MONETARY POLICY REPORT

SEPTEMBER 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.

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CONTENTS*/

(*) TThe Report includes the monetary policy decision of 31 August. For the construction of the central scenario, the statistical cut-off date is 25 August.This document was originally written in Spanish. In case of discrepancy or difference in interpretation, the Spanish version prevails.

SUMMARY

The Chilean economy has made a rapid recovery from the recession caused by the Covid-19 pandemic, far exceeding expectations. This recovery has been made possible by the adaptive capacity of businesses and individuals and the breakthrough in the vaccination process, which has allowed for a significant process of openness. All of this was underpinned by the largest deployment of policy measures ever known in Chile in the face of an exogenous shock, as well as by an international environment marked by simultaneous action to contain the crisis, spearheaded by the central banks and other authorities of the world's largest economies.

However, the extension and persistence of some local measures, coupled with households' high propensity to consume the resources received, has had an impact on private spending that has surpassed everyone's forecasts. In a context in which supply has yet to fully recover, this has significantly changed our assessment of the pressures facing the economy, reflected in an increase in inflation and its near-term outlook. The depreciation of the peso has also contributed, partly due to the perception of a worsening of the economy's fundamentals resulting from the liquidation of long-term savings through successive massive withdrawals of pension savings and the deterioration of the fiscal accounts, all in a climate of high local uncertainty. Thus, interest rates, risk premiums and the stock market's performances look poor when compared to their external similes.

The need to avoid the accumulation of macroeconomic imbalances which, among other consequences, could lead to a more persistent increase in inflation beyond the two-year 3% target, has led the Board to alter the monetary policy stance. The rapid evolution of the macroeconomic scenario, inflation expectations and sensitivity scenarios associated with greater pressures on prices, configure a scenario where the Central Bank has to act promptly to ensure inflationary convergence. For this reason, at its August meeting the Board raised the MPR by 75 basis points (bp) to 1,5% after having raised it by 25 basis points in July. It also estimates that for inflation to converge to the target it will need to continue to withdraw the monetary impulse, bringing the MPR at levels similar to its neutral towards the middle of the first semester of 2022. From there onwards the evolution of the MPR will depend on the occurrence of the sensibility scenarios described by the interest rate corridor.

Chile's economic activity exceeded its level of before the outburst of the social crisis. In the second quarter of 2021, GDP posted annual growth of 18.1%, an achievement that combined the adaptation capacity of economic agents to the pandemic context, the impact of household income-support policies, and a very low comparison base. This trend was confirmed with July's Imacec, which posted y-o-y growth of 18,1%, and a seasonally-adjusted monthly expansion of 1,4%.

Data for the second and early third quarters are showing an increase in consumption dynamism that exceeds June's expectations, suggesting that the household-support policies are having a greater impact than expected. The behavior of durable consumption stands out, with a 130% annual increase in the second quarter, to a level nearly 50% higher compared with the same quarter of 2019. Third-quarter data available also show that this dynamism has continued. As of July, retail sales reported by the INE —including car sales— rose 68% annually. Consumption of non-durable goods and services saw a somewhat more moderate growth —between 20% and 30% annually—, with the latter still affected by the pandemic-related supply constraints, but which, for the same reason, could respond more strongly to the advancements in the Step-by-Step Plan in the coming months.

In line with the further opening of the economy, published vacancies, employment and labor participation have been gradually increasing, although gaps affecting mostly informal employment and women persist. Survey and administrative data show a significant recovery in formal salaried employment, though with differences across sectors. This is consistent with the evolution of job vacancies, which have increased significantly in recent months. In any case, the increase in available jobs has met with a still contained labor supply, affected by the application of quarantines and state aid, as well as by the departure of hundreds of thousands of women from the labor market due to family responsibilities. The evolution of salaries is consistent with increasing labor shortage. The less formal employment categories—including self-employment— continue to lag, although incoming data point to an improvement that is consistent with the easing of mobility constraints.

The recovery of investment is strongly associated with its machinery and equipment component, which is highly concentrated in imported goods. In the second quarter, gross fixed capital formation grew by almost 25% annually, with an increase in the machinery and equipment component of almost 50% annually. The favorable performance of projects related to renewable energies and the very low comparison base contributed to this result, as did the renewal of different types of machinery and equipment in a context of accelerating activity. Meanwhile, the construction and other works component showed lower growth —13,1% annually—, with levels persistently below pre-pandemic ones.

The increase in tradable goods spending —especially in durable consumption and machinery and equipment— was reflected in higher imports and in a new negative balance of the current account. During the second quarter, volume imports of goods was up 44% annually —90% of consumer goods— reflecting growth in spending and a low comparison base. Volume exports, meanwhile, dropped by slightly more than 3% in the same period.

The strong dynamism of consumption, in a context where supply has not yet fully recovered, has put upward pressure on inflation. Data for the past few months have shown a significant increase in the prices of various products, especially in areas where demand has grown strongly, such as clothing and footwear, electronics, appliances, and automobiles. All of this in a scenario in which the restrictions on global trade chains imposed by the pandemic are still present. In fact, stock availability, shipping times and transportation costs are factors that continue to affect the performance of several industries around the world, Chile being no exception.

The cumulative massive pension fund withdrawals and fiscal transfers have increased households' liquidity considerably. Despite the strong dynamism shown by consumption —including a significant upward surprise in recent months—, financial system data show that household liquidity continues to be high. Thus, by the end of July, the cumulative balance in personal checking and demand savings accounts was around US$23 billion higher than in July 2020. This amount is quite larger than the funds accumulated in term savings accounts and account 2 of the AFPs during that period (US$9 billion), suggesting that spending will remain dynamic in the coming quarters.

With the extension of the universal emergency family income (IFE) and the implementation of the workers' IFE and other programs, fiscal spending growth will surpass the forecast in the June Report. Background data in the latest Public Finance Report and government announcements yield an estimate of nominal fiscal spending growth this year of more than 35% annually, with an effective deficit of more than 7% of GDP. The stronger economic growth is insufficient to finance this greater spending, thus increasing fiscal financing needs. Therefore, the authority has had to issue new Treasury bonds and once again withdraw resources from the sovereign funds.

The sell-out of long-term savings following successive massive withdrawals of pension savings, the deterioration of the fiscal accounts and the challenge of putting them back on a sustainable path, in an environment of local uncertainty, have led to an adverse evolution of local financial variables. The domestic financial market has decoupled from global movements, a situation that has been particularly visible since the beginning of the second quarter. Since then, long term interest rates have risen around 135 basis points (bp), sovereign risk has risen close to 10bp, the stock market has fallen nearly 11% and the peso has depreciated 10%. This has occurred in a context in which, after the peak of the pandemic, the indicators that measure uncertainty have not declined with the same speed as in other economies and remain above their levels prior to the onset of the social crisis.

In this context, the Chilean peso has become one of the currencies that have weakened the most in recent months around the world. This is in sharp contrast with the fact that episodes of higher economic growth and high copper prices have typically been associated with an appreciation of the currency.

Central scenario projections

The central scenario assumes that, after growing between 10.5% and 11.5% this year, the economy will slow significantly, to grow between 1.5% and 2.5% in 2022, and between 1% and 2% in 2023. The forecast growth range for this year increases in response to higher-than-expected actual data in the second quarter and a significant upward revision to the consumption trajectory. Although greater spending is also anticipated for next year, the higher comparison base results in a lower estimated growth range for 2022. By 2023, the fading effects of fiscal and monetary policy action reduce the estimated growth range for 2023. In this scenario, the activity gap is estimated to be already closed because of the greater dynamism of demand, becoming significantly positive during the second part of the year and for a good part of 2022. By 2023, the gap will return to equilibrium.

The upward revision of private consumption is the main factor explaining the revision to 2021 growth. Second-quarter data showed an increase in private spending that exceeded the June forecast, thus raising the baseline for the projections. In addition, this spending behavior, together with marginal data, showed that the portion of available resources being consumed —i.e., regular earnings, IFE and pension withdrawals— was significantly bigger than expected in June, which led to revisit this assumption. In addition, the projection incorporates the fact that the resources available for household consumption will be greater, given the announced increase in fiscal transfers —extension of the universal IFE and the workers' IFE.

Towards 2022 and 2023, consistent with the economy leaving behind the effects of the pandemic and where the momentum from economic policies eases —among other reasons by the extinction of massive fiscal transfers—, consumption growth will decelerate. The central scenario assumes that, after reaching figures in the order of 20% on average in the second part of 2021, the annual variation of private consumption will fall to an average of around 0,5% in the 2022-2023 period. This result combines the very high comparison base, the extinction of the universal IFE, the depletion of the liquidity accumulated by pension fund withdrawals and the tighter financial conditions.

As for investment, the central scenario foresees that, after growing nearly 16% annually this year, several restrictive factors will surface that will tone down its expansion to 0.3 in 2022 and 0.6% in 2023. In this case, in addition to the challenging comparison base of 2021, there is the persistently slow emergence of new large-scale projects—with the exception of renewable-energy projects—, the significant rise in long-term interest rates, the impact of the peso depreciation, the stock market downturn and the still high uncertainty by historical comparison. The expected behavior of investment in Chile differs from what is expected in other economies, where the post-pandemic recovery is showing a much greater traction of this component of domestic demand.

The central scenario assumes that fiscal policy will enter a path of convergence toward expenditure and deficit figures in line with the structural balance rule, consistent with the Public Finances Report and the recommendations of the Autonomous Fiscal Council. Any deviations from this path will be particularly relevant for monetary policy, not only because of the impact that fiscal policy has on private spending, but also because of its implications for financial market variables, particularly the evolution of long-term interest rates and the exchange rate.

Short-term inflation projections are revised upward significantly because of the strong dynamism of consumption, the idiosyncratic depreciation of the peso, the higher fuel prices, and global and domestic supply still unable to recover completely. In the central scenario, annual CPI inflation will close the year at 5.7% (4.4% in June), to remain above 5% during the first half of 2022 explained also by rises in the volatile component of energy and food prices. Core inflation (i.e., the CPI minus volatiles) is also revised upward from June, to an estimated 4.7% by year's end and peaking towards mid–2022, where its annual change will approach 5.5%.

The idiosyncratic nature of the peso depreciation means a higher pass-through to inflation. In recent months, the peso has lost value with respect to both the dollar and multilateral currency baskets. Thus, comparing the statistical cut-offs of this and the June Reports, the peso/dollar parity has risen around 8%, a figure that falls only slightly when considering the levels of the multilateral exchange rate (MER). In real terms, the peso has also depreciated significantly, with the RER having increased more than 10% this year to date. As has been documented on earlier occasions (see Box IV.1, MPR March 2018), the size of the average pass-through coefficient from the nominal exchange rate to inflation is higher when the parity moves because the economy is hit by an idiosyncratic shock like the present one, as opposed to a shock associated with global factors. As a reference, the estimates show that a 10% increase in the nominal exchange rate is associated, one year later, to an increase in inflation of the order of 2.5% when it responds to an idiosyncratic shock, and 0.5% when it responds to a global shock.

The slowdown in demand resulting from the withdrawal of fiscal and monetary stimulus policies, among other things, will bring inflation to converge to 3% in the two-year policy horizon. Thus, after peaking between the end of this year and the turn of 2022, the CPI's annual variation will begin to drop to less than 4% at the end of 2022 and close to 3% at the end of 2023.

The external scenario backing this forecast is hardly unchanged compared to June and assumes that the world economy continues to leave the effects of the pandemic behind and that the copper prices converge slowly to its long-term level. On aggregate, global economic data have shown no major surprises in recent months, which is consistent with world growth projects that, despite some changes in composition, show no big variations either. This does not overlook the fact that pandemic issues —infections, variants, and vaccinations, among others— will continue to impact on short-term figures and, especially, on the behavior of financial markets. The prices of commodities, with some exceptions, have declined in recent months. Actually, consistent with June projections, the copper price moved away from its record-highs of mid–May and is now closer to US$4.2 per pound.

Sensitivity scenarios

The central scenario is based on a set of assumptions about the economic environment, the behavior of agents, and policy stances. Based on those assumptions, sensitivity tests are performed which, keeping GDP growth around the projected ranges, call for a somewhat different monetary policy. These scenarios form the MPR corridor presented in chapter V (figure V.1).

On the external front, the strong recovery and cost pressures may lead to higher-than-expected inflation in developed economies, requiring an earlier increase in their interest rates. Such a scenario would hurt the financial conditions of emerging economies, including a depreciation of their currencies, and would reduce global growth. In such a situation, there are countervailing forces at work on activity and prices, so the reaction of the MPR will depend on which of these dominates. However, given the current lower room for maneuver, it cannot be ruled out that the MPR should be above what is considered in the central projection scenario.

Locally, there are scenarios where the future evolution of consumption could yield the way to trajectories pulling the MPR in opposite directions but within the bounds of the corridor. On the one hand, it is possible that the propensity to consume the resources from government transfers and withdrawn pension savings will be even greater, which would further boost consumption. Such a scenario would require a more contractionary monetary policy response to converge to the inflation target, placing the MPR trajectory above that defined in the central scenario. On the other hand, a scenario in which consumption is less dynamic than expected could also occur, either because its current dynamism reflects an anticipation of spending decisions or because environmental factors, such as a worsening of the pandemic, lead households to hold back. Such a scenario would reduce inflationary pressures in the short term, allowing monetary normalization to proceed at a slower pace.

The upper bound of the corridor is defined by a scenario where lower uncertainty results in lower inflationary pressures. Such a situation could occur if uncertainty regarding the continuation of massive pension fund withdrawals and the ability of fiscal policy to return to a credible path of convergence were to recede. This would have an impact on financial conditions and the path of consumption, giving monetary policy more room for maneuver. This would allow for a significantly slower normalization of the monetary impulse.

The upper bound of the corridor is defined by a scenario where the start of fiscal consolidation is delayed. Such a situation could have significant effects on the economy, requiring an even stronger monetary policy reaction to adjust macroeconomic imbalances. In such a scenario, higher inflationary pressures would lead to the need for a more accelerated increase in the MPR.

Risk scenarios

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

As in the June Report, one of the risks identified is one where the evolution of public finances may not be clear about their long-term stabilization. In this case, it would be possible to see not only greater spending pressures than those foreseen in the central scenario, but also their amplified impacts on the financial market. In such a situation, higher inflationary pressures would lead to the need for a more accelerated increase in the MPR, despite which inflation would fail to converge to the policy target within the two-year horizon.

Another risk scenario is one where the persistent discussion regarding the stability of pension fund savings ends up significantly altering the functioning of financial markets. Originally, this measure was conceived as a one-off, exceptional measure, amid an economic emergency. However, new withdrawals have been approved and proposed, which have had significant effects on the economy as can already be seen in the behavior of long term interest rates and the exchange rate. It is highly likely that additional withdrawals, or even the possibility of a 100% withdrawal, can lead economic agents to consider that there is a structural change in the savings base of the economy —which has been key for the development of the country—, the dynamics of investment and fiscal access to financing at an adequate cost. A change in this direction would cause multiple negative effects hard to quantify, but surely big and persistent.

In the more immediate future, a new withdrawal will increase the liquidity of households, boosting an already dynamic consumption, and putting an even higher pressure on prices and on the inflation path. Added to this is the fact that keeping the discussion regarding this issue open is already significantly increasing financing costs, generating flight of capital and an accumulation of dollar-denominated funds. All these phenomena would be significantly amplified by the approval of a new withdrawal that generates mistrust regarding the fundamental structures that sustain the financial market. No central bank has the powers, instruments or resources to neutralize risks of this magnitude and restore macroeconomic equilibrium.

Although for now this is a risk scenario, its probability of occurrence may be already affecting economic agents' behavior. Unlike what happened during the discussion of the previous withdrawals, since the discussion of a fourth one was announced, the exchange rate has depreciated significantly. This has occurred even considering the substantial volume of dollars that would enter the country due to the liquidation of the AFPs' foreign portfolios, which should occur if this measure is approved.

Monetary policy orientation

The economy has already overcome the immediate impacts of the pandemic on activity, and it is necessary for public policies to adapt to prevent imbalances between production and expenditure from persisting over time and becoming a costly burden on the country. GDP has already returned to the levels prior to the social crisis outbreak, reflecting the significant efforts of individuals and businesses, which have been supported by a set of measures in which monetary policy has played a major role (box V.1). Nonetheless, the magnitude of demand stimulus policies has led consumption to be much more dynamic than other components of private spending. Sustaining this kind of growth would be very detrimental, particularly because it would not help to reduce the gaps that still exist in the labor market.

Monetary policy will strive to avoid macroeconomic imbalances that are harmful for people's well-being. It is important to bear in mind that inflation is particularly detrimental to middle- and low-income households, which lack the mechanisms to protect their purchasing power and assets that are available to the better-off.

Our short-term projections point to inflation standing above 5% in the next few months and longer-term expectations have been rising. The importance of keeping inflation expectations anchored to the Central Bank's target and avoiding a costly further deterioration for the economy is evident. A scenario in which this does not occur would require drastic monetary policy responses. The Central Bank will act in accordance with its mandate to control inflation, a task that will be less costly for the economy insofar as other players contribute to restoring the macroeconomic balances that have been lost during the pandemic.

In the central scenario, the Board estimates that for inflation to converge to the target it will need to continue to withdraw the monetary impulse, bringing the MPR at levels similar to its neutral towards the middle of the first semester of 2022. From there onwards the evolution of the MPR will depend on the occurrence of the sensibility scenarios described by the interest rate corridor. It is the Board's view that sensitivity scenarios associated with higher price pressures have a somewhat higher probability of occurrence, which could lead to an MPR path closer to the upper bound of the interest rate corridor. As always, the conduct of monetary policy will be contingent on the effects of new information on the projected dynamics of inflation.

SUMMARY OF FORECASTS

	2021 (f)	2022 (f)	2023 (f)
GDP (annual change; %)	10.5-11.5	1.5-2.5	1.0-2.0
Current account (% of GDP)	-2.2	-2.1	-2.3
Average CPI (annual change; %)	4.2	4.9	3.1
Average core CPI (annual change; %)	3.7	5.1	3.2
CPI in around 2 years (%) (*)	--	--	3.0
World GDP at PPP (annual change,%)	6.2	4.8	3.5
Copper price (average; US$cent/pound)	415	400	370

(*) Inflation forecast for the third quarter of 2023.
(f) Forecast.

Source: Central Bank of Chile.

I. INTERNATIONAL SCENARIO

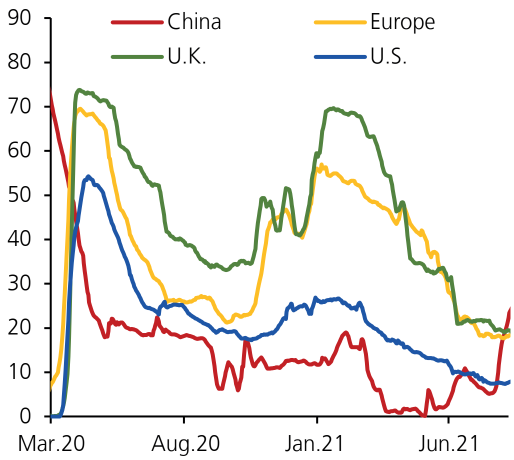
World activity has continued to rebound as expected, although at different rates among countries, given the uneven progress in the vaccination campaigns and the impact of the delta variant. In developed economies, the improved labor market, business prospects and high accumulated savings continue to anticipate further growth going forward, in an environment of great monetary and fiscal expansion. In contrast, in most emerging economies, low vaccination and new outbreaks maintain a less auspicious outlook. Latin America adds a lag in the recovery of the labor market and a more negative assessment of financial markets linked to various idiosyncratic risk factors. Higher global inflation has led some monetary authorities, mainly in emerging economies, to begin withdrawing the monetary stimulus. The risk of more persistent inflation in the U.S. and the abrupt reversal of financial conditions have continued to gain strength, as has the risk of a reversal of the spikes in financial asset prices. In addition, there is concern that the spread of new variants will delay the recovery in some countries and deepen existing bottlenecks.

RECENT EVOLUTION OF THE INTERNATIONAL SCENARIO

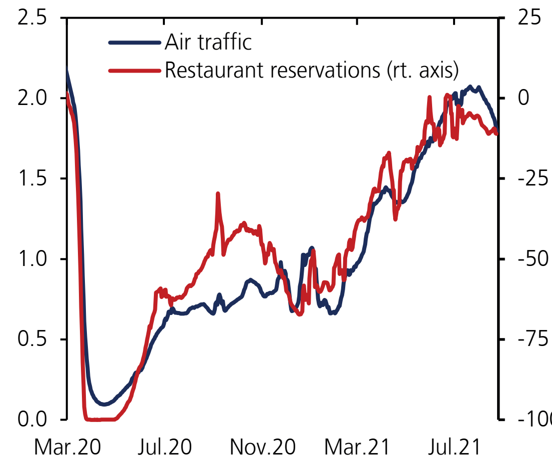
The speed of recovery of global activity has been heterogeneous across countries, especially due to the unequal progress in vaccinations and the implications of the spread of the delta variant in each country (figure I.1). In the developed economies, the higher inoculation rate has become the key factor in the upturn, as restrictions have eased, mobility has increased, and activity has resumed in the lagging sectors. In contrast, vaccinations in emerging economies have been very slow, which complicates their sanitary situation as they face the spread of the delta variant, limiting the possibility of advancing in the reopening and forcing the imposition of constraints in economies that had been less affected until now, especially in Asia. This dissimilar behavior has increased bottlenecks and logistical difficulties derived from the global reopening, in a context where the markets have changed their assessments of the economies with a worse sanitary performance and/ or tensions at home, especially in Latin America, leading to stock market downturns and lower capital flows in some countries in the region.

All in all, activity figures and the outlook for the main economies have changed little from a few months ago (figure I.2) (box I.1). In the U.S., consumption continues to drive activity, and services are gradually resuming. In the Eurozone, despite the slowdown in manufacturing output and retail sales indicators, the stronger performance and outlook for services stood out. Going forward, business expectations (PMI) remain in expansionary territory (figure I.3), and both the improvement in the labor market after the reopening and household cumulative savings continue to anticipate a recovery in the developed world. In the U.S., business investment plans, the need to replenish inventories, and new fiscal announcements continue to point to a recovery. Although there have been concerns about new outbreaks in the U.S. that could slow down the recovery somewhat, so far they have been concentrated in the states with lower vaccination rates and would be expected to have less impact on activity than in previous outbreaks. Along these lines, the evidence in the U.K. shows that the higher vaccination rate has prevented the rise in infections from translating into more hospital admissions or deaths, as in the first waves of infections. The case is different in Israel, where there have been increases in hospitalizations and deaths, and the high degree of openness that this economy had achieved has lost some ground. After rapid progress in vaccination, immunizations stagnated at around 60% of the total Israeli population. This lends support to the notion that, while vaccines continue to be effective in containing the more severe cases compared to previous outbreaks, a very high percentage of the vaccinated population and the application of booster doses would be needed to contain the spread of new strains of Covid-19.

FIGURE I.1 EFFECTIVE LOCKDOWN INDEX (1)
(index)

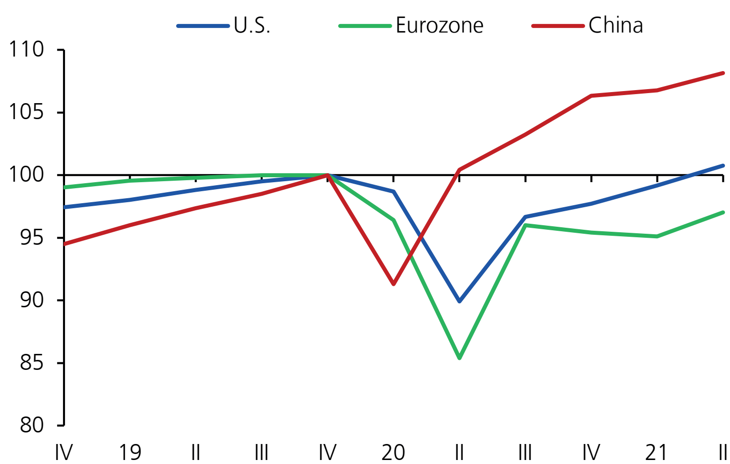


AIR TRAFFIC AND RESTAURANT RESERVATIONS IN THE U.S. (1)
(examined passengers, millions; change from 2019, percent)



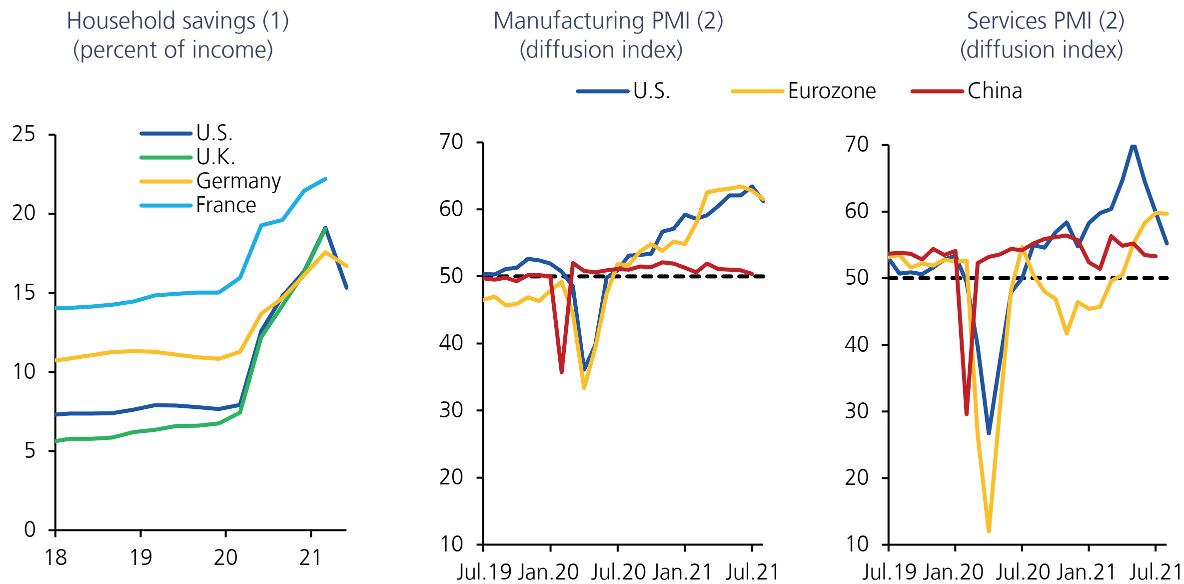
(1) 7-day moving average.
Sources: Goldman Sachs and Bloomberg.

FIGURE I.2 WORLD ACTIVITY
(index Q4.19=100, seasonally-adjusted series)



Source: Bloomberg.

FIGURE I.3

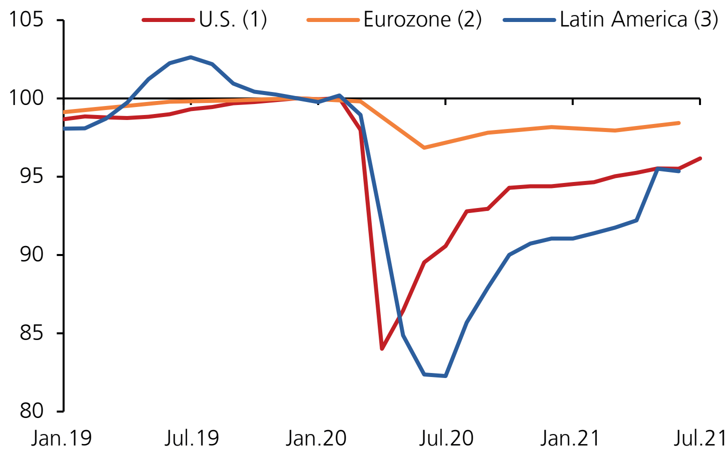


(1) 4-quarter moving average. (2) Value above (below) 50 indicates optimism (pessimism).
Source: Bloomberg.

The labor market has improved in developed economies, especially in the creation of jobs linked to services, despite still-contained labor supply in some countries (figure I.4). In the U.S., employment in services continues to gain momentum, especially in the leisure and recreation, professional services and transportation sectors. On the U.S. labor supply side, restrictions have eased somewhat at the margin, in a context in which a significant number of states withdrew unemployment benefits during June and July. In any case, these restrictions have led to one-off wage increases in some areas and jobs, mainly for lower-skilled positions. In the U.K., labor shortages have been widespread. This has been attributed to the self-isolation measures, in cases of close contact, promoted by the government in view of the increase in infections, in addition to the change in immigration policies after Brexit.

In the emerging economies, the slow pace of vaccination maintains a less favorable outlook than in the developed countries, which could worsen in the face of new outbreaks (figure I.5). Moreover, the lagging labor market could be an additional stumbling block to recovery. In Latin America, beyond the resilience and adaptation that the different economies continued to show in the second quarter, the picture looks bleak. In addition to low vaccinations and difficulties in the sanitary management of several countries, there is the slow recovery of the labor market and the persistence of domestic stress factors that have translated into institutional risks in several countries of the continent. In China, the inoculation rate has sped up significantly in recent months, but the zero-tolerance policy against Covid-19 has led to new mobility restrictions in the face of a slight increase in infections. Added to this is a slowdown in external momentum, associated in part with a global shift to services consumption and announcements of increased regulations in certain sectors, which collectively will take some traction away from growth in the near future. In India, contagions have fallen, although the slow inoculation process keeps the risk of outbreaks latent. Similarly, in Southeast Asia, the rapid spread of the delta variant led to record numbers of infections, an increase in the number of deaths and hence an extension of the restrictions.

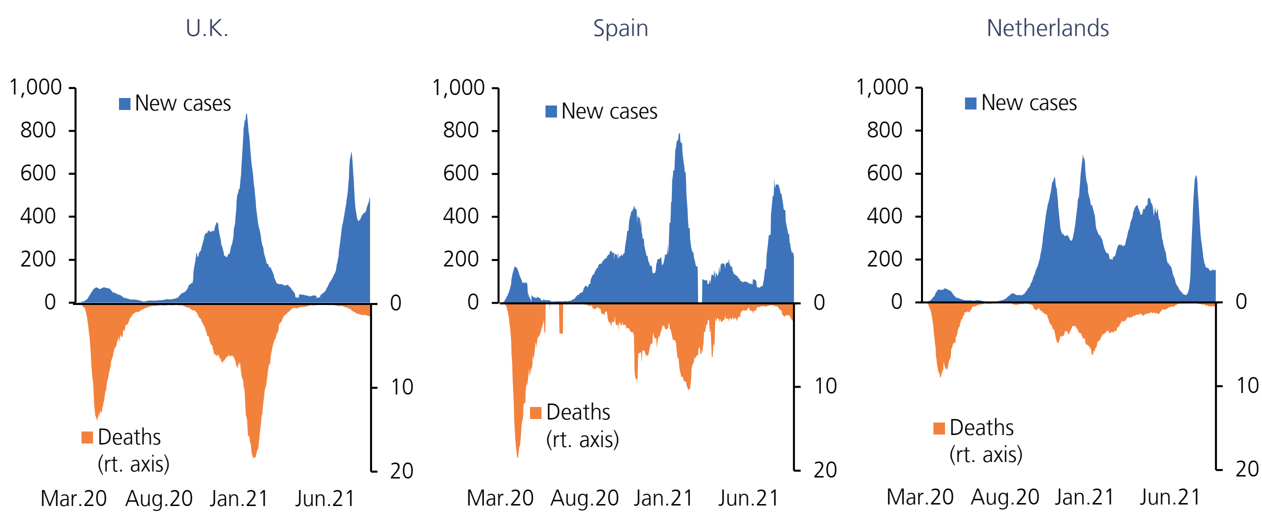
FIGURE I.4 EMPLOYMENT LEVEL
(index, December 2019=100, seasonally-adjusted series)



(1) Monthly data. (2) Quarterly data. (3) Median for Colombia, Brazil, Mexico, Peru and Chile. Corresponds to 3-month moving average. Latest data for Brazil considers April-May average.
Source: Bloomberg.

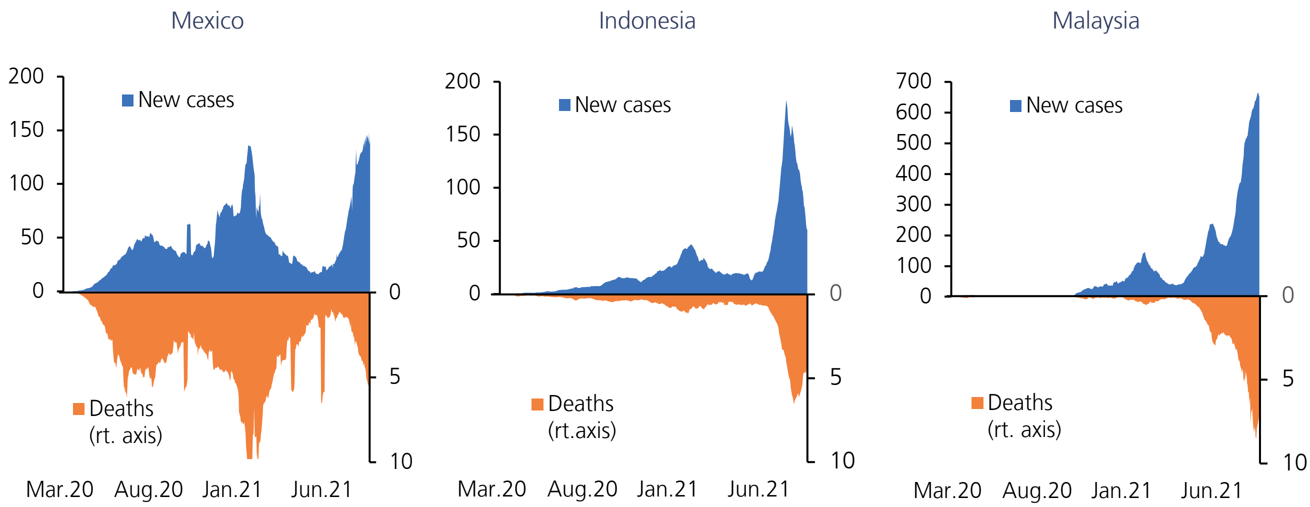
FIGURE I.5 NEW DAILY CASES AND DEATHS IN COUNTRIES WITH DIFFERENT VACCINATION LEVELS
(per million population, 7-day moving average)

a) High-vaccination countries (1)



(1) Percent of population vaccinated with two jabs: United Kingdom: 62%; Spain: 69% and Netherlands: 62%.
Source: Our World in Data.

b) Low-vaccination countries (2)



(2) Percent of population vaccinated with two jabs: Mexico: 25%; Indonesia: 12% and Malaysia: 43%.
Source: Our World in Data.

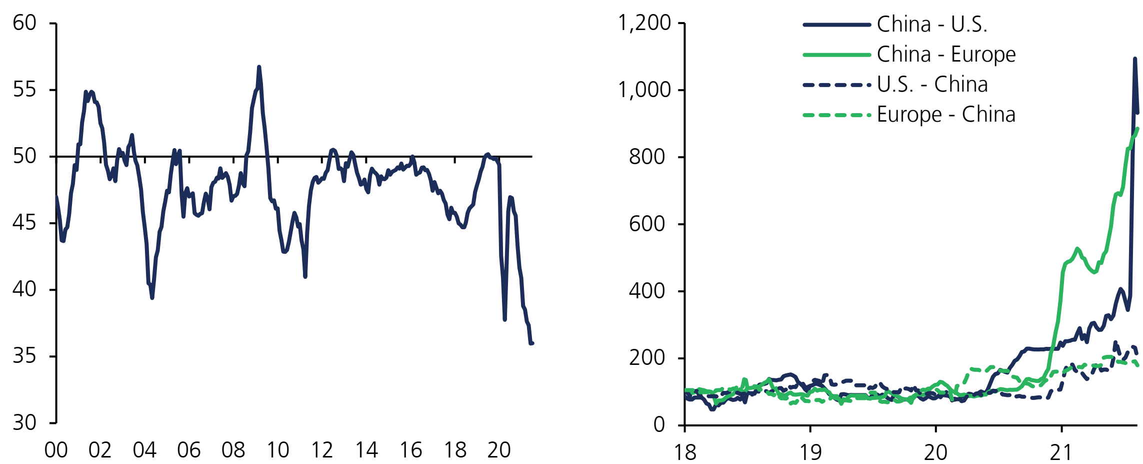
In line with the evolution of the pandemic and world demand, pressure on global supply chains and bottlenecks remain present, affecting both the speed of recovery and inflationary pressures. Supply constraints, in an environment of high demand, have persisted in several markets as countries continue to reopen. Difficulties in procuring certain raw materials, inputs and intermediate goods have caused significant delays in production chains. Thus, delays in purchase orders and poorer supplier performance are factors that continue to be reported by businesses worldwide (figure I.6). Sanitary difficulties and the renewed imposition of restrictions in Asia, mainly in China, have played a major role in the persistence of these disruptions. Similarly, maritime shipping costs are still at record highs, given the strong demand for these services, the tight capacity of shipping companies, and disruptions in the operation of some Chinese ports.

Financial conditions have remained favorable in advanced economies while they have worsened in emerging ones, reflecting a lower appetite for risk, against a backdrop of a global appreciation of the dollar. In the advanced economies, access to financing continues to be highly attractive for businesses (figure I.7). This is seen in a scenario of generally declining long rates in these economies, although they are still above their levels at the beginning of the year. In addition, the high valuation of various financial assets continues to be driven by the expansionary support policies and improved growth prospects. On the other hand, in emerging countries, and particularly in Latin America, the markets' more negative assessment of political and exchange rate risks stands out, which has been reflected in higher interest rates, greater sovereign risk, falls in some stock markets and reduced capital flows. In the Chilean market, these reactions have also been noticed (chapter II).

FIGURE I.6 BOTTLENECKS

Global manufacturing PMI: Suppliers' delivery times (1)
(diffusion index)

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

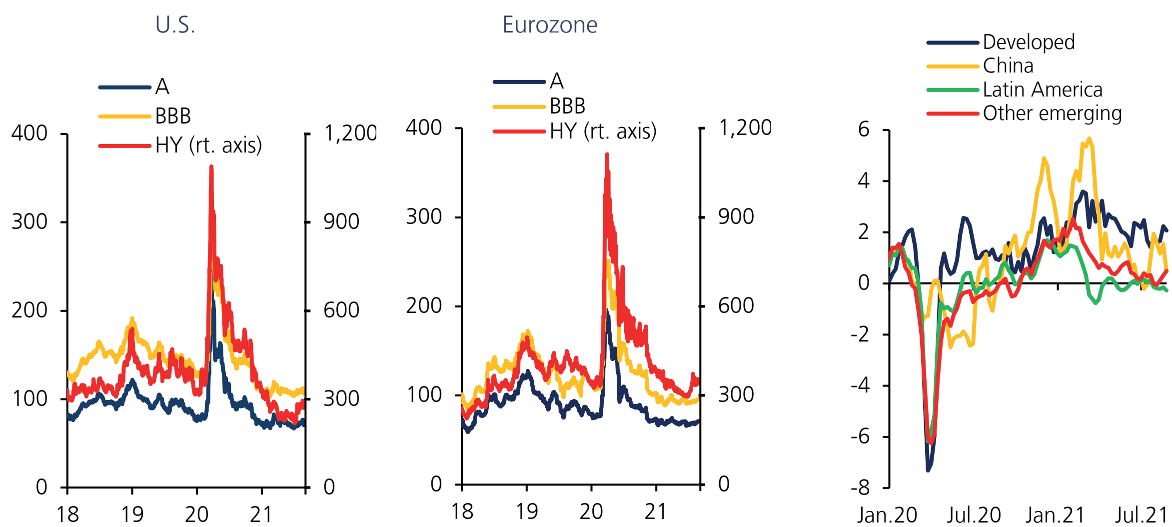


(1) A lower (higher) index means an extension (reduction) in suppliers' delivery time. (2) Transport fare for 40-ft container in respective routes.
Sources: JP Morgan, IHS Markit and Bloomberg.

FIGURE I.7 FINANTIAL CONDITIONS

Corporate spreads
(basis points)

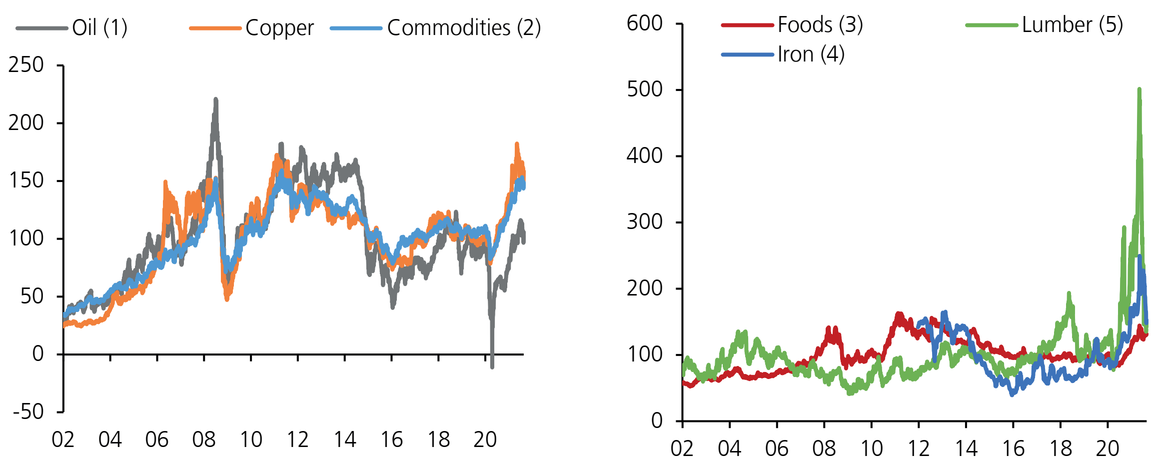
Standardized capital flows (1) (2)
(standard deviations)



(1) Standardized by mean and standard deviation of period 2008-2021. (2) 4-week moving average.
Sources: Bloomberg and Emerging Portfolio Fund Research.

Commodity prices remain high, even though since the June Report to date they have moderated their upward trend or declined from all-time highs (figure I.8). The latter include the prices of some metals, copper among them. Its price stood at US$4.2 per pound at the close of this Report (-8% since the June statistical cut-off). This decline was driven to some extent by the announced release of reserve stocks for sale by China, as an attempt to curb the price escalation and the lower expected Chinese demand for copper, in addition to the appreciation of the dollar in recent months. On the supply side, some planned projects have started to come on stream, which will help ease the market tightness observed at the beginning of the year. With respect to other commodities, worth noting was the plunge in the world price of timber, down around 60% since the end of June, after reaching all-time highs. This responds to the gradual normalization of its supply and the moderation of expectations in the U.S. housing market. Likewise, food prices have also shown a recent decline, especially vegetable oils, cereals, and some dairies. Oil has continued to rise (+1.5% for the WTI-Brent average since the close of June), amid high volatility associated with tensions in OPEC+ to agree on an increase in production and recent fears over new breakouts and their effects on global demand for crude oil.

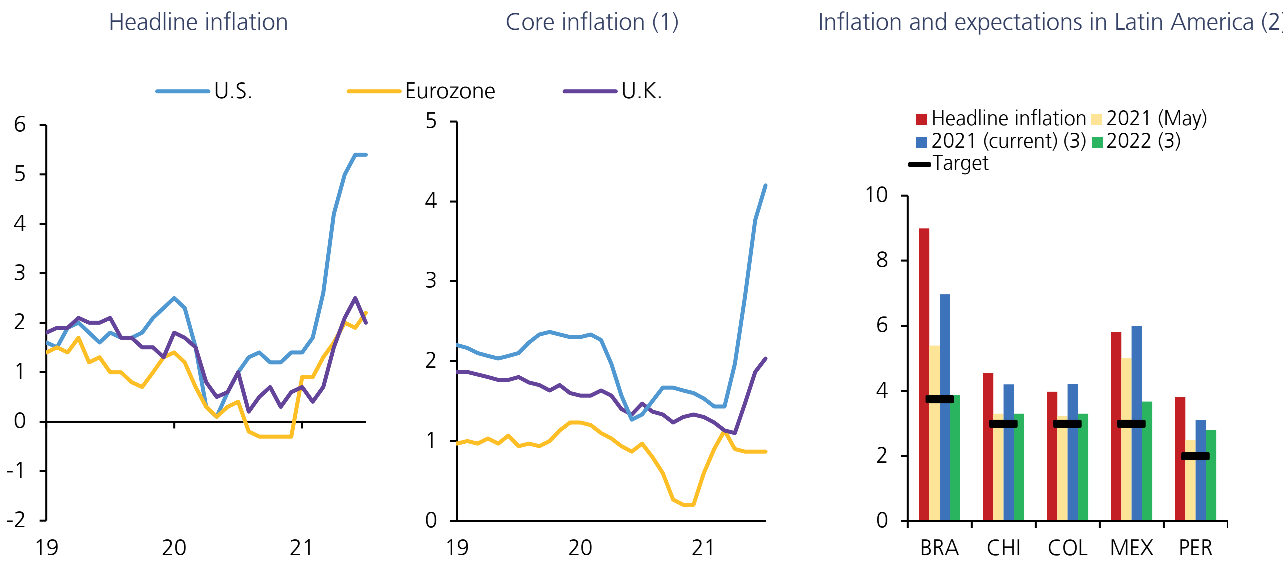
FIGURE I.8 COMMODITY PRICES
(index, 2002-2021 average=100)



(1) Simple WTI-Brent average. (2) Bloomberg Commodity Spot Index. (3) S&P GSCI Agricultural & LiveStock Index Spot CME. (4) Import spot prices of iron ore in Qingdao Port, China. (5) Prices of lumber futures contracts, in dollars per thousand board feet.
Source: Bloomberg.

In this context, headline inflation has continued to rise —in part due to higher fuel prices and the low comparison base—, with a core component that shows heterogeneity across countries (figure I.9). In the U.S., the most recent price records again showed upward surprises, and were mainly concentrated in categories with supply mismatches after the reopening, such as vehicles and lodging. This has occurred in a scenario where demand has remained high as a result of the extensive fiscal stimulus. In the Eurozone, despite soaring producer prices, their pass-through to overall inflation has been less widespread, and their core part shows no big changes. In Latin America, inflation has surprised on the upside, rising above the target in most countries. As a result, expectations for 2021 have risen and for 2022 are closer to the official targets. Among the cross-cutting aspects that have influenced this evolution are the higher prices of foods, fuels, and inputs together with the generalized depreciation of Latin American currencies against the dollar.

FIGURE I.9 WORLD INFLATION
(annual change, percent)



(1) 3-month moving average of annual variations. (2) Headline inflation corresponds to July data. Expectations show annual inflation expected for 2021 and 2022. (3) Brazil, Colombia and Chile use August's expectations surveys; Mexico and Peru use July's.
Source: Bloomberg.

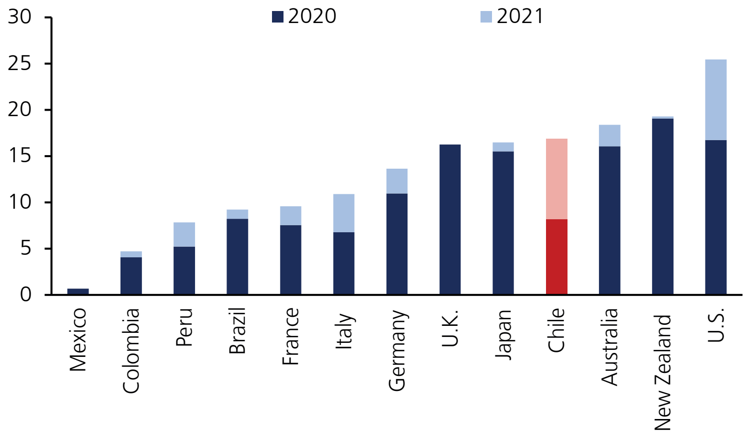
The monetary authorities of developed countries have kept unchanged their benchmark rates, while some have already begun to withdraw unconventional measures. Among emerging markets, several countries have begun to raise their rates, amid heightened concerns about inflation. The Fed has continued to signal that progress towards its two objectives is still needed before reducing stimulus and maintains its view that the inflationary increase is transitory. However, the minutes of the July meeting mention the possibility of slowing the pace of asset purchases this year, with uncertainty about the pace at which this withdrawal will take place. The ECB, on the other hand, announced a change of strategy for the target, to a symmetric 2% over the medium term, which means that positive and negative deviations are equally undesirable, providing some more room for monetary policy making.[1]/ Commodity exporting countries have continued to reduce the speed of asset purchases, although with no change in the rate. This contrasts with some countries in Europe —Hungary and the Czech Republic— and Latin America —Chile, Mexico and Peru— which recently joined Brazil in beginning to raise their benchmark rates.

On the fiscal front, no new stimulus packages for households have been added, and it is worth mentioning the public investment plans approved in the U.S. Apart from the extension of benefits to households in some countries—such as Brazil and Chile—, in general there have been no major announcements of new fiscal transfers. Going forward, developed countries are expected to withdraw their abundant incentives more slowly than emerging countries (figure I.10). In June, the U.S. Senate approved a US$250 billion plan to strengthen the technology industry and boost competitiveness with China. In addition, an infrastructure program involving US$550 billion in new spending was recently approved, targeting investments in roads,

[1]/ The previous inflation target meant to maintain inflation in a level below but close to, 2% in the medium term. For more detail, ver Strategy Review (ECB).

bridges, and internet service improvements, among others. Both plans are part of the fiscal program promoted by President Biden, which is still being discussed in Congress, and which will provide a significant boost to the U.S. economy over the next eight to ten years.

FIGURE I.10 GOVERNMENT ANNOUNCED EXPENDITURES OR FOREGONE REVENUES IN RESPONSE TO COVID-19 (*)
(percent of 2020 GDP)

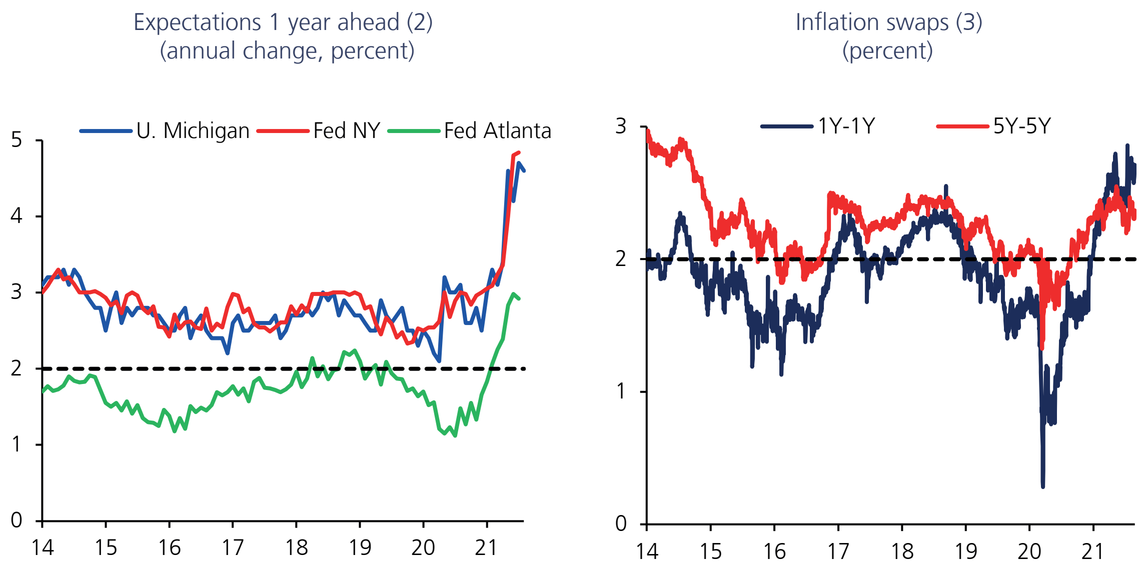


(*) 2020 figures correspond to January Fiscal Monitor data. 2021 figures are the difference between provision of July and January. For Chile, an additional 2.8% is assumed, due to IFE.
Source: Central Bank of Chile based on IMF data.

RISKS

The risk of a sudden reversal of financial conditions arising from persistent inflation in the U.S. has gained some strength. A stronger fiscal impulse, coupled with the potential emergence of wage pressures and a rapid closing of the gap pose risks insofar as high inflation expectations in the short term spill over to longer terms and change the Fed's assessment of the transitory nature of the inflationary upswing (figure I.11). An additional and/or amplifying factor is the reversal of the high valuation of asset prices and its implications for financial stability, amid greater uncertainty regarding the pace of the Fed's withdrawal of unconventional measures. In emerging economies, there is an added risk of an even more adverse market assessment of countries with local tensions and/or institutional problems.

FIGURE I.11 INFLATION EXPECTATIONS IN THE U.S. (1)



(1) Dashed horizontal line shows the Fed's inflation target. (2) The University of Michigan and Fed NY consider household expectations. Fed Atlanta considers business costs. (3) Calculated using swap inflation rates in dollars.
Sources: Federal Reserve, University of Michigan and Bloomberg.

The divergence in the speeds of vaccination keeps latent the emergence of new outbreaks and/or variants that deepen the heterogeneity in the recovery. A worsening of the pandemic would significantly delay the recovery of some economies, especially emerging ones. In addition, there is evidence of a weakening of vaccine immunity, which would imply the application of booster doses that could generate an even greater lag in these economies. Furthermore, the narrowing of bottlenecks and supply difficulties, mainly due to greater restrictions in Asia, is a major downside risk to activity, in addition to increasing the risk of inflationary pressures.

BOX I.1:

Recovery of global investment during the pandemic

After falling significantly at the beginning of the pandemic, investment has recovered rapidly in both developed and emerging economies, and in most of them has returned to 2019 levels. This dynamism has responded to several factors. First, after an initial slump, international financial conditions evolved favorably, supported by the strong expansionary monetary policies of developed economies' central banks. In turn, exceptional monetary and fiscal policy responses in support of credit enabled firms to access credit at the height of the crisis, avoiding massive bankruptcies and then financing investment. In addition, as governments lifted restrictions and companies went back to business, they were able to resume, at least partially, their shelved investment plans. Finally, there is the dynamism of residential construction, supported by the recent momentum of the real estate market, especially in developed economies. This rapid recovery in investment is a differentiating factor compared to other crises, in which the persistent weakness of investment is one of the main factors holding back the recovery of activity and employment.

The outlook for the investment trajectory is generally favorable for developed economies and more uncertain for emerging ones. In the former, fiscal packages, the positive economic outlook and the increase in residential construction will continue to support the recovery of investment. In the latter, there are risk factors that could have a negative impact. In addition to the possibility of a reversal of the good international financial conditions in response to the sharp increase in inflation at the global level and in the U.S. in particular, there is the possibility of a worsening of local financial conditions due to new idiosyncratic risks, greater uncertainty, and a sudden withdrawal of expansionary policies in the face of the reduced maneuvering space for the fiscal and monetary authorities to act. Besides, the increase in corporate debt could negatively affect the companies' investment plans, in emerging and developed economies alike.[1]/ In any case, in terms of longer-term impacts, the rapid recovery of investment suggests that the permanent effects of this crisis would be less severe than they have been in past episodes.[2]/

Recent evolution of investment

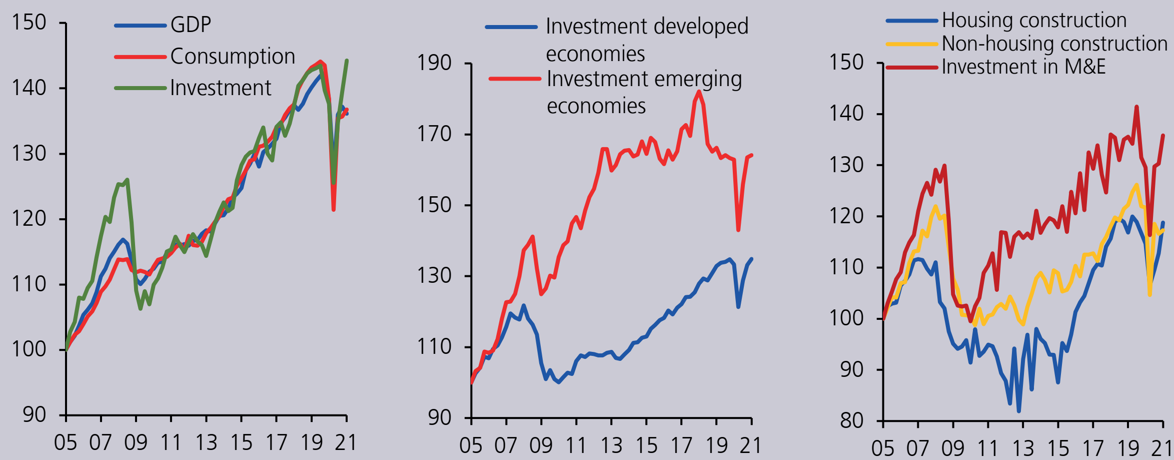
After the sharp declines observed early in the pandemic, global investment returned to pre-crisis levels. The current recovery has been significantly faster than during the global financial crisis, when it took more than six years for investment to recover. At the same time, this recovery has been faster than for other components of aggregate demand such as consumption, whose growth has been hampered mainly by its services component.

The recovery of investment levels similar to or higher than those of two years ago is cross-cutting among economies, with no significant differences between emerging and developed countries. Similarly, all investment components recovered rapidly, including residential and non-residential construction, as well as investment in machinery and equipment (figure I.12).

[1]/ See Albuquerque (2021).

[2]/ See Box I.1 in June 2021 Report.

FIGURE I.12 INVESTMENT, INVESTMENT COMPONENTS, GDP AND CONSUMPTION (*)
(index, Q1.2005=100)



(*) Median for 54 economies, including European, Asian, Latin American, commodity exporters, and the U.S. For housing, non-housing, and machinery and equipment, a sub-group of 29 economies is used.
Sources: Central Bank of Chile based on Bloomberg and Haver Analytics data.

Factors explaining investment dynamism

A key factor behind investment behavior during the pandemic has been the absence of a financial crisis, the good global financial conditions, and credit support measures by central banks and governments. After a rapid and steep deterioration in financial conditions in March 2020, the strong expansionary monetary policy of central banks in developed economies allowed international financial conditions to revert the initial deterioration and have remained favorable since. At the same time, special credit support measures implemented by monetary authorities and governments —particularly via fiscal guarantees— made credit available to businesses in both developed and emerging economies. In addition, many central banks decided to lower their monetary policy rates to historic lows —in many cases to technical minimums— in order to reduce the cost of financing for firms and households. Good financial conditions and credit support programs enabled businesses to access sources of financing in the most difficult moments of the crisis, thus avoiding massive bankruptcies and the consequent permanent destruction of jobs.[3]/

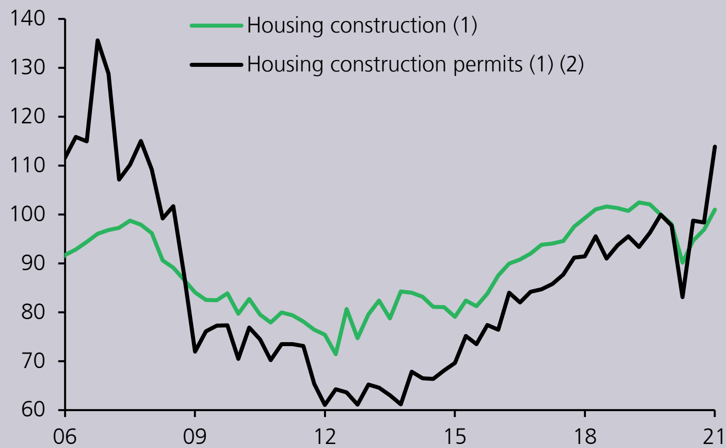
The rapid recovery of investment is also a consequence of the type of shock that the economies faced during 2020. Last year's drop in activity was due, in part, to the restrictions imposed by the pandemic. Thus, the construction sector was unable to operate in several countries, while the demand for machinery and equipment by firms that had stopped production fell. When the restrictions were lifted, in a context of high credit availability and a rapidly improving economic outlook, both construction and the demand for machinery and equipment recovered.

The swift recovery of the real estate and construction market has also contributed to the greater vigor of investment. Key to this has been the significant increase in demand for housing in different economies, possibly explained by a change in household preferences in a context of historically low long rates.[4]/ Considering the recent increase in housing permits, this factor is expected to provide an additional boost to investment for several more quarters (figure I.13).

[3]/ See Boosting Productivity in the Aftermath of Covid-19, International Monetary Fund, June 2021.

[4]/ See World Economic Outlook Update. International Monetary Fund, July 2021, and Liu and Su (2020).

FIGURE I.13 HOUSING CONSTRUCTION AND PERMITS
(index Q4.2019=100)



(1) Median of 30 economies, mainly European. (2) Permits by units built or square meters, as available.
Sources: Central Bank of Chile based on Bloomberg and Haver Analytics data.

The econometric evidence presented in Bertinatto et al. (2021) confirms that differences in the rebound of investment across economies during the pandemic were associated with credit-support fiscal and monetary policies, the lifting of restrictions, economic prospects, and idiosyncratic risks. The results of panel estimations for 40 economies suggest that investment performed better since the beginning of the pandemic in countries where the economic outlook improved more rapidly, idiosyncratic risk fell more, and/or mobility recovered more quickly. Moreover, the larger the monetary and fiscal policy responses aimed at providing liquidity and supporting business credit, the faster investment recovered.

Prospects and implications of the rapid recovery of investment

Although no big differences in the evolution of investment between developed and emerging economies have been observed so far, the outlook does differ. In developed countries, the fiscal packages that have already been approved or are under discussion in the Eurozone and the US stand out, which, unlike those allocated at the beginning of the pandemic, will assign a significant amount of resources to public investment, as well as the fiscal packages implemented in China.[5]/ There is also the favorable economic outlook and the increase in demand for housing, which anticipate that investment will continue to be dynamic in these countries.

In emerging economies, meanwhile, numerous risks could negatively affect investment in the near future. As has begun to happen in Latin America in recent months, good financial conditions could be reversed in the face of global events, such as the early withdrawal of monetary policy in the U.S. Coupled with this are various idiosyncratic factors, such as the recent increase in institutional risks in several of these economies, the worsened evolution of the pandemic because of slower progress in vaccinations, and the withdrawal of

[5]/ The U.S. Congress is currently debating the fiscal plan "American Jobs Plan" proposed by President Biden, while the European Union is beginning to disburse the amounts associated to the "EU–next generation" plan and the new multi-annual budget.

monetary stimuli in the face of greater inflationary pressures. Another factor that could affect investment in the coming years, in both developed and emerging economies, is the imposition of the global minimum tax that is currently under discussion. One of its objectives is to limit competition between countries to attract foreign capital via corporate tax rebates. Despite some recent advances, it is still uncertain about when it would take effect and the amounts involved.

The rapid recovery in investment around the world will support the recovery of activity and employment, and will support commodity prices in the short term, while mitigating the longer-term effects on growth. Unlike other crises, investment will not be a hindrance in the recovery of activity and employment. Also, considering the importance of commodities for investment, their recent dynamism lends support to their prices in the short term. In terms of the longer-term outlook, even though the process of capital accumulation was slowed down when the pandemic broke out, its agile recovery anticipates that the long-term effects on global activity would be more limited than in previous crises.

Conclusion

Contrasting with previous crises, the recovery of investment during Covid-19 has proven to be significantly faster. This phenomenon is widespread both comparing between groups of countries —developed vs. emerging— and between different components of investment. Fiscal and monetary policies, in particular special credit support programs that averted massive bankruptcies and improved the economic outlook, contributed significantly to this positive result. In turn, the lifting of restrictions contributed significantly to this process, stressing the strong initial influence of the closure of economies on different investment activities.

Going forward, a gap between investment's recovery trend in developed and emerging economies is likely to emerge. While the outlook for the former continues to be auspicious with favorable financial conditions and reduced degrees of uncertainty, the latter's situation could deteriorate due to the not so good evolution of the pandemic and the effects of higher domestic uncertainty, linked to a variety of idiosyncratic elements of a political-social nature, on their financial markets. In fact, the IMF's recent quarterly report[6]/ highlights the need to ensure the equitable distribution of vaccines worldwide, in order to allow a more homogeneous recovery and thus mitigate the factors that deepen such instability in developing economies.

[6]/ See World Economic Outlook Update. International Monetary Fund, July 2021.

II. FINANCIAL CONDITIONS

Idiosyncratic factors continue to be the main determinants of the performance of local financial markets, where the depreciation of the peso and the significant rise in long-term interest rates stand out. This has occurred in a context in which the levels of uncertainty remain high and the perception of risk concerning the Chilean economy has been increasing, amid open discussions on several fronts, a fiscal policy that has become procyclical and greater pressures for inflation. As for credit, the increase in the resources available to households and firms has also reduced their demand for financing, which is one of the essential elements behind the low dynamism of bank loans. In this context, the Board advanced in the withdrawal of monetary stimulus, increasing the MPR to 1.5%. Externally, changes in perceptions about the evolution of the pandemic continue to affect the movements of financial markets, while the risks related to an abrupt reversal of them remain present.

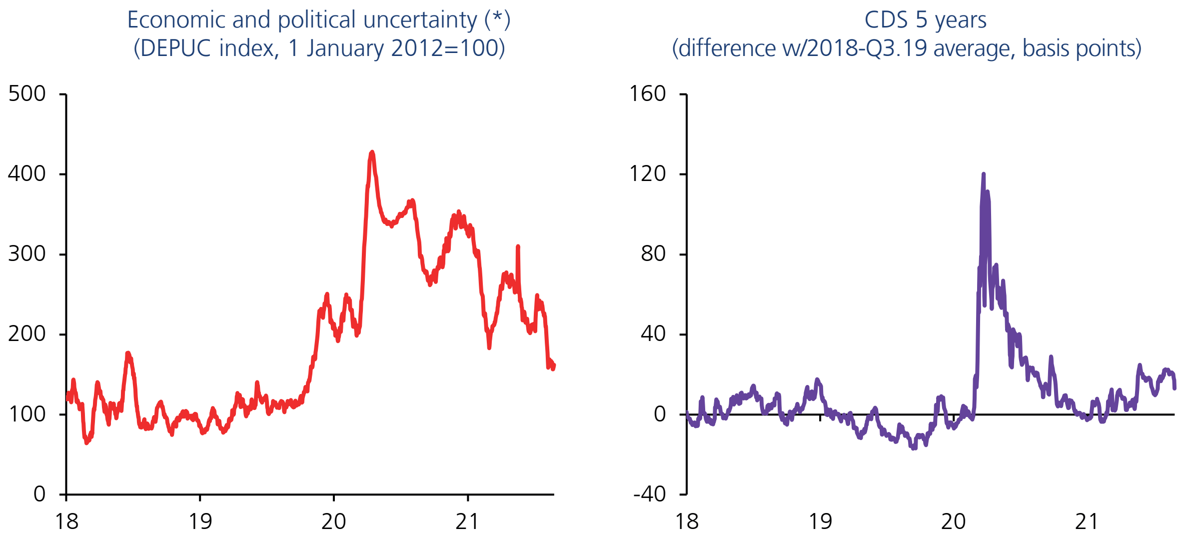
EVOLUTION OF FINANCIAL MARKETS

The behavior of the national financial market has continued to be linked mainly to internal factors, widening the discrepancies with respect to the evolution of its international similes. The behavior of the national financial market has continued to be linked mainly to internal factors, widening the discrepancies with respect to the evolution of its international similes. This combines events of different kinds, with notorious effects on the markets from March to date. There is the impact of the third withdrawal of pension savings and the discussion around additional withdrawals, as well as the significant increase in fiscal spending —particularly after the extension of the Emergency Family Income (IFE)— and Treasury operations to address these greater needs. Both the withdrawals of funds and the increase in the fiscal deficit have had a special impact on the interest rates of the fixed-income market, which accumulate substantial increases. Political events and the multiplication of legislative initiatives with financial impact, uncertainty about the evolution of the pandemic, and recent upward surprises in activity and inflation data have also had an impact.

Risk and uncertainty indicators continue to be higher than they were prior to the beginning of the social crisis. Beyond a fall in recent months, which can be linked to elements such as the improvement in the local sanitary outlook, the DEPUC (Daily Index of Economic and Political Uncertainty) remains high in historical terms, while the sovereign spread (CDS), although with swings, has been rising gradually so far this year (figure II.1). Either way, Chile's risk rating has not had significant adjustments.

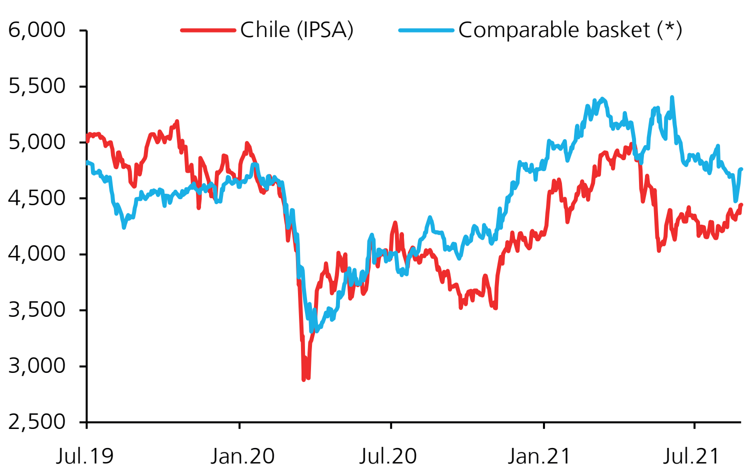
The local stock market maintains a weaker performance than other counterparties, despite the fact that the economy's performance in terms of activity has far exceeded expectations (figure II.2). Thus, in net terms, during the last months the IPSA undid the bulk of the accumulated gains in the first part of the year, maintaining the differences that it had been exhibiting with respect to the stock markets of comparable economies since mid-2020.

FIGURE II.1



(*) Moving 30-day average.
Sources: Becerra and Sagner (2020), and Bloomberg.

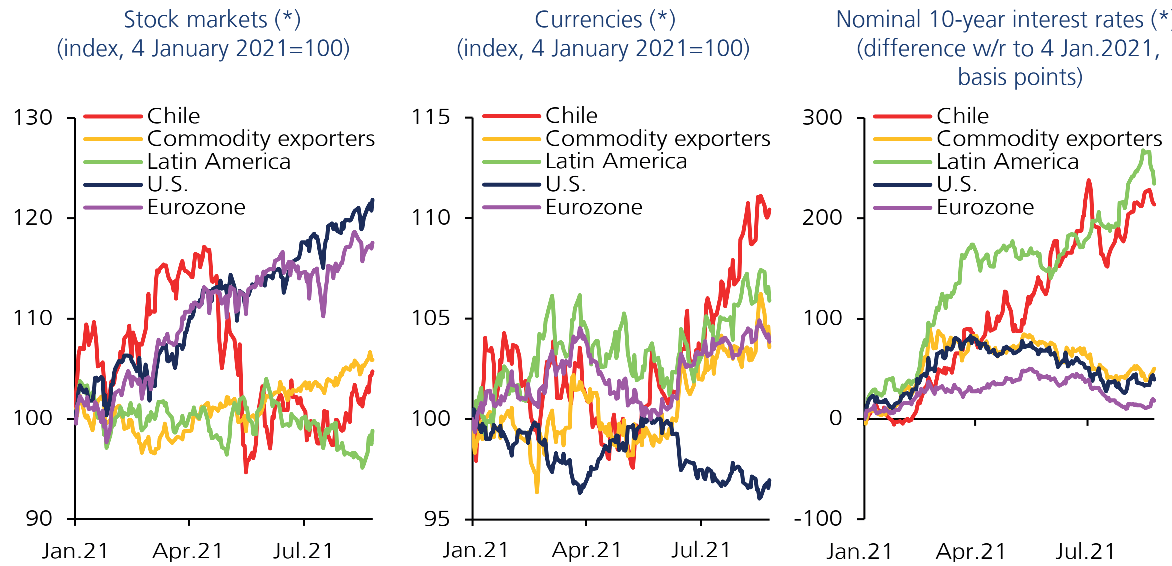
FIGURE II.2 STOCK MARKETS IN CHILE AND COMPARABLE ECONOMIES
(index)



(*) Captures movement or trend that the IPSA should follow to be comparable with other stock indexes in the basket. This is generated by combining Latin American countries and commodity exporters (Australia, Brazil, Colombia, Mexico, New Zealand and Peru). The weighters are the coefficients of a cointegration relationship with Chile's stock market.
Source: Bloomberg.

External financial markets have maintained a favorable tone, especially in the developed world. In the emerging market, there are deteriorations in the margin, reflecting a lower global risk appetite and idiosyncratic elements in these countries. In the first, long-term interest rates have generally decreased, although they remain above the levels early in the year, and the prices of various financial assets continue to account for high valuations. This occurs in a context of highly expansionary monetary policy around the world, beyond a group of central banks initiated or announced the prompt normalization of these stimuli in the face of rising inflationary pressures, including several in Latin America. Financial developments in the region diverge the most from other markets, amid a complex political and social landscape (figure II.3). Capital flows to these economies have declined (figure I.7), coupled with stock market falls and increases in long rates and risk premiums.

FIGURE II.3

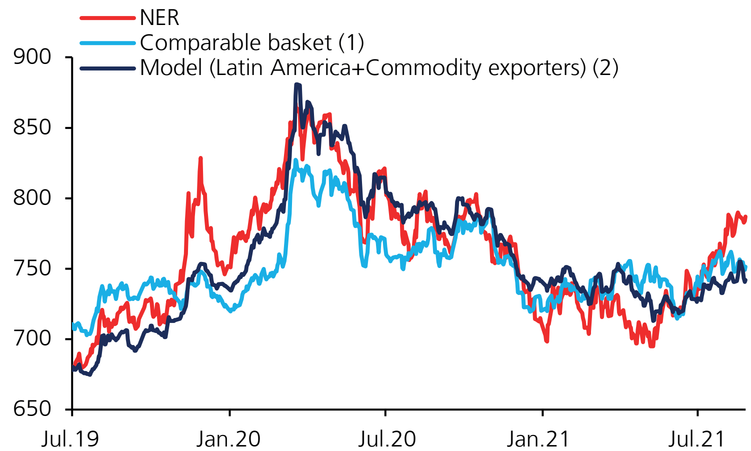


(*) For Latin America, the simple average of the indexes of Brazil, Colombia, Mexico and Peru are used. For commodity exporters, the simple average of the indexes of Australia and New Zealand are used. Sources: Central Bank of Chile and Bloomberg.

In this context, the Chilean peso is one of the currencies that have weakened the most around the world in recent months (figure II.4). The local exchange rate shows a sustained deterioration since mid-May, accumulating a depreciation against the dollar of the order of 11% since then. The loss of value of the peso has been transversal relative to different groups of currencies. In the same period, it depreciated by just over 9% compared to the average of multilateral measures (MER, MER-5 and MER-X). The deterioration of the exchange rate has been much more pronounced than its short-term fundamentals suggest, such as the evolution of the copper price or the multilateral dollar, which in any case has also tended to appreciate against the rest of the currencies in the recent past.

The faster pace of forex settlement of the Ministry of Finance has been absorbed by the transversal strengthening of the demand for dollars of the different market agents, for example, for the purpose of constituting the technical reserve of banks or as a safe haven currency for local agents. Thus, there is an increase in purchases by various actors, such as productive or financial companies, among others, at the same time that there is a significant increase in the number of new current accounts in foreign currency that people maintain in local banks.

FIGURE II.4 NOMINAL EXCHANGE RATE
(pesos per dollar)

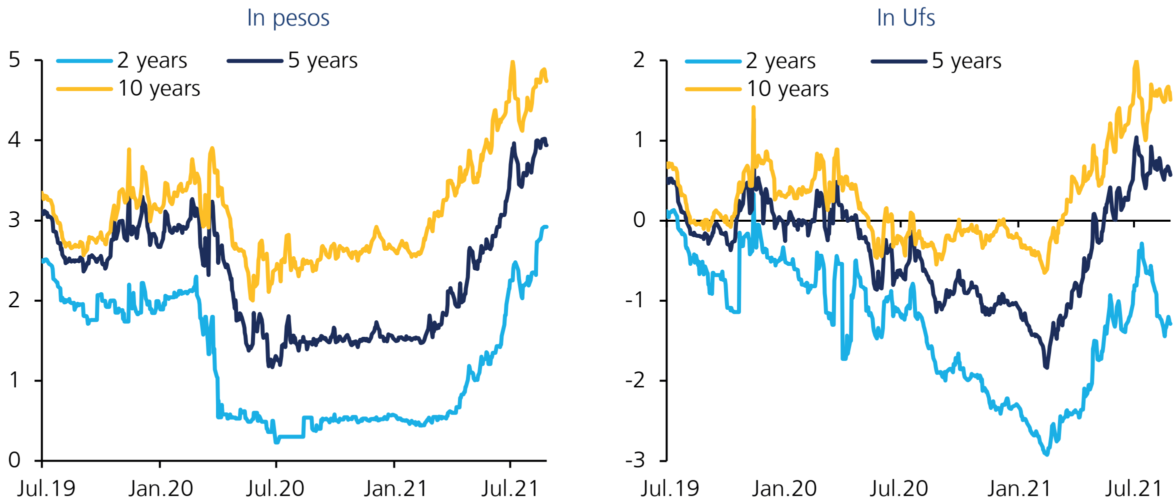


(1) Captures movement or trend that the NER should follow to be comparable with other stock indexes in the basket. This is generated by combining Latin American countries and commodity exporters (Australia, Brazil, Colombia, Mexico, New Zealand and Peru). The weighters are the coefficients of a cointegration relationship with Chile's nominal exchange rate. (2) Captures movement or trend that the NER should follow based on its fundamentals, e.g., the copper price and the domestic price level. For further detail, see Use of macroeconomic models in the Central Bank of Chile (2020).
Sources: Central Bank of Chile and Bloomberg.

Compared to the beginning of the year, long-term interest rates have accumulated increases much higher than those of their external similes, in addition to greater volatility (figure II.11). Much of these increases is explained by an increase in the uncertainty captured by the term premium. The trajectory of the latter has been influenced by the occurrence of various events, being important milestones the beginning of the discussion of the third withdrawal of pension funds and later of a fourth (box II.1). This occurs in a scenario in which growth prospects have risen and in which much of the fiscal policy space has been utilized. In fact, the latest debt issuances of the Ministry of Finance had important impacts on these rates and those of the medium term.

The scenario of greater dynamism of public and private spending, added to the idiosyncratic depreciation of the peso, have boosted short-term inflationary pressures, leading to an adjustment of monetary policy. The rise in MPR and the change in its future bias has been passed down towards shorter-term rates. Thus, the nominal benchmark curve has been flattening, the same as for SPC. The increase in interest rates has also passed through to the UF curve, where increases of between 100 and 180 basis points are seen for terms up to 10 years so far in 2021. In any case, two years out, these have tended to decrease in recent months due to the rise in inflation expectations (figure II.5).

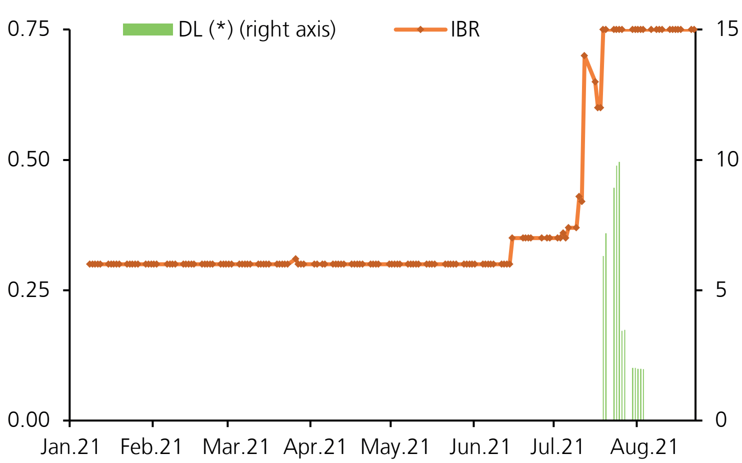
FIGURE II.5 INTEREST RATES ON BENCHMARK BONDS
(percent)



Source: Central Bank of Chile.

Interest rates in the money market have also risen, coinciding with the aforementioned monetary policy changes and the higher market expectations for the MPR. The Central Bank's liquidity management operations have made it possible to adjust these rates, mainly through a greater issuance of Discount Notes (PDBC), whose stock has increased to just over US$50 billion, and the incorporation of liquidity deposits (LD) for banks. Thus, the interbank rate (IBR) has been equated with the MPR (figure II.6). The rates of PDBC and term deposits have been aligned with the movements of the SPC curve. Meanwhile, the liquidity in dollars of the banks continues around its maximums, favored by the sales of foreign currency from the Treasury and pension funds, which keeps the cost of financing in dollars contained locally.

FIGURE II.6 INTERBANK INTEREST RATE AND STOCK OF LIQUIDITY DEPOSITS
(percent; billions of dollars)

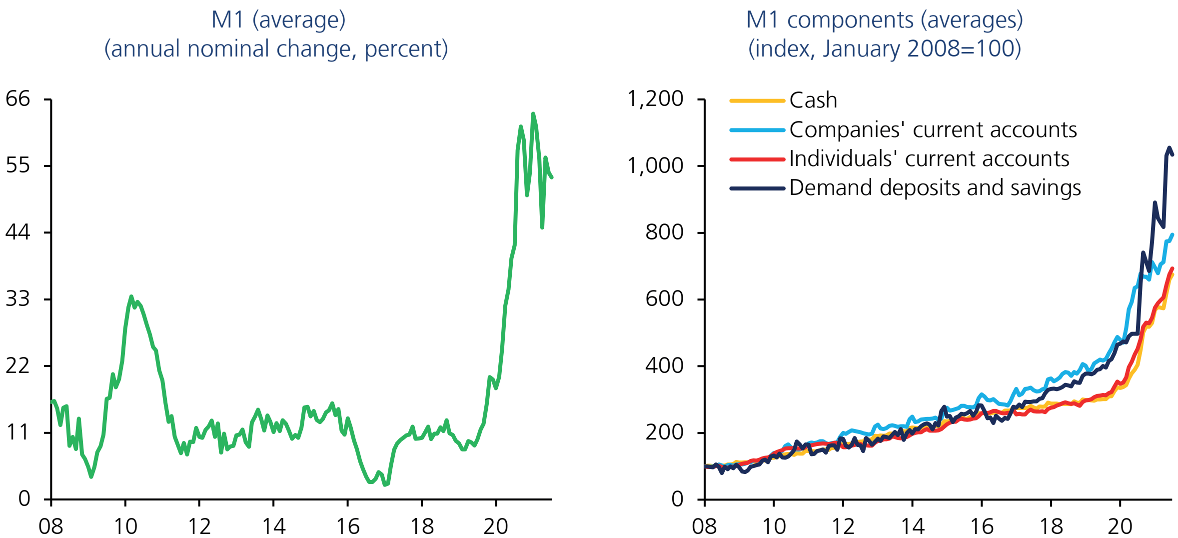


(*) Conversion to dollars using observed exchange rate at respective dates.
Source: Central Bank of Chile.

LIQUIDITY AND FINANCING

The liquidity of households and companies has increased significantly, as a result of the withdrawals of pension savings, credit support measures and transfers from the Treasury, to which is added the impact of fewer restrictions on mobility and the strong growth of the economy. Much of the greater resources available have been allocated to more liquid assets, which has sustained the growth of M1 around its peaks of recent decades, as well as that of the different components of this monetary aggregate (i.e., current accounts, cash, and demand deposits and savings) (figure II.7). Likewise, the transfer of a fraction of the funds from the mandatory accounts in the pension system to the voluntary ones is observed, whose balances as of June recorded an increase of 140% per year.

FIGURE II.7

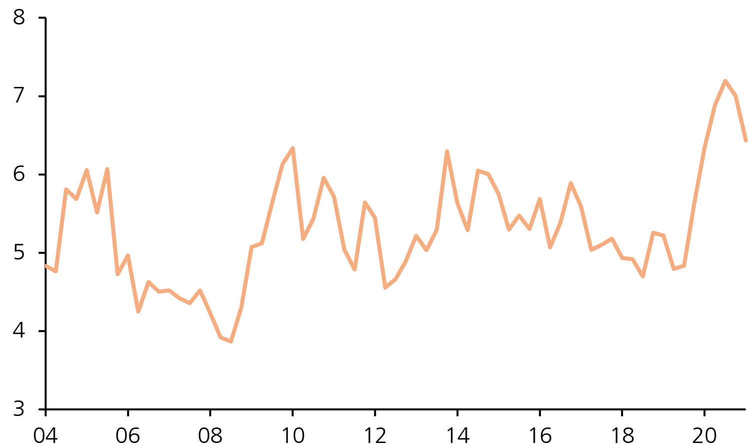


Source: Central Bank of Chile.

This increased availability of funds, among other factors, has reduced the financing needs of the various actors. This, in the midst of conditions of access to credit that are generally seen as favorable. According to the Business Perceptions Report (IPN) of August, the poor performance of the banks' commercial portfolio is mainly due to lower financing needs, coinciding with what was reported by the Bank Lending Survey (BLS) of the second quarter, which reveals a fall in applications for investment and working capital. In recent months, about a third of the firms consulted in the IPN did not request loans (between 55% and 56% in October 2020 and April 2021), with reasons that range from those not willing to borrow more because of their high degree of leverage to those that do not need it thanks to the greater liquidity associated with the reopening of the economy and the better results of businesses. Overall, there is an increase in firms' cash levels over the course of the pandemic, suggesting a precautionary accumulation of resources (figure II.8). In the case of individuals, especially in consumption, the abundant liquidity derived from the various measures implemented keeps the requests for funds contained. In the housing segment, there is the incipient impact that the rise in mortgage interest rates would be having on the demand for these loans, as reflected in the responses to the IPN and the BLS.

On the supply side, most of the IPN interviewees reported flexible conditions on the commercial segment, although some noted a lower risk tolerance of banks, similar to what emerges from the BLS. For households, it reports that the lending standards have been further relaxed, on aggregate.

FIGURE II.8 CASH AT COMPANIES (*)
(stock, percent of total assets)



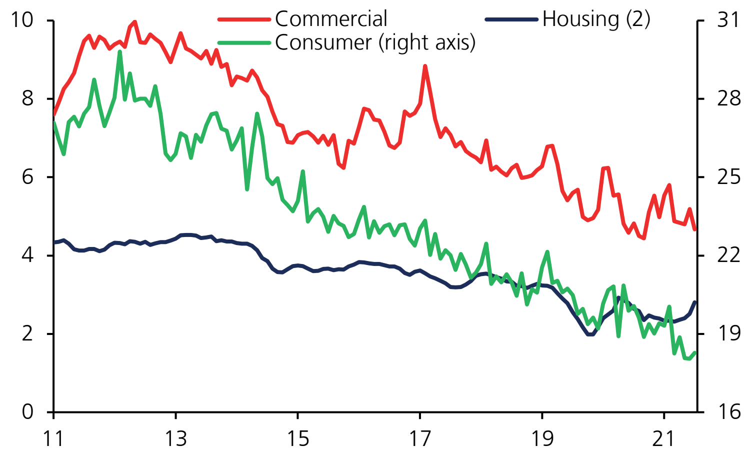
(*) Companies that report to the Financial Market Commission, excluding mining and financial companies. Data as of the first quarter of 2021.
Source: Central Bank of Chile based on Financial Market Commission data.

In this context, bank placements continue to show a low dynamism in the bulk of portfolios. Credit to companies continues to be underpinned in large part by FOGAPE-Reactiva, whose use has seen some moderation in recent times. This program has accumulated disbursements of the order of US$8 billion since its inception in February of this year, with operations that are concentrated in smaller firms and for working capital purposes. The rest of this segment's activity remains low, with some rebound in the margin. In annual terms, the commercial portfolio maintains negative real growth rates (-2.2% in July), a result that is influenced by the extraordinary increase in these loans during 2020 due to the application of special credit policies. Credit flows to households have maintained a fairly stable behavior since the June Report. The consumer portfolio has been slowing its annual real contraction (-13.6% in July), while the housing portfolio continues to expand by around 5% annual real, with average amounts per operation high in retrospect.

The increase in corporate and people liquidity has helped to contain the risk indicators of the system as a whole. In both cases, debt levels fell in recent quarters. In the commercial category, the greater participation of some lower quality portfolios in recent months led to an increase in provisions, although they have fallen from their peaks of the first quarter, while the delinquency remains stable. All this, in the midst of rescheduling and refinancing that have continued in this segment. The IPN also highlights the decrease in non-payment between companies. For households, these same indices show additional improvements since the June Report.

The rise in interest rates on mortgage loans stands out, consistent with the rise in the rates of long-term instruments (box II.1), while in the rest of the portfolios the movements have been more limited. As for households, housing and consumer loan rates amounted to 2.8% and 18.3% in July, respectively (2.4% and 18.1% in May). Those in the commercial category, with ups and downs, saw a slight decline (4.7% in July), which is largely explained by changes in the composition of this segment (figure II.9).

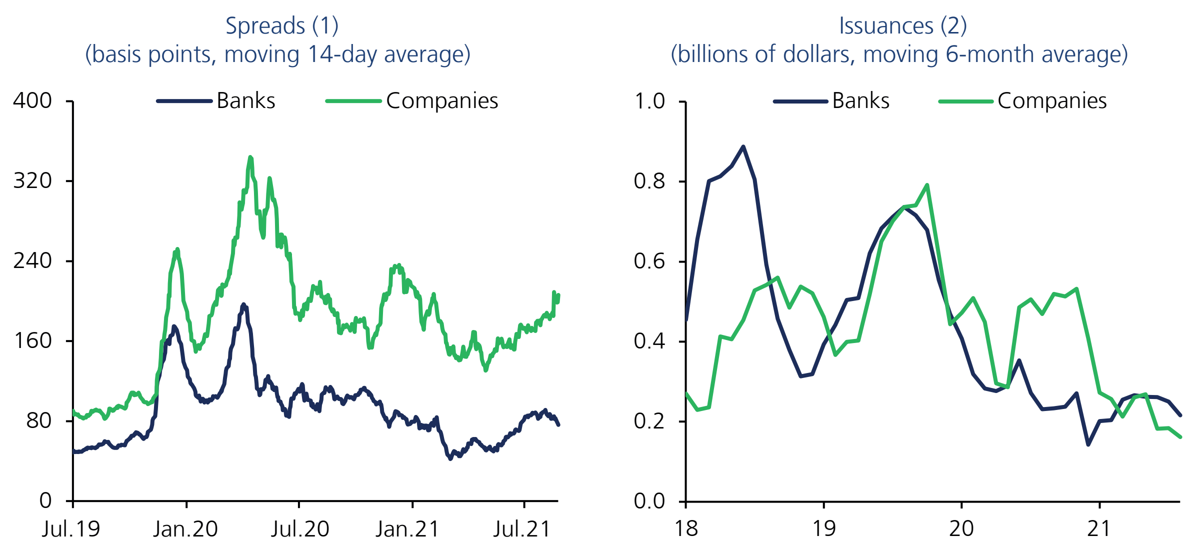
FIGURE II.9 LENDING INTEREST RATES (1)
(percent)



(1) Weighted average of all the operations performed in the month.
(2) Housing loans interest rates correspond to operations in UFs.
Source: Central Bank of Chile based on Financial Market Commission data.

Activity in the Chilean corporate bond market continues to be low, in contrast to the increase in external issuances by local agents. This is consistent with better financing conditions for issuances abroad. Spreads have been rising locally in recent months, especially corporate spreads in the non-financial sector, although they are far from their peak of 2020 (figure II.10).

FIGURE II.10 DOMESTIC CORPORATE BOND MARKET



(1) Average of categories AAA, AA, and A.
(2) August 2021 figure considers information up to the 17th.
Sources: Santiago Stock Exchange and RiskAmerica.

RISKS

Financial risks have continued to increase. At the local level, this goes hand in hand with the impact of idiosyncratic factors on the performance of the markets, such as the progress of new bills for the withdrawal of pension savings, and/or the evolution of public finances that is not clear about their stabilization in the long term. The series of idiosyncratic shocks to which the Chilean economy has been exposed have triggered the decoupling of national financial markets from their peers abroad, especially developed ones, with a depreciation of the peso and significant increases in long rates. This is having an impact, among other ways, on the valuation of pension funds, as well as on the cost of mortgage loans or the funding of investment projects.

The persistence or intensification of these trends could adversely affect long-term growth (box II.1). In fact, new pension fund withdrawal projects suggesting the possible liquidation of 100% of the remaining savings could cause a massive sell-off of financial assets, which would be particularly delicate in those less liquid. This could well precipitate a financial crisis, given the scale of investments in local instruments by pension funds, the natural buyers of these assets. Unlike previous withdrawals, the scale of settlements in a scenario like this could be an order of magnitude greater than the Central Bank's capacity to react.

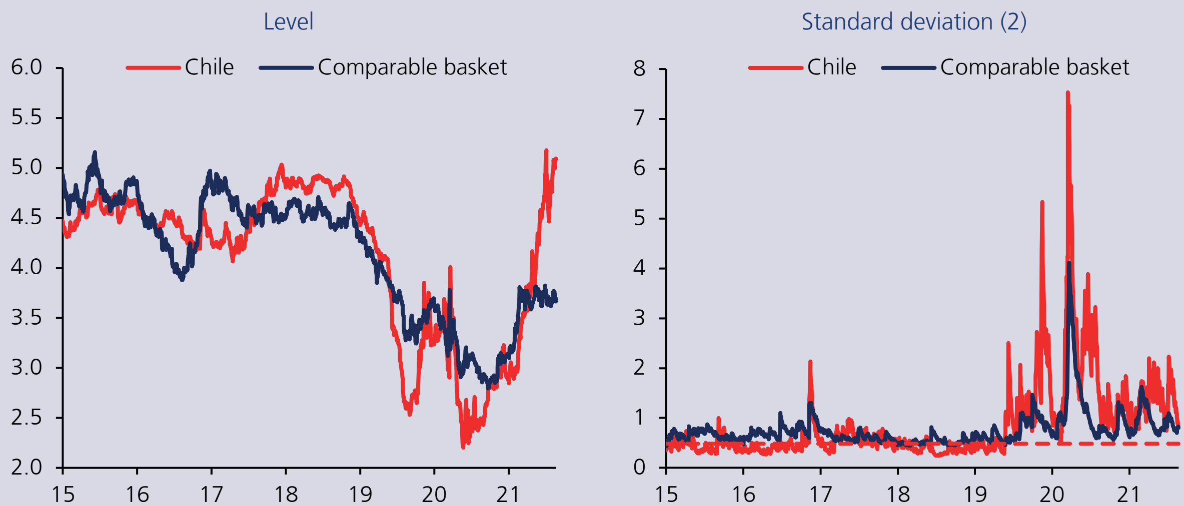
Meanwhile, the possibility remains that high inflation in the U.S. is a more persistent phenomenon, leading to an abrupt correction in financial conditions for emerging economies. The still present supply problems in the wake of the pandemic —which could intensify with the emergence of new strains— and recovering global demand keep cost pressures high, which added to higher expectations of fiscal spending in the U.S. could accelerate the process of normalization of the Fed's monetary policy and cause a sudden adjustment of financial markets. These maintain a positive tone, with asset prices at their all-time highs in many cases, but their more recent evolution denotes a more negative assessment around emerging economies, particularly in Latin America. The complex political and social landscape in the region puts an additional note of caution for the performance of local markets, considering the high corporate exposure of Chilean capital in these countries.

BOX II.1:

Determinants of recent long-term interest rate movements

So far this year, long-term interest rates have seen significant increases, with an unusual decoupling from movements from their external similes that has been accentuated since the beginning of the second quarter. In 2021 to date, the 10-year bond in pesos (BCP10) has risen around 200 basis points (bp) —which compares with an increase of around 60 bp of its external similes—, also showing higher volatility (figure II.11). The most visible consequences of these movements are seen in the returns on long-term savings —including the fall in the value of the E fund of pension system savings—, the rise in mortgage lending rates and the higher cost of financing for investment projects. Given that long-term interest rates have important effects on the dynamics of credit and activity, and also incorporate valuable information on the perceptions of households, firms and investors, it is essential to understand the determinants of their movements. This box discusses the different components of local long rates and how these have influenced recent increases.

FIGURE II.11 LEVEL AND VOLATILITY OF 10-YEAR BCP ZERO RATE WITH RESPECT TO COMPARABLE ECONOMIES (1)
(percent)



(1) The basket of comparable economies combines Latin American and commodity exporting countries (Brazil, Colombia, Mexico, New Zealand, and Peru). Weighters are the coefficients of a cointegration relationship with Chile's 10-year interest rate. (2) Standard deviations correspond to the standard deviation conditional on a GARCH model (1,1). Dashed horizontal line shows Chile's 2012-2018 average.
Sources: Central Bank of Chile, Bloomberg and RiskAmerica.

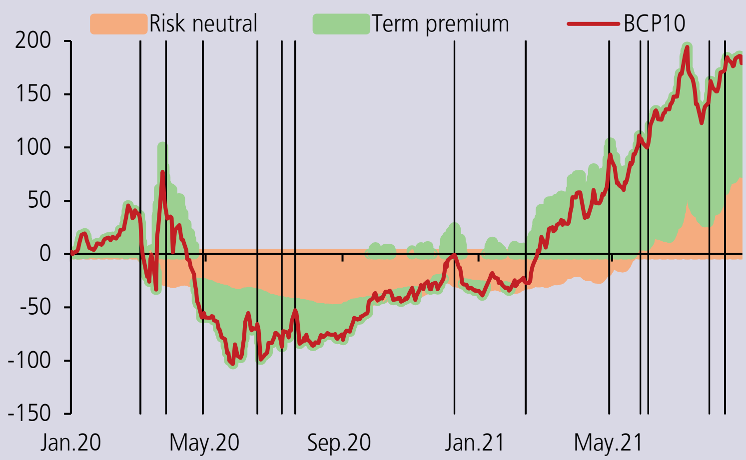
Why has the 10-year interest rate increased?

Conceptually, interest rates on long-term bonds have two components, the "risk neutral" and the "term premium." The first reflects the expected short-term interest rates for the future (the sum of expectations regarding the real rate, inflation and depreciation) and the second corresponds to compensation for the greater risks associated with a long-term bond. These risks include, first, uncertainty about future depreciation, inflation and real short-term rates, the variation of which has a greater effect on the value of long bonds than on short bonds. A premium is added associated with the possibility that the debt will be downgraded, or the issuer of the bond will default and another, called liquidity, linked to the possibility of capital losses occurring in case it is necessary to liquidate the bond in the secondary market before its maturity.

In practice, this risk compensation can vary for a number of reasons, reflecting investors'perceptions of risk. For example, events of high local uncertainty can raise the risk compensation required by different instruments, including long-term bonds. On the other hand, movements in global financial markets also tend to influence the term premium of bonds, especially in financially integrated economies, such as Chile. It follows that some increases in long-term interest rates may have a benign interpretation —when, for example, they are related to higher monetary policy rate prospects associated with higher economic growth— while others tend to be less desirable —when associated with higher risk compensation required.

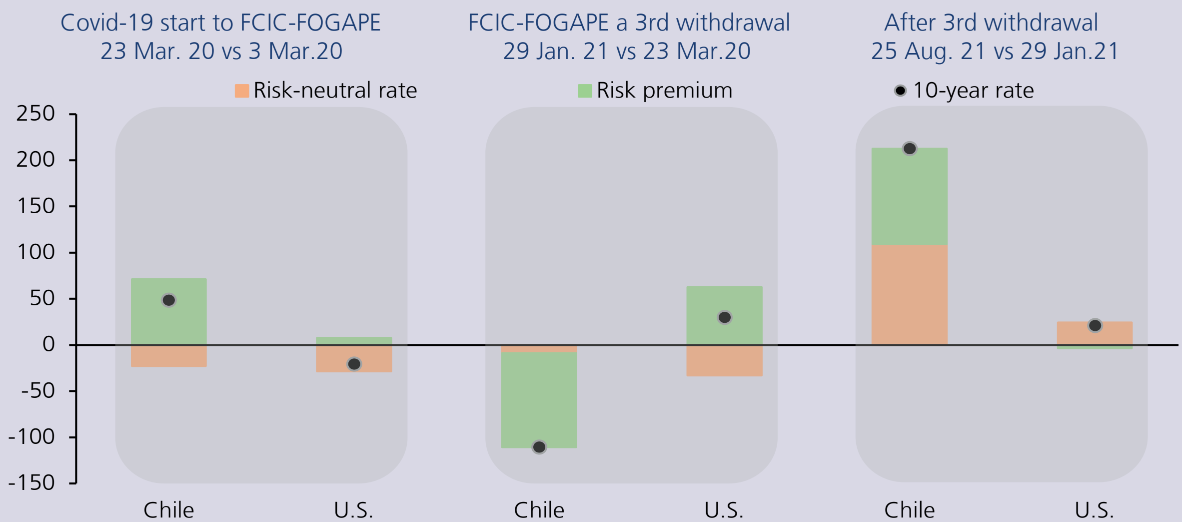
In recent quarters, various local and external events have led to significant fluctuations in 10-year interest rates (figure II.12). After the social crisis, the start of the pandemic was the first disruptive event: between the detection of the first case of Covid-19 (on 3 March 3 2020) and the implementation of the FCIC program (on 23 March), the BCP10 rate increased by just over 50pb, fully explained by the term premium component (figure II.13). However, these movements did not generate significant differences with what happened in other comparable economies and the level reached (3.9%) was still low in historical comparison.

FIGURE II.12 BREAKDOWN OF 10-YEAR BCP ZERO RATE (1) (2)
(difference with 2 January 2020, daily data in basis points)



(1) The risk-neutral and term premium components are extracted from SPC rates using the strategy proposed by Krippner (2015), which contemplates the existence of a lower bound for the MPR. (2) Vertical lines from left to right indicate the following events: first Covid-19 case confirmed in Chile (3 March 2020), CBCh establishes FCIC rules (23 March 2020), start of FOGAPE-COVID program (28 April 2020), June 2020 Monetary Policy Meeting (16 June), approval of idea to legislate first withdrawal of pension funds (8 July 2020), first CBCh announcements (20 July 2020), publication of law associated with second pension fund withdrawal (10 December 2020), start of discussion of third withdrawal (29 January 2021), Constitutional Tribunal ruling associated with the third withdrawal of pension funds (28 April 2021), Government proposal of "common minimums" (26 May 2021), introduction of bills associated with the withdrawal of 100% of pension savings (2 June 21), scheduling of discussion of the Bill associated with a fourth withdrawal of pension funds (27 July 2021) and announcement of IFE extension and employment subsidy (10 August 2021). Source: Central Bank of Chile based on RiskAmerica data.

FIGURE II.13 BREAKDOWN OF CHANGE IN 10-YEAR BCP ZERO RATE (*)
(daily data, basis points)



(*) See note (1) in figure II.12. Breakdown of the New York Federal Reserve is used for the United States.
Source: Central Bank of Chile based on RiskAmerica data.

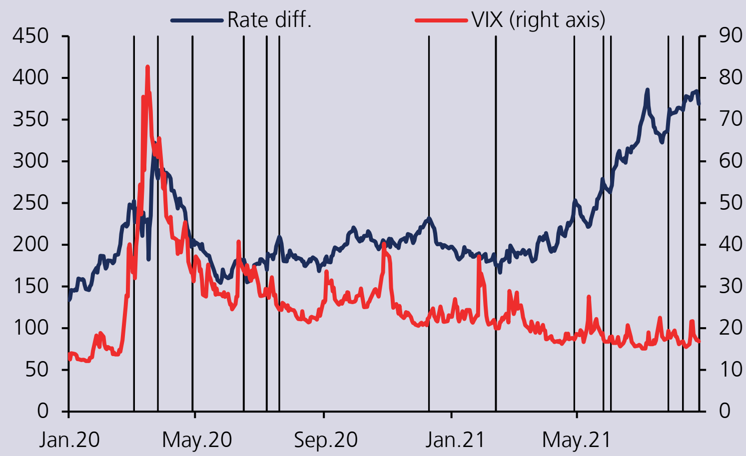
During the second quarter of 2020, the more expansionary monetary policy at the local level (in the second half of March the MPR was lowered by 125 bp and extraordinary measures were announced), the deterioration of the economic outlook as a result of the pandemic and the greater preference for safer assets (bonds), generated strong downward pressures on the long rate. Thus, in response to both the risk-neutral component and the term premium, the 10-year interest rate fell by 150pb, to levels of the order of 2% towards the end of June last year. This movement was relatively widespread in international financial markets.

The second half of 2020 saw a shift and local long-term interest rates rose systematically. Increased uncertainty from local events seems to have played an important role in this dynamic. In fact, the beginning of the increase coincides with the approval in the House of Representatives of the idea of legislating the first withdrawal of pension savings, on 8 July 2020. To these local events, one must add the increase in the term premium in the U.S. Overall, this dynamic failed to compensate for the effect that, since March, monetary policy had on reducing the term premium.

During 2021, the interest rate of the BCP10 has increased in the order of 200pb. The uncertainty generated by local events —in particular, the discussions around successive withdrawals of pension savings and the growing financing needs of the Treasury— led to an increase of more than 100pb in the term premium component. The other half of the increase accumulated in the year is explained by the surprises in the level of activity and inflation of recent months, which increased the outlook for the evolution of short-term monetary policy, increasing the upward pressure on the rate, this time, through the risk-neutral component. Assuming that the difference between nominal and UF rates represents only an inflation forecast, changes in the latter (which include changes in expected inflation and uncertainty about future inflation) explain about 40pb. In this same period, the term premium and the long-term interest rate in the U.S. showed marginal increases compared to Chile, which reaffirms the interpretation of local events as fundamental causes of the increase in the 10-year rate.

Alternatively, the rate differential between Chile and the U.S. also shows two significant changes unrelated to episodes of increased global uncertainty, one since July 2020 and the other, more substantial, since the first quarter of 2021 (figure II.14).

FIGURE II.14 INTEREST RATE DIFFERENTIAL AND GLOBAL UNCERTAINTY (*)
(basis points; percent)

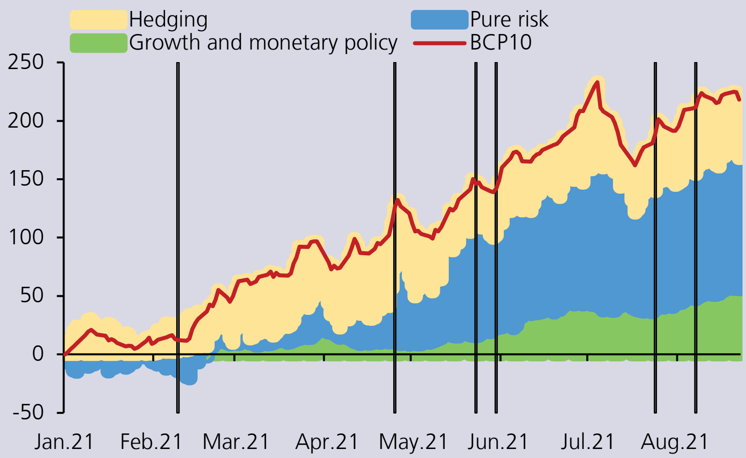


(*) Vertical lines mark same events shown in figure II.12.
Sources: Bloomberg and RiskAmerica.

A complementary analysis breaks down the movement of long-term interest rates into three groups of structural shocks: (i) those associated with growth and monetary policy expectations (similar to the risk-neutral component), (ii) risk hedging (episodes of uncertainty that boost the preference for bonds over stocks, as observed in the first half of 2020) and (iii) pure changes in uncertainty that affect the risk premiums of all instruments (increases in uncertainty that reduce stock prices and raise long-term bond rates)[1]/. This breakdown provides conclusions similar to those already mentioned: approximately half of the increase in the BCP10 rate that occurred during 2021 is due to shocks to risk premiums (figure II.15), consistent with the significant rise in these rates at the same time that the Chilean stock market performed significantly worse than its international peers (chapter 2).

[1]/ See Cieslak and Pang (2021).

FIGURE II.15 STRUCTURAL DECOMPOSITION OF 10-YEAR BCP ZERO RATE (*)
(difference with 30 December 2020, basis points)



(*) Structural decomposition based on Cieslak and Pang (2021). Vertical lines mark same events shown in figure II.12. for the year 2021.
Source: Central Bank of Chile based on RiskAmerica data.

Conclusions

The Chilean economy has faced idiosyncratic shocks that have affected the current economic situation, increased uncertainty about its future state, raised inflation prospects and increased inflationary risks. This has significantly raised the term premium component of long-term interest rates, decoupling local financial markets from the evolution of their international counterparts. These developments are having negative consequences, such as the fall in the value of pension funds that invest a more significant portion in long-term bonds —such as the E fund—, because the counterpart of the increase in the rate is the fall in the price of bonds. It has also been reflected in an increase in the rates of mortgage loans —as the reference rates for them are long-term rates—, and in the increase in the cost of financing medium- and long-term investment projects. Maintaining or increasing the premiums behind rising long-term interest rates could have adverse effects on investment levels, productivity, and long-term growth capacity. If, conversely, uncertainty were reduced, the improvement in financial conditions, including the reduction of long rates, and lower inflationary pressures, would give monetary policy more room for manoeuver.

III. ACTIVITY AND DEMAND

Activity has been recovering faster than expected, and is back to levels close to those it exhibited before the social crisis outbreak in October 2019. During the second quarter, several sectors showed high dynamism, in a context in which the economy went from significant lockdown at the beginning of the quarter to a growing opening towards its end. This dynamism has been observed in a scenario where domestic spending shows extraordinary growth in private consumption, especially in its durable component. The accumulation of liquidity provided by successive withdrawals of pension savings and fiscal transfers has been decisive for this behavior of consumption. The growing inflationary pressures that this has created have been augmented by the deterioration that these measures, together with the discussion of new decisions of this kind, have caused in the perception of risk of the Chilean economy. The labor market shows a recovered formal salaried employment and a significant rebound in the demand for work, although the labor supply remains tight, especially among lower-skilled workers and women.

ACTIVITY AND DEMAND

The Chilean economy surpassed the level of activity it exhibited before the onset of the social crisis and the pandemic. This result was particularly present in the figures for the second quarter, when activity grew 18.1% annually, with a quarterly expansion rate of 1%, exceeding June forecasts. This accounts for the effects of setbacks in the Step-by-Step Plan that have been milder than anticipated. In fact, during the quarter, the seasonally-adjusted Imacec only declined in April, and in the following two months—still with a significant proportion of the population in quarantine—expanded month on month (figure III.1). This contrasts with the situation at the beginning of the pandemic, when the introduction of restrictions strongly affected the economy, but the growing adaptation capacity that people and firms have displayed has allowed to continue operating in pandemic-like conditions. In July, the Imacec recorded annual growth of 18.1%, with a seasonally-adjusted monthly expansion rate of 1.4%.

Some differences persist across sectors, as sectors such as trade post levels of activity significantly above those of the third quarter of 2019, while others are yet to recover them (figure III.2). Trade registered an increase of close to 43% annually in the second quarter, boosted by the dynamism of consumption. In services, their slower recovery reflects the restrictions on operation that remain due to the pandemic. In any case, the progress of the districts in the Step by Step Plan has allowed easing the limits to operating capacities so several services have reopened in recent months. The central scenario assumes that the evolution of the sanitary situation will continue to favor the performance of the economy in the coming quarters, and estimates that by 2022 the restrictions on inland mobility will be minimal.

The information available at the macrozone level also shows a generalized recovery in activity levels throughout the country. From cross-reports of information between different administrative records, it is possible to construct monthly indicators of activity at the macrozone levels that come to correct the lag with which the data of Regional National Accounts are published. The main result shown by this information is that, although there is a strong co-movement of territorial activity prior to the pandemic, since its onset a marked

FIGURE III.1: STEP-BY-STEP PLAN: POPULATION IN EACH PHASE (*)
(percent)

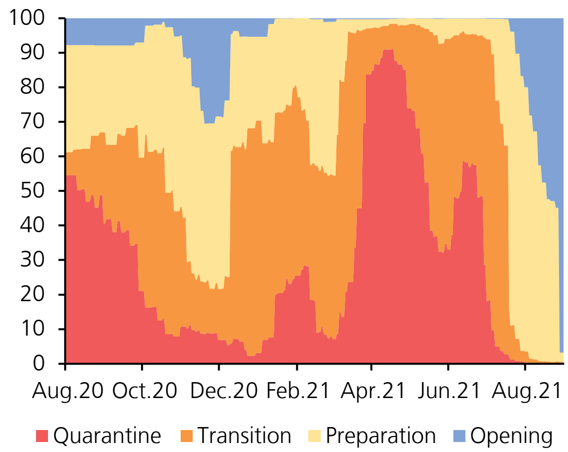
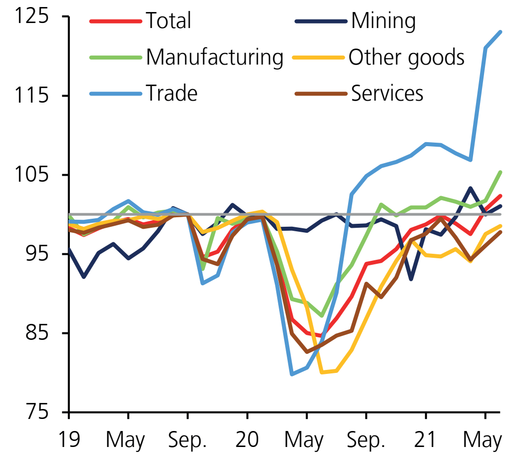


FIGURE III.2: IMACEC BY SECTOR
(seasonally-adjusted level, index September 2019=100)



(*) As of August, 31.

Sources: Chile's Health Ministry and Central Bank of Chile.

heterogeneity has been observed in the evolution and recovery of activity in the different geographical zones. This is consistent with what the Business Perceptions Report (IPN) has been reporting. Thus, the macrozones that present a greater exposure to the primary sectors (mining and other natural resources) are shown to perform better than the rest of the country. In turn, the trade and restaurants and hotels sectors show an important recovery in all territories as from August 2020, with the exception of Austral macro-zone in the extreme South (box III.1).

On the domestic demand side, spending on tradable goods showed strong dynamism in the second quarter, with durable consumption reaching record highs. Spending on durables again raised its growth rates in the second quarter, scoring a level almost 50% higher than its figure for the same quarter of 2019. In the same period, the consumption of nondurable goods shows a more limited growth—around 7.5%—, while that of services shows a fall of close to 6%, still affected by the aforementioned sanitary restrictions on the supply side (figure III.3).

Incoming information suggests that the dynamism of consumption has continued to increase. In July, the Trade Activity Index (INE)—including car sales—rose 62% annually. Electronic invoicing information shows an expansion in retail sales of 70% to 80% annually between May and July of this year. In August, their levels retreated somewhat, although their rates remain high. This evolution of sales leads its levels to be substantially higher those of two years ago, and retail sales from May to date to outperform the values observed in December 2019 and 2020, even considering characteristic Christmas sales (figure III.4).

Although more dynamic consumption was expected linked to the high liquidity available to households as a result of repeated withdrawals of pension savings and fiscal transfers, the significant upward surprises show a greater willingness of households to spend these resources. This is also consistent with maintaining balances in highly liquid form. For example, data from the financial system shows that, by the end of July, the accumulated balance in people's checking accounts and demand savings accounts was about C$23 billion higher than in July 2020. At the same time, the money accumulated in term savings accounts and voluntary pension account No. 2 had grown by about C$9 billion in that period (chapter II, figure II.7). This suggests that the strong demand momentum will remain present in the coming quarters.

FIGURE III.3: DOMESTIC DEMAND
(seasonally-adjusted index, 2019 average= 100)

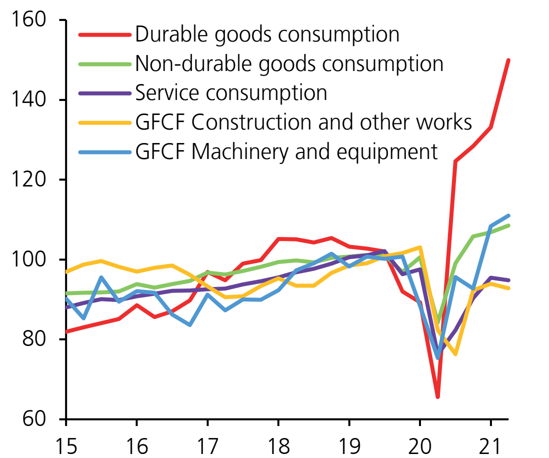
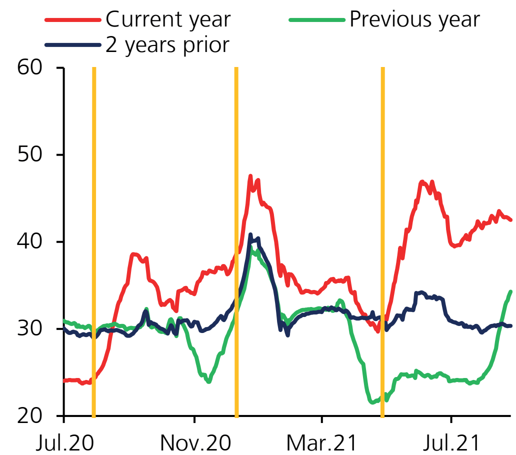


FIGURE III.4: RETAIL SALES WITH DIGITAL INVOICING (*)
(billions of Chilean pesos, 28-day moving average)

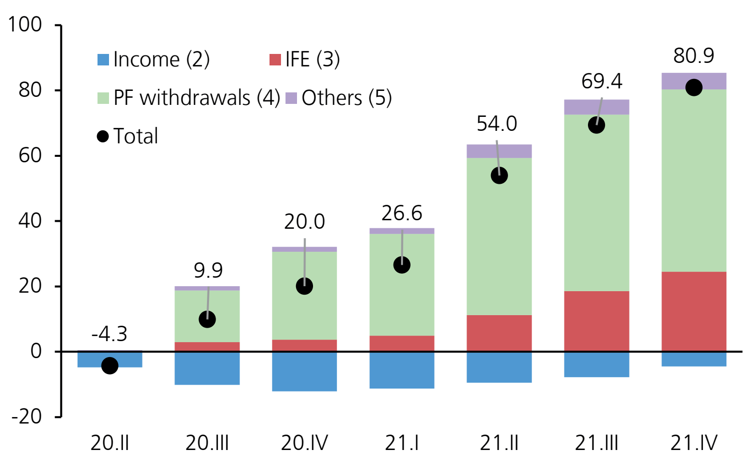


(*) Based on information from Internal Tax Services. Yellow vertical lines mark approvals of pension fund withdrawals.

Source: Central Bank of Chile.

The liquidity injections that households received in the second quarter of 2021 were the highest since the onset the pandemic. For the second half of 2021, fiscal subsidies are expected to far exceed transfers during 2020 (figure III.5).

FIGURE III.5: HOUSEHOLDS' CUMULATIVE INCOME AND LIQUIDITY INJECTIONS (1)
(BILLIONS OF USD)



(1) Households' increase in liquidity and support measures from 21.II to 20.IV are estimated based on forecasts consistent with the central scenario. (2) Sum of work income and other earnings (production rents and property rents CNSI). Quarterly values are differences with same quarters of 2019. (3) IFE has grown in amounts and coverage, from over 6 million average recipients between May 20 and March 21, to more than 15 million in July 21. Amounts per capita have risen from US$70 in the beginning to US$200 in July 21. For Aug 21 and Sept 21, figures are based on Public Finances Report No.79, Diprés (06-02-2021). For Oct 21 and Nov-21 there is also Universal IFE of US$3.2 billion in each month (4) Amounts paid based on statistic charts of the Pension Superintendency at 30 July 2021. For 21.III and 21.IV difference weighted between estimated total amounts to withdraw and effectively paid at 30 July 2021. (5) Considers Covid-19 bonus, middle-class bonus, 3rd pension withdrawal, and additional use of Unemployment Insurance and workers IEF.

Sources: Chile's Ministry of Finance, Superintendency of Pensions (SP), and Central Bank of Chile.

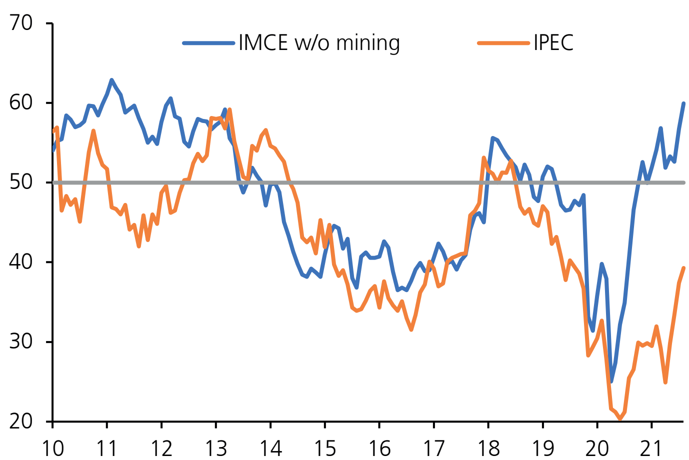
With the extension of the universal IFE and the implementation of the workers IFE and other programs, growth in fiscal spending will exceed projections in the June Report. The background of the latest Public Finance Report and the Government announcements lead to estimate that, in nominal terms, fiscal spending will increase by more than 35% annually during this year, with an effective deficit of more than 7% of GDP. The increase in fiscal revenues from stronger economic growth fall short in terms of financing this increase in spending, thus increasing the needs for fiscal financing. This has led the authority to make new placements of Treasury bonds and to make new withdrawals of sovereign funds. The size of Chile's fiscal impulse is among the strongest in a comparative group of economies (chapter I, figure I.10).

The liquidation of long-term savings after successive massive withdrawals of pension savings, the deterioration of fiscal accounts and the challenge of redirecting them to a sustainable path, together with an environment of local uncertainty has led to an adverse evolution of local financial variables (chapter II, figure II.3).

On the investment side (GFCF), second-quarter data showed a highly dynamic machinery and equipment component. This part of GFCF grew 47.4% annually in the quarter, driven by demand for intermediate goods and the entry of energy projects. This expansion was followed from afar by the construction and works component, which increased 13.1% annually in the period. As in the case of the consumption of services, sanitary restrictions continue to have an effect on the performance of the construction sector, which is reflected in the fact that it is still 6% lower than in the second quarter of 2019 (figure III.2).

In any case, although the investment outlook for this year is revised upwards, towards 2022 and 2023 the projections remain tight (chapter V, figure V.3). The upward correction of investment for this year is based on the better performance of the first half and the entry of energy projects, according to the survey of the Capital Goods Corporation (CBC). For 2022 and 2023, the survey accounts for limited inflows of large-scale projects—well below their historical evolution—which could be the result of the greater uncertainty reflected in the rise in long-term interest rates, the depreciation of the peso and the poor stock market performance.

FIGURE III.6 BUSINESS (IMCE) AND CONSUMER EXPECTATIONS (IPEC) (*)
(diffusion index)



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

In turn, the August IPN shows that uncertainty factors linked to political-social factors have become the main focus of concern for businesses, and that they are having negative effects on investment decisions.

All this has occurred in a context in which business and consumer expectations have improved. The average indicator of business expectations (IMCE), continued to rise in the optimistic zone—above 50—highlighting the improvement in perceptions in manufacturing and trade. Meanwhile, consumer expectations (IPEC) remain in negative territory, but show a steady rebound in recent months (figure III.6).

With regard to external accounts, the sharp increase in domestic demand has largely shifted to imported goods, turning the current account balance into a deficit. Nominal imports of consumer goods (CIF) reached annual variation rates above 60%, with figures above 100% in several durable consumer products. Annual expansion rates of exports, although high, slowed: 30% nominal in the second quarter, a result where low comparison bases weigh more than for imports. In fact, volume exports posted an annual contraction in the second quarter. Regarding the current account balance, the high dynamism of imports meant that, considering the accumulation of last year, it became negative in the second quarter, at –1.1% of GDP.

LABOR MARKET

The labor market has been reporting a gradual creation of jobs, as formal salaried employment has already undone a good part of the impacts of the pandemic. The INE data for the May-July moving quarter indicate that formal salaried employment is close to returning to its 2019 average (figure III.7).

Less formal categories of employment continue to lag behind in their recovery process. Although the most recent data point to an improvement consistent with the reduction of mobility restrictions, a gap remains with respect to the level of employment prior to the pandemic. In any case, the data for the May-July quarter indicated a marked increase in self-employment (figure III.8).

FIGURE III.7: FORMAL SALARIED EMPLOYMENT
(index, 2019 average = 100)

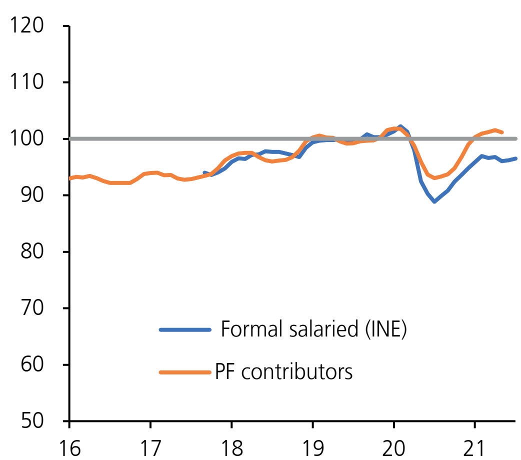
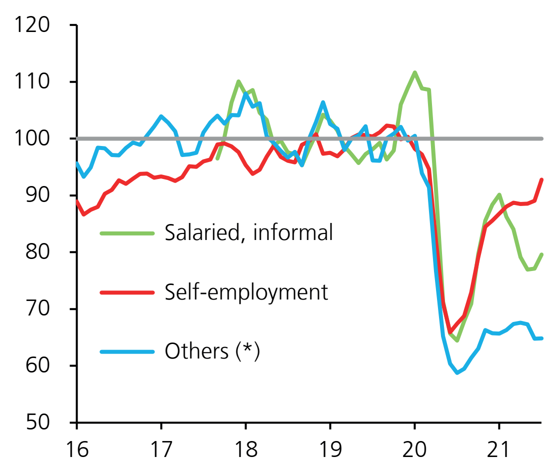


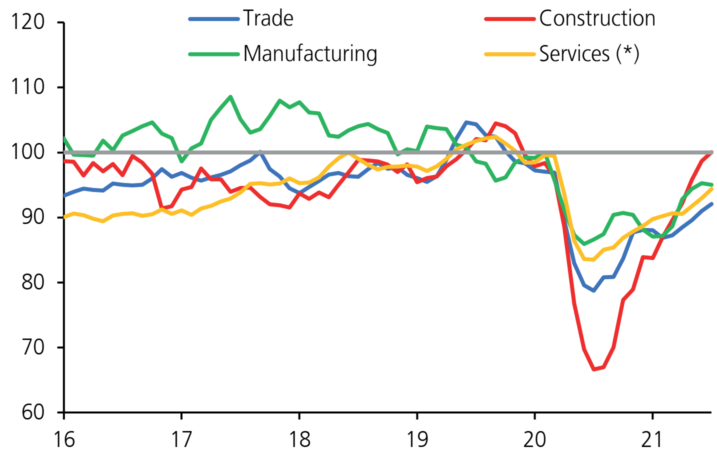
FIGURE III.8: INFORMAL EMPLOYMENT (*)
(index, 2019 average = 100)



(*) Sum of household help, employers, and non-remunerated family work.

Sources: Central Bank of Chile, National Institute of Statistics (INE) and Superintendency of Pensions (SP).

FIGURE III.9: EMPLOMENT BY SECTOR
(index, 2019 average=100, seasonally-adjusted series)



(*) Sum of lodging and food service activities, communal services, financial services, and transportation.
Source: National Statistics Institute (INE).

By sectors, there are also differences in the evolution of employment. Worth noting is that while construction has already recovered the jobs destroyed by the pandemic, in the sectors of manufacturing, services, but especially in trade, lags continue to be observed (figure III.9).

The heterogeneity in the recovery of employment can also be seen in the different players of the labor market, with women being the most affected. As highlighted in the June Report (box III.1), female labor participation has been strongly affected by the pandemic, with which society has regressed about 10 years in the process of including women in the world of work.

The opening of the economy has coincided with an important recovery in labor demand. The data of job vacancies on the internet show a significant increase in recent months, standing at levels higher than the average of 2019. At the same time, companies' hiring expectations have also improved, as shown by the IMCE and noted in the August IPN. In this context, consumer expectations of the future situation of employment have also risen (figure III.10).

On the contrary, unlike other episodes of economic recovery, the supply of work has shown an unusual containment. Data from the SENCE labor observatory show that since the end of the first quarter the number of available vacancies has grown strongly, while the number of applications to these jobs posted a decline that has not been reversed (figure III.11). According to INE data, the labor participation rate remains at levels below 60% of the economically active population, lower than the average of the last five years, although somewhat higher than a year ago. At the same time, the INE survey shows a significant decrease in the willingness to work longer hours. The August IPN reported that a significant percentage of companies that have attempted to recruit workers during 2021 have not been able to satisfactorily fill the available vacancies, even reaching the situation in which no applicants were presented. The responses of the interviewees of the Report allude to the search for better contractual conditions, the fear of being infected and restrictions on mobility as factors that could explain this shortage of workers. Events of this kind have also been seen in other countries, suggesting that there are common elements arising from fears of contagion, disruptions in the supply of services that make it difficult to work outside the home when there are dependents, as well as the presence of State aid (chapter I, figure I.4).

As a result of the mismatch between supply and demand in the labor market, wage pressures have increased. The IPN of August reported that the difficulties in hiring labor have resulted in the need to raise the salaries offered by companies, mainly in those positions with lower salaries. In fact, the perception about the evolution of the variables that affect companies' performance shows an increase in foreseen labor costs. These pressures are also seen in expectations of wage increases in manufacturing and construction, according to the IMCE.

FIGURE III.10: VACANCIES AND EMPLOYMENT EXPECTATIONS
(indexes)

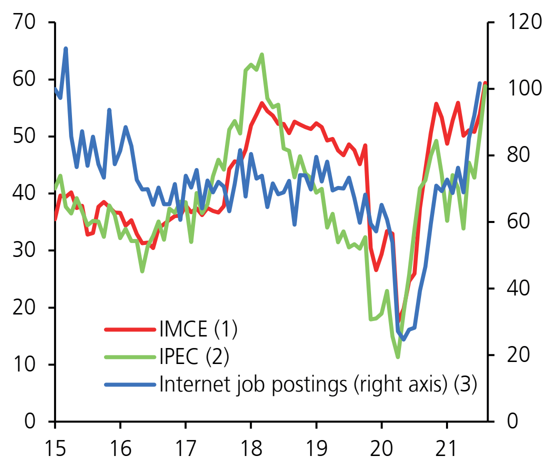
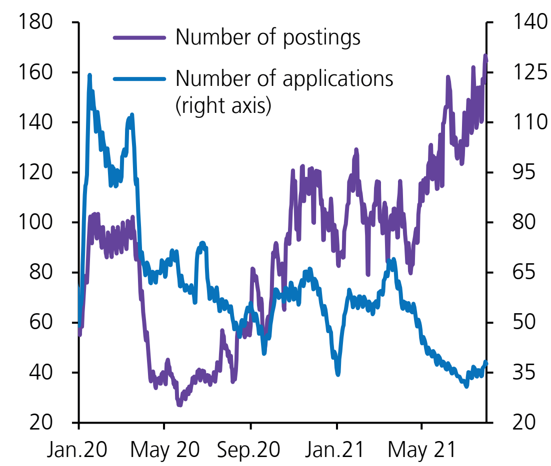


FIGURE III.11: JOB POSTINGS AND APPLICATIONS ON THE INTERNET
(index, base 100= 3 March 2020, moving 15-day average)



(1) Simple average of employment expectations in trade, construction, and manufacturing. (2) Expectations about the level of employment. (3) Internet jobs postings index published by the Central Bank of Chile, January 2015 average=100.

Sources: Central Bank of Chile, GfK/Adimark, and UAI/ICARE. SABE project of the SENCE Labor Observatory, and ISCI-WIC, Universidad de Chile, based on trabajando.com and laborum.com websites.

BOX III.1:

Territorial activity in Chile during the pandemic

As has been widely documented, throughout the country the pandemic caused severe impacts on activity from March last year, whose aggregate levels recovered gradually from mid-2020 and by the second quarter of this year had already been exceeded. However, the differentiated impact of the recent crisis on different areas of our country has been poorly documented. This is so because, although the Regional National Accounts do capture appropriately the geographical distribution of national activity, their construction requires various sources of information that involve lags in official publications, so that until now they are only available on a yearly basis. Based on cross-reports from different administrative registries, this box contributes to a better understanding of territorial impacts in high frequency, presenting monthly indicators of activity at the macrozone level [1]/. b. The main result is that, although there is a strong co-movement of territorial activity prior to the start of the pandemic, since then there has been marked heterogeneity in the evolution and recovery of activity across geographical areas. This is consistent with what has been shown in the Business Perceptions Report (IPN) published by the Central Bank. Thus, can be is observed that the macrozones more exposed to the primary industries (mining and other natural resources) display a better performance than the rest of the country[2]/. In turn, the trade, restaurants and hotels sector show an important recovery in all territories as from August 2020, with the exception of the extreme south Austral macrozone.

To remedy the difficulty that, in general, the geographical location of sales does not necessarily coincide with that reported in administrative records, González and Luttini (2021) approximate the distribution of annual regional GDP using information of the place of residence of workers in an economic unit. Intuitively, assuming that the territorial mobility of workers is limited, their place of residence can be associated with the location where they carry out their productive functions—at least at extensive territorial areas, as in the case of macrozones. In this way, the territorial distribution that results from allocating the sales of the firms in proportion to the location of their workers, delivers a geographical distribution similar to that of regional GDP[3]/. Methodologies such as the use of fiscal management were discarded because they presented the greatest divergences with respect

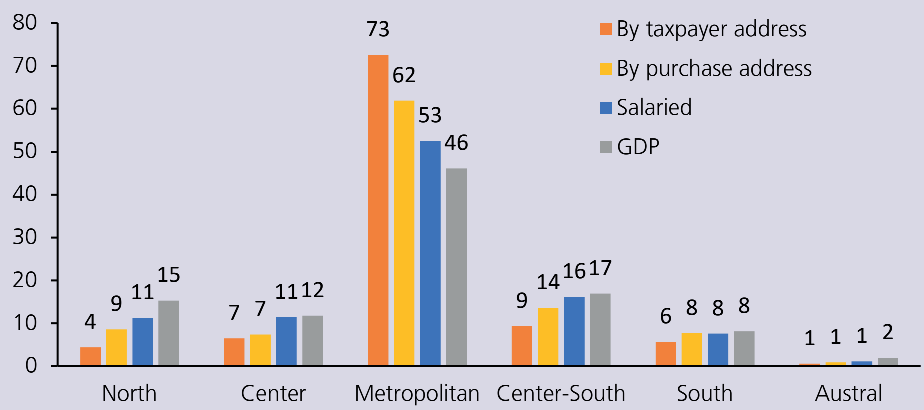
[1]/ The indicators presented here are not intended to be substitutes for the Regional National Accounts, but to provide complementary information regarding the main trends observed in the national economy.

[2]/ For the purposes of this box, the northern macrozone is considered: Arica-Parinacota, Tarapacá, Antofagasta and Atacama; Center: Coquimbo and Valparaíso; Metropolitan: Metropolitan; South-Center: O'Higgins, Maule, Ñuble, and Biobío; South: Araucanía, Los Ríos and Los Lagos; Austral: Aysén and Magallanes.

[3]/ To do this, data from the Severance Fund Administrator are used, which show a geographical distribution of employees consistent with the data of the economically active population calculated by the INE, which are crossed by means of a fictitious common identifier with the sales from the Value Added Tax statement that companies report to the Internal Revenue Service. All the analysis of this box, as well as other studies carried out by the Central Bank using administrative records, uses unnamed databases, thus protecting confidentiality regarding the identity of workers and individual companies.

to the effective geographical distribution of sales. This is particularly relevant for larger companies, which have their headquarters in the Metropolitan Region, but can record sales throughout the country. It was also ruled out to allocate sales proportionally to the amounts dispatched of purchases of raw materials and materials to each macrozone, because although it represents an advance with respect to the fiscal address, the existence of dispatches to the companies' distribution centers poses a problem for this strategy (figure III.12).

FIGURE III.12 MACROZONE DISTRIBUTION OF SALES ACCORDING TO VARIOUS METHODOLOGIES VS GDP (*)
(percent)



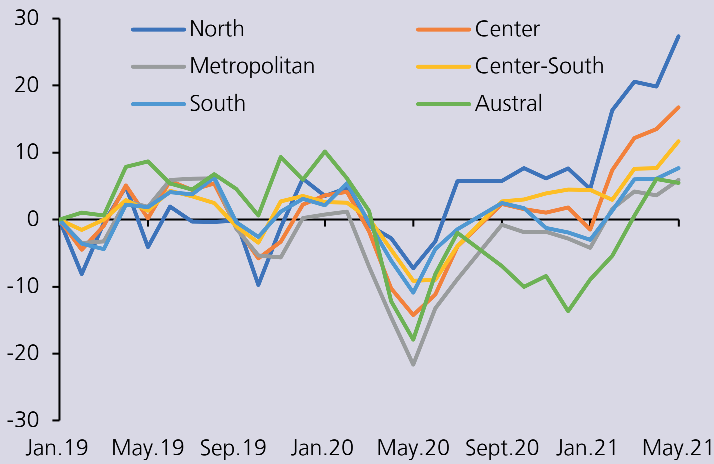
(*) Each of the three first bars (left to right) in each macrozone shows monthly average in the year 2019 of total sales assigned to said location according to each territorialization method considered over total sales at country level. The fourth bar shows share of GDP of respective macrozone in total GDP, based on 2019 National Accounts data.

Source: Gonzalez and Luttini (2021).

Results

Despite the strong co-movement of the series prior to the pandemic, the results confirm what the IPN has been showing for several quarters, in terms of the important heterogeneity between the macrozones of the country throughout the pandemic (figure III.13). The better performance of the North macrozone is notorious in the face of the initial impact of the pandemic and also in the recovery process, achieving higher than pre-pandemic levels in June 2020. Particularly important in this macro-zone is the fact that, beyond some adjustments to adapt to operating protocols, mining has continued to operate during the pandemic. On the other hand, the macrozone most affected by the initial impact of the pandemic was the Metropolitan Region, followed very closely by the Austral. However, in the recovery, the Metropolitan macrozone showed greater dynamism, leaving the Austral Region lagging behind in its recovery until the end of the summer, which, as has been raised in the IPN, may respond in part to the timing and extension of the quarantines. The most stable series correspond to the South and Center-South macrozones, which exhibited moderate falls in the South and a slow recovery although somewhat faster in the Center-South. The relevance of agricultural, forestry and food industry in this area seems to have provided support to the activity of the area. In the southern zone, the different timing of quarantines has been mentioned in the IPN as a cause of the delay in the recovery.

FIGURE III.13 SALES BY MACROZONE (*)
(log scale, January 2019 = 0)



(*) Each line corresponds to 100 times the natural log of the ratio of respective macrozone's sales over its own level in January 2019. Sales regionalized using method of place of residence of the firms' salaried workers.

Source: Gonzalez and Luttini (2021).

Gonzalez and Luttini (2021) break down the year-on-year variation in sales for the period January 2020 - May 2021 into contributions by economic sector. The authors emphasize that the good performance of the North, Center and Center-South macrozones is driven by the activity of the primary sector (mining and other natural resources). In contrast, the evolution of the Metropolitan macrozone – due to its strong dependence on construction and trade, restaurants and hotels – is more vulnerable to mobility restrictions. Finally, the Austral macrozone faces significant falls in construction, commerce, restaurants and hotels, and manufacturing throughout 2020 and the beginning of 2021, closely related, as aforementioned, to the timing and extension of quarantines. Its recovery in recent months is strongly influenced by the increased activity of these last two sectors.

Future developments

Faced with the need to improve the timeliness and quality of statistics available to the public, the Central Bank is developing a project to increase the frequency and expand the coverage of national accounts statistics at the regional level. To achieve this objective, work is being done mainly on: (i) the more intensive use of high-frequency administrative records, which complement the information from surveys and studies currently available and (ii) the development of statistical methods of territorial distribution of national aggregates, in line with what has been stated in this box. The results of this project will be published during 2022 and will include quarterly series that will cover some variables of regional activity from the perspective of origin and expenditure.

Conclusions

The pandemic hit all the macrozones of the country; however, the magnitude of this blow and the pace of recovery has been heterogeneous among them. The North, Center and Center-South macrozones were the ones with the best relative performance in the indicators analyzed when compared with the Metropolitan, South and Austral macrozones. In any case, as of May 2021, all macrozones had outpaced their pre-pandemic sales. This type of analysis, made possible by the availability of high-frequency administrative records, once again highlights the importance of having this kind of information to carry out economic studies relevant to the country in a timely manner.

IV. PRICES AND COSTS

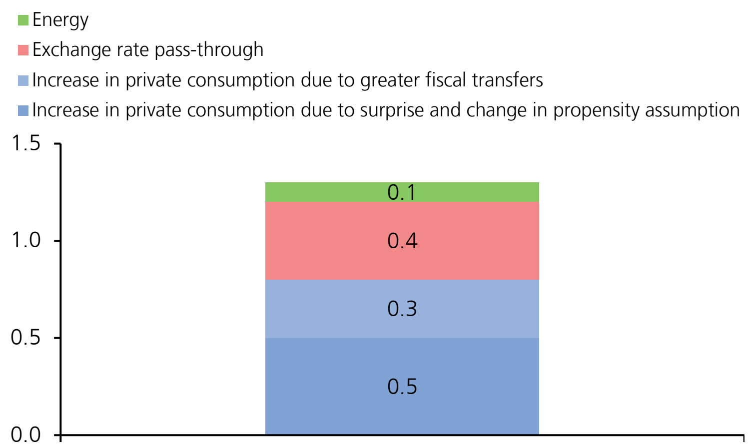
The outlook for short-term inflation sees a significant upward correction in the central scenario in this Report. This responds to several factors: (i) the extension of fiscal transfers and higher-than-expected private spending that changes the assessment of what portion of the massive pension fund withdrawals and transfers are being allocated to consumption; (ii) an idiosyncratic depreciation of the Chilean peso that will have an above-average impact on inflation; (iii) prolonged and intensified supply factors that have been pressuring costs; (iv) inflationary figures somewhat above June projections; and (v) a further escalation of fuel prices. Thus, in the central scenario, annual inflation will rise to 5.7% in December of this year (4.4% in June), and above 5% during a good part of 2022. Then, inflation will begin its process of convergence towards the 3% target, considering the action of monetary policy, moderating consumption and declining cost pressures.

RECENT EVOLUTION AND OUTLOOK FOR INFLATION

During this year, the short-term inflation outlook has seen successive upward revisions. Annual inflation projected to December of this year was corrected 1.4 and 1.3 percentage points (pp) in the Reports of June and September, respectively, rising to 5.7%. In this Report, the main factor comes from a reassessment of the dynamism of private consumption, which is now estimated to be greater than in June, and the additional boost from the extension of the Emergency Family Income (IFE) (figure IV.1). Several factors converge in this result. On the one hand, the available data show a significant increase in spending on goods, especially durables. This has been reflected in the increase in core goods inflation in July (5.2% annually), with the prices of some of the goods identified as being in high demand—electronics, automobiles, clothing and footwear, among others—having price increases well above the economy's average (figures IV.2 and IV.3). This price behavior occurs in a context in which inventory levels continue to be perceived as insufficient (IMCE), despite the growth in imports. The projected cumulative effect of higher private spending on accumulated inflation to December accounts for 0.8pp of the upward correction.

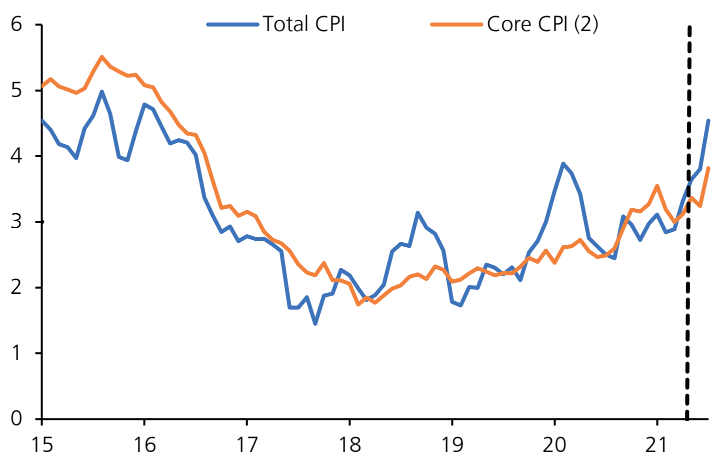
A second factor of relevance is the pass-through of the peso depreciation to prices, since it has been one of the most weakened currencies in the world in recent months. The nominal exchange rate has accumulated a loss in value against the dollar of around 11% since mid-May. This depreciation has been idiosyncratic in nature, as it has been transversal with respect to various groups of currencies—for example, depreciation against the MER, MER-X and MER-5 was between 9% and 10% in the same period, more than other currencies in the region and other comparable economies (figure II.4). In this sense, the weakening of the peso has been worse than its short-term fundamentals would suggest, such as the decrease in the copper price and the appreciation of the multilateral dollar. The depreciation of the peso in real terms has also been significant, with the RER increasing by about 10% so far this year.

FIGURE IV.1 CONTRIBUTIONS TO DECEMBER 2021 INFLATION FORECAST CORRECTION (*)
(percentage points)



(*) Built using headline CPI inflation forecast in June and September 2021 Reports.
Source: Central Bank of Chile.

FIGURE IV.2 INFLATION INDICATORS (1)
(annual change, percent)

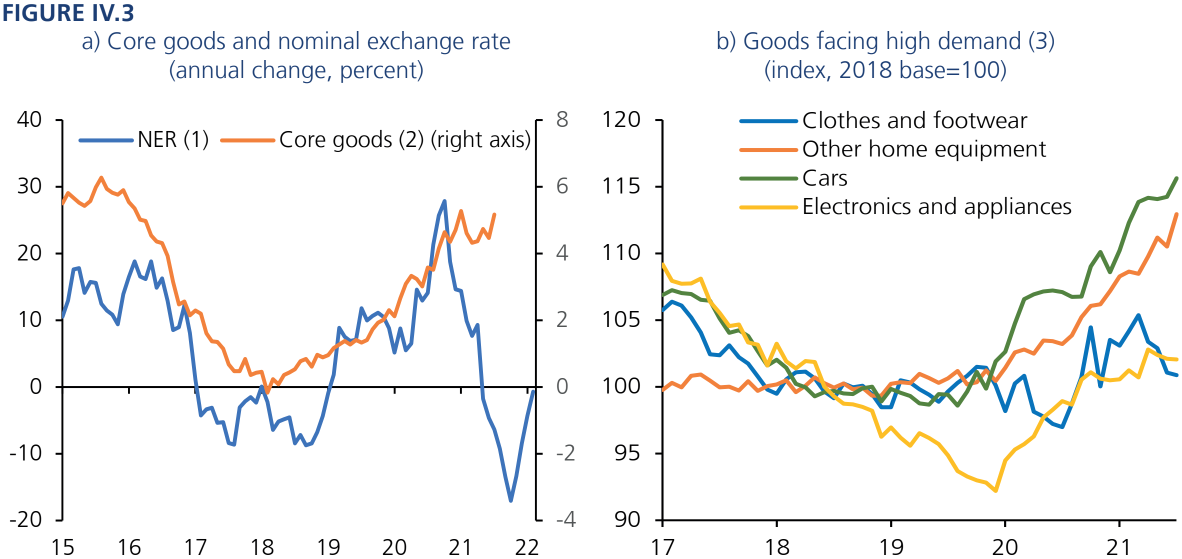


(1) Dashed vertical line marks statistical cut-off of June 2021 Report.
(2) Measured using CPI without volatile items, wich represents 65.1% share in the total CPI basket. For more details, see Box IV.1 in December 2019 Report and Carlomagno and Sansone (2019).
Sources: Central Bank of Chile and National Statistics Institute (INE).

Due to its idiosyncratic nature, it is estimated that the peso depreciation will have an above average effect on prices. As mentioned in Box IV.1 of the March 2018 Report, the average transfer coefficient of the nominal exchange rate to inflation is between 0.1 and 0.2 after one year, but with a high variance between the different items that make up the CPI basket. In addition, the inflationary effects of exchange rate movements are different depending on the factor that has caused their variations: the transfer to final prices will be greater when the movement of the parity comes from idiosyncratic shocks to Chile versus one related to multilateral factors, such as a movement of the global value of the dollar. In that box, 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. The estimated effect of the higher exchange rate on cumulative inflation in December 2021 is expected to reach 0.4pp of the upward correction (figure IV.1).

A third element that explains the higher inflation estimated in December 2021 is its recent behavior, in particular because between May and July it accumulated somewhat more than expected in the last Report. Much of the surprise comes from the July data (+0.8% month-over-month), which was driven by the prices of high-demand goods, especially imported products, the rise in fuel prices and some non-indexed and unmanaged services. In annual terms, the behavior of these items was reflected in a sharp rise in headline and core inflation to 4.5% and 3.8% annually in July, which exceeded forecasts in the last Report (figure IV.3). Meanwhile, core services inflation rose to 2.9% annually, approaching 4% annually when excluding managed and indexed items (figure IV.4). This, in the midst of fewer mobility restrictions and modifications to the operation of these sectors that the progress of the Step by Step Plan has allowed. The INE reported that the price imputation was reduced to 21.3% in July and that as from August the prices of movie tickets, services provided by recreational centers, tickets to cultural shows, recreational classes and gyms will no longer be imputed[1]/.

FIGURE IV.3

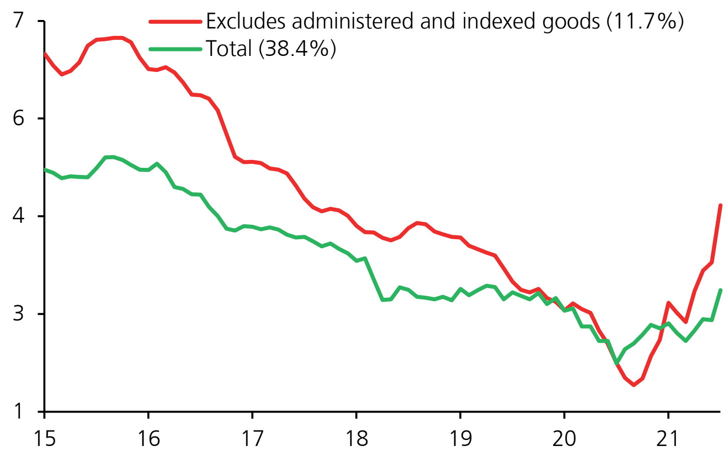


(1) Lagged six months. August 2021 considers information up to the 25th.
(2) Core goods account for 26.7% of CPI basket.
(3) Shows evolution of CPI sub-indexes of respective categories.
Sources: Central Bank of Chile and National Statistics Institute (INE).

[1]/ See Separata Técnica Índice de Precios al Consumidor Contingencia COVID-19, National Statistic Institute (INE), July 2021.

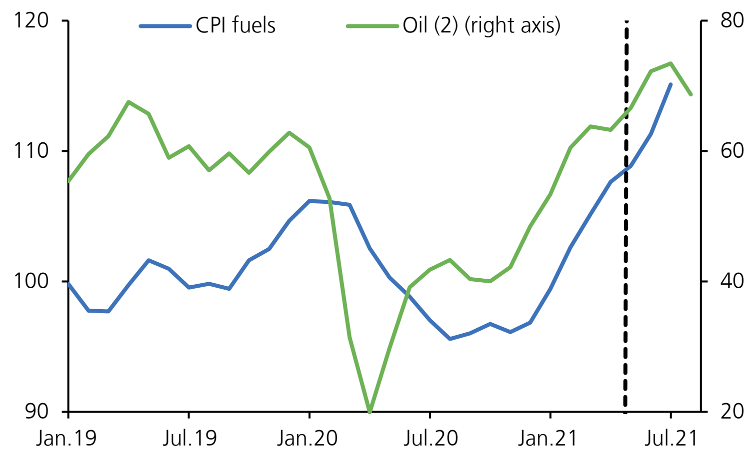
Volatile items inflation explains a smaller part of the change in the projection, and is mainly concentrated in the price of fuels, linked to the new increase in the oil price globally (figure IV.5). The price of a barrel of oil (Brent-WTI average) has continued to rise (+1.5% compared to the statistical close of June Report). This new increase has been gradually transferred to fuel prices at the local level, consistent with the operation of the MEPCO. However, in August, the Ministry of Finance announced two modifications to the parameters of this mechanism, the effects of which are considered transitory[2]/. As noted in the June Report, the combination of the rise in fuel prices and the lower basis of comparison from the second quarter of 2020 have resulted in significant annual growth in the energy CPI (12.5% annually in July).

FIGURE IV.4 SERVICES CPI WITHOUT VOLATILES (*)
(annual change, 3-month moving average, percent)



(*) In parentheses, share in total CPI basket.
Sources: Central Bank of Chile and National Statistics Institute (INE).

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

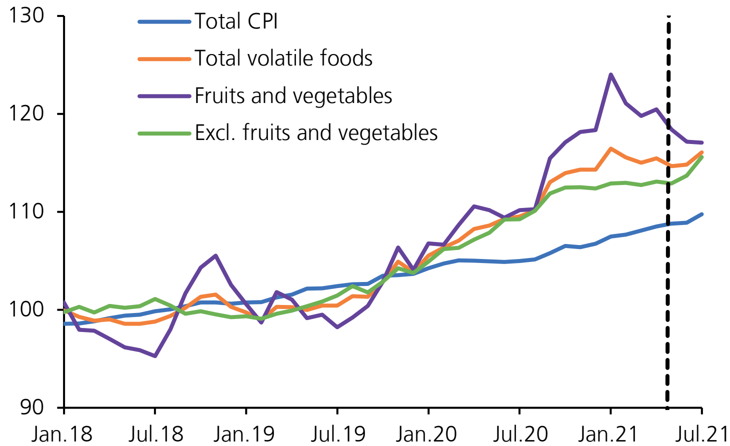


(1) Dashed vertical line marks statistical cut-off of June 2021 Report. (2) Brent-WTI average price per barrel.
Sources: National Statistics Institute (INE) and Bloomberg.

[2]/ The central scenario incorporates the transitory effect that the modifications to the parameters of the Fuel Price Stabilization Mechanism (MEPCO) will have on fuel prices, as announced by the Ministry of Finance on 03 and 11 August 2021.

Volatile food prices, excluding fruits and vegetables, resumed their upward trend, amid international indices that have been declining. Although the prices of fruits and vegetables have continued with the decline they have dragged since the beginning of this year, those of other foods increased again. On aggregate, volatile food prices grew 6% annually through July (figure IV.6), although below the expansions that have occurred in other emerging economies. In contrast, the July Food Price Index (FAO) declined for the second consecutive month, in response to lower prices for cereals, dairy and vegetable oils. This has been influenced by the better yields and production prospects in some countries, the weakness of world demand (oils and dairy) and the cancellation of some orders by China (corn), among other factors.

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

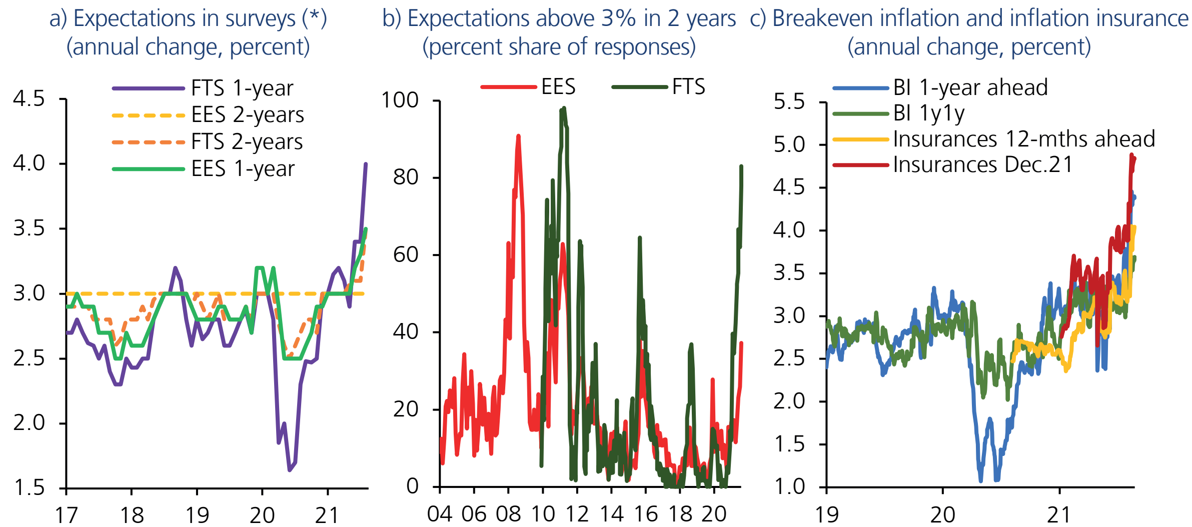


(*) Dashed vertical line marks statistical cut-off of June 2021 Report.
Sources: Central Bank of Chile and National Statistics Institute (INE).

Short-term market inflation expectations have seen a significant increase in recent months. As of December 2021, annual inflation reported by August's Economic Expectations Survey (EES) rose to 4.2% (3.3% in May). One year ahead, the outlook contained in the August's EES and in the Financial Traders Survey (FTS) of the second half of that month also rose to 3.5% and 4.0% (3.0% and 3.1% at the statistical close of the previous Report). The expectations implicit in the prices of financial assets available at the statistical close have also increased and, in particular, insurance as of December 2021 anticipates a value of around 4.8%. As for a one-year term, the prices of financial assets are between 3.9% and 4.4%. All this influenced by the announcements and discussions of the new measures to support households, the depreciation of the Chilean peso, and the potential effects of the drought.

In the two-year term, the rise of a part of the market expectations stands out. Breakeven inflation and the FTS rose to 3.6% and 3.5%, respectively, while the EES remains around 3% annually. In any case, in both surveys the percentage of responses that place inflation above the 3% target has increased, exceeding 80% in the case of the FTS (figure IV.7).

FIGURE IV.7 INFLATION EXPECTATIONS



(*) The Financial Traders Survey (FTS) considers the survey of the first half of each months up to January 2018. From February 2018 onwards, considers the last published survey of the month, including 26 August 2021. The months where no survey is published, the latest survey available is used.
Sources: Central Bank of Chile, ICAP, and Tradition Chile.

COSTS

These dynamics occur in a scenario where the cost pressures faced by companies have been prolonged. Container shipping costs continued to rise in recent months, especially ocean freight from Asia. Commodity prices remain high, beyond some recent declines (figure I.8). Producer and consumer price indexes continued to rise globally and the core component shows more noticeable increases in some emerging economies. Qualitative information published by other central banks also reports higher prices of various inputs, freight rates and wage increases in some cases[3]/. At the local level, annual nominal wage growth—LCI and WI, as measured by the INE—reached their highest levels since 2016 amid supply constraints in the labor market and increased demand for labor by companies. The highest wages have been seen in the areas of transportation, construction, and trade. The August Business Perceptions Report (IPN) reports that cost increases, for both input and labor, have become more widespread across sectors (figure IV.8).

Input supply problems have become widespread for companies, amid significant increases in demand. The majority of those consulted in the August IPN reported reduced availability of raw materials, inputs or inventories in the last three months. They highlighted the lack of construction materials, spare parts, machinery and equipment, plastics, petroleum derivatives, some foods and oils for industry. The shortage of inputs and their price increases were associated with global factors such as production problems in factories and difficulties in marine transport. In the qualitative information published by monetary authorities of other countries, some highlighted the difficulties that were facing certain sectors that were back in business[3]/. The PMI also showed a further deterioration in delivery times globally (figure I.6). At the local level, inventory levels in trade and manufacturing industry (IMCE) continue to be perceived as insufficient, despite import growth (figures IV.9 and IV.10).

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

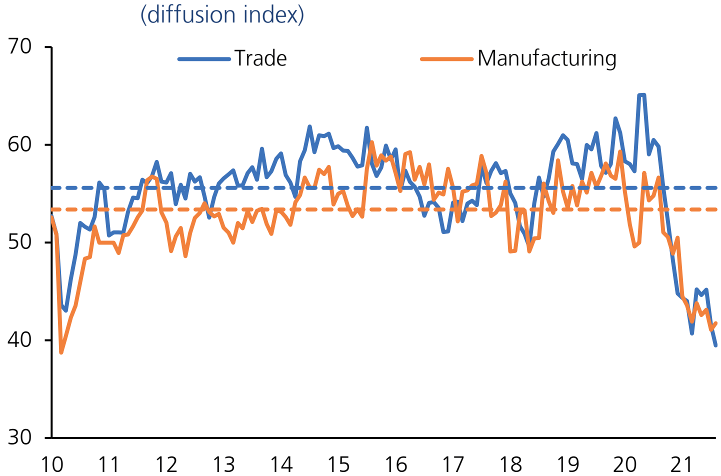
FIGURE IV.8

a) IPN: In the past three months, What was the behavior of the following factors in your firm? (percent share of total responses)

b) Nominal wages (annual change, percent)

Sources: National Statistics Institute (INE) and August 2021 Business Perceptions Report (IPN), Central Bank of Chile.

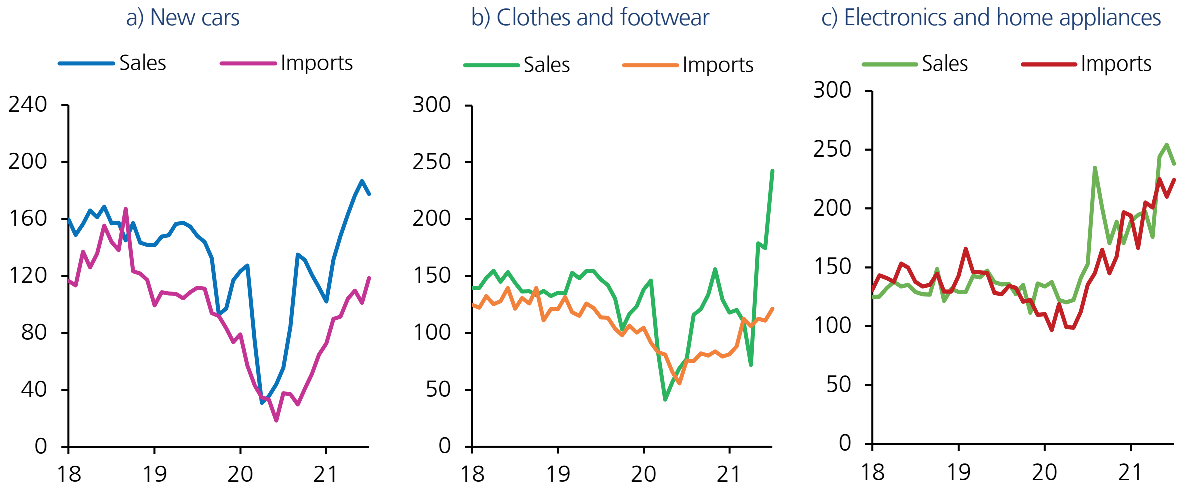
FIGURE IV.9 IMCE: CURRENT STATUS OF INVENTORIES (1) (2)
(diffusion index)



(1) Value above (below) 50 indicates perceptions of excessive (insufficient) inventory levels. (2) Dashed horizontal lines correspond to historical averages from January 2004 through August 2021 for each series.
Source: Icare/Universidad Adolfo Ibáñez.

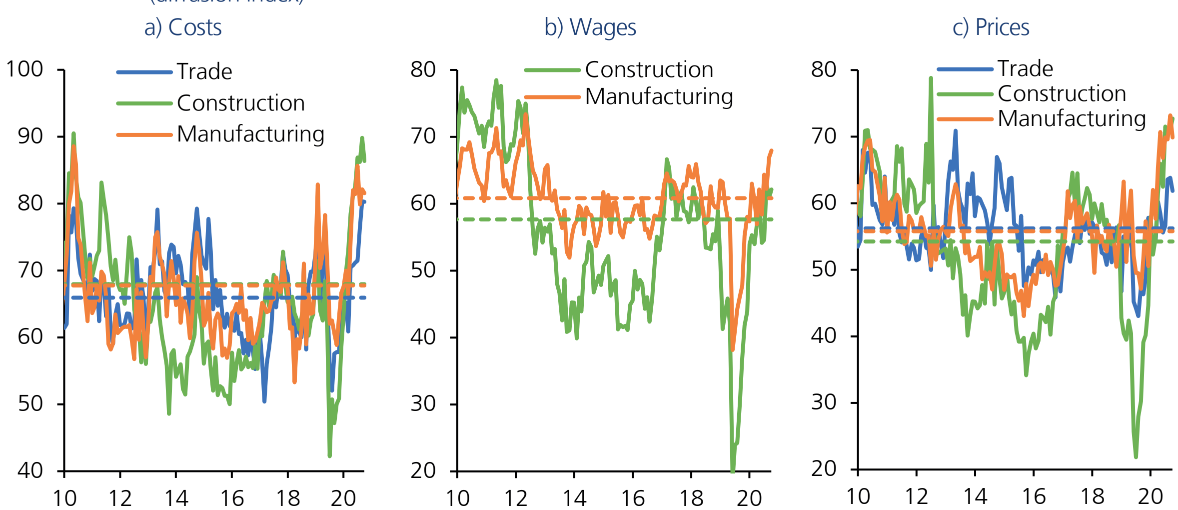
Companies express their willingness to pass on these increased cost pressures to prices. Several companies consulted for the August IPN reported that they had transferred their cost increases to sales prices and more than half planned to do so soon. This has been possible thanks to the significant increase in demand faced by some of the respondents, while others had not made changes because they still perceived fragility in the demand for their products. The graduality that some had preferred to adopt for this process also anticipated that sales prices would continue to rise to recover the margins they had lost. The greater willingness of companies to pass on cost increases to prices is consistent with the higher degree of exchange rate pass-through to inflation assumed in the short-term projections of the central scenario. Cost, wage, and price expectations (IMCE) remain high and above their historical averages (figure IV.11). Similarly, the percentage of consumers who believe that the prices of goods will rise a lot in the next twelve months remains around their highest since 2011 (IPEC).

FIGURE IV.10 REAL SALES AND IMPORTS (*)
(index, 2014 average=100, seasonally adjusted)



(*) Sales and imports data through July 2021. Nominal imports deflated by the CPI of new cars, clothes and footwear, and electronics (including home appliances, fax machines, audio equipment and cell phones), as applicable. Imports of electronics and home appliances include cell phones, computers, televisions and home appliances.
Sources: Central Bank of Chile and National Statistics Institute (INE).

FIGURE IV.11 IMCE: EXPECTED COSTS, WAGES, AND PRICES (1) (2) (3)
(diffusion index)



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

V. FUTURE EVOLUTION OF MONETARY POLICY

In the central scenario, the Board estimates that for inflation to converge to the target it will need to continue to withdraw the monetary impulse, bringing the MPR at levels similar to its neutral towards the middle of the first semester of 2022. This important change in the monetary policy stance responds to the evolution of the macroeconomic scenario and the resulting inflationary pressures. In particular, because private spending is accelerating sharply, with an evident imbalance towards consumption of goods, which is pushing prices up and has already increased inflation. This in a context in which supply still has not been able to fully recover. In addition, the impulse to consumption will be fueled by the extension of fiscal transfers to households, at the same time that the perception of a worsening of the economy's fundamentals has caused an idiosyncratic depreciation of the peso whose pass-through to prices is above average. Thus, in the central scenario, annual inflation will rise to 5.7% in December of this year and will reach values above 5% during the first part of 2022, to begin its convergence to the target from there. Its core measure will stand at 4.7% in December of this year, peaking towards mid–2022 (approach 5.5%), to then begin to decline towards 3%. In addition to the rise in the MPR, the convergence of inflation considers the withdrawal of fiscal stimulus policies starting next year.

MONETARY POLICY STRATEGY

Inflationary pressures have increased considerably in a context where inflation is at 4.5% annually. Core inflation rose to 3.8% annually, driven by higher prices of goods and services. In the former, whose annual variation stood at 5.2% in July, it is noteworthy that the prices of some of the goods identified as facing high demand —electronics, automobiles, clothing and footwear, among others— are rising above the economy's average. In fact, cumulative inflation to July was somewhat higher than expected in the last Report, mainly due to the behavior of this class of goods. Core services inflation rose to 2.9% annually in July, and near 4% annually when excluding the prices of administered and indexed items. This, amid a greater opening of the economy. Regarding the volatile component, fuels have continued to drive annual inflation, combining effective price increases in recent months and a less challenging comparison base than in the same period last year.

Inflation has risen in a context in which the economy has surpassed the levels of activity it exhibited prior to the onset of the social crisis, although the composition of spending reveals very dynamic consumption of goods, mainly imported. Second-quarter data and partial information from the third show a significant increase in spending on goods. In fact, durable consumption posted annual growth rates of 130% in the second quarter, with levels that far exceed every historical average and are not sustainable in the long term.

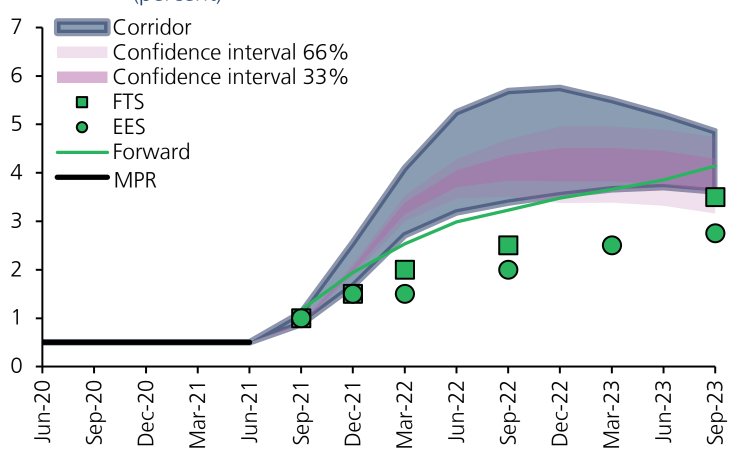
The high liquidity of individuals, supported by repeated massive withdrawals of pension savings and fiscal transfers, are the main determinants of the dynamism of private consumption. Again, second quarter data and partial third quarter data reveal that households are spending a larger-than-expected portion of their income, leading to an upward revision of our assumption about the proportion of the Emergency Family Income (IFE) and the massive withdrawals of pension funds allocated to consumption. Added to this is the extension of the universal IFE, the workers' IFE and other programs, thus shaping a scenario where consumption grows at an average pace of around 20% in the second half of this year.

The strong growth of recent months has exhausted the capacity gaps, so estimates are that during some quarters the capacity gap will become more positive than was thought in June. During the third quarter of this year, it is estimated that the activity gap will be slightly above 4%. In addition, in this context of high effective inflation and greater demand pressures, there is an idiosyncratic depreciation of the peso, whose pass-through to inflation is higher than an increase in the exchange rate caused by global factors would be (box IV.1 in March 2018 Report and chapter IV herein).

In this scenario, the Board considers that to prevent the economy to accumulate harmful macroeconomic imbalances it is necessary to withdraw the monetary impulse faster than it estimated in June. In fact, the way the economy has recovered implies that a monetary policy as expansionary as the one implemented in 2020 is no longer necessary.

At its August meeting, the Board raised the MPR by 75 basis points and, in the central scenario it believes it will need to raise the MPR at a fast-enough pace to bring it, towards mid-2022, to a figure similar to its neutral level. It is the Board's judgment that the sensitivity scenarios associated with higher price pressures are somewhat more likely to occur, which would lead to an MPR path closer to the upper bound of the corridor (figure V.1). The details of these scenarios are discussed in the final section of this chapter.

FIGURE V.1 MPR CORRIDOR (*)
(percent)

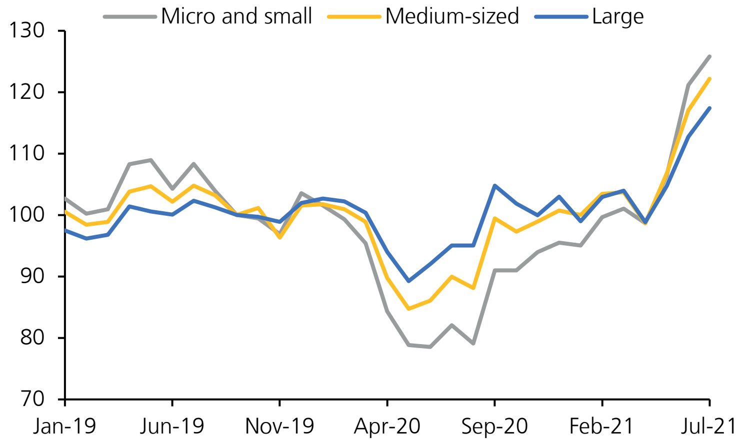


(*) The corridor is built following the methodology of Box V.1 of the March 2020 Report. It includes the FTS of August 26, the EES of August 10 and the quarter's mean smoothed forward curve (statistical cutoff). The methodology corresponds to the extraction of the implicit MPR considering the forward 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.
Source: Central Bank of Chile.

ACTIVITY AND DEMAND PROJECTIONS IN THE CENTRAL SCENARIO

The Chilean economy has performed better than expected, outperforming the level of activity it exhibited prior to the onset of the social crisis. In the second quarter of this year, GDP posted annual growth of 18.1%, a figure that combined the capacity of economic agents to adapt to the pandemic circumstances, the impact of household income support policies and a very low comparison base. In this context, it stands out that, although the sales of the smallest firms were the most affected at the height of the pandemic, they are the ones that have recovered the most, illustrating how effective the credit support policies have been. Indeed, July's digital invoice data show sales volumes well above the levels prior to October 2019, also favored in recent months by the reopening of activities associated with the easing of sanitary restrictions (figure V.2).

FIGURE V.2 SALES BY FIRM SIZE (*)
(index, September 2019=100)



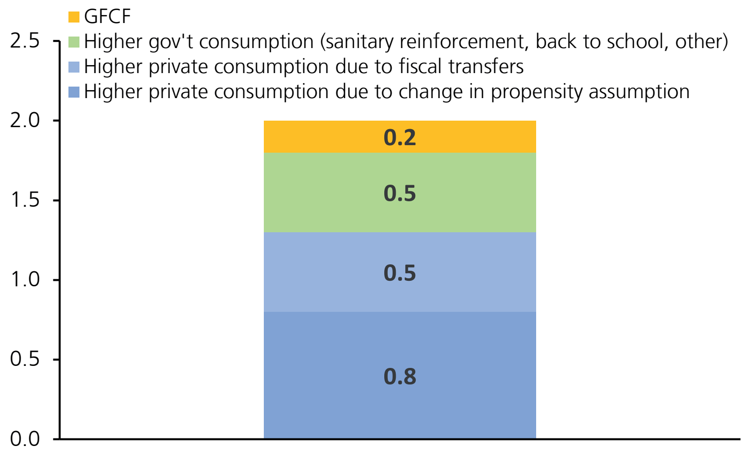
(*) Calculations based on anonymized information from the electronic invoice. To eliminate outliers, observations above 99.9% of the complete distribution of sales for the period January 2014-July 2021 are winsorized. Seasonally adjusted series. The sample contemplates companies that (i) have a National Accounts sector classification (CCNN) and (ii) have two or more workers in at least one month of the period January 2019-July 2021. The size of companies is defined according to the CCNN stratum classification, which considers annual sales. Micro and small: sales up to 25 thousand UF; medium: sales between 25 and 100 thousand UF; large: sales greater than 100 thousand UF. For 2021, CCNN does not offer a classification of companies by stratum, so if the companies existed in 2020, they are included in the stratum defined for that year.
Source: Central Bank of Chile based on information from the Internal Revenue Service.

In this context, our growth forecast for 2021 is corrected to a range between 10.5% and 11.5%, largely explained by the greater dynamism observed and expected in private consumption. Our private consumption growth forecast is increased to 18% annually (15% in June), because (i) the second-quarter figures showed a higher than expected increase in consumption and investment, which raises the starting point for the projection; (ii) the greater dynamism of consumption leads to an upward revision of the assumption about how much of the resources received from the IFE and pension withdrawals will be used for spending; (iii) disposable income for consumption increases due to the extension of the universal IFE. These changes have an impact on GDP growth of around 1.3 percentage points (pp) this year (figure V.3). Increased government spending, partly associated to increased health expenses, also contributes to the increase in projected growth for this year.

Projected gross fixed capital formation (GFCF) is also revised upward for this year, largely due to the dynamism shown by its machinery and equipment component. During the first half of the year, this has posted significant and above-expected annual expansion rates, with de-seasonalized levels that have recovered with respect to 2020, which raises the starting point of the projection. The increase in projects related to renewable energies, as well as the renewal of machinery and equipment of different types, in a context of accelerated activity, have contributed especially to this. The construction and other works component has shown slower growth, with levels that remain below those prior to the pandemic, but which have been increasing as sanitary restrictions have been eased.

In the medium term, the economy will slow significantly, to grow between 1.5% and 2.5% in 2022, and between 1.0% and 2.0% in 2023 (table V.1). This projection assumes a moderation of the current dynamism of consumption, with household income growing consistent with the fact that the effects of the pandemic on the labor market will be gradually overcome, the universal fiscal transfers are phased out, and the resources obtained from the massive withdrawals of pension savings are depleted. Tightened financial markets will also influence the expected evolution of consumption. In any case, the assumption of a higher marginal propensity to consume and a higher-than-expected fiscal impulse in 2021 means that the level of consumption during 2022 and 2023 will remain very high. The central scenario assumes that the effect on consumption of the resources provided by the IFE, although decreasing, will be visible during 2022, while the effects of pension fund withdrawals will persist until 2023. A rebalancing of consumption from goods to services is also envisaged, in line with the further opening of the economy. Thus, private consumption is expected to grow by around 1% in 2022 and to contract slightly in 2023.

FIGURE V.3 CONTRIBUTIONS TO REVISION TO 2021 GDP GROWTH (*)
(percentage points)



(*) Built using midpoint of forecast range of June and September 2021 Monetary Policy Report.
Source: Central Bank of Chile.

TABLE V.1 ECONOMIC GROWTH AND CURRENT ACCOUNT

	2020	2021 (f)	2022 (f)	2023 (f)
	(annual change, percent)			
GDP	-5.8	10.5-11.5	1.5-2.5	1.0-2.0
National income	-4.7	14.8	2.1	1.1
Domestic demand	-9.1	18.5	0.9	0.5
Domestic demand (w/o inventory change)	-7.9	16.7	0.5	0.2
Gross fixed capital form	-11.5	15.9	0.3	0.6
Total consumption	-6.8	16.9	0.5	0.1
Private consumption	-7.5	18.1	1.1	-0.4
Goods and services exports	-1.0	0.1	5.7	5.0
Goods and services imports	-12.7	24.6	2.3	1.8
Current account (% of GDP)	1.4	-2.2	-2.1	-2.3
Gross national saving (% of GDP)	21.2	19.1	19.4	19.7
Gross national investment (% of GDP)	19.8	21.3	21.5	22.1
GFCF (% of nominal GDP)	20.9	20.8	20.6	20.9
GFCF (% of real GDP)	20.7	21.6	21.2	21.0
	(US$ million)			
Current account	3,370	-7,100	-7,300	-8,600
Trade balance	18,369	15,700	16,600	14,800
Exports	73,485	94,600	98,000	98,700
Imports	55,116	78,900	81,400	83,900
Services	-4,998	-6,500	-8,000	-8,400
Rent	-10,964	-17,000	-17,100	-16,500
Current transfers	963	700	1,200	1,500

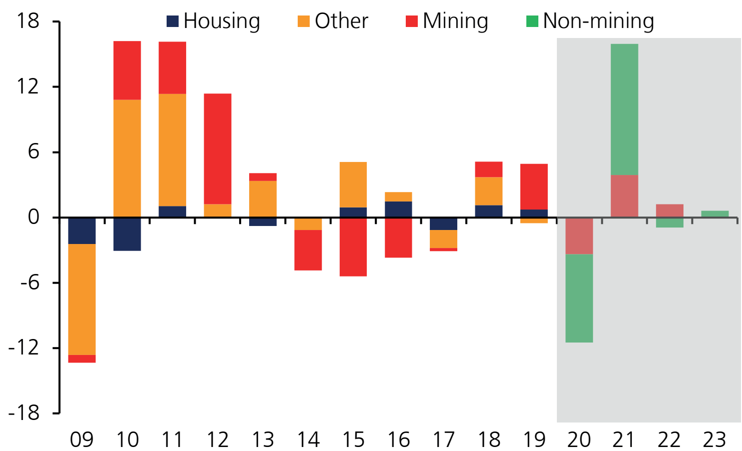
(f) Forecast.
Source: Central Bank of Chile.

For investment, a limited performance is expected over the next two years, associated to several restrictive factors. In addition to the greater comparison base that 2021 will leave, there is a greater perception of risk in the Chilean economy, which has occurred in a context of a substantial increase in public debt and a deterioration of the savings base due to the successive withdrawals of pension funds. The impact this has had on long-term interest rates, the exchange rate, the stock market and uncertainty indicators (chapter II) will hold back the dynamism of investment going forward.

Investment surveys and business perceptions also point to limited growth in this component of spending. In the case of the Capital Goods Corporation (CBC) survey, the data for 2021 shows a moderate upward correction, concentrated in projects of rapid execution and with a high imported component, such as renewable energies. In fact, in the rest of the sectors, the survey shows few new projects in the pipeline, well below their historical evolution. At the same time, the August Business Perceptions Report shows that different factors of uncertainty are having an important impact on investment decisions. More than 80% of the companies surveyed indicate that they are highly concerned about political and social factors, stating that these elements are adversely affecting their investment decisions.

Thus, in the central scenario, the annual variation rate of GFCF will be 0.3% in 2022 and 0.6% in 2023 (3.2 and 2.0% in the June Report, respectively) (figure V.4). Accordingly, in 2023, GFCF will achieve 20.9% of GDP in nominal terms, quite as predicted in June.

FIGURE V.4 REAL ANNUAL CONTRIBUTION TO GFCF (*)
(percentage points)



(*) Until 2019 effective data is used. Total GFCF for 2020 as published on August 18, 2021. The Other GFCF component is treated as a residue. For 2020-2023, forecasting models from the Central Bank and sectoral sources are used, such as investment plans and the CBC Survey.
Source: Central Bank of Chile.

Regarding the evolution of the health situation, the central scenario considers that it will continue to favor the performance of the economy in the coming quarters, estimating that by 2022 the restrictions to inland mobility will be minimal. The epidemiological status has allowed a greater opening of the economy since the end of the second quarter and, with it, more activity in the sectors whose functioning is most affected by the sanitary restrictions. The central scenario considers that the high vaccination rate, together with the booster jab, will make the most restrictive measures less necessary in the event of possible outbreaks, and that the effect on the economy of the measures adopted will be lower than those of 2020, considering the adaptation of households and businesses. In any case, the health risks are still present.

About the labor market, the economy's growth, the better sanitary situation, and the extinction of the universal fiscal transfers would lead to a greater creation of jobs and a decrease in the still high inactivity figures. The qualitative evidence indicates that consumer expectations (IPEC) regarding the future employment picture have increased and that companies have improved their perceptions of what their staffing levels will be in the coming months (August IPN and IMCE survey). Actually, vacancy indicators show a significant increase in recent months, which has not been fully covered due to a shortage of labor supply (chapter III). This picture of greater demand for labor, in a context of contained labor supply, is consistent with the recent acceleration in the annual growth of nominal wages (ICMO and IR, as measured by the INE), which hit record highs since 2016. At this point, the impact that the pandemic has caused on the supply of employment by women continues to stand out, mainly due to the need to devote more time to caring for the family group. In any case, there are also factors that could have a more permanent effect on the behavior of some segments of the labor market, on which it is still too early to draw definitive conclusions. For example, INE data show that employment in the trade sector continues to lag behind, despite the high dynamism of wholesale and retail sales.

Regarding fiscal policy, the central scenario assumes that the impulse will begin to be reduced as of 2022, starting a path of convergence towards expenditure and deficit figures in line with the structural balance rule, consistent with the provisions in the Public Finances Report and the recommendations of Autonomous Fiscal Council. So, after growing more than 35% annually this year in nominal terms, fiscal spending will fall by around 25% in 2022, thus narrowing the effective fiscal deficit from 7.3% to 1.1% of GDP, combining a reduction in the structural deficit and a high level of tax revenues. The latter, explained by the recovery of activity and copper trading above its long-term price.

The current account deficit will be considerably bigger than foreseen in June, especially in 2021 and 2022, primarily because the increase in domestic spending is concentrated in tradable goods. In addition, in the central scenario, the terms of trade are adjusted slightly downwards. Thus, for 2021, 2022 and 2023, current account deficits of slightly over 2% of GDP are anticipated (0.8%, 1.1% and 1.9%, respectively, in the June Report). Measured at trend prices[1]/ and consistent with a current account adjustment that responds more to quantities, the current account deficit also sees a significant correction, to 4.4, 3.9 and 3.5% of GDP for 2021, 2022 and 2023, respectively.

As for the external scenario, the projections consider no major changes in the aggregate, although it does present variations in the pace of expansion of developed and emerging economies. In the central scenario, our trading partners are expected to grow 6.4% this year, declining to 4.6% in 2022 and 3.4% in 2023 (6.7, 4.3 and 3.5% in June, respectively) (table V.2). These projections underscore the difference in both current and expected performance between developed and emerging economies. Thus, while the former continue to reopen in an environment of high vaccination, the latter continue to perform less favorably, explained by the slow progress of inoculation, amid the risks associated with the spread of the delta variant. In Latin America, effective second-quarter figures again surprised positively and explain a large part of the correction for this year. However, the general outlook looks less auspicious, in addition to the aforementioned factors, the slow recovery of the labor market and the persistence of internal stress factors that have translated into institutional risks in several countries of the continent. Thus, the region's growth for 2021 is corrected to 5.7% (4.4% in June), while for 2022 it stands at 3.0% (2.6% in June).

[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 a long-term copper price of US$3.3 per pound and oil of US$60 per barrel (box V.2 in September 2012 Report and box V.3 in June 2021 Report).

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

	Avg. 10-19	2020	2021 (f)	2022 (f)	2023 (f)
World GDP at PPP	3.7	-3.2	6.2	4.8	3.5
World GDP at market exchange rate	3.1	-3.4	5.9	4.6	3.0
Trading partners	3.9	-2.0	6.4	4.6	3.4
United States	2.3	-3.4	6.4	4.8	2.2
Eurozone	1.4	-6.5	4.8	4.5	2.6
Japan	1.2	-4.7	2.5	2.5	1.0
China	7.7	2.3	8.5	5.6	5.3
India	7.1	-8.0	8.5	6.3	6.0
Rest of Asia	4.5	-2.4	4.6	5.4	3.8
Latin America (excl. Chile)	1.8	-7.6	5.7	3.0	1.9
Commodity exp.	2.4	-4.3	5.2	4.0	2.2

(*) For definitions, see Glossary.

(f) Forecast.

Sources: Central Bank of Chile based on a sample of investment banks, Consensus Forecasts, IMF and statistical offices of each country.

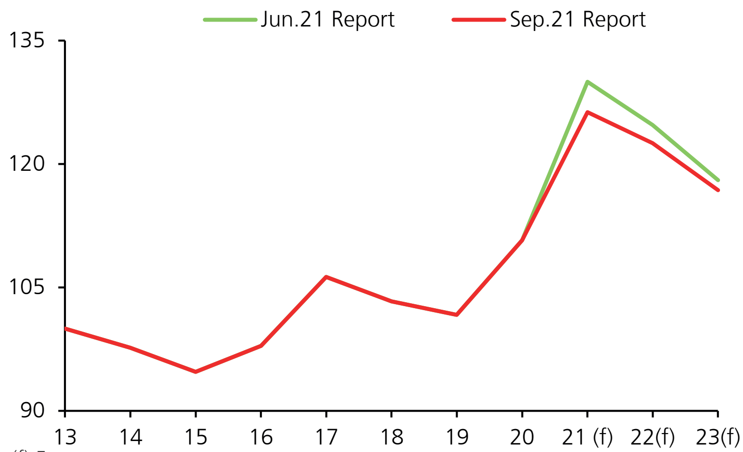
The central scenario foresees terms of trade remaining at high levels in the period 2021-2023, but adjusting somewhat downward with respect to June. Projections for the copper price are lowered for this year to US$4.15 per pound (US$4.25 in June), while for 2022 and 2023 an average price of around US$3.85 per pound continues to be projected (table V.3). Beyond the downward adjustment in this year's projection, this trajectory remains consistent with the convergence to its long-term levels anticipated in June. In contrast, the price of oil continued to rise, amid high volatility associated with tensions in OPEC+ to agree on an increase in output. Thus, in the central scenario, the oil price is adjusted slightly upwards to US$62-64 per barrel in the 2021-2023 period (Brent-WTI average). Accordingly, the terms of trade will grow 14% during 2021 (17% in June). In 2022 and 2023, they will contract 3.0% and 4.7% annually, although their levels will remain high from a historical perspective (figure V.5). The external inflation projection is corrected upwards with respect to June, based on the rise in fuel prices, the widespread depreciation of emerging currencies and the continuation of several cost factors that are putting pressure on inflation all over the world.

TABLE V.3 INTERNATIONAL BASELINE SCENARIO ASSUMPTIONS

	Avg. 10-19	2020	2021 (f)	2022 (f)	2023 (f)
			(annual change, percent)		
Terms of trade	1.1	8.9	14.1	-3.0	-4.7
External prices (in US$)	0.6	-1.5	10.3	2.2	2.3
			(levels)		
LME copper price (US$cent/pound)	306	280	415	400	370
WTI oil price (US$/barrel)	72	39	65	63	60
Brent oil price (US$/barrel)	80	42	67	66	63
Gasoline parity price(US$/m3) (*)	610	333	559	548	511
US Federal Funds Rate (%)	0.7	0.5	0.3	0.3	0.7

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

FIGURE V.5 TERMS OF TRADE
(index, 2013=100)

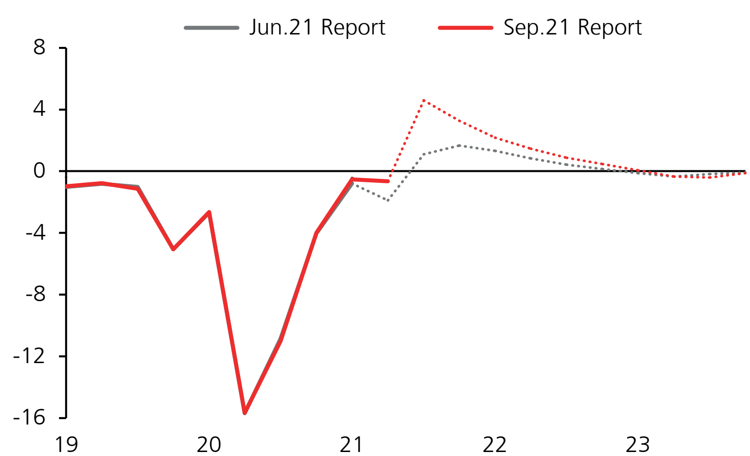


(f) Forecast.
Source: Central Bank of Chile.

THE ACTIVITY GAP AND CONVERGENCE OF INFLATION TO THE TARGET

The central scenario estimates that, thanks to the economy's dynamism in the second quarter, the activity gap was virtually closed, and will become positive during the second half of this year and a good part of 2022. After climbing to unusually high levels —slightly above 4% in the third quarter of 2021— the gap's return to near zero figures is subject to the slowdown of expenditure expected for next year, leading the gap to go back to oscillating around neutral levels by 2023 (figure V.6). This contemplates potential GDP hovering around 2.1% in the period 2021-2023, the same as in the last Report.

FIGURE V.6 ACTIVITY GAP (1)(2)
(level, percentage points)



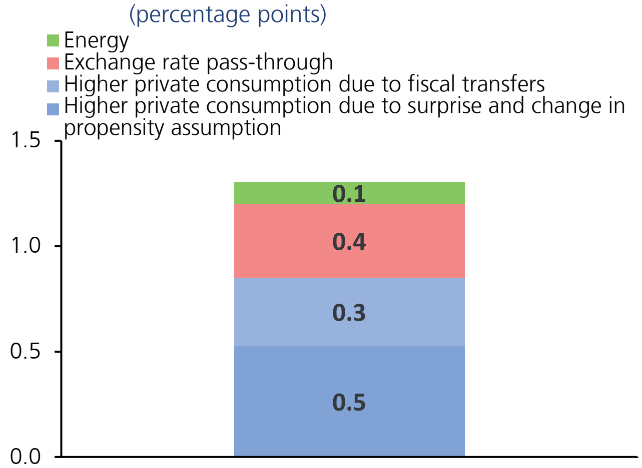
(1) Dotted lines show forecast. (2) Forecast assumes structural paramenters updated in June 2021 Report.
Source: Central Bank of Chile.

In the short term, inflation projections are revised upwards importantly in the central scenario, mainly due to the expected higher growth of consumption and its effect on the activity gap (figure V.7). In fact, July inflation was higher than expected, mainly due to the prices of goods, in a context of stronger than expected private spending. Thus, inflation is projected to end 2021 at 5.7% annually, which compares with the 4.4% forecast in June. Of this difference, 0.8pp are explained by the upward revisions to growth in consumption and activity.

A second factor in inflation's upward revision, considering the high headline inflation and significant demand pressures, is the cumulative depreciation of the peso since the June Report to date (8.1% nominal, 7.7% real), which also has a higher-than-average pass-through coefficient to inflation due to its idiosyncratic nature. Box IV.1 in the March 2018 Report showed that the average pass-through coefficient from the nominal exchange rate to inflation lies between 0.1 and 0.2 after one year, but with a high variance among the different items that make up the CPI basket. This same precedent shows that the pass-through will be greater when the parity movement comes from shocks idiosyncratic to Chile versus one related to a movement in global factors. Plus, this currency depreciation occurs in a context of strong demand pressures, which is perceived by businesses as a more favorable environment to raise their prices, as described in the August IPN. In the central scenario, over the course of the policy horizon, the RER will decline to values somewhat above its averages of the last fifteen to twenty years.

Finally, the volatile component explains a minor part of the change in the inflation forecast, mainly concentrated in fuel prices due to the new increase in the international oil price.

FIGURE V.7 CONTRIBUTIONS TO REVISION TO DECEMBER 2021 INFLATION FORECAST (*)
(percentage points)



(*) Built considering the projection for the total CPI inflation of the June and September 2021 Report.
Sources: Central Bank of Chile and National Statistics Institute (INE).

During the first part of 2022 inflation will stand above 5% annually, and from then on it will decline towards the 3% target, which it will achieve in late 2023. The slowdown in demand generated by the removal of fiscal and monetary stimulus policies is a determining factor in the expected decline in inflation, in a context where the important cost pressures and bottlenecks caused by the pandemic will gradually subside.

Core inflation will rise to 4.7% next December (3.9% in June), then it will continue to rise until it reaches some 5.6% on average in the second quarter of 2022. Subsequently, it will start to decline, also influenced by the high comparison base of 2021, towards the 3% target, reaching it in the third quarter of 2023 (table V.4; figure V.8).

At the statistical close of this Report, market inflation expectations for the short term were below the central scenario projections, despite a significant increase in the last few months. Activity and inflation data of recent months have brought significant surprises to the market projections contained in both surveys and inflation insurance. In fact, on average, these projections were getting closer to the past Report's scenario as new actual data became known, as well as expectations of new income-support measures, the peso depreciation and the potential effects of the mega-drought. Thus, at the statistical close, inflation expectations for December 2021 stood at 4.8%, while respondents to the Financial Traders Survey (FTS) prior to the August Monetary Policy Meeting expected inflation to reach 4% in a year's time (figure IV.7 in chapter IV).

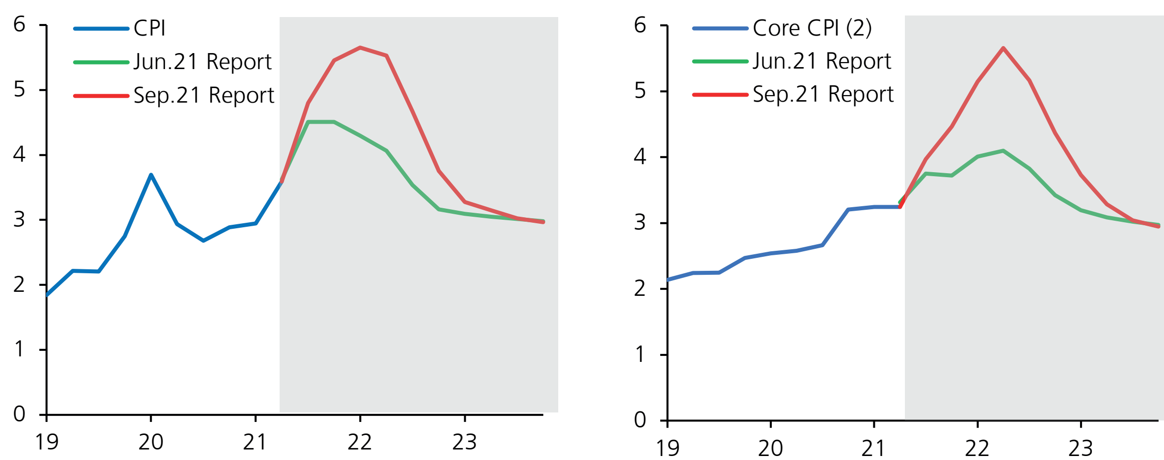
Two years out, the median of the Economic Expectations Survey (EES) is at 3%, while the Financial Traders' Survey (FTS) showed an increase to 3.5%. The fraction of responses above 3.0% in the EES has increased (37% in the August measurement, which compares with a 17% in the May survey). Breakeven inflation 1 in 1 also increased and yield an estimate for inflation two years out at 3.7% annually. However, as described in box IV.1 in the December 2016 Report, this measure shows a more volatile behavior than that in surveys to specialists and also includes premiums that distort the figures (figure IV.7 in chapter IV).

TABLE V.4 INFLATION (1)

	2020	2021 (f)	2022 (f)	2023 (f)
	(annual change, percent)			
Average CPI	3.0	4.2	4.9	3.1
December CPI	3.0	5.7	3.5	3.0
CPI in around 2 years (2)				3.0
Average core CPI	2.7	3.7	5.1	3.2
December core CPI	3.3	4.7	4.1	3.0
Core CPI around 2 years (2)				3.0

(1) Core inflation is measured using the CPI excluding volatile. (2) Inflation forecast for the third quarter of 2023.
(f) Forecast.
Source: Central Bank of Chile.

FIGURE V.8 INFLATION FORECAST (1)
(annual change, percent)



(1) Gray area, as from third quarter 2021, shows forecast. (2) Core inflation is measured using CPI excluding volatile.
Sources: Central Bank of Chile and National Statistics Institute (INE).

SENSITIVITY AND RISK SCENARIOS

Internationally, inflation may possibly exceed projections in developed economies and call for an earlier increase in their interest rates. Such a scenario would hurt the financial conditions of emerging economies including a depreciation of their currencies and would reduce global growth. In such a situation, there are countervailing forces at work on activity and prices, so the reaction of the MPR will depend on which of these dominates. However, it cannot be ruled out that the MPR should be above what is considered in the central projection scenario.

Locally, there are scenarios where the future evolution of consumption could yield the way to trajectories pulling the MPR in opposite directions but within the bounds of the corridor. On the one hand, it is possible that the propensity to consume the resources from government transfers and withdrawn pension savings will be even greater, which would further boost consumption. Such a scenario would require a more contractionary monetary policy response to converge to the inflation target, placing the MPR trajectory above that defined in the central scenario. On the other hand, a scenario in which consumption is less dynamic than expected could also occur, either because its current dynamism reflects an anticipation of spending decisions or because environmental factors, such as a worsening of the pandemic, lead households to hold back. Such a scenario would reduce inflationary pressures in the short term, allowing monetary normalization to proceed at a slower pace.

The lower bound of the corridor is determined by a scenario where lower uncertainty results in lower inflationary pressures. Such a situation could occur if uncertainty regarding the continuation of massive pension fund withdrawals and the ability of fiscal policy to return to a credible path of convergence were to recede. This would have an impact on financial conditions and the path of consumption, giving monetary policy more room for maneuver. This would allow for a significantly slower normalization of the monetary impulse, with no beg costs in terms of activity relative to the central scenario.

The upper bound of the corridor is defined by a scenario where the start of fiscal consolidation is delayed. Such a situation could have significant effects on the economy, requiring an even stronger monetary policy reaction to adjust macroeconomic imbalances. In such a scenario, higher inflationary pressures would lead to the need for a more accelerated increase in the MPR.

In addition to the sensitivity exercises, risk scenarios are analyzed in which the changes in the economy would be more significant and where the monetary policy reaction would surpass the limits of the MPR corridor (figure V.9).

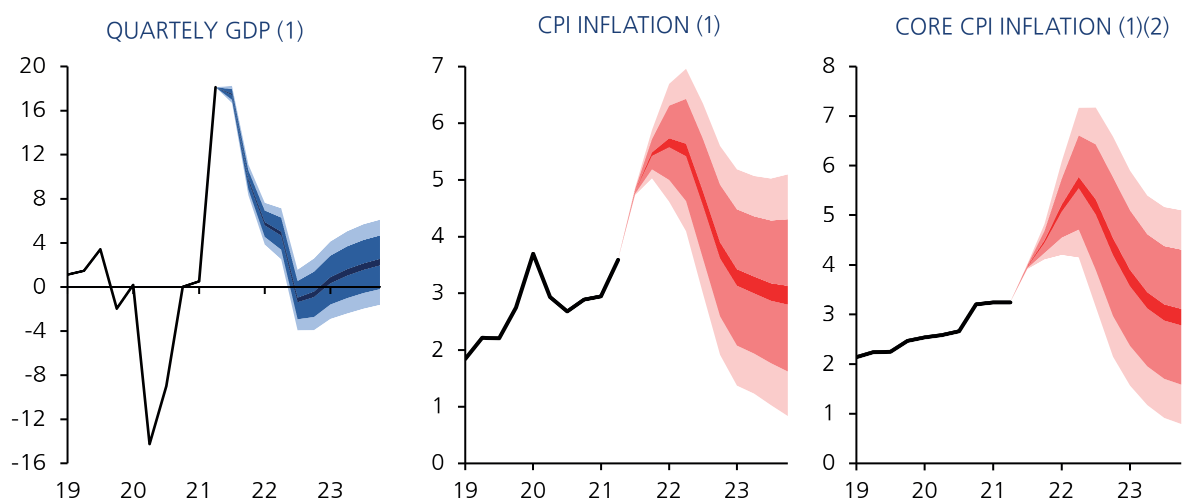
As in the June Report, one of the risks identified is one where the evolution of public finances may not be clear about their long-term stabilization. In this case, it would be possible to see not only greater spending pressures than those foreseen in the central scenario, but also their amplified impacts on the financial market. In such a situation, higher inflationary pressures would lead to the need for a more accelerated increase in the MPR, despite which inflation would fail to converge to the policy target within the two-year horizon.

Another risk scenario is one where the persistent discussion regarding the stability of pension fund savings ends up significantly altering the functioning of financial markets. Originally, this measure was conceived as a one-off, exceptional measure, amid an economic emergency. However, new withdrawals have been approved and proposed, which have had significant effects on the economy as can already be seen in the behavior of long term interest rates and the exchange rate. It is highly likely that additional withdrawals, or even the possibility of a 100% withdrawal, can lead economic agents to consider that there is a structural change in the savings base of the economy —which has been key for the development of the country—, the dynamics of investment and fiscal access to financing at an adequate cost. A change in this direction would cause multiple negative effects hard to quantify, but surely big and persistent.

In the more immediate future, a new withdrawal will increase the liquidity of households, boosting an already dynamic consumption, and putting an even higher pressure on prices and on the inflation path. Added to this is the fact that keeping the discussion regarding this issue open is already significantly increasing financing costs, generating flight of capital and an accumulation of dollar-denominated funds. All these phenomena would be significantly amplified by the approval of a new withdrawal that generates mistrust regarding the fundamental structures that sustain the financial market. No central bank has the powers, instruments or resources to neutralize risks of this magnitude and restore macroeconomic equilibrium.

Although for now this is a risk scenario, its probability of occurrence may be already affecting economic agents' behavior. Unlike what happened during the discussion of the previous withdrawals, since the discussion of a fourth one was announced, the exchange rate has depreciated significantly. This has occurred even considering the substantial volume of dollars that would enter the country due to the liquidation of the AFPs' foreign portfolios, which should occur if this measure is approved.

FIGURE V.9 GROWTH AND INFLATION FORECAST
(annual change, percent)



(*) The figure shows confidence interval of baseline projection over the respective horizon (colored area). Confidence intervals of 10, 70 and 90% around the baseline scenario are included. Confidence intervals are built based on the RMSE of averaged XMASMEP models from 2009 to 2017. (2) Core inflation is measured using CPI excluding volatile.
Sources: Central Bank of Chile and National Statistics Institute (INE).

BOX V.1

The role of macroeconomic policies in mitigating the Covid-19 crisis

During 2020, the Chilean economy suffered one of the most severe recessions in recent decades, with GDP contracting in the second quarter by around 13% from the previous quarter and almost 14% in twelve months. The magnitude of the fall responded to the anomalous nature of the shock—of non-economic and unprecedented origin—in which activities of all kinds had to be abruptly suspended in response to sanitary restrictions to contain the spread of Covid-19. Almost equally surprising has been the speed of the recovery, since, in fact, in February 2021 seasonally-adjusted activity levels already were similar to pre-pandemic ones, and clearly outpacing them in the second quarter. High-frequency indicators indicate that the activity of recent months would be exceeding even the level that existed before the social crisis outbreak in October 2019.

The rapid recovery in activity in Chile was accompanied by monetary and fiscal policy measures to support households and companies in significant magnitudes. These included reducing the Monetary Policy Rate (MPR) to its technical minimum, and a series of unconventional monetary policy measures such as a US$8 billion asset purchase program. In parallel, after coordination between the Financial Market Commission, the Finance Ministry and the Central Bank, special credit measures and transitory adjustments to the regulation of provisions were implemented. The credit support measures hand in hand with state guarantees through the Credit Facility Conditional on Increased Lending (FCIC) mitigated the closure of companies, by granting them credit so that they could continue operating. Its three stages combined, the FCIC totaled loans to the banks for US$40 billion (Financial Stability Report, first half of 2021). Along with the extraordinary capitalization of US$3 billion of the Fogape guarantee fund, financial institutions were allowed to grant guaranteed commercial loans of more than US$25 billion. Of that amount, about 90% has been granted, considering the Fogape-Covid and Fogape-Reactiva programs. On the fiscal side, programs of support for households and employment subsidies of US$17 billion were implemented, including the Emergency Bonus, IFE and Food boxes, among others.

Aggregate demand was also driven by the three pension fund withdrawals, which already total about US$50 billion since the third quarter of last year. These have had important macroeconomic effects, worth noting the boost they have given to consumption and putting upward pressure on inflation, the exchange rate and long-term interest rates (box II.1).

It should be noted that all these measures were not applied simultaneously or with the same intensity (figure V.10). Monetary policy and credit support measures were deployed at the beginning of the pandemic, while the bulk of fiscal measures were implemented in 2021. Compared to other countries, the size of these measures was similar to those adopted in developed countries during 2020, while in 2021 their magnitude was much higher in the case of fiscal policy (figures V.11 and I.10).

This Box presents counterfactual analyses that allow quantifying the role played by the different measures adopted in mitigating the worst effects of the crisis and avoiding more severe disruptions in the productive capacity of the economy[1/]. A difference is made between the contribution of conventional monetary policy via the MPR, and the application of unconventional policies. The effects of fiscal policies and massive withdrawals of pension savings are also considered.

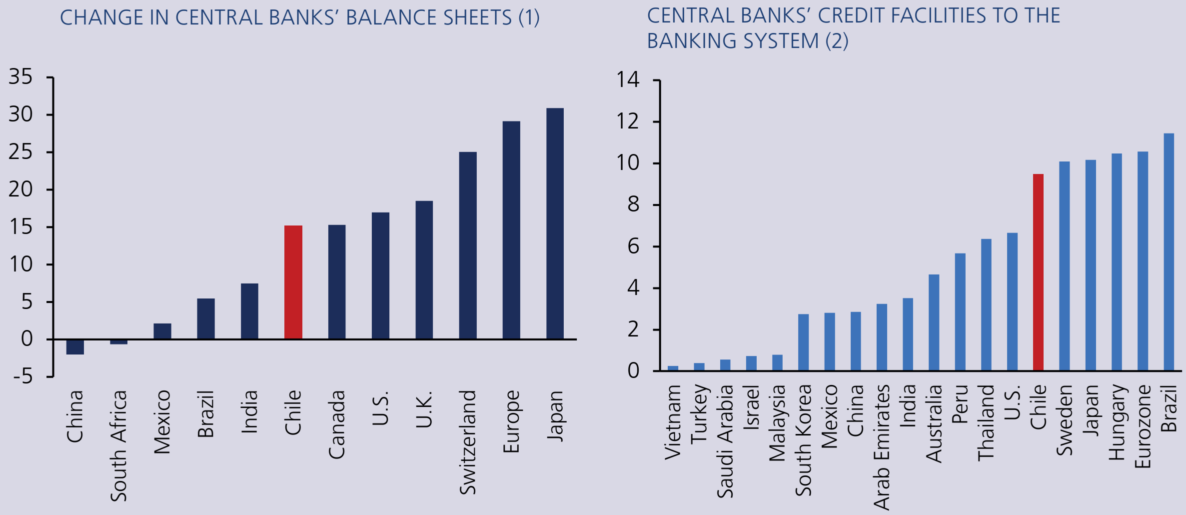
[1/] The use of structural models has a long tradition in macroeconomic policy analysis. Unlike reduced-form econometric models, which rely on historical statistical relationships, structural models are anchored in fundamentals of economic agents (preferences, risk aversion, optimizing behavior, etc.) that are independent of the change of policy to be analyzed, making them a useful tool for this purpose.

FIGURE V.10 POLICY MEASURES IMPLEMENTED

	2019.IV	2020.I	2020.II	2020.III	2020.IV	2021.I	2021.II
Monetary policy	**24/Oct/19** MPR : -25pb: 1,75%	**16/Mar/20** MPR : -75pb: 1,00% **17/Mar/20** MPR Corrldor **31/Mar/20** MPR: -50 pb: 0,50% (technical mini-mum)	**17/Jun/20** Asset-purchase program US$8.billion				
Credit-support policies		**16/Mar/20** FCIC1 US$24 billion (3% of portfolio) → Mar/24 **23/Mar/20** Liquidity credit line	**28/Apr/20** Fogape-Covid-19 line US$3 billion → 2024	**17/Jun/20** FCIC2 US$24 billion → Jul/24	**21/Dec/20** Fogape-Reactiva Flexible rate → 2028	**27/Jan/21** FCIC3 US$10 billion → Jul/24	
Fiscal policy			**20/Apr/20** IFE to 1,780,000 households C$260,000			**24/Feb/21** Extends IFE + Covid-19 bonus to 2 million house-holds **26/Mar/21** SMEs' relief bonus to 300k SMEs	**26/May/21** Universal IFE 7 million households **30/Apr/21** SME plan US$1 billion
Pension withdrawals				**30/Jul/20** first with-drawal	**10/Dec/20** Second with-drawal		**28/Apr/21** Third with-drawal

Sources: Central Bank of Chile and Chilean Government.

FIGURE V.11 UNCONVENTIONAL MONETARY MEASURES IN RESPONSE TO COVID-19 CRISIS
(percent of GDP)



(1) Change in the balance sheet between December 2019 and July 2021, except for Switzerland and South Africa, which consider up to June 2021. (2) Considers facilities announced to support credit between February and July 2020. Considers FCIC1 program for Chile; and Repo operations, credit lines, and other program for the other countries. Measures are calculated with respect to 2020 GDP, except for the Arab Emirates and Japan, which use GDP of 2019. Sources: Central banks of respective country, Bloomberg, and Central Bank of Chile with information from the BIS and the World Bank.

Methodological aspects

The approach used in the analysis is based on a counterfactual assessment, investigating how GDP would have evolved in the absence of the policies implemented. For this, it deals with the set of structural models that the Central Bank of Chile has[2/] and that it usually uses in its projections. In the context of the pandemic, various international bodies have used similar approaches for this purpose[3/].

Thus, for the purposes of quantifying the contribution of monetary policy to the mitigation of the crisis, it is considered as counterfactual what would have happened if the MPR had been held at its level at the end of 2019 (2%) and the programs for the purchase of bank bonds and other assets as of March 2020 had not been implemented. With a similar approach, it is possible to measure the impact of special credit programs financed by the FCIC and supported by the Fogape-Covid state guarantees, with respect to a counterfactual where these measures would not have been implemented. The exercises also make it possible to quantify the effects of these policies on reducing uncertainty and its effects on the real economy.

For the evaluation of conventional and unconventional financial monetary policies, the global financial crisis of 2008-2009, and its effects on Chile, serve as a reference point for comparison. Two cases are assumed. First,

[2]/ See documents on monetary policy and macroeconomic models of the Central Bank of Chile.

[3]/ See, for example, April 2021 World Economic Outlook. Other references include Bulir et al. (2021) and Chadha et al. (2021).

that the absence of policies would have generated a level of financial pressures similar to those experienced in the GFC. Second, that these were higher and proportional to the deeper drop in activity observed recently. These two cases are studied separately. For fiscal policy, the counterfactual used is the spending trajectory that was anticipated prior to the social crisis outbreak in October 2019. The role of pension fund withdrawals is assessed using estimates of propensity to consume based on high-frequency consumption data.

It needs mention that any analytical approach is an approximation of reality and, in particular, different models can differ significantly in the aspects whose modeling it seeks to emphasize. In this way, rather than delivering a single evaluation, it seeks to approximate an order of magnitude of the effects by presenting a range of estimates according to several alternative approaches. The details of the different approaches used and the main assumptions are summarized in Calani et al. (2021). It should also be noted that the exercises performed are partial, since they focus on the impact of policies in the short term, leaving aside the study of the medium- and long-term impact of these and other measures.

Results

The results reveal that all the measures played important roles in containing the crisis. In the absence of these policies, the fall in GDP in 2020 would have been between –10.1 and –13.3%, considerably more than its effective contraction (–5.8%). In the first half of 2021, in the absence of policies, the annual variation in GDP would have been between an increase of 0.8% and a fall of –2.4%, compared to the observed annual growth of 8.7%.

TABLE V.5 BUFFER EFFECT ON GDP OF MEASURES ADOPTED DURING COVID-19 CRISIS
(percent)

	2020	2021 H1
Conventional monetary policy (1)	[0.2 - 0.8]	[0.6 - 2.1]
Unconventional credit policies (2)	[2.2 - 4.8]	[2.7 - 4.4]
Fiscal policy	0.7	1.7
Total: Fiscal and monetary policy	[3.1 - 6.3]	[5.0 - 8.2]
Pension fund withdrawals	1.2	2.9
Total	[4.3 - 7.5]	[7.9 - 11.1]
Actual GDP	-5.8	8.7
Counterfactual GDP	[-10.1 ; -13.3]	[0.8; -2.4]

(1) Conventional monetary policy associated with counterfactual of keeping the MPR at 2%. (2) Unconventional credit policies associated with the counterfactual of not implementing the monetary policies and sovereign guarantees that sought to stabilize the financial markets, including the FCIC-FOGAPE program, bond purchase, and liquidity programs in local and foreign currency. Range presented in these two policies is based on two counterfactual exercises: i) where, in the absence of credit policies, the financial shock had been of the same size as that of the 2008-2009 financial crisis, and ii) where it had been larger and proportional to the GDP fall of 2020. Counterfactual GDP subtracts from actual GDP the buffer effects of fiscal and monetary policy, and the pension fund withdrawals shown in the upper lines of the table.

Source: Central Bank of Chile.

The results also reveal the different timing of the measures. Monetary policy was the first to be deployed (figure V.10), which helped credit grow strongly in the first months of the crisis. Towards the end of 2020 and the turn of 2021, pension savings withdrawals and fiscal spending gave strength to private consumption and activity.

Regarding conventional monetary policy, the exercises show that if the reduction in the MPR to its technical minimum of 0.5% had not been implemented, GDP would have fallen between 0.2 and 0.8 percentage points (pp) more than it did. The magnitude of monetary policy contributions depends on the lags in monetary policy pass-through. These lags also explain that, in the absence of conventional monetary policy, there would have been additional falls in growth in the first half of 2021, between 0.6 and 2.1pp.

Failure to act using unconventional policies would have implied a much sharper contraction of GDP. Assuming an increase in financial risk similar to that observed in the 2008-2009 crisis, the fall would have been 2.2pp greater. In the riskiest scenario, GDP would have contracted 4.8pp more than it did (figure V.12). The high persistence in the real effects associated with this type of financial shock means that, in the absence of the policies, considerable falls in activity would also have been observed during the first half of 2021, of between 2.7 and 4.4pp.

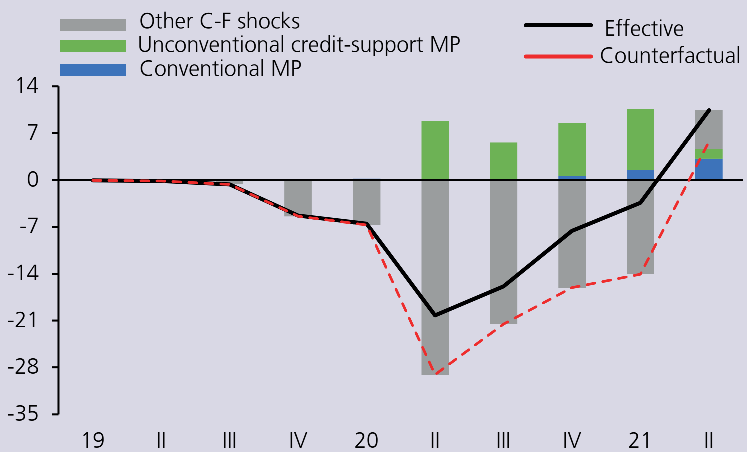
In 2020, the buffer role of fiscal policy was comparatively smaller than that of unconventional policies. The counterfactual exercise shows that the absence of fiscal policy would have led to a 0.7pp sharper fall in GDP. Its contribution more than doubles in the first half of 2021, with a dampening effect of 1.7pp. Thus, collectively, policies of monetary and fiscal origin cushioned the shock that hit the Chilean economy in 2020, reducing its fall between 3.1 and 6.3pp. They also boosted growth in the first half of 2021 by between 5 and 8.2pp.

Pension savings withdrawals, due to their effect on consumption, also contributed as buffers. Their effect was 1.2pp in 2020 and 2.9pp in the first half of 2021.

By component of spending, the analysis reveals that monetary policy and credit programs played a major role in sustaining investment. Thus, this set of policies also played an important part in mitigating the effects of the crisis on employment and strengthening its recovery, where employment protection programs and hiring subsidies have also been key (Calani et al., 2021). Meanwhile, the strong recovery in consumption of recent quarters has been dominated by the withdrawals of pension savings and fiscal transfers.

Quantifying the mitigating effects of the different measures also makes it possible to evaluate their relative efficiency, by contrasting their benefits—in terms of how each of them managed to cushion the shock of the pandemic—with the resources committed in each case. The special credit measures with state guarantees totaled about US$43 billion (including US$40 billion of loans to banks via the FCIC and US$3 billion from the capitalization of Fogape), obtaining a cushion of between 3.1 and 6.3pp for 2020, and between 5 and 8.2pp in the first half of 2021. Fiscal policy, through household-support measures and employment subsidies of US$17 billion, mitigated the effect of the shock by 0.7 and 1.7pp in the same periods, respectively. Pension withdrawals, which already total about US$50 billion, succeeded in boosting aggregate demand and mitigating the fall in output by about 1.2pp in 2020 and 2.9pp in the first half of 2021. Finally, it is important to note that, unlike the fiscal and pension withdrawal policies that meant resources spent, the funds used in the FCIC are loans that will be repaid in the future. Its cost is the capital delivered, weighted by the opportunity cost of money.

FIGURE V.12 BUFFER EFFECT ON GDP OF MEASURES ADOPTED DURING COVID-19 CRISIS (*)
(percent)



(*) Solid line shows log change over same quarter of previous year in non-mining GDP, as a difference with respect to sample mean 2001Q3-2021Q2. Red line shows counterfactual of this growth in absence of monetary and credit support policies. Shaded bars show incidence of different shocks in explaining difference between actual and counterfactual growth. Green bars show the dampening effect of non-conventional credit support policies against a counterfactual scenario where the absence of these policies would have generated a credit risk shock proportional to the fall in activity in 2020 (the 2008 crisis is used as reference for the proportion coefficient). Blue bars show mitigating effect of monetary policy through the MPR against a counterfactual scenario where it would have remained constant at 2%. Gray bars show joint incidence of the shocks that bring non-mining GDP to its counterfactual growth. Methodological details are presented in Calani et al. (2021).

Source: Central Bank of Chile.

Conclusions

The rapid recovery from the two shocks that have hit Chilean households and businesses since the end of 2019 owes largely to the strong response of a variety of policies, including monetary, fiscal, and legislative initiatives such as pension fund withdrawals. On the one hand, the combination of credit policies with sovereign guarantees allowed credit to reach companies and widespread bankruptcies were avoided. On the other hand, fiscal stimuli and withdrawals made it possible to sustain aggregate demand.

Assessing the role of these policies is of the utmost importance, since it allows to inform the discussion about the impacts of each of them and contrast them with the resources used in each case. In this regard, the deployment of some of these policies has had a very significant cost, reducing fiscal slack and private pension savings accumulated over decades. Going forward, it is critical to return to a path of fiscal consolidation and re-composition of private savings, in order to ensure sustainable prosperity over time for Chilean families.

BOX V.2:

Changes of the central projection scenario in the past year

The expected evolution of Chilean activity and inflation has had a significant change in the past year. In the September 2020 Report, GDP was expected to grow in 2021 in a range between 4% and 5% annually as part of a post-pandemic recovery process that would take several quarters. In this Report, this projection not only added a new upward correction, placing it considerably above what was expected a year ago —to a range between 10.5 and 11.5%— but it also noted that the economy has already overcome the immediate impact of the pandemic, returning to a level comparable to that of the third quarter of 2019, prior to the onset of the social crisis and the arrival of Covid-19. The inflation forecast also had an important upward change, with short-term inflationary pressures that will take the annual variation of the CPI to close 2021 at 5.7%, which compares with the 2.8% expected a year ago. This Box gives an account of the factors that explain this change in the projection scenario.

The main change in the growth projection goes to the expected evolution of consumption. Compared with the September 2020 Report, the expected expansion for this component of spending more than doubled for this year, going from an expansion of 7% to 17% (table V.6). Key to this shift was the impact of the set of measures taken to boost household spending, particularly the massive withdrawals of pension funds and significant fiscal transfers. Considering the three withdrawals and the extension of the universal IFE, households will have received a liquidity injection of around US$80 billion, which compares with a fall in income several times smaller (chapter III, figure III.5). All this has led to private consumption, especially of durable goods, exhibiting extraordinary dynamism that, in a context in which supply has not yet fully recovered, has pushed up inflation.

The growth outlook for investment in 2021 have also been revised upwards in the last year—from 8% to 16% annually—although their impact on the change in projected activity is smaller than what has been the case with consumption (table V.6). The greater dynamism of investment has been concentrated in imported goods, supported by the impulse from projects linked to renewable energies and the renovation of machinery and equipment of different kinds in a context of accelerating activity. Credit support policies– such as the FCIC and the Fogape lines—played an important role in the recovery of investment (box V.1). In fact, unlike other recessions, this time commercial credit showed a countercyclical behavior, raising its growth rate to about 10% annually in mid-2020—at the worst moment of the pandemic. The importance of these policies in the recovery is a phenomenon that is also observed in other economies (box I.1).

The evolution of activity also found significant support in the adaptation of people and businesses to the circumstances of the pandemic, as well as in the sanitary management of Covid-19, in particular in the rapid progress of the vaccination process. The ability to adapt was especially noticeable between the end of the first quarter and the beginning of the second. In that period, the increase in infections led to a sharp increase in sanitary restrictions —by mid-May more than 95% of the population was in quarantine— which had minor effects on activity compared to those adopted early in the pandemic. In fact, contrary to expectations, activity posted a slight contraction at the beginning of the second quarter, and then resumed a path of expansion. In this context, business and consumer expectations have been improving in recent months, leaving behind the low levels of the beginning of the pandemic (chapter III, figure III.6).

Inflationary pressures have seen a significant change in recent quarters, driven by the imbalance between the strong dynamism of consumption and yet to fully recover supply. Thus, the gap estimate went from a scenario that anticipated that it would remain open for a long period to one in which it has already closed, and will even become positive for some time (figure V.6). Regarding supply-side factors, it must be noted that the responsiveness of production has been unable to fully recover, leading to significant bottlenecks in the supply of goods and inputs and greater cost pressures at the global level. The effects of these factors are already noticeable in inflation in different economies and pose a risk on its future evolution (chapter I, figures I.6 and I.9).

In this context, actual and projected inflation have risen in recent quarters. The annual variation of the CPI went from 2.4% to 4.5% between August 2020 and July 2021. Projected inflation as of December this year rose to 5.7% in this Report, compared to the 2.8% forecast a year ago (figure V.13). For the December 2020 Report, the rise in consumption caused by the first withdrawal had led to a major upward surprise in core goods inflation. Inflation has continued to exceed expectations throughout 2021, fueled by higher cost pressures, including rising fuel prices and the idiosyncratic depreciation of the peso. On this latter point, the unfavorable evolution of the local financial market stands out, caused in part by the perception of a worsening of the fundamentals of the economy resulting from the liquidation of long-term savings through the successive massive withdrawals of pension savings and the deterioration of the fiscal accounts, all in an environment of high local uncertainty (chapter II).

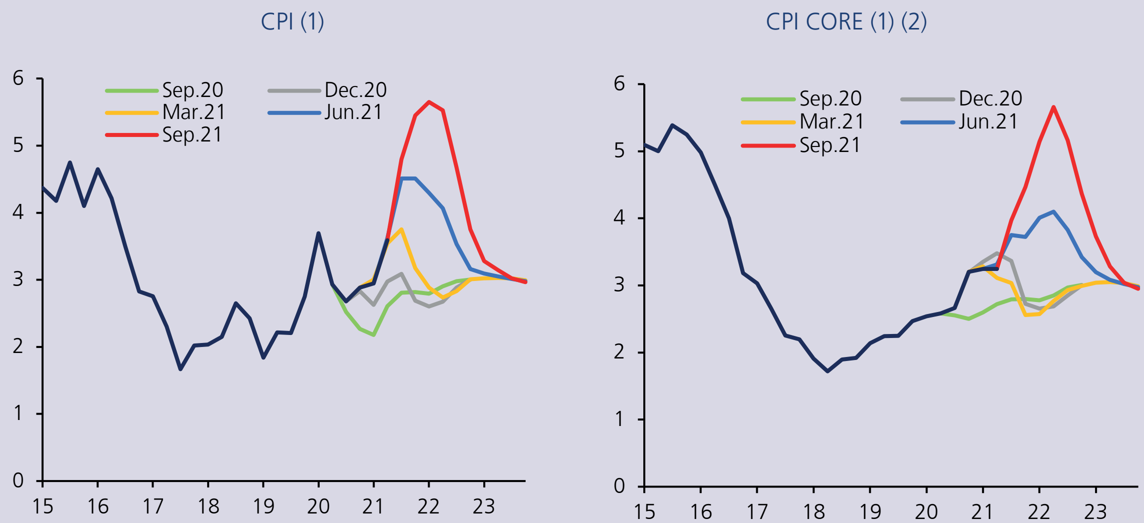
The evolution of the macroeconomic scenario has significantly changed the assessment of inflationary pressures facing the economy, leading the Board to alter the monetary policy stance. Thus, the prospects for the Monetary Policy Rate (MPR) went from a prolonged stay at its technical minimum of 0.5%, to the need to adopt increases whose timing was being anticipated as months went by. Last June, the Board announced the start of the process of reducing the monetary impulse, which it did in July with an increase of 25bp in the policy rate. At the August meeting, the Board decided to intensify the withdrawal of monetary stimulus, raising the MPR by 75 bp, placing it at 1.5%. This, in response to the need to avoid the accumulation of macroeconomic imbalances that, among other consequences, could cause a more persistent increase in inflation that could leads it to deviate from the 3% target over two years. In addition, it anticipates that for inflation to converge to the target, further reductions in the monetary impulse will be required, bringing the MPR close to its neutral level by the middle of the first half of 2022.

TABLE V.6 DOMESTIC AND EXTERNAL SCENARIO FOR 2021

	Sep. 20	Dec. 20	Mar. 21	Jun. 21	Sep. 21
GDP (annual change, %)	4.0 - 5.0	5.5- 6.5	6.0-7.0	8.5-9.5	10.5-11.5
Domestic demand (annual change, %)	5.6	9.4	11.7	15.5	18.5
Domestic demand (w/o inventory change)	7.0	9.6	11.0	13.3	16.7
Total consumption (annual change, %)	6.8	10.3	11.5	13.8	16.9
Gross fixed capital formation (annual change, %)	8.0	7.3	9.2	11.4	15.9
Current account (% of GDP)	-2.5	-1.5	-0.9	-0.8	-2.2
Trading partners (annual change, %) (*)	4.7	5.5	6.3	6.7	6.4
World GDP at PPP (annual change, %) (*)	4.9	5.4	6.2	6.5	6.2
LME copper price (US$cent/pound)	280	320	395	425	415
Oil price, WTI-Brent average (US$/barrel)	47	47	62	64	66

(*) For definitions, see Glossary.
Source: Central Bank of Chile.

FIGURE V.13 INFLATION FORECAST IN EACH MP REPORT
(annual change, percent)



(1) For 2018, the annual variation of the CPI and CPI excluding volatiles is obtained by splicing the series with base 2013 = 100 with the monthly variations of the basket 2018=100 as of February 2018. See Box IV.1 of MP Report March 2019. (2) Core inflation is measured using CPI excluding volatile.
Sources: Central Bank of Chile and National Statistics Institute (INE).

ANNEX A:

The Central Bank of Chile's balance sheet

This annex presents and analyzes the situation and projections of the main items in the financial statements of the Central Bank of Chile. First, it reviews the evolution of the balance sheet in the first half of 2021. Second, it analyzes the special measures and the composition of the balance sheet. Finally, it presents the Bank's projections for assets and liabilities at the end of 2021 and 2022, in addition to long-term projections.

EVOLUTION DURING FIRST HALF OF 2021

During the first half this year, the Bank continued to implement special measures to support the flow of credit in order to mitigate the effects of the economic and financial tensions caused by the spread and persistence of the Covid-19 pandemic. In addition, the Central Bank also implemented a series of measures aimed at preserving the stability of the financial markets and the efficiency of the price formation process in the context of pension and annuity fund withdrawals. In January, the Central Bank launched a gradual program of replenishment and expansion of international reserves to strengthen the country's international liquidity position in the amount of US$12 billion, over a period of 15 months and through regular purchases of US$40 million per day.

The measures implemented resulted in a significant change in the size and composition of the balance sheet during the period. In fact, the size of the balance sheet measured in Chilean pesos grew 21% during the first half of the year (83% in 2020).

Regarding its composition, at the end of the first half of the year, 54% of assets were denominated in local currency (41.4% in pesos and 12.6% in UF), slightly higher than the 53% at the end of 2020. In absolute terms, the increase in domestic-currency-denominated assets (C$7.29 trillion) was mainly explained by the commercial banks' utilization of the entire third stage of the Credit Facility Conditional on Increased Bank Lending (FCIC3). Foreign currency assets also increased (C$5.17 trillion), mainly from regular purchases of foreign currency to replenish and expand international reserves. This program is scheduled to conclude in March 2022, with a total of US$ 12 trillion in purchases. Currently, the benchmark comparator for international reserves is composed of US dollars (77%), Chinese yuan (8%), euro (5%), pounds sterling (4%), Australian dollars (3%), and South Korean won (3%).

On the liabilities side, the proportion of promissory notes and policy instruments (short-term debt) rose from 34.5% to 43.6% at the end of the first half of the year and the monetary base fell from 49.5% at the end of 2020 to 44.1% of total liabilities at the end of June. The increase in short-term debt was related to the sterilization of the increase in assets, because of the use of the FCIC3 and the purchase of international reserves. Although the monetary base decreased as a proportion of liabilities, it should be noted that it increased in absolute terms by 6.4% with respect to the end of last year, mainly because of an increase in the balance of banknotes and coins of C$2.76 trillion.

As a result of the new asset-liability composition, a process that began in 2020, changes were observed in the composition of risks and in the income-cost structure of the balance sheet. With respect to the former, exposure to foreign currency fluctuations fell, but credit risk exposure of domestic banking institutions increased. With respect to the structure of income and costs, in terms of interests and indexation, gains on assets increased with respect to the costs of liabilities, owing especially to the incidence of local assets. However, the biggest impact on results continues to be the variation of the peso against the currencies that make up the international reserves.

Compared with end-of-2020, during the first half of this year there was an increase in both assets and liabilities, and a reduction in the net worth deficit as a share of GDP (table A.1).

TABLE A.1 CENTRAL BANK BALANCE SHEET: SUMMARY BALANCES AND LIABILITIES
(percent of GDP)

	2018	2019	2020	Jun.21	2021 (f)	2022 (f)
ASSETS	**14.9**	**16.5**	**29.6**	**33.1**	**31.6**	**30**
International reserves (1)	14.5	15.4	13.9	15.2	16.2	16.0
Fiscal notes and other goverment credit	0.2	0.2	0.2	0.1	0.1	0.1
Monetary policy Instruments (2)	0.1	0.8	11.0	13.4	12.8	12.0
Bank bonds (3)			4.3	4.2	2.4	1.7
Time deposits			0.1	0.0	0.0	0.0
Other assets	0.2	0.2	0.1	0.1	0.1	0.1
LIABILITIES	**16.9**	**17.3**	**30.5**	**33.6**	**31.8**	**30.3**
Promissory notes with secondary market	7.3	7.1	10.5	14.7	14	13.4
Bank policy instruments	1.8	1.6	3.8	2.6	2.6	2.5
Other banks liabilities	0.9	2.0	1.1	1.5	1.0	0.9
Other liabilities except monetary base	0.9	0.4	0.0	0.0	0.0	0.0
Monetary base	5.9	6.3	15.1	14.8	14.2	13.4
NET WORTH (A+B+C)	**-2.0**	**-0.8**	**-0.9**	**-0.6**	**-0.2**	**-0.3**
A. Initial Equity	-3.0	-1.8	-0.6	-1.0	-0.8	-0.2
B. Net result	1.1	1.1	-0.2	0.4	0.6	-0.2
Non financial	0.0	-0.1	-0.1	-0.1	-0.1	-0.1
Net interests (4)	-0.2	0.5	0.1	0.1	-0.2	0.1
Effect of exchange rates and UF	1.2	0.6	-0.2	0.5	0.9	-0.2
C. Capital contribution	0.0	0.0	0.0	0.0	0.0	0.0
Position payable in foreign currency (FC) (5)	12.8	12.9	12.9	13.5	14.4	14.2

(1) International reserves as a percen of GDP, measured in pesos, may differ marginally from other measurements made in dollars. (2) Includes Credit Facilities Conditional on Increased Bank Lending (FCIC1, 2, and 3) and Liquidity Credit Line (LCL). (3) Includes bank bonds spot purchase and forward sale operations (CC-VP). (4) Difference between interest earned on investments and monetary policy instruments of assets and interest paid on debt notes and monetary policy instruments of liabilities. (5) Assets minus liabilities payable in foreign currency (FC).

(f) Forecast.

Source: Central Bank of Chile.

Thus, between 31 December 2020 and 30 June 2021, the volume of assets grew by C$12.51 trillion, i.e., from 29.6% to 33.1% of GDP, and liabilities grew by US$11.99 billion, from 30.5% to 33.6% of GDP. As a result, the Central Bank went, in six months, from having a net worth deficit of C$1.74 billion (equivalent to –0.9% of GDP) to a deficit of C$1.23 trillion, or –0.6% of GDP. This was mainly explained by the higher peso value of foreign-currency-denominated assets associated with the depreciation of the peso during the period.

BALANCE SHEET COMPOSITION

The increase in the size of the balance sheet, close to 3.5% of GDP during the first half of 2021 (table A.1), was mainly explained by the adoption of special measures that raised the monetary policy domestic currency assets by C$6.95 trillion, i.e., from 11% of GDP in December 2020 to 13.4% of GDP in June 2021, (where the FCIC and the LCL are equivalent to 13.3% of GDP). In addition, international reserves increased by C$5.17 trillion from 13.9% of GDP in December 2020 to 15.2% of GDP in June 2021, due to foreign exchange purchases of C$3.30 trillion (1.5% of GDP) and higher O/N deposits from commercial banks of C$1.1 trillion. Overall, domestic currency assets increased from 15.6% of GDP in December 2020 to 17.7% of GDP in June 2021 and foreign currency assets, in the same period, rose from 14% of GDP to 15.4% of GDP.

In turn, liabilities grew 3.2% of GDP, in which secondary market notes rose C$10.81 trillion (PDBCs rose C$11.29 trillion and long-term debt dropped C$483 billion), going from 10.5% of GDP in December 2020 to 14.7% of GDP in June 2021. In addition, the monetary base increased by C$1.94 trillion, from 15.1% of GDP in December 2020 to 14.8% of GDP in June 2021. Policy instruments with banks (essentially the Permanent Deposit Facility, PDF) decreased by C$1,87 trillion, from 3.8% of GDP in December 2020 to 2.6% of GDP in June 2021 (table A.1).

The period ended with negative net worth of C$1.23 trillion (-0.6% of GDP), explained by the initial equity and other reserves of C$2.2 trillion (–1% of GDP) and net income for the year of C$977 billion (0.4% of GDP). The latter was due to exchange rate gains of C$820 billion, net UF gains of C$159 billion (associated with the investment in UF-denominated bank bonds minus UF debt), net interest of C$126 billion and non-interest expenses of –C$127 billion attributed to administrative, staff, and working capital expenses of –C$53 billion and others (mainly impairment losses) of –C$74 billion.

The special measures adopted by the Central Bank accounted to some extent for the net worth result for the first half of 2021. With respect to domestic-currency-denominated assets, the bank bond portfolio generated total losses of C$301 billion —including gains on interests and indexation of C$218 billion and mark-to-market losses of C$519 billion—, FCIC-LCL interest gains of C$60.8 billion, CC-VP interest and mark-to-market gains of C$15.5 billion, Repo gains of C$600 million, and time deposit losses of C$900 million (table A.2).

In terms of flows and consistent with the above, during the first half of the year the variations in the balance sheet explained an increase in the monetary base of C$1.94 trillion and an increase in the position payable in foreign currency equivalent to C$3.0 trillion, as a product of the foreign currency purchase program (US$4.56 billion). At the end of 2021, the position payable in foreign currency is projected to reach C$7.08 trillion (US$9.6 billion) and to increase by an additional C$1.83 trillion (US$2.4 billion) in 2022 (table A.3).

Aside from the structure and size of the balance sheet, during the first half of 2021, changes in key financial variables were also observed. The positive yield gap between assets and liabilities widened by 22 basis points, due to the increase in the rates of local and international bonds held in the portfolio. On the other hand, the duration gap between assets and liabilities increased by 3.6 months, mainly due to a 10-month increase in the duration of the new international reserves benchmark, effective as of February 2021. Finally, in both assets and liabilities, the balance sheet exposure to the Chilean peso increased, due to the FCIC3 increase in assets, the PDBCs and the monetary base in liabilities (table A.4).

TABLE A.2 EFFECTS OF SPECIAL CENTRAL BANK MEASURES ON THE CENTRAL BANK'S NET WORTH (1)
(billions of Chilean pesos)

	Amount realized (5)	Profit/Loss
REPOs (2)	10	0.6
Bank bonds (3)	6,078	-301
FCIC- LCL loans (3)	28,966	60.8
Time deposits (4)	46	-0.9
CC-VP (4)	2,967	15.5
Total	38,066	-225

(1) Shows gains or losses with net worth impact of special measures implemented by the CBCh during the first half of 2021. (2) Measures announced in November 2019, due to social crisis and year-end financial stress. (3) Measures announced from March 2020, due to pandemic-related financial stress and pension fund withdrawals. (4) Measures announced as of July 2020 due to pension fund withdrawals. (5) Amounts are of stocks in effect as of June 30, 2021.
Source: Central Bank of Chile.

TABLE A.3 CENTRAL BANK OF CHILE BALANCE SHEET FLOWS (1)
(billions of Chilean pesos)

	2018	2019	2020	Jun.21	2021 (f)	2022 (f)
1. Net international reserves	1,000	-140	-1,168	4,082	7,866	2,613
2. Policy instruments in domestic currency	-770	1,862	17,895	-882	-4,707	-2,007
3. Other domestic currency operations except monetary base (2)	960	-823	26	-477	-424	366
4. Other foreign currency operations (3)	-1,000	-1,684	1,129	-785	-785	-785
Monetary base (variation = 1+2+3+4)	190	-785	17,883	1,938	1,950	188
Position payable in foreign currency (forex operations = 1+4) (4)	0	-1,824	-39	3,297	7,081	1,828

(1) Corresponds to foreign exchange flows. The respective balances are also affected, if applicable, by interests, indexation, and exchange rates. (2) Servicing of UF fiscal promissory notes, servicing of subordinated debt and other transactions in local currency. (3) Fiscal and bank deposits and other transactions in foreign currency. (4) Includes transactions in the forex market linked to policy decisions and forex transactions for operating purposes of the Central Bank.

(f) Forecast.

Source: Central Bank of Chile.

TABLE A.4 MAIN FINANCIAL VARIABLES OF THE CENTRAL BANK'S BALANCE SHEET

	Jun.21		Dec.20	
	Assets	Liabilities	Assets	Liabilities
Average rate of return (%)	0.8	0.3	0.6	0.3
Average duration (months) (*)	30.6	0.4	26.9	0.3
Foreign currencies (%)	46.1	4.5	46.0	3.6
Local currencies, UF (%)	12.6	8.2	14.6	13.3
Local currencies, Chilean peso (%)	41.4	87.3	38.4	83.1

(*) Liabilities include the monetary base with zero duration, and for UF-denominated assets and liabilities it is adjusted by a factor equal to 0.5.

Source: Central Bank of Chile.

PROJECTIONS OF THE 2021 AND 2022 BALANCE SHEETS

The short-term projection considers several working assumptions, mainly: (i) the forex purchase program is completed for US$ 9.6 billion in 2021 and US$ 2.4 billion in 2022; (ii) the renewal program of the Spot Purchase Term Sale (CC-VP) program is concluded (iii) there is no reopening of term deposit or bank bond purchase programs, nor new FCIC stages; (iv) upon maturity date of the LCL, a 100% rollover in FCIC1 is assumed; (v) absorbed in liabilities with the PDBCs, monetary base and PDF, and; (vi) there is no long-term debt issuance for 2022. Regarding financial assumptions, the central scenario projects that, for the remainder of 2021, the gap between the results associated with local and external interest rates will remain the same as at the end of June this year and will increase during 2022. Regarding macroeconomic assumptions, the projection of nominal GDP for 2021 and 2022 uses projected values of real GDP growth and average inflation from the June 2021 Report.

Based on these assumptions, net interest is expected to result in capital losses of roughly 0.2% of GDP in 2021 and capital gains of 0.1% of GDP in 2022. For valuation changes in international reserves and local currency assets, net worth gains of 0.9% of GDP are projected for 2021 and net worth losses of 0.2% of GDP for 2022.

Finally, at the end of 2021, the balance sheet is expected to be 31.6% of GDP, while by 2022, it will be reduced to 30% of GDP, a drop that is mainly explained by the maturity of bank bonds. In turn, net worth will narrow its deficit to 0.2% and 0.3% of GDP in 2021 and 2022, respectively, explained by the gains associated with the exchange rate variation in 2021 and gains from the accrual of interest rates and indexation of UF-denominated bank bonds in 2022.

LONG-TERM BALANCE SHEET PROJECTION

In the central scenario, the profitability of both reserves and local assets and the lower relative cost of debt allows for a gradual decrease in the Central Bank's net worth deficit over time. Thus, the net worth becomes positive in September 2025. This projection uses several assumptions, including: (i) GDP growth in September 2025 are in line with the CBCh's projected trend GDP growth; (ii) the evolution of local inflation approaches 3%; (iii) the real exchange rate converges towards its last 10-year average by the end of 2023, and flattens over the projection horizon; (iv) there is a withdrawal of the liquidity injected into the economy through the bank bond purchase programs —whose investments are held in portfolio until maturity— and the special programs FCIC1-LCL, FCIC2, and FCIC3; (v) at the maturity date of the LCL, a 100% rollover in FCIC1 is assumed; (vi) there is no long-term debt issuance; (vii) short-term debt is adjusted on a residual basis to maintain the net worth identity in the balance sheet; and (viii) the growth of domestic currency assets is absorbed into liabilities with the PDBCs, monetary base and PDF.

Given the positive evolution of the Central Bank's profits and the fact that its net worth is gradually increasing until it matches the level of the initial inflation-adjusted capital referred to in Article 5 of the Organic Constitutional Law, the payment of dividends to the Treasury —equivalent to 90% of the profits— is projected to begin in December 2027.

ANNEX B:

International reserves management

International reserves are the liquid assets in foreign currency held by the Central Bank of Chile (CBC) and they constitute a policy tool for the achievement of the Bank's main objectives: to safeguard the stability of the currency and the normal functioning of internal and external payments. Its management seeks to provide, in an efficient manner, secure access to international liquidity in accordance with the legal framework defined in Article 38, Title III, of its Constitutional Organic Law.

In order for international reserves to be an effective tool to meet the Central Bank's objectives, they must have adequate levels and liquidity. When this is accomplished, international reserves may vary due to price and parity movements, but those changes will not alter the Bank's ability to honor its commitments. In this context, the objectives of liquidity and capital preservation are two core pillars for the management of reserves, since they ensure that at any given time the Central Bank, with a certain level of confidence, will have available the amount of resources necessary for policy execution, within a in short time and at a reasonable cost.

To carry out its international reserves management, the Central Bank maintains a clear a separation of responsibilities at different hierarchical levels, in line with international recommendations on the matter. Likewise, internal and external audits are carried out periodically to review the different processes. This ensures that the decision-making and management evaluation processes within the Central Bank are well defined and risks are mitigated.

The principles of segregation of duties are applied in the administration of international reserves. The Market Operations Area manages international reserves taking into consideration the guidelines established in the Investment Policy as approved by the Board of the Central Bank. The Financial Markets Analysis Area participates in the design of the investment policy proposed to the Board and is responsible for analyzing investment performance and risks. The Operations and Payment Systems Area is responsible for perfecting investment operations, meaning the recording, accounting, and generation of all payment instructions and/or movements of funds to ensure compliance with the rights and obligations contracted. These three areas report functionally to the Management of the Financial Markets Division.

The Corporate Risk Division is responsible for identifying, controlling, monitoring, and modeling the Central Bank's corporate, financial, operational, and strategic risks. It also manages the compliance of the Central Bank's financial operations, ensuring the availability of adequate information on compliance with internal policies. In turn, the Corporate Risk Division acts as technical counterpart in the risk management process of the Central Bank's financial operations, defining the corresponding policies and benchmarks.

The Comptroller's Office, on the other hand, reports directly to the Board and is in charge of periodically assessing the efficiency and effectiveness of internal control, operational risk management and the governance of the integrated reserves management process.

The strategic asset allocation, which provides guidelines for reserve management, is reviewed periodically to ensure that the return and risk profile is consistent with the policy framework and strategic objectives established by the Board. The design of the Investment Policy considers, among other variables, the potential liquidity needs of the Central Bank and the financial effects on its balance sheet.

The Board approved some adjustments to the benchmark structure, effective as of 1 February 2021. One of the main changes was the increase in the share of US dollars from 52% to 77%, in a scenario of greater global risks. In this context, the number of currencies was reduced from seven to six, the duration of the portfolio was extended from 24 to 39 months, approximately, and the share of inflation-indexed instruments was increased from 11% to 20% of the Investment Portfolio.

Pursuant with the defined Investment Policy, the Investment Portfolio (table B.1) is grouped into two components: Liquidity (60%) and Diversification (40%). The purpose of the Liquidity portfolio is to guarantee the liquidity necessary to comply with policy mandates; therefore, this portfolio is invested only in U.S. Treasury bonds, one of the most liquid fixed-income markets in the world. The Diversification portfolio is designed to diversify risks and contribute to obtaining returns in the medium and long term, consistent with the expected evolution of the Bank's balance sheet, although it also exhibits high levels of liquidity.

The International Reserves Investment Portfolio, together with the Cash Portfolio (balances held in current accounts by the Treasury, public enterprises and commercial banks) and the Other Assets Portfolio (IMF Special Drawing Rights, certified gold and others), make up the International Reserves Portfolio.

TABLE B.1 BENCHMARK STRUCTURE OF THE INVESTMENT PORTFOLIO OF INTERNATIONAL RESERVES (1) (2)

Structure	Credit risk	Share	Benchmark comparator
Liquidity portfolio	Sovereign	60%	"Bloomberg Barclays index: Global Aggregate Treasuries. (100%) (USD)"
Diversification portfolio	Sovereign	40%	"Bloomberg Barclays index: Global Inflation-Linked. (27.5% USD), (12.5% EUR), (10.0% GBP)"
			"Bloomberg Barclays index: Global Aggregate Treasuries. (20.0% CNY), (15.0% USD), (7.5% AUD), (7.5% KRW)"
Total portfolio	**Sovereign**	**100%**	

(1) Global Inflation-Linked EUR index includes issuances of only France, Germany, and Spain.(2) Global Treasury KRW index includes issuances of only the South Korean Treasury.

Source: Central Bank of Chile.

The benchmark composition of the Investment Portfolio includes a total of six currencies: US dollar (77%), Chinese yuan (8%), euro (5%), pound sterling (4%), Australian dollar (3%), and South Korean won (3%). The Liquidity Portfolio is entirely invested in nominal U.S. Treasury bonds, while the Diversification Portfolio considers nominal sovereign bonds (50%) denominated in: Chinese yuan (20%), U.S. dollar (15%), Australian dollar (7.5%) and South Korean won (7.5%); and inflation-indexed bonds (50%) denominated in US dollar (27.5%), euro (12.5%) and pound sterling (10%).

Regarding credit risk, the benchmark comparator contemplates a 100% exposure to sovereign risk. The global interest rate risk of the Investment Portfolio, measured by duration, is approximately 39 months. In turn, the Liquidity Portfolio has a duration of 33.6 months, and the Diversification Portfolio has a duration of 48.0 months (table B.2).

For the management of credit risk associated with the investment of international reserves, i.e., definition of eligibility and maximum exposure allowed to countries, supranational entities, commercial banks and agencies, variables such as risk rating, level of equity of the institutions, market size, debt ratios and explicit guarantees are used, among others. For market risk management, meanwhile, a risk budget (tracking error) is mainly used. This risk budget considers a limit of 40 basis points (bp) as a monthly average and a limit of 50 bp that cannot be surpassed at any time.

TABLE B.2 BENCHMARK STRUCTURE OF CURRENCIES, TERMS, AND DURATION OF INVESTMENT PORTFOLIO (1) (2) (3) (4)
(percent)

		Liquidity portfolio (LP)		Diversification portfolio (DP)		Total portfolio
		Investment portfolio	LP subtotal	Investment portfolio	DP subtotal	Investment portfolio
USD	Share	60.0%	100.0%	17.0%	42.5%	77.0%
	Duration (months)	33.60		49.20		37.20
CNY	Share			8.0%	20.0%	8.0%
	Duration (months)			31.20		31.20
EUR	Share			5.0%	12.5%	5.0%
	Duration (months)			68.40		68.40
GBP	Share			4.0%	10.0%	4.0%
	Duration (months)			67.20		67.20
AUD	Share			3.0%	7.5%	3.0%
	Duration (months)			37.20		37.20
KRW	Share			3.0%	7.5%	3.0%
	Duration (months)			33.60		33.60
Total	**Share**			**40.0%**	**100.0%**	**100.0%**
	Duration (months)			**48.00**		**39.40**

(1) Liquidity portfolio in U.S. dollars, composed by only nominal bonds (100%). Diversification portfolio in U.S. dollars, composed by nominal bonds (15.0%) and indexed bonds (27.5%). (2) Diversification portfolio in euros, composed by indexed bonds (12.5%). (3) Diversification portfolio in pounds sterling, composed by indexed bonds (10.0%). (4) Duration of indexed bonds is adjusted by a factor of 0.5.

Source: Central Bank of Chile at 30 June 2021.

As a complement to internal reserves management, since 1995 the Bank has maintained external management programs for a fraction of its reserves. The purpose of this has been to have an active comparator to evaluate internal management, add economic value, and facilitate the transfer of expertise and technology.

At the close of the first half of 2021, a portion of the Investment Portfolio (2.9%) was being managed by two independent external administrators: BlackRock Institutional Trust Company N.A. (BlackRock) and Amundi Asset Management (Amundi). These firms began their mandates in February and October 2016, respectively.

In the first half of 2021, the return obtained on managed international reserves was 0.21% measured in local currency, a figure that does not take into account the appreciations or depreciations of the portfolio's currencies. Measured in U.S. dollars, the return was –0.17% (table B.3), a figure which, in addition to incorporating the assets' returns in their local currencies, considers the trajectory of the exchange rates of the assets with respect to the U.S. dollar. In general terms, the negative performance expressed in dollars is explained by the fluctuation of the exchange rates; in particular, the depreciation of the euro, the Australian dollar and the South Korean won (figure B.1), which caused a decrease in the value of the portfolio's assets (table B.2). The effect of this decrease in the value of the portfolio was partially offset by the accrual of fixed-income instruments. It should be noted that, measured in pesos, the return for the first half of the year was 2.30%, mainly explained by the strengthening of the currency basket in which the portfolio is invested with respect to the domestic currency. Meanwhile, the differential return for the first half of the year attributable to international reserves management was 15bp under the benchmark comparator. Excluding the results obtained between 1 and 5 February —the period in which adjustments were made to the portfolio to adopt the new benchmark composition (waiver period)—, the differential return associated with internal management was 3.3bp under the benchmark comparator.

In January 2021, the Board decided to launch a program of gradual replenishment and expansion of international reserves to strengthen the country's international liquidity position, in preparation for the expiration in 2022 of the IMF's Flexible Credit Line (FCL). This, in a context where the perceived economic and financial risks to the economy were significantly higher because of the sanitary crisis associated with the Covid-19 pandemic.

The program, which began on 18 January 2021, contemplates the purchase of US$12 billion (bn). Of this, US$2.55 bn correspond to the replenishment of reserves used during the intervention that took place between December 2019 and January 2020, and the remaining balance to the amount needed to bring the level of reserves to around 18% of GDP, based on the growth and exchange rate projections available at the time.

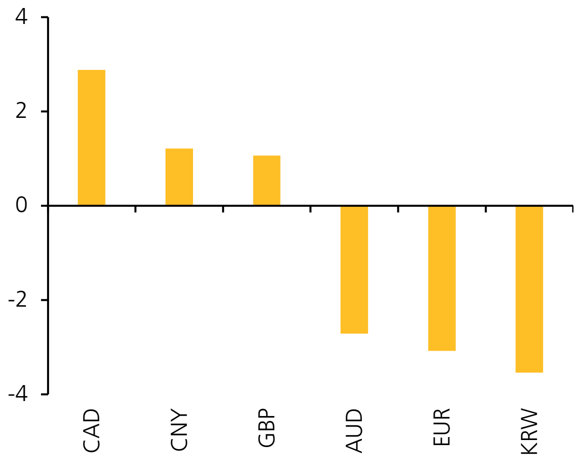
TABLE B.3 ABSOLUTE AND DIFFERENTIAL RETURNS, INTERNATIONAL RESERVES MANAGEMENT (1) (2) (3) (4)
(percent)

Period	In local currency		USD		Differential
	IR	BMK	IR	BMK	
2021	0.21	0.19	-0.17	-0.02	-0.15
2020	2.42	2.39	5.64	5.63	0.02
2019	5.67	6.25	5.39	6.09	-0.70
2018	1.70	1.66	-0.35	-0.32	-0.03
2017	0.77	0.62	4.17	4.06	0.11
2016	0.90	0.90	0.13	0.17	-0.04
2015	0.73	0.90	-3.74	-3.58	-0.16
2014	1.65	1.52	-2.94	-3.14	0.21
2013	0.26	0.21	-0.71	-0.77	0.06
2012	0.66	1.01	1.43	1.77	-0.35

(1) 2021 figures correspond to first half, not annualized. (2) Excludes monetary gold holdings, special draw rights, reserve position in IMF, reciprocal credit agrements, and other reserve assets. (3) As from 2014 the return in local currency is considered, which does not include appreciations or depreciations of the currencies in the portfolio, while for 2012-2013 it is the return expressed in foreign currency as an aproximation of the local currency return. The foreign currency return is the return expressed in the currency basket of the referential comparator and is equivalent to the return in local currency to the extent that the investments follow the benchmark. (4) In 2012, 2019 and 2021 adjustments were made to the benchmark comparators. The returns presented do not consider the waiver periods that were granted to make such adjustments.

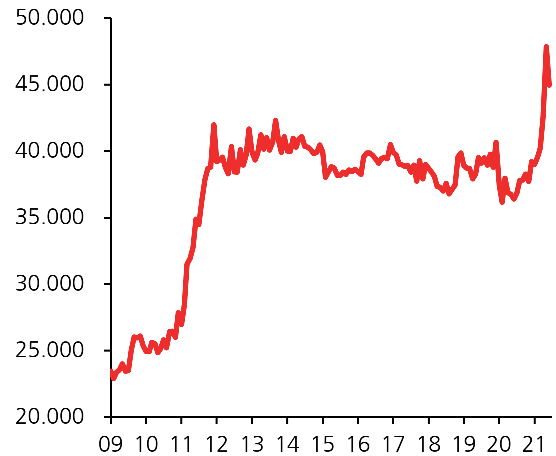
Source: Central Bank of Chile.

FIGURE B.1 CHANGE IN PARITIES (1) (2)
(percent)



(1) Change in parities during first half of 2021.
(2) Negative (positive) change implies a US dollar appreciation (depreciation) with respect to respective currency.
Source: Bloomberg.

FIGURE B.2 INTERNATIONAL RESERVES (3)
(stock, millions of US dollars)



(3) Total reserves, including cash, investments, and other assets portfolios.
Source: Central Bank of Chile.

This program will materialize over a 15-month period, to coincide with the end of the FCL, through regular purchases of foreign exchange of US$40 million per day through competitive auctions. As of 30 June 2021, the replenishment and expansion of international reserves was on schedule (38% progress).

As of 30 June 2021, international reserves reached US$44.9544 bn (figure B.2). Of these reserves, US$40.4320 bn corresponded to the Investment Portfolio, US$3.2333 bn to the cash portfolio and US$1.2891 bn to other assets. Of the total international reserves, 76.6% were invested in US dollars, 4.5% in euro and 19.0% in other currencies.

As of the same date, international reserves was US$5.7544 bn more than at the end of 2020. On the one hand, there was an increase in the cash portfolio (US$ 1.4519 bn), whose variation reflected changes in the stock of deposits and balances in accounts held by the financial system at the Bank[1/]. On the other hand, the Investment Portfolio increased by US$4.4135 bn with respect to the close of the previous year, mainly explained by the purchases made under the reserve's expansion and replacement program for US$4.5600 bn and by a lower value of fixed-income assets when measured in U.S. dollars. Additionally, during the period, there was a decrease of US$111.0 million in other assets, partly explained by operations carried out with the IMF (table B.4).

[1/] The increase in the Cash Portfolio is explained by the greater incentive for local commercial banks to meet their Technical Reserve requirements with foreign currencies.

TABLE B.4 INTERNATIONAL RESERVES COMPOSITION
(millions of US dollars)

Type of portfolio	Currency	2020		2021	
		Dec.	%	Jun.	%
Investment portfolio		**36,018.5**	**91.9**	**40,432.0**	**89.9**
Currencies and deposits	US dollar	41.4	0.1	30.5	0.1
	Euro	0.3	0.0	2.0	0.0
	Canadian dollar	0.1	0.0	1.8	0.0
	Australian dollar	3.3	0.0	1.8	0.0
	Other currencies	30.5	0.1	22.9	0.1
Securities	US dollar	18,636.9	47.5	31,148.1	69.3
	Euro	3,909.4	10.0	2,011.0	4.5
	Canadian dollar	3,262.3	8.3	2.8	0.0
	Australian dollar	3,240.0	8.3	1,199.9	2.7
	Other currencies	6,894.3	17.6	6,011.3	13.4
Totals	US dollar	18,678.2	47.6	31,178.6	69.3
	Euro	3,909.7	10.0	2,013.0	4.5
	Canadian dollar	3,262.4	8.3	4.6	0.0
	Australian dollar	3,243.4	8.3	1,201.6	2.7
	Other currencies	6,924.8	17.7	6,034.2	13.4
Cash portfolio		**1,781.4**	**4.5**	**3,233.3**	**7.2**
Currencies and deposits	US dollar	1,781.4	4.5	3,233.3	7.2
Other assets		**1,400.1**	**3.6**	**1,289.1**	**2.9**
Monetary gold	Other currencies	14.9	0.0	14.0	0.0
IMF SDRs	Other currencies	691.8	1.8	583.6	1.3
IMF Reserves position	Other currencies	693.4	1.8	690.1	1.5
Currencies and deposits	US dollar	0.0	0.0	1.3	0.0
Total international reserves		**39,200.0**	**100.0**	**44,954.4**	**100.0**
	US dollar	20,459.6	52.2	34,413.2	76.6
	Euro	3,909.7	10.0	2,013.0	4.5
	Canadian dollar	3,262.4	8.3	4.6	0.0
	Australian dollar	3,243.4	8.3	1,201.6	2.7
	Other currencies	8,324.9	21.2	7,321.9	16.3

Source: Central Bank of Chile.

TABLE B.5 INTERNAL MANAGEMENT PORTFOLIO. INVESTMENTS BY COUNTRY AND TYPE OF RISK (1) (2) (3) (4)
(millions of US dollars)

Country	Sovereign	Banks	Agencies	Supranational	TOTAL
U.S.	29,705	1	0	0	29,707
China	3,134	34	0	0	3,168
U.K.	1,582	0	0	0	1,582
France	1,191	0	0	0	1,191
South Korea	1,184	0	0	0	1,184
Australia	745	0	0	0	745
Germany	595	0	7	0	602
Supranational	0	0	0	362	362
Spain	348	0	0	0	348
Japan	133	0	0	0	133
UAE	83	0	0	0	83
Saudi Arabia	50	0	0	0	50
Poland	46	0	0	0	46
Canada	43	0	0	0	43
Israel	26	0	0	0	26
Denmark	17	0	0	0	17
Sweden	14	0	0	0	14
Other	0	-36	0	0	-36
TOTAL	**38,897**	**-1**	**7**	**362**	**39,265**

(1) Sovereign exposure includes the following institutions with explicit sovereign guarantees: Kreditanstalt für Wiederaufbau (KFW / Germany - 176.1 million), Japan Bank for International Cooperation (JBIC / Japan - 133.0 million), and Export Development Canada (EDC / Canada - 3.4 million). (2) Germany's Agency exposure corresponds to Landwirtschaftliche Rentenbank (USD 6.7 million). (3) Supranational exposure includes the following eligible issuers: Inter-American Developent Bank (IADB - USD 98.1 million), European Investment Bank (EIB – USD 69.2 million), New Development Bank (NDB - USD 58.2 million), Nordic Investment Bank (NIB - USD 33.9 million), Asian Development Bank (USD 26.5 million), African Development Bank (USD 17.8 million), International Development Association (IDA - USD USD 15 million), Inter-American Investment Corporation (IAIC - USD 14.1 million), International Bank for Reconstruction and Development (IBRD – USD 12.9 million), International Finance Corporation (IFC - USD 5.9 million), The Asian Infrastructure Investment Bank (AIIB - USD 5.3 million), Eurofima (USD, 5.0 million), Council of Europe Devolpment Bank (CEB - USD 0.4 million). (4) The Other category includes FX operations, correspondent accounts' balances, and flows payable/receivable.

Source: Central Bank of Chile.

Regarding the exposure of the Investment Portfolio by type of risk and country, at the close of this Report there were appropriate degrees of diversification for the different types of risks in which the international reserves are invested. At the end of June 2021, investments in sovereign risk accounted for 99.0% of the Investment Portfolio and were mainly in the U.S. (75.5%), China (8.0%), the U.K. (4.0%) and France (3.0%). At the end of the period, investments in supranational risk represented 0.9%, agency risk 0.02%, and banking risk, 0.1% (tables B.5 y B.6 [2]/).

At 30 June 2021, the currency composition of the Investment Portfolio was: 77.1% in US dollars, 8.0% in Chinese yuan, 5.0% in euro, 3.9% in pounds sterling, 3.0% in South Korean won, and 3.0% in Australian dollars (table B.7).

By the end of June, the external administrators Amundi and BlackRock were managing a total US$1.1670 bn, belonging to the Investment Portfolio.

TABLE B.6 EXTERNAL MANAGEMENT PORTFOLIO. INVESTMENTS BY COUNTRY AND TYPE OF RISK (1) (2) (3)
(millions of US dollars)

Country	Sovereign	Banks	Agencies	Supranational	TOTAL
U.S.	813	0	0	0	813
Germany	75	0	0	0	75
China	74	0	0	0	74
France	35	0	0	0	35
U.K.	34	0	0	0	34
South Korea	24	0	0	0	24
Austria	20	0	0	0	20
Spain	18	0	0	0	18
Australia	17	0	0	0	17
Supranational	0	0	0	11	11
Canada	3	0	0	0	3
Japan	1	0	0	0	1
Finland	0	0	0	0	0
Other	0	42	0	0	42
TOTAL	**1,114**	**42**	**0**	**11**	**1,167**

(1) Sovereign exposure includes the following institutions with explicit sovereign guarantees: Kreditanstalt für Wiederaufbau (KFW/Alemania - USD 64.0 million) and Oesterreichische Kontrollbank (OKB/Austria –20.4 million). (2)The supranational exposure includes the following eligible issuers: International Finance Corp (IFC-USD5.9 million), Inter-American Investment Corporation (IAIC-USD 5.5 million). (3) The Other category includes FX operations, correspondent accounts' balances, and flows payable/receivable.

Source: Central Bank of Chile.

[2]/ Tables B.5 and B.6 show detail of investment portfolio disaggregated between internal and external management.

TABLE B.7 INVESTMENT PORTFOLIO BY CURRENCY (1) (2)
(percent)

Currency	Share (%)
U.S. dollar	77.1
Chinese yuan	8.0
Euro	5.0
Pound sterling	3.9
South Korean won	3.0
Australian dollar	3.0
Other currencies	0.0
TOTAL	100.0

(1) Includes positions in currency forwards.
(2) Excludes positions of cash portfolio and other assets.
Source: Central Bank of Chile.

ANNEX C:

Mean measures adopted by the Central Bank of Chile during 2021

JANUARY

13. The Board of the Central Bank announced its decision to initiate a gradual program of replenishment and expansion of international reserves to strengthen the country's international liquidity position, in preparation for the end of the IMF's Flexible Credit Line (FCL) in 2022. Such initiative aims to increase the level of international reserves to around 18% of GDP. The program includes forex purchases of US$12 billion, of which US$2.55 billion would go to replenishing the reserves used in the intervention plan implemented between December 2019 and January 2020. The program will materialize within 15 months, so as to coincide with the end of the FCL. The measure adopted corresponds to Agreement No. 2336E-01, dated 12 February 2021. Since 18 January 2021 to date, a total of US$6.12 billion has been purchased.

15. Pursuant to the provisions of Agreement No. 2367-01-210114, the proposed regulation governing the establishment of a Clearing House for High Value Payments in Foreign Currency, which will supersede the current Chapter III.H.5 of the Compendium of Financial Regulations (CNF), with the introduction of new chapters III.H.5, which governs the rules common to High Value Payments Clearing Houses (CCAV), III.H.5.1 on CCAV in domestic currency, and III.H.5.2 on CCAV in foreign currency.

27. At its Monetary Policy Meeting, the Board of the Central Bank of Chile decided to keep the MPR at 0.50%, by the unanimous vote of its members.

The Board also decided to adjust the Financing Facility Conditional on Increased Lending to Banking Companies (FCIC), which is a non-conventional monetary policy measure. In particular, it was agreed to open a third tier or program for an amount equivalent to US$10 billion effective for a period of six months. In addition, it was agreed to expand the eligible collateral or guarantees for this stage, adding loans from the commercial portfolio of the borrowing banking company, with a risk rating of categories A5 and A6 that have a government guarantee. The details of the operational implementation will be disclosed at a later date (Circular Letter to Banks No. 661, dated 25 February 2021).

FEBRUARY

11. Agreement No. 2372-01-210211 amended the general terms and conditions previously approved under Agreement No. 2295E-01-200319 applicable to the Central Bank of Chile's purchase of debt instruments issued by banking companies corresponding to bank bonds or debentures without special guarantee, issued in accordance with Article 69.2 of the General Banking Act.

25. Agreement No. 2374-01-210225 approved the Financing Facility Conditional on Increased Lending Phase Three (FCIC3). This program became effective on 1 March, and the maximum maturity of all operations under this program is 1 July 2024. The interest rate to be accrued will be the MPR in effect at the time of the respective operation (initial MPR), which will be automatically adjusted if during the Availability Period (i.e., 1 March to 1 September 2021) the MPR decreases with respect to the initial MPR, following the same rules established for the previous stages. FCIC3 is aimed at deepening and extending commercial credit in view of the prolonged sanitary emergency and the need to support the reactivation process, responding to the financial needs of businesses, complementing the Finance Ministry's FOGAPE-Reactiva program. Access to the FCIC3 program funds is linked to the flow of commercial loans to companies with sales of up to 1 million UF, with a higher weighting for new and rescheduled loans with FOGAPE-Reactiva guarantee. The overall amount of the program's resources is US$10 billion, equivalent to the undisbursed remainder of FCIC1 and FCIC2, and allows the funds drawn to be backed by the guarantees eligible for FCIC1 and FCIC2, in addition to the credits of the commercial portfolio of individual evaluation classified in categories A5 and A6 that have a state guarantee. There would be a limit on access per bank of $2 billion. Loans would continue to be backed by bank guarantees. The program has been 100% utilized and to date an amount of 7.1 billion pesos remains outstanding. This facility has a window of availability until 1 September 2021.

MARCH

8. Pursuant to Resolution No. 2375-01-210304, the public consultation of the new regulation authorizing the creation of and regulating the operation of Low Value Payment Clearing Houses, in which banking companies or other financial institutions subject to the supervision of the Financial Market Commission participate, is hereby approved by incorporating a new Chapter III.H.6 to the CNF. Pending the publication of the final text of the new chapter.

13. Pursuant to Agreement No. 2376-02-210311, published on this date, Chapter III.J.2 of the CNF on Payment Card Operation was amended, adjusting the capital and liquidity requirements applicable to operators in accordance with these regulations and incorporating other adjustments to the regulation on Payment Cards.

18. The Central Bank of Chile extended forex trading hours to promote the internationalization of the Chilean peso. Within the framework of the International Reserves Replenishment and Expansion Program, changes are being made to deepen the internationalization of the Chilean peso. This program has had an important innovation, namely, the execution of auctions of foreign currency purchases by the Central Bank of Chile at non-conventional times, with the purpose of extending the trading hour intervals.

24. The Circular Letter that modifies the bidding conditions applicable to the forex purchase program by the Central Bank of Chile is published. The purpose of this is to allow non-banking entities of the Formal Exchange Market to opt to pay the operations directly to the Central Bank in an account overseas.

30. At its Monetary Policy Meeting, the Board of the Central Bank of Chile decided, by the unanimous vote of its members, to keep the MPR at 0.50%. It also decided to make no changes in the unconventional liquidity and credit support measures in place.

APRIL

1. By means of Resolution No. 2383-01-210401, the Board provided for the additional renewal of the exceptional and transitory measures adopted by Resolution No. 2297E-03-200326 regarding the management and measurement of the liquidity position of banking companies, until 31 December 21. In general terms and in accordance with the provisions in paragraph 12 third of Chapter III.B.2.1 of the CNF, compliance with the term mismatch requirements set forth in paragraph 8.2 of Chapter III.B.2.1 of the Compendium of Financial

Standards is temporarily suspended, both at 30 days of one times the basic capital, and at 90 days of twice the basic capital, extensive to the term mismatches referred to in paragraphs 8.11 and 8.12 of the same Chapter. The reporting requirements associated with this regulation will remain unchanged. This measure shall apply from the date of adoption of Agreement No. 2383-01.

1. Agreement No. 2383-02-210401 renews the exceptional and transitory measure that eases the application of the regulations governing the Clearing Houses for Checks in Local Currency and Dollars, contained in Chapter III.H.1 of the CNF, referring to the individual limit of fifty million pesos established to submit for exchange, clearing and settlement through the Clearing House, vouchers and other demand documents issued in local currency by a banking company based in the country. The foregoing is due to the fact that to date the same circumstances that gave rise to the adoption and subsequent renewal of the exceptional and transitory measure mentioned above persist. The provision will be applicable without interruption, as from 16 March 2021 until the full termination of the State of Constitutional Exception of Catastrophe, as a result of the COVID-19 pandemic, is decreed.

13. By Resolution No. 2385-04-210408 published on this date, it was decided to recognize commodities exchanges established under Law No. 19,220, and brokers acting as members thereof, as part of the national formal secondary market for purposes of Decree Law No. 3,500 of 1980. Chapter III.F.3 of the CNF is amended accordingly.

29. The Central Bank of Chile established measures in view of the new withdrawal of pension funds. This, in the context of the publication of Law 21.330, which contains the constitutional reform that allows for a third withdrawal of savings in the pension funds managed by the AFPs, to which pensioners, or their beneficiaries for life annuities, were added. Resolution No. 2392E-01-210429 approves the reopening and modifications to the special program of Cash Purchase and Sale carried out jointly and simultaneously with a Forward Purchase and Sale of instruments issued by banking companies (CC-VP), directed to open market entities, for the remainder of the program approved by Resolution No. 2327E-01, dated 30 July 2020 and amended by Resolution No. 2358E-01, dated 4 December 2020, equivalent to an amount of up to US$9,5 billion and the renewal of the current amount, which is the equivalent of US$500 million. Unlike previous occasions, where only bank bonds were accepted, this time the window would accept other banking instruments such as time deposits. To this program was added the REPO window with banking companies, in force since November 2019, which would be extended until August 2021 in one-month term operations. The CC-VP Program would be in force from 3 May of this year until the second week of July of this year. After that date, CC-VP operations may only be renewed. It was duly noted that this new reopening of the CC-VP Program could be subject to variations in terms of amount, eligible assets and composition, depending on future developments. The program was nearly 90% utilized during the first week and to date an amount of US$2.04 billion remains outstanding.

MAY

12. At its Monetary Policy Meeting, the Board of the Central Bank of Chile decided, by the unanimous vote of its members, to keep the MPR at 0.50%. It also decided to make no changes in the unconventional liquidity and credit support measures in place.

13. Pursuant to Agreement No. 2395E-01-210512, the proposed amendment to Chapter III.C.2 of the NFC, on "Rules Applicable to Credit Unions (CAC)", was submitted for public regulatory consultation.

Briefly, the purpose of the regulatory adjustment is to make the requirements more flexible in order to allow: (i) the purchase of credit instruments documenting loan portfolios without the grantor's liability, regulating this operation specifically, under a special and exceptional regime; (ii) the sale of bills of exchange documenting loan portfolios from a CAC to its members, to another financial institution, without requiring the liability of the grantor; and (iii) requesting from the CBCh the authorization to operate in its Primary Debt Instruments Market, to CACs that comply with the requirements established for such purpose.

In addition, the credit limits set forth in Chapter III.C.2 are modified and a set of regulatory updates to the aforementioned Chapter are considered, in accordance with the legal changes that have taken place.

JUNE

8. At its Monetary Policy Meeting, the Board of the Central Bank of Chile decided, by the unanimous vote of its members, to keep the MPR at 0.50%. Regarding the non-conventional measures in place, it was duly noted that, most recently, the use of the Phase 3 of the FCIC had been completed.

22. By Agreement No. 2403-01-210617, published on this date, Mr. Felipe Andrés Aguilar Mimica was appointed as the new Deputy Technical Secretary of the National Commission in Charge of Investigating the Existence of Distortions in the Prices of Imported Goods, as provided for in Law No. 18,525.

29. By means of Agreement No. 2405-04-210624, the proposed modification of Chapter III.B.1, Regulation on Fund Raising, Financial Intermediation and Other Operations, and Chapter III.D.1, Contracts with Derivative Products in the Local Market, both of the CNF, were submitted for public consultation, regarding the incorporation of new foreign benchmark interest rates, considering that LIBO rates will cease to be published in the international markets. It was noted that it will be the responsibility of the parties to the respective credit or interest rate derivative agreements to verify that, in said agreements, the appropriate clause(s) are duly incorporated for the replacement of the applicable foreign interest rate(s), at the appropriate time.

30. Agreement No. 2405-05-210624, published on this date, adopts the new CNF regulation for the establishment of Clearing Houses for High Value Payments in Foreign Currency (CCAV-FC), which will supersede the current Chapter III.H.5, together with improving the regulations on Clearing Houses for High Value Payments in Local Currency (CCAV -CCAV-LC).

To this end, the following new chapters are approved: III.H.5 containing general rules applicable to CCAVs; III.H.5.1 on CCAVs in Local Currency; and III.H.5.2 on CCAVs in Foreign Currency; and consistency adjustments are made in the chapters referring to the Central Bank of Chile's RTGS System, III.H.4, III.H.4.1, III.H.4.2, and in the Operating Regulations of said RTGS System both in Local Currency and in Dollars.

JULY

14.At its Monetary Policy Meeting, the Board of the Central Bank of Chile decided, by the unanimous vote of its members, to raise the MPR by 25bp to 0.75%. No adjustments were made to the unconventional liquidity and credit support measures in place.

15.The Central Bank and the Financial Market Commission signed a Cooperation Agreement to favor mutual instances of cooperation, coordination, and exchange of information, as well as to share expertise and provide technical support, considering the legal liability that falls to each entity in safeguarding financial stability within the framework of their respective competencies.

The foregoing will contribute to strengthening the existing coordination mechanisms for the regulation, monitoring and supervision of the financial system, including the specific areas in which this cooperation will take place in various annexes.

This is the case of aspects related to the sharing of information for the fulfillment of their respective functions and legal attributions; performing stress tests on the banking sector, in accordance with its relevant roles; foreseeing the necessary coordination and cooperation in the event of a critical situations occurring in the banking system, counting on the effective and timely adoption of measures in accordance with the legal framework; contributing to the granting of the previous reports entrusted by the legal framework to each body; exercising the regulation, supervision and supervision that corresponds to each party regarding the financial market infrastructures; ensuring the operational continuity of each party, granting mutual support in contingency situations; and promoting the exchange of knowledge and reciprocal technical assistance. The possibility of including new topics in the future is being considered in the form of additional annexes.

With this initiative, the Central Bank completes and concludes to process of implementing the recommendations formulated by the Panel of Independent Exports of 2019, which were ratified by the Board and which require no legal amendments to be implemented.

AUGUST

6. By Agreement No. 2413E-01-210806 the Board of the Central Bank of Chile appointed Ms. Catherine Tornel León as a titular member of the Committee for the Setting of Limits to Trading Rates, and Ms. Carola Moreno Valenzuela as a deputy member.

The Committee was created by Law No. 21365, the legal body governing the Trading Rates of Payment Cards (TI). Its function will be to determine the limits of TIs applicable to transactions with payment cards between issuers and operators, corresponding to the sale of goods or the provision of services by entities based in the country, whether the respective payments are made directly or by means of the respective owner of the brand of cards.

The TI limits will be set with the purpose of establishing pricing conditions oriented to the existence of a competitive, inclusive, transparent, and strong penetration payment card market, which shall also consider the protection of the efficient and safe operation of the retail payment system.

Pursuant to the Law, the Committee is a technical and autonomous body, and will liaise with the President of the Republic through the Finance Minister. It will be made up by four regular members appointed by the Finance Minister, the Central Bank Board, the Financial Market Commission, and the National Economic Prosecutor's Office. Appointments shall be made by officials or employees of the aforesaid institutions, ensuring an equal-opportunity composition of the Committee.

23. By Agreement No. 2416-01-210819, published on this date, Chapter III.B.1 and Chapter III.D.1 of the CNF are amended to include new foreign benchmark interest rates.

31. At its Monetary Policy Meeting, the Board of the Central Bank of Chile decided, by the unanimous vote of its members, to raise the MPR by 75bp to 1.5%.

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