-account balance, despite the higher copper price and the significant depreciation of the peso. For this year, the current-account deficit is foreseen at 4.5% of GDP (2.2% in September). Measured at trend prices[1]/, the current-account deficit will be even higher: 6.7% of GDP, reflecting the strong dynamism of imports. Going forward, consistent with the expected slowdown in domestic spending —especially on durables—, the current-account balance as a percent of GDP will stand at -3.0% and -2.9% in 2022 and 2023, respectively. Measured at trend prices, the deficit will also decline, to 4.7% of GDP in 2022 and 3.6% in 2023, similar to the average of the last 20 years.

[1]/ This measure adjusts the value of mining exports and fuel imports considering deviations of copper and oil prices from their long-term values. The same is done for rents and transfers associated with copper exports. Other exports and imports are valued using current prices. In addition, it does not correct for possible changes in the quantities exported or imported due to movements in copper and oil prices. The calculation considers long-term prices of US$3.3 per pound for copper and US$60 per barrel for oil (see Box V.2 in MP Report of September 2012, and Box V.3 in MP Report of June 2021).

The impulse the Chilean economy will receive from abroad will be milder than was foreseen in the September Report. In particular, external financing conditions have deteriorated. The more persistent rise in inflation in various economies has led the central banks of several countries to modify their view of current inflation and no longer see it as an eminently transitory phenomenon. As a result, they have announced, initiated, or continued to remove their monetary stimulus. This has been reflected in widespread interest rate hikes around the world. Expectations about the pace of withdrawal of these stimuli, especially in the U.S., have dampened global risk appetite, causing an appreciation of the dollar worldwide and increases in risk premiums. In the case of Latin America, monetary policy adjustments have been greater, making the region's financial outlook one of the most worsened, given the ongoing political, social and fiscal risks.

Our trading partners' growth is revised downward for this year, mainly due to lower actual data for the third quarter and a less favorable outlook for emerging economies, particularly for China and Latin America. The central scenario estimates that Chile's trading partners will grow 3.6% in the 2022-2023 average (4% in September). In the case of the US, the projection is revised downward in view of a less expansionary than expected fiscal policy, beyond the support provided by a high level of savings and a recovering labor market. In China, uncertainty about the extension of bottlenecks, the energy shortage and the slowdown in the real estate sector are all pointing to a less encouraging outlook. In the rest of the emerging economies, activity is also expected to fall short of the September forecast, due to a less expansionary monetary policy in response to high inflation and the deterioration of financial conditions at a global level. In Latin America, in addition to the idiosyncratic factors mentioned above, growth in the region is expected to correct from 3.0% to 1.8% in 2022 (table V.2).

TABLE V.2 WORLD GROWTH (*)
(annual change, percent)

	Aveg. 10-19	2020	2021 (f)	2022 (f)	2023 (f)
World GDP at PPP	3.7	-3.2	5.8	4.2	3.4
World GDP at market exchange rate	3.1	-3.4	5.5	4.1	3.0
Trading partners	3.9	-2.0	6.0	3.9	3.3
United States	2.3	-3.4	5.6	4.1	2.3
Eurozone	1.4	-6.5	5.0	4.1	2.4
Japan	1.2	-4.7	1.9	2.7	0.9
China	7.7	2.3	7.9	4.8	5.2
India	7.1	-8.0	8.8	6.5	6.0
Rest of Asia	4.5	-2.4	3.6	4.2	3.6
Latin America (excl. Chile)	1.8	-7.5	6.1	1.8	1.9
Commodity exp.	2.4	-4.3	4.7	3.5	2.1

(*) For definition, see Glossary.
(f) Forecast.
Source: Central Bank of Chile based on a sample of investment banks, Consensus Forecasts, the IMF, and statistics bureaus of respective countries.

The terms of trade will remain high, despite some downward adjustment from September (table V.3 and figure V.4). This is mainly due to the increase in the oil price, as demand has continued to recover amid OPEC+'s refusal to accelerate crude oil production. Thus, in the central scenario, the oil price is adjusted upwards from US$63 to US$68 per barrel in the 2022-2023 period (Brent-WTI average). In any case, a downward trajectory is still expected, as world activity grows at rates more in line with its installed capacity. The copper price has no major changes in its projection. For the 2022-2023 period, an average price of US$3.83 per pound is forecast (US$3.85 in September), somewhat above its long-term value. The projection of external inflation in dollars (IPE) is revised downwards, because the appreciation of the dollar at the global level more than offsets the higher projected local trading partners' inflation.

TABLE V.3 INTERNATIONAL BASELINE SCENARIO ASSUMPTIONS

	Aveg. 10-19	2020	2021 (f)	2022 (f)	2023 (f)
			(annual change, percent)		
Terms of trade	1.1	8.9	13.6	-2.8	-4.9
External prices (in US$)	0.6	-1.1	8.7	0.8	2.6
			(levels)		
LME copper price (US$cent/pound)	306	280	425	405	360
WTI oil price (US$/barrel)	72	39	68	68	64
Brent oil price (US$/barrel)	80	42	70	71	68
Gasoline parity price(US$/m3) (*)	610	333	579	571	531
US Federal Funds Rate (%)	0.7	0.5	0.3	0.4	1.2

(*) For definition, see Economic Glosary.
(f) Forecast.
Source: Central Bank of Chile.

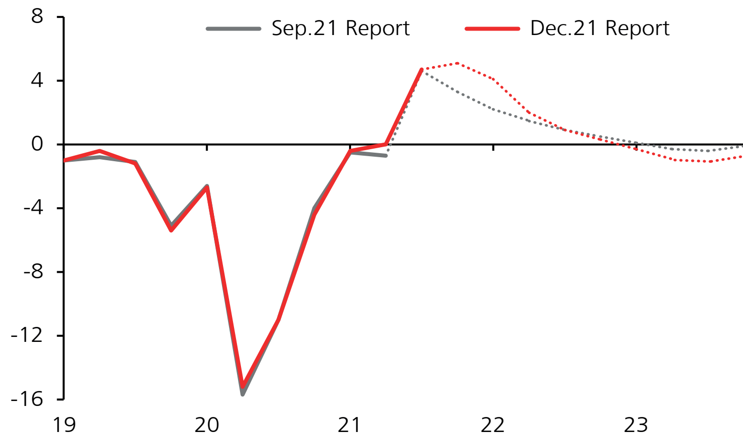
FIGURE V.4 TERMS OF TRADE
(level, percentage points)

(f) Forecast.
Source: Central Bank of Chile.

ACTIVITY GAP AND INFLATION'S CONVERGENCE TO THE TARGET

The central scenario assumes that the activity gap will close the year even more positive than in the third quarter and than forecast in the September MP Report (figure V.5). This is consistent with the latest monthly activity figures and high-frequency data. The stronger dynamism of consumption and the positive impact on the activity of related sectors also lead to the estimated trajectory for the activity gap in the next three quarters being above the September estimate. Starting in the first quarter of 2022, the gap will begin to narrow, closing by the end of 2022 and early 2023. As in the latest MP Report, this assumes potential GDP growth of around 2.1% over the period 2021-2023.

GRÁFICO V.5 ACTIVITY GAP (1) (2)
(level, percentage points)



(1) Dotted lines show forecast. (2) Forecast assumes structural paramenters updated in June 2021 Report.
Source: Central Bank of Chile.

In the short term, the inflation forecast is again revised upwards, mainly due to the sustained dynamism of activity and spending, the depreciation of the peso and higher-than-expected inflation of volatile items. An important part of the upward surprise accumulated in recent months in total CPI is due to the unusual increase in the prices of tourist packages and air transportation. In addition, fuel prices exceeded forecasts. Due to the impact of these volatile prices, total CPI maintains a significant gap with core CPI —without volatiles—, whose annual change is two percentage points below the former. Even so, core inflation accelerated in November, exceeding expectations, with slightly higher services inflation partially offset by lower goods inflation. These elements are factored into the short-term projection, to which are added the higher exchange rate and higher international fuel prices compared to the last Report. In the case of tourist packages and air transportation, it is assumed that as of January 2022, they will begin to gradually undo the positive surprise accumulated.

Throughout the year, the peso has depreciated by around 18% (+8%, compared to the previous Report), a very significant drop and, higher than what its fundamentals would suggest. The increase in the peso/dollar parity has continued to respond to local factors, so its pass-through to final prices is greater than that of an average depreciation[2]/. The real exchange rate (RER) has risen significantly during the year and is around 110 in its 1986=100 index, well above the average of the last two decades, and approaching the peaks of the early 1990s and the 2000s. The central scenario considers that the RER will decrease gradually, although by the end of the projection horizon it will be above its averages of the last fifteen to twenty years, due to the significant drop in national savings and the deterioration of the capital market over the last two years.

In the central scenario annual inflation will rise to 6.9% in December 2021 and will remain near 7% over the first half of 2022. As for core inflation —no volatiles—, projections are that the typical indexation processes of the early months of the year —including education and health plans— will bring it to somewhat above 6% in the second quarter of 2022.

[2]/ In Box IV.1 of the March 2018 Report was estimated that the average transfer coefficient of the nominal exchange rate to inflation is between 0.1 and 0.2 after one year. In addition, it was estimated that a 10% increase in the nominal exchange rate is associated, a year later, with an increase in inflation of 0.5% when it is caused by a multilateral shock of international prices, and of 2.6% when it responds to an idiosyncratic shock to the parity of rates.

By the second half of 2022, inflation will begin to decline, hitting 3% in late 2023. As mentioned, the reduction in fiscal spending is relevant to this result. The increase in the MPR above its neutral level is also a determinant factor in the expected decline in inflation. This, in a context in which internal and external cost pressures are expected to moderate, reducing their influence on price dynamics. Core inflation will also converge to 3% by the end of 2023 (table V.4, figures V.6 and V.7).

Market expectations for inflation have increased significantly and for the short term they stand near the central scenario projections. These have been rising in response to the inflationary surprises of recent months and the depreciation of the peso. As of December 2021, annual inflation, as derived from both the December Economic Expectations Survey (EES) and financial asset prices, particularly inflation hedges, is around 7%.

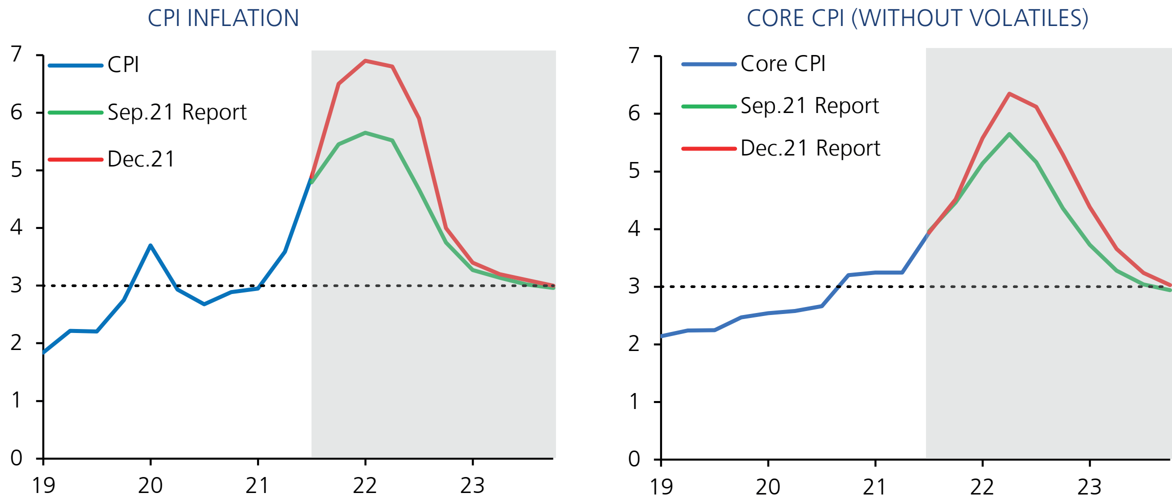
One and two years out, private expectations foresee a moderation in inflation, but place it above the central scenario's estimates. Thus, the outlook contained in the EES, in the Financial Traders Survey (FTS) prior to the December MP meeting and inflation hedges place it between 4.8% and 4.9% in one year. In two years, breakeven inflation and the surveys (EES and FTS) place it between 3.5% and 4.2%, to reach values around 3% in 35 months according to the EES.

TABLE V.4 INFLATION (1)

	2020	2021 (f)	2022 (f)	2023 (f)
	(annual change, percent)			
Average CPI	3.0	4.5	5.9	3.2
December CPI	3.0	6.9	3.7	3.0
CPI in around 2 years (2)				3.0
Average core CPI	2.7	3.7	5.8	3.6
December core CPI	3.3	5.0	4.8	3.0
Core CPI around 2 years (2)				3.0

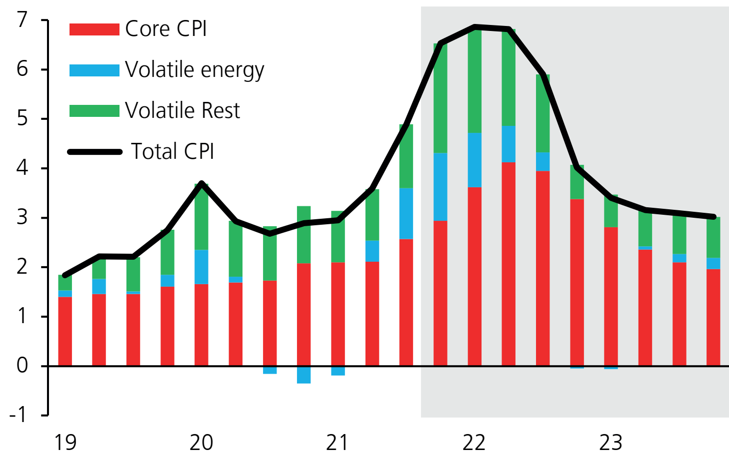
(1) Core inflation is measured using the CPI without volatiles. (2) Inflation forecast for the fourth quarter of 2023.
Source: Central Bank of Chile.

FIGUERE V.6 INFLATION FORECAST (*)
(annual change, percent)



(*) Gray area, as from the fourth quarter of 2021, shows forecast.
Sources: Central Bank of Chile and National Statistics Institute (INE).

FIGURE V.7 CONTRIBUTIONS TO ANNUAL CPI INFLATION (1) (2)
(percentage points)



(1) Gray area, as from the fourth quarter of 2021, shows forecast. (2) For more detail on the various groupings and their shares in total CPI, see Box IV.1 in December 2019 MP Report; Carlomagno and Sansone (2019); and Economic glossary.
Sources: Central Bank of Chile and National Statistics Institute (INE).

SENSITIVITY AND RISK SCENARIOS

As always, the conduct of monetary policy will be contingent on the effects of incoming information on projected inflation dynamics. As such, the Board considers a range of sensitivity scenarios that may call for somewhat different monetary policy action, as derived from the MPR corridor (figure 1).

There are scenarios in which the evolution of domestic spending could give way to trajectories that pull the MPR in opposite directions, marking the lower and upper limits of the MPR corridor. On the one hand, the adjustment of private consumption from its current high levels could take longer than expected or be less intense, which would delay the closing of the activity gap, generating additional inflationary pressures. Such a scenario would require a more contractionary monetary policy, placing the MPR at the upper limit of the corridor. On the other hand, a scenario in which the persistent uncertainty that has affected the Chilean economy in recent quarters would have a more negative than anticipated effect on consumption and investment cannot be ruled out either. In this scenario, medium-term inflationary pressures would be reduced, leading to a monetary policy that would return more quickly to levels around neutral. This scenario marks the lower boundary of the MPR corridor.

Also, a scenario in which idiosyncratic uncertainty subsides would take pressure off short-term inflation, which has been strongly driven by the evolution of the exchange rate, while at the same time boosting the dynamism of activity in the medium term. In this context, it is expected that a less contractionary monetary policy than assumed in the central scenario would be required.

In addition to the sensitivity exercises, we analyze risk scenarios in which changes in the economy would be more significant and where the monetary policy reaction would surpass the limits of the MPR corridor (figure V.8).

Locally, the main risk remains that the evolution of public finances is unclear as to their long-term stabilization. In such a situation, higher spending pressures than foreseen in the central scenario would be observed, together with a sharper deterioration of the local financial market and in the value of the peso. In that case, higher inflationary pressures would necessitate an increase in the MPR above the upper limit of the corridor, despite which inflation may not be able to converge to the policy target within the two-year horizon.

Abroad, the main risk has to do with the possibility of a hasty removal of the monetary stimulus in the U.S., amid the apparent weakness of the Chinese economy. A scenario where the inflationary outlook in the U.S. becomes more complicated could lead the Federal Reserve to withdraw the stimulus more aggressively and to a significant deterioration in financial conditions facing emerging economies. Its negative effects could be amplified by recent weakness in the Chinese economy and financial problems in some of its bigger companies. Such a scenario would aggravate the negative effects on external demand and commodity prices, leading to a drop in local activity that would quickly turn the activity gap negative. In such a scenario, the MPR could cross the lower limit of the corridor.

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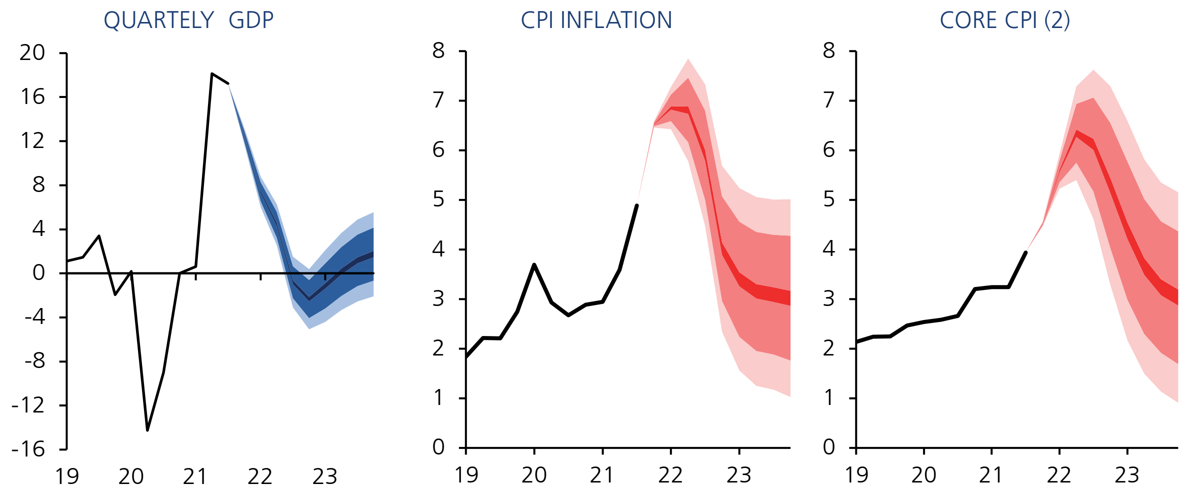
FIGURE V.8 GROWTH AND INFLATION FORECASTS (1)
(annual change, percent)



(1) The figure shows confidence interval of central projection at the respective horizon (colored area). Confidence intervals of 10%, 70%, and 90% around the baseline scenario are included. Confidence intervals are built using the RMSE of XMAS-MEP models' 2009-2017 average. (2) Measured with the CPI without volatiles.
Sources: Central Bank of Chile and National Statistics Institute (INE).

BOX V.1:

Macroeconomic impact of long-term interest rate hikes

Long-term interest rates have a weak relationship with monetary policy because they are exposed to a wide range of forces derived from global factors, particularities in the markets in which debt instruments are traded, and various elements that affect the longer-term economic outlook. For this reason, the macroeconomic impact of a rise in the long-term interest rate depends crucially on the reasons behind the increase[1]. On the one hand, there are "positive" factors, such as an improvement in growth prospects. In this situation, the rate increase will reflect a better economic outlook and, therefore, will give a positive signal to the markets that outweighs the impact of a higher financing cost. On the other hand, there are "negative" factors, such as increased risk. Here, the rate increase will reflect a less auspicious outlook and therefore will give a negative signal to the markets, amplifying the impact of a higher financing cost [2].

In Chile, the main benchmark long-term interest rate —measured by the BTP-10 rate— ha acumulado un alza del orden de 300 puntos base (pb) durante el 2021, casi el doble que sus pares externos (160pb en el mismo lapso) (grafico II.1). The increases in BTP-10 rates are significant not only in comparison to the latter, but also against its own recent history, reaching levels not seen in more than a decade in a few months (figure V.9). A structural decomposition of the increase in long-term rates shows that the main factor behind it has been the greater perception of risk, followed by better growth prospects for this year. This assessment has important implications for the expected evolution of investment in the central projection scenario. Actually, it helps to explain that by 2022 this Report anticipates a contraction of this component of private spending and a marginal expansion for 2023.

FIGURE V.9 LONG-TERM INTEREST RATE (BTP-10)
(percent)

Source: Central Bank of Chile.

[1] See box II.2 of the September 2021 MP Report.

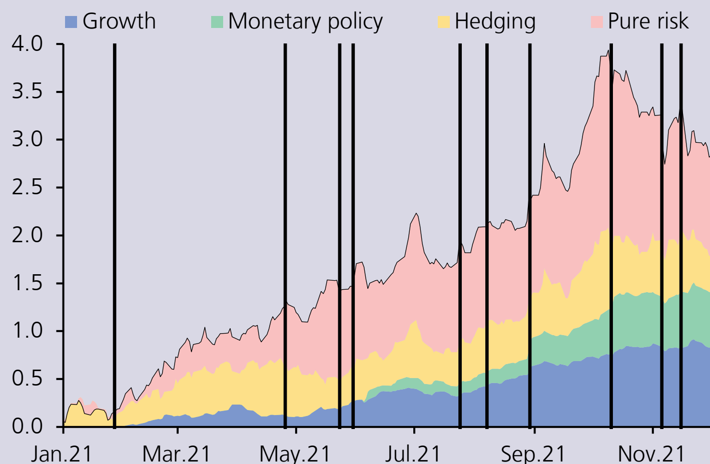
[2] These risks include uncertainty about future rates, risks of depreciation and inflation, the possibility of the debt being downgraded or the issuer going into default, as well as liquidity risks.

The causes of the increase in the long-term interest rate

The recent dynamics of financial and real variables have been determined by two main factors. On the one hand, a strong demand impulse linked to massive withdrawals of pension savings and fiscal transfers, which has raised inflation expectations and risks and, consequently, prompted a monetary policy reaction. On the other hand, a significant increase in risk premiums largely associated with pension fund withdrawals and the uncertainty related to the discussion on structural changes. Thus, interest rates would be rising due to both growth surprises and higher risk perceptions (see box I.1 of the FSR for the second half of2021).

A structural decomposition of the long-term interest rate[3]/ shows that of the 300bp increase in 2021 to date, the main factor has been higher risk perception ("pure risk"), which explains about a third of the increase. Slightly behind is the factor related to growth expectations, which explains just under 90bp of the increase. The change in monetary policy expectations plays a smaller role, explaining 55bp of the increase (figure V.10). A second risk factor, different from pure risk, which is called hedging, reflects changes in the risk outlook between fixed-income and equity assets, so that in the event of a positive hedging shock, agents would move from fixed income to equities, putting upward pressure on interest rates. At the current juncture, much of the hedging risk could be associated with higher inflation expectations, which explains almost 50bp more of the increase in interest rates[4]/. Therefore, all risk factors combined (pure risk plus hedging), explain half of the increase in the long-term interest rate since the beginning of the year.

FIGURE V.10 STRUCTURAL DECOMPOSITION OF 10-YEAR ZERO RATE (1) (2) (3)
(difference from December 2020, percentage points)



(1) Structural decomposition based on Cieslak y Pang (2021). (2) Decomposition based on the 10-year (SPC) zero coupon. (3) Vertical lines from left to right indicate the following events occurred during 2021: begins discussion of third pension fund withdrawal (Jan. 29); Constitutional Tribunal ruling on third pension fund withdrawal (Apr. 28); government proposal of "common minimums" (May 26); introduction of bills on 100% withdrawal of pension savings (Jun. 2); scheduled start of discussion of bill on fourth pension-fund withdrawal (Jul. 27); announced IFE and employment subsidy (Aug. 10), publication of September MP Report (Sep. 1), October monetary policy meeting (Oct. 13), rejection by the Senate of fourth withdrawal (Nov. 8); elections (Nov. 18).
Source: Central Bank of Chile based on RiskAmerica.

[3]/ See Cieslak y Pang (2021) and box II.2 of the September 2021 MP Report.

[4]/ Cieslak y Pang (2021) show that hedging risk is generally procyclical with inflation.

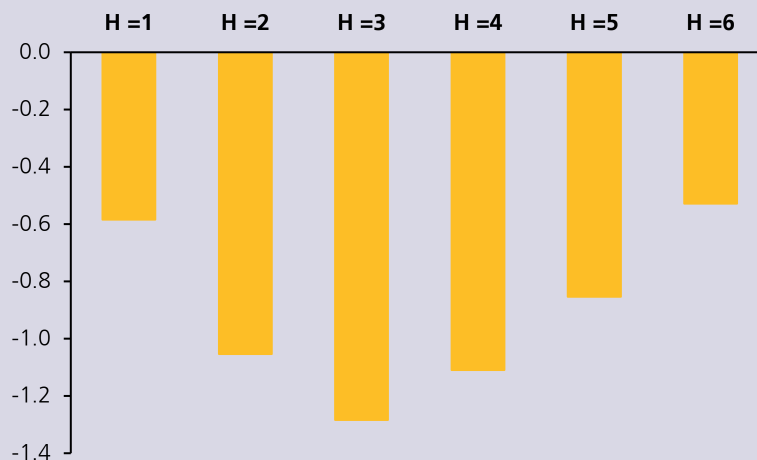
It is worth noting that risk factors, particularly pure risk, have played an even more significant role in the long-rate increase as of October 12: of the nearly 400bp increase in the long-term rate, half was due to pure risk premiums alone. While this premium has been declining recently, the lags of risk premiums on real variables suggest that the future evolution of investment will still respond to the risk premium peak observed in October.

Effects of higher risk premiums on investment

Bond interest rates are transmitted to the lending rates offered by banks through various mechanisms (see Berstein y Fuentes, 2004; Pedersen, 2016, among others), so that higher long-term interest rates will imply higher financing costs for investment projects.

To quantify the macroeconomic effect of a shock where risk increases, it is necessary to isolate it from other developments that are occurring in the economy at the same time. In addition, it must be considered that an increase in risk has effects on other variables, such as consumption and inflation, and that they also affect investment. An empirical model used[5/] shows that a pure risk shock of the characteristics observed since early this year results in a contraction of gross fixed capital formation between 1% and 1.5% after four quarters (figure V.11). These results are opposite to those that would occur if the same increase in the 10-year rate were caused by better growth prospects. The same model indicates that in the event of a shock in growth expectations that increases the two-year rate by 100 bp, investment would increase by around 2%, which would be diluted as time passed (figure V.12).

FIGURE V.11 RESPONSE OF INVESTMENT TO A 10-BASIS-POINT PURE RISK SHOCK
(percentage points)



(*) Impulse-response function of a BVAR model with zero and sign constraints, calibrated with the pure risk shocks documented by Cieslak y Pang (2021). Horizon H in quarters.
Source: Central Bank of Chile.

[5/] A semi-structural Bayesian self-regressive vector model (BVAR) estimation based on the strategy proposed by Korobilis (2020) is considered. This includes a large number of macroeconomic and financial variables, together with a strategy to identify the shocks that affect them.

FIGURE V.12 RESPONSE OF INVESTMENT TO PRODUCTIVITY SHOCK THAT INCREASES 2-YEAR RATE BY 100 BASIS POINTS (*)
(percentage points)

(*) Impulse-response function of a BVAR model with zero and sign constraints, calibrated with the pure risk shocks documented by Cieslak y Pang (2021). Horizon H in quarters.
Source: Central Bank of Chile.

Conclusions

The central scenario of this Report assumes that investment will fall by 2.2% in 2022, accounting for the effect that the deterioration of financial conditions has on this component of demand. This box shows that the impact of increases in long-term interest rates on investment depends on whether they originate from greater uncertainty or better growth prospects. It also points out that the uncertainty factors that are currently affecting the Chilean economy —in the political and legislative arenas— explain a substancial portion of the rate hike this year. A scenario in which persistent uncertainty causes a more negative effect than anticipated on investment cannot be ruled out. Meanwhile, in a scenario where idiosyncratic uncertainty is reduced, the dynamism of investment would increase in the medium term.

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