

MONETARY POLICY REPORT

JUNE 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.



On the cover: Atacama Salt Flat / Antofagasta Region, Chile

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(*) The statistical cutoff date for this Monetary Policy Report was 1 June 2021, except where otherwise noted. The monetary policy decision of 8 June is considered in the Report. The document was originally written in Spanish. In case of discrepancy or difference in interpretation, the [Spanish version prevails](#).



SUMMARY

The economic recovery has been a positive surprise during the first months of 2021, reflecting the strong macroeconomic momentum and the agents' better adaptation to the sanitary constraints. Private consumption has risen strongly, fueled by pension savings withdrawals and massive fiscal transfers. Added to this are the recently approved reforms so that fiscal expansion will significantly exceed the March forecast. The better recent performance combined with the increased spending impulse, in a context of more favorable external conditions, lead to a significant correction in this year's projected growth. Even with these advances and more positive prospects for recovery, the general perception remains marked by the evolution of infections and quarantines, the significant backwardness of some sectors, the fragilities in the labor market and the persistence of high uncertainty. The local financial market has reacted to these developments, and long rates have risen while their external counterparts have not, the stock market has fallen, and sovereign risk has seen a moderate increase. The higher growth rate expected for 2021 will bring the closing of the wide activity gap caused by the Covid-19 crisis forward, reducing the need for monetary impulse to support the recovery of the economy. Thus, it should begin to moderate sooner than was expected in the last MP Report. This will prevent an increase in inflation —currently around 3.5%— from raising the cost of living and eroding the purchasing power of the households most affected by the crisis. Even so, in the central scenario, the monetary policy rate (MPR) is expected to be held below its neutral level throughout the policy horizon, underpinning a recovery process that will continue to endure significant challenges.

So far in 2021, the Chilean economy has outperformed expectations, as the impact of the quarantines on activity has been notably lower than anticipated. In fact, although activity declined during March and April, the effect of the tightening of sanitary restrictions was about one-fifth of what it was at the onset of the pandemic. Several factors contributed to this result: the greater adaptation of companies to the demands of social distancing; the support of favorable financial conditions; adjustments to the Step-by-Step plan; and the boost to demand by public policies.

The withdrawal of pension savings and massive fiscal transfers have been major determinants of the dynamism of private consumption, which has steered the economic rebound. In the first quarter, private consumption rose by almost 5% annually, with a nearly 50% increase in spending on durable goods, most notably for the purchase of technological items and automobiles. Information from the retail trade, supermarket sales and digital billing shows that the consumption of goods continued to be dynamic during April and May. Spending on services, meanwhile, despite having recovered part of last year's decline, continues to show negative annual variation rates, reflecting the persistence of supply-side constraints.

In the first quarter, gross fixed capital formation posted slight annual growth driven by the recovery of the machinery and equipment component, which rose 21.5% annually. Construction and works, dropped around 10% annually, because of works being slower or postponed due to the pandemic.



The labor market continues to improve, although heterogeneously. INE data suggest that more than half of the jobs lost throughout the pandemic have been recovered. However, self-employment and informal salaried employment, low-skilled workers and women remain the most lagging segments. In fact, female participation is still far from its pre-pandemic rates, reflecting the extra household care responsibilities that many women have had to assume. On the other hand, the number of contributors to pension funds and unemployment insurance are back to pre-pandemic levels, signaling that formal salaried employment has benefitted the most from economic recovery. In turn, inactivity has declined, though still high by historic standards, and vacancies are up, resulting in the unemployment rate being still near 10%. In addition, the extension of quarantines hit self-employment and informal salaried jobs harder, while applications to unemployment insurance have also risen, even though they are not as high as their 2020 levels. All of this is indicative that the recovery of the labor market is still fragile and incomplete.

Since the last MP Report benefits for households and small firms have been extended, and the recently approved measures will extend them further. In the second half of April, the Administration announced the reinforcement of the middle-class bonus and the Emergency Family Income, together with a complementary bonus for those having no funds available in their retirement accounts. Congress approved a third withdrawal of pension savings, which includes an “advance of benefits” for pensioners with life annuities. In addition, in the context of the Common Minimums Agenda, substantial extension and expansion of transfers has just been approved, including an extension of both amounts and coverage of the Emergency Family Income, reaching more than 15 million people over the next four months, subsidies and tax benefits for micro and small businesses are being discussed as well.

On aggregate, these initiatives will lead fiscal spending to grow by around 25% nominal in 2021, which compares to the 5% considered in the March Report. This will lead to a significant overshoot of the structural deficit planned for the year, which the Government would formalize by invoking an “escape clause” from the committed fiscal objectives. Although new official projections are not yet available, it seems clear that, despite the improved outlook for activity, this year’s fiscal impulse will not only exceed projections, but will be significantly higher than it was in 2020.

Despite the recovery of activity and the extension of fiscal stimulus measures, the overall economic perception deteriorated in the last few months, with consumers’ expectations still in pessimistic territory. This could be explained by such factors as the evolution of infections, the quarantines and the heterogeneity that is observed in the recovery. Regarding the latter, it should be noted that the performance of some services, construction and human transportation has yet to reach its pre-pandemic levels, a milestone that trade and manufacturing achieved six months ago or more. There is also the aforementioned heterogeneity in the labor market.

Business expectations show differences, with stronger effects on smaller firms and sectors lagging farther behind in their recovery. The May Business Perception Report (IPN) showed that the smallest businesses were hit harder by the quarantines of March and April. Moreover, this Report noted that a non-negligible fraction of firms was having second thoughts about their investment projects for this year or had simply cancelled them.

In this context, uncertainty indicators are still high, well above its levels prior to the social outbreak, and the local financial market has decoupled itself from global trends. Thus, long-term interest rates have risen 30 basis points (bp) since mid-April to date (BCP10), while their external benchmarks have not changed much. This has been accompanied by a stock market drop of just over 10%, a 2% peso depreciation and an increase in the sovereign premium (CDS) of 15 bp, despite the significant rise in the copper price. This has coincided with a period of heightened political tensions and a wide range of legislative initiatives in social security, fiscal and regulatory matters.



On the external front, world growth has been gradually consolidating the favorable outlook for this and next year, which has been internalized by the global financial markets. The evolution of the external scenario is closely linked to the progress of vaccinations and reopenings in developed economies, which has resulted in a rebound and strengthening of consumer and business confidence and activity in the most lagging sectors. Global financial markets have picked up on this scenario, encouraging greater risk-taking, higher stock prices and widespread appreciation of asset prices. As a result, financial conditions have remained favorable, owing particularly to the greater stability of long-term rates, the decline in corporate spreads and risk premiums, and capital inflows to emerging markets. However, this picture is not common to all economies, with significant lags in those where controlling the pandemic is still a complex task, where there is no significant vaccination plan in the short term, where policy space is limited and/or where domestic tensions have increased. This is currently the case in several Latin American countries.

International food and commodity prices have also been boosted by the prospect of global recovery, which combine with supply-side difficulties and a depreciated dollar. Copper hit a record-high price of US\$4.86 per pound in early May, and at the statistical close of this Report was hovering around US\$4.50, an 11% rise over March. The price of oil has also risen, and today it stands above US\$65 per barrel.

The above, together with higher transport prices, has fueled the cost pressures that are facing businesses around the world. In fact, the cost of maritime freights has tripled, while the prices of other inputs and staples such as building materials, foodstuffs, and agricultural crops have also seen considerable hikes. It has all reflected in higher producer prices and short-term inflation expectations in various economies.

Although the global markets estimate that the effects on inflation in various countries will be mainly temporary, there is increased concern in those economies where demand-boosting measures have been more substantial. In the United States, inflation was unexpectedly high in March and April, while a large fiscal aid package and a still highly expansionary monetary policy are being implemented. Measures of inflation expectations have risen, while financial markets have experienced bouts of volatility associated with that variable.

In Chile, inflation has performed as expected, with annual CPI variation rising to 3.6%. Expectations are aligned with the two-year target. The annual variation of the CPI has continued to be largely determined by the evolution of the prices of goods and energy. The former are still pressured by tight inventories in a context of high demand. The latter have been influenced by the oil price hikes and the low comparison base. The core CPI stands today at 3.4%.

Projections

The central scenario significantly raises the growth forecast for this year, to a range between 8.5 and 9.5%. Nearly two thirds of the difference with the March forecast is explained by the accumulation of expenditure-boosting policies, and the other third mainly by the better beginning of the year and agents' adaptation. The massive fiscal transfers and the approval of the third withdrawal of pension savings lead to predict annual growth in private consumption at around 15% (around 12% in March). Meanwhile, gross fixed capital formation increases 11.4% in the year, and total exports grow somewhat more than 1%. In this scenario, the activity gap closes sooner than previously estimated.

For 2022 and 2023, growth ranges are revised downward because of the higher comparison base, the steady decrease in consumption-boosting measures, and limited investment dynamism. In the central scenario GDP rises between 2% and 3% in 2022, and between 1.75% and 2.75% in 2023. The annual increase in private consumption will moderate significantly in the next two years, largely reflecting the gradual utilization and normalization of the income-support measures. As for investment, in 2022–2023 significantly lower expansion rates are expected compared with 2021, mainly because of low dynamism of GFCF in construction and works, the slow addition of new projects into the surveys, the persistently high uncertainty, higher corporate borrowing, and the evolution of domestic financial conditions.



A core element of these forecasts is fiscal policy, which this year will add a stronger impulse than that contemplated in March, considering the announcements already materialized and the additional spending that, among others, will result from the recently approved new support measures for households. For 2022 and 2023, estimates are that the massive fiscal impulse will be withdrawn, giving way to policies focused on the most lagging segments and the stabilization of public finances. Thus, after record-high expansion in 2021, the central scenario considers that the fiscal accounts will be inserted in a path of convergence to structural targets and towards a sustainable public debt-to-GDP ratio, in line with the recommendations of the Autonomous Fiscal Council. This could be reinforced by permanent increases in tax revenues, derived from the reforms that have been recently announced by the Government.

This year, the current-account deficit will be similar to the March forecast, as the higher copper price compensates for the expansion of domestic expenditure. All in all, between 2020 and 2021 the current account balance will turn negative, reflecting the increase in domestic demand. Compared to March, during the three-year period 2021-2023, the world economy will post slightly higher growth rates and the annual average copper price will be between 20 and 30 dollar cents per pound higher. In addition to the recent rise, this correction responds to its higher long-term price. Despite the increase in the oil price over the projection horizon, the terms of trade are, on average, 4% higher than estimated in March.

The stronger impulse to consumption, in the context of an earlier closing of the activity gap and rising cost pressures, leads to a higher inflation forecast. Core inflation will close the year slightly below 4% annually. Higher energy prices will continue to dominate the volatile component. Thus, after reaching higher values in the second half of the year, in December 2021 annual headline CPI inflation will be 4.4%. In 2022 and 2023, as the fiscal and monetary impulses normalize, inflation converges towards 3%, to remain stable until the end of the policy horizon, i.e., the second quarter of 2023.

This Report revises down the economy's medium-term growth, given the persistent drop in productivity growth over the past decade. Our estimate of non-mining trend GDP growth is lowered to the 2.4%–3.4% range for the ten-year period 2021-2030, which compares with the 3.25–3.75% range estimated for 2019-2028. This revision responds to the lower projected growth in total factor productivity^{1/}, an assumption surrounded by a high degree of uncertainty, which is reflected in the wider range of trend growth estimates. This partly reflects the fact that the estimates do not include the potential effects—upward or downward—caused by the structural changes induced by the pandemic, or by the political/institutional process underway.

Potential GDP—which measures growth capacity over shorter terms, where full resource allocation is not achieved—is revised upward, despite the downward revision to trend growth. For the period 2021-2023 trend growth is estimated around 2.1% (around 1.7% in March). This reflects the greater adaptive capacity of the economy and the milder scars that the pandemic would be leaving, which reduces the persistence of its negative effects on factor productivity and availability. All in all, in the medium term, potential GDP should converge to figures comparable to trend.

For the neutral MPR, the bulk of estimates yields figures in the order of 0.5% in real terms. According to the range of estimates and the uncertainty around this calculation, the Board assumes that the neutral MPR is in the 3.25% to 3.75% range in nominal terms, that is, a 50 bp cut in the bounds of the estimated range until March. This partly reflects the global trend to lower neutral interest rates observed in recent years, and is consistent with the reduction in Chile's trend growth estimate. Regarding the technical minimum for the monetary policy rate, estimations remain at 0.5%.

^{1/} It should be noted that the current exercise has incorporated information from the last four years for total factor productivity (TFP). The previous trend growth update (2019), considered only the changes in the labor factor associated with immigration to the country, without modifying the TFP growth assumption made for the previous estimate (2017).



Summing up, the higher activity forecast for 2021 is largely explained by the increase in private consumption, responding to the accumulation of stimulus measures adopted since the last MP Report. An important part of these measures reflect a considerably more expansionary fiscal policy than previously foreseen. The outlook for investment and exports, on the other hand, is more limited, with a tendency of the former to decelerate. Accordingly, a scenario where the recovery is notoriously biased towards consumption is emerging, which, if maintained or deepened through more pro-cyclical policies, could incubate larger macroeconomic imbalances, a risk that must be duly anticipated.

Sensitivity and risk scenarios

The central scenario is based on a set of assumptions such as those described in the preceding paragraphs, which shape the forecasts in this Report. On these assumptions, sensitivity exercises can be carried out that, while keeping GDP growth in the foreseen ranges, would require a somewhat different monetary policy action. These scenarios define the MPR corridor presented in the chapter “Future evolution of monetary policy” (figure 1).

On one hand, it is possible that demand grows beyond projections, either because increased propensity of households to consume—in a context of economic de-confinement—or because of greater fiscal transfers than the ones already assumed. In the latter case, tax, liquidity, or public investment measures could be added, thus making fiscal policy even more pro-cyclical. In such a situation, higher inflationary pressures would make an earlier withdrawal of the monetary stimulus necessary, which is reflected in the upper bound of the MPR corridor.

On the other hand, investment continues to be the most lagging component of expenditure, and a worse-than-anticipated evolution cannot be ruled out. The data show that in the first quarter investment in construction and works failed to recover, that no major investment projects have entered the surveys, and that local political/legislative events have affected the stock market, typically correlated with the future evolution of investment. If this situation were to worsen to the point of stagnation or reversal of investment, the monetary policy stance would have to remain highly expansionary for longer, which is reflected in the lower bound of the MPR corridor.

Despite the significant recovery of the economy, the pandemic phenomenon is still present and unexpected things can still happen. The central scenario assumes that during the second half of the year there will be a growing de-confinement of the population and a relaxation of social distancing measures, as the goals of the vaccination process are achieved. However, new cases have risen lately, and new quarantines have been imposed in several districts. Should they intensify, a slower opening is possible, delaying the closing of the activity gap, and requiring the current monetary expansionary stance to be maintained for some more time.

Abroad, it cannot be ruled out that the cost pressures faced by firms at the global level may have longer-lasting effects on inflation. World recovery, within a context of ongoing logistical problems for production, has led to cost increases across the board. For the moment, this is expected to be a transitory phenomenon, as the gradual opening of economies and greater adaptation will normalize the supply of many goods and services. In any case, considering high domestic spending, local inflation might be somewhat higher than forecast in the short term. The temporary nature of such an event does not require a monetary policy reaction. However, a different scenario would emerge if global inflationary pressures had a more persistent impact on domestic inflation. The latter would call for an earlier withdrawal of the monetary stimulus.

Besides the sensitivity exercises, risk scenarios in which the changes in the economy would be more significant and where the monetary policy reaction should be more intense are also analyzed. Locally, the risks associated with an evolution of public finances that is unclear as to their long-term stabilization are worth noting, which could affect local financial conditions, investment, and the perception of country risk. Internationally, the main risk continues to be an abrupt change in global financial conditions, an event that has become more prevalent due to doubts about the evolution of inflation in the U.S. The intensity of these scenarios may jeopardize the convergence of inflation within the policy horizon, placing activity below the expected ranges and/or compromising the proper functioning of financial markets.



Monetary policy orientation

The better recent performance of the economy, the significant boost to domestic demand, the imbalances in the dynamics of expenditure and production, added to cost pressures, will affect the behavior of prices. Knowing how much of these effects will be temporary and how much will be more persistent will be key to determine the correct degree of expansiveness of monetary policy, so as to ensure sustainable economic recovery in an environment of price stability.

For now, the Board estimates that the economy is still affected by the impact on the recovery of the pandemic and the lagging labor market. However, the strong dynamism already present in consumption and the additional boost to private spending are an important change for the macroeconomic scenario of the coming months, which makes it necessary to recalibrate the expansiveness of monetary policy going forward.

In particular, the higher growth forecast for spending and activity will make it less necessary for the monetary impulse to support the recovery of the economy with the current intensity, so it should gradually begin to moderate, earlier than was expected in the previous MP Report. This will help to avoid the build-up of inflationary pressures at a particularly sensitive moment in the recovery. It is important to bear in mind that inflation is particularly detrimental to middle- and low-income households that do not have the purchasing power and asset protection mechanisms available to the better-off. Therefore, a scenario of higher inflation would only amplify the regressive impact of the job losses that these sectors have endured during the crisis.

However, even in a context of gradual normalization, monetary policy will continue to accompany the recovery of the economy. Thus, starting from one of the most expansive levels compared to peer economies, in the central scenario the MPR is anticipated to remain below its neutral value throughout the two-year policy horizon.

As for unconventional policies, they have recently concluded, and no changes are foreseen in their current conditions and timing. This includes wrapping up the stage of reinvesting the bank bond coupons at maturity, letting the stock still in the Central Bank's hands to be steadily reduced.

Beyond monetary policy conduct, the profound crisis of the last nineteen months will pose major challenges to the Chilean economy. Importantly, there is the need to shape a sustainable trajectory for public finances, reduce economic uncertainty, and reverse the reduction in trend growth described in this Report. The way these challenges are met will not only have an impact on the future evolution of monetary policy, but especially on living conditions and the country's future prospects.

SUMMARY OF FORECASTS

	2021 (f)	2022 (f)	2023 (f)
GDP (annual change; %)	8.5-9.5	2.0-3.0	1.75-2.75
Current account (% of GDP)	-0.8	-1.1	-1.9
Average CPI (annual change; %)	3.9	3.8	3.0
Average core CPI (annual change; %)	3.5	3.8	3.1
CPI in around 2 years (%) (*)	--	--	3,0
World growth (%)	6.5	4.4	3.5
Copper price (average; US\$cent/pound)	425	400	370

(*) Inflation forecast for the second quarter of 2023.

(f) Forecast.

Source: Central Bank of Chile.



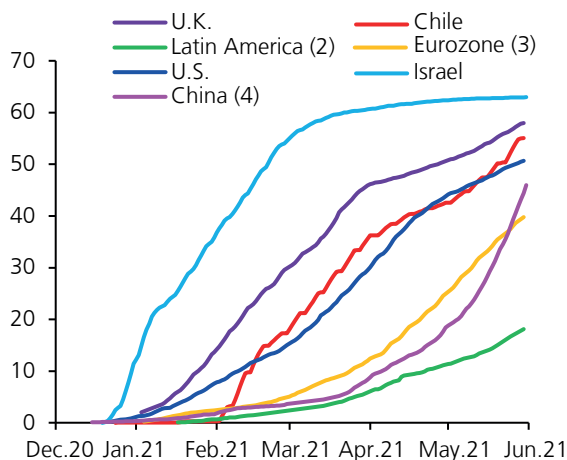
I. INTERNATIONAL SCENARIO

The world economy has been consolidating its recovery prospects for this and next year. First-quarter activity and the latest short-term indicators point to a recovery in line with expectations. This evolution is linked to the progress in vaccinations —especially in developed countries— and the consequent gradual reopening of economies, which has resulted in improvements in consumer and business confidence, and the recovery of activity in the lagging sectors. This scenario has also been captured by the financial markets, encouraging greater risk-taking, increases in stock markets and a general appreciation of asset and commodity prices. In any case, this scenario has not been common to all economies, especially in Latin America, where the outlook is less favorable. In short, this year’s external momentum will be somewhat stronger for Chile compared to the March Report, owing mainly to the copper price hike. However, concerns about U.S. inflation and the possibility that it could lead to an abrupt reversal of financial conditions have recently been gaining some more ground.

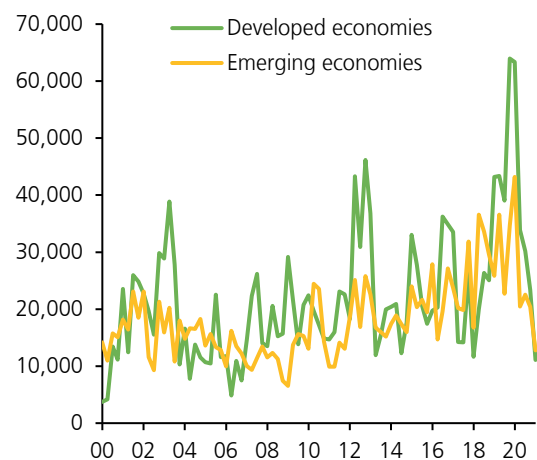
RECENT EVOLUTION OF THE INTERNATIONAL SCENARIO

Recovery prospects have been consolidating, as global vaccination progresses and the uncertainty associated with the pandemic is reduced (figure I.1), thus anticipating a somewhat higher growth in global activity for 2021 compared to that considered in March. Global growth prospects stand at 6.5% for this year and 4.4% for next year (6.2% and 4.4% in the March Report).

FIGURE I.1 ADVANCES IN VACCINATION PROCESS (1)
(percent of population)



WORLD UNCERTAINTY INDEX (5)
(average index by group of countries)

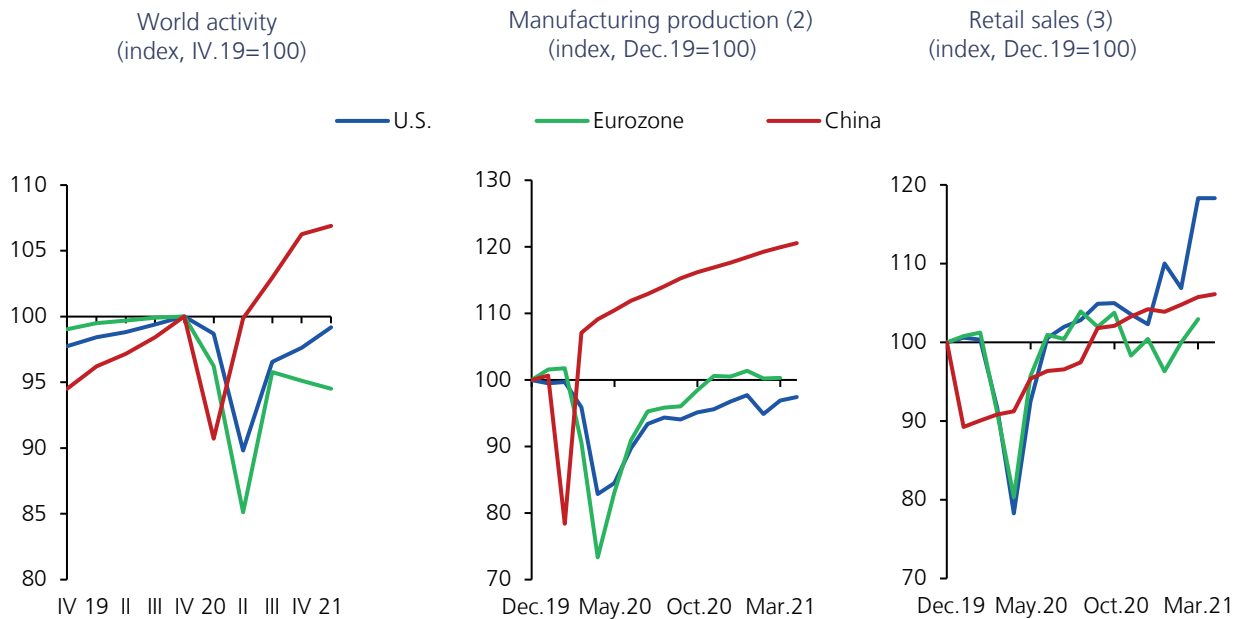


(1) Percent of population with at least one job. (2) Weighted averaged population of Argentina, Brazil, Colombia, Mexico and Peru. (3) Weighted averaged population of France, Germany, Italy, and Spain. (4) Total jobs inoculated. (5) Simple average among countries. The index is calculated by counting the frequency of the word “uncertain” (or variants) in the country reports by The Economist Intelligence Unit. It is then normalized by the total number of words and re-escalated by multiplying by 1,000. A higher number denotes more uncertainty and vice-versa. For more detail, see [World Uncertainty Index](#).
Sources: Our World in Data and Ahir, H., N. Bloom, & D. Furceri (2018).



First-quarter figures showed that global activity continued to recover and adapt to operating under restrictions (figure I.2). In the Eurozone, activity fell less than last year, reflecting a more limited impact of the quarantines on the performance of the bloc's economies. In China, the favorable evolution of foreign trade stood out, linked to the high global demand for goods, in addition to consumption and investment, which have recovered further. In the U.S., the recovery continued, driven by goods consumption, boosted by the fiscal packages, and a services sector that continued to improve as restrictions were lifted. This occurred in the midst of an improving labor market, although employment is still below pre-pandemic levels and its recovery has been limited in part by supply factors. As for the medium-term outlook, there is a growing view that the Covid-19 crisis will take a bigger toll on emerging economies than on advanced ones (Box I.1).

FIGURE I.2 ACTIVITY AND SHORT-TERM INDICATORS (1)



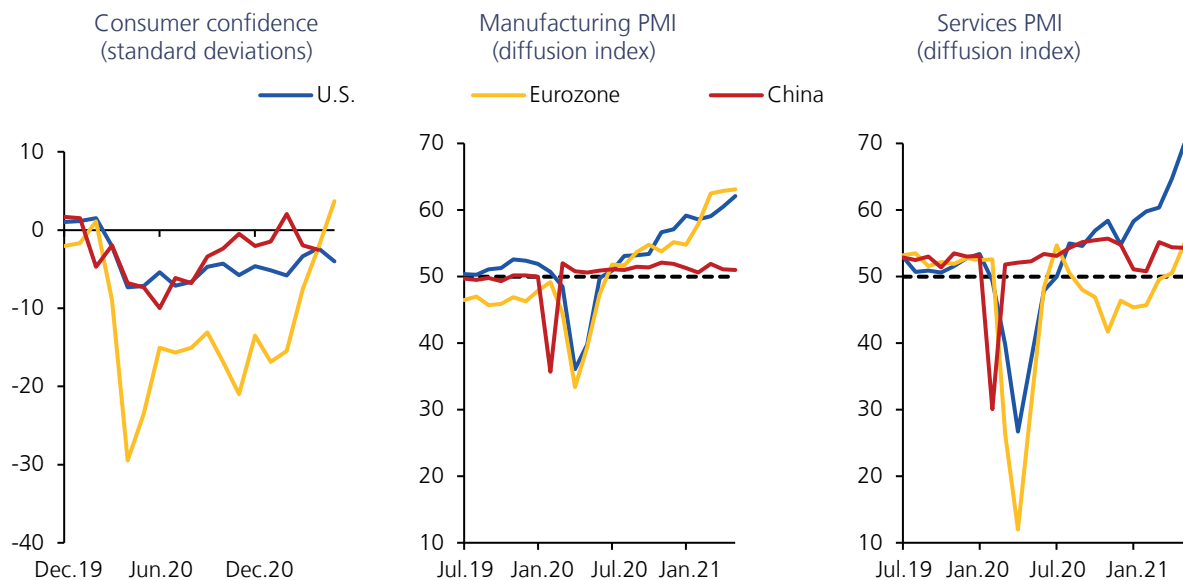
(1) Seasonally-adjusted series. (2) Real series. (3) Nominal series.

Sources: Central Bank of Chile based on GDP data and indicators from Bloomberg and Eurostat.

The greater speed of inoculations, mainly in developed countries, has enabled the gradual reopening of economies, which has translated into improved consumer and business confidence indicators (figure I.3). This has occurred as these countries have advanced with their deconfinement plans, thus improving the outlook for services (PMI), particularly those that require more direct human interaction. At the same time, the outlook for manufacturing companies has stayed around historical highs, helped by the rapid recovery in global demand for goods. In the case of China, the most recent expectations of firms confirm an optimistic outlook and continue to point to growing activity going forward.



FIGURE I.3 OUTLOOK FOR CONSUMERS AND BUSINESSES (1) (2)



(1) Consumer confidence standardized by 2019 mean and standard deviation. (2) For PMI, value above (below) 50 indicates optimism (pessimism).

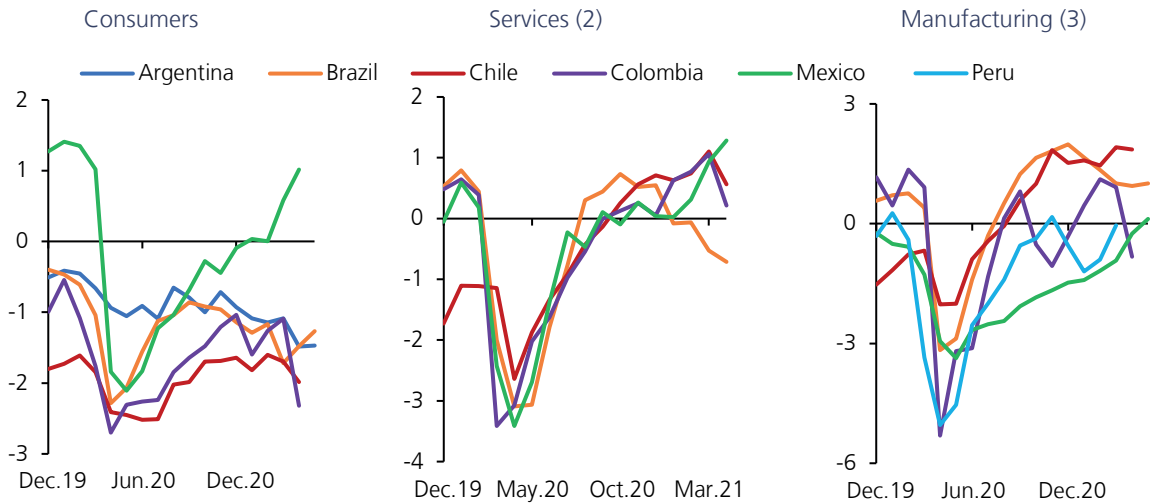
Sources: Bloomberg and Eurostat.

In emerging economies, the outlook is not so good due to slower vaccination rates and the emergence of idiosyncratic factors in some countries. The aggravation of the sanitary crisis in India, which hit record numbers of infections and deaths, led to tightening of restrictions in the country and a suspension of vaccine exports to prioritize local needs, affecting the supply in some emerging countries. In Latin America, despite the fact that first-quarter activity exceeded expectations, the slow vaccination and vulnerable epidemiological situation have been compounded by certain elements of social and/or political uncertainty that could put a heavier burden on the recovery process. This, in the midst of reduced fiscal space and new concerns about the sustainability of the public debt, considering its significant recent increase, which has led to some cuts in sovereign risk ratings. Uncertainty factors in some countries—such as Colombia and Peru—have translated into considerable financial movements in recent months, including a weakening of their currencies and other financial asset prices. In the case of Brazil, although financial indicators have been less affected lately, inflationary risk is still present. On aggregate, all this has been reflected in weaker levels of household and business confidence in several countries of the bloc (figure I.4), anticipating a slower recovery.

The stronger outlook and reduced uncertainty in developed world countries have encouraged risk-taking in financial markets. Stock markets have continued to rise in various economies and currencies have appreciated against the dollar. Financial conditions remain favorable, particularly in the developed world, where corporate spreads have narrowed further (figure I.5). As with growth prospects, the situation is somewhat different in emerging economies. Although risk premiums have fallen and capital inflows have continued, in some Latin American countries sovereign risk has risen due to the aforementioned domestic factors. Long-term world interest rates have been moderating the upward and cross-cutting trend they showed at the beginning of this year, in a scenario that has not been free of volatility, because of higher inflation in the United States.

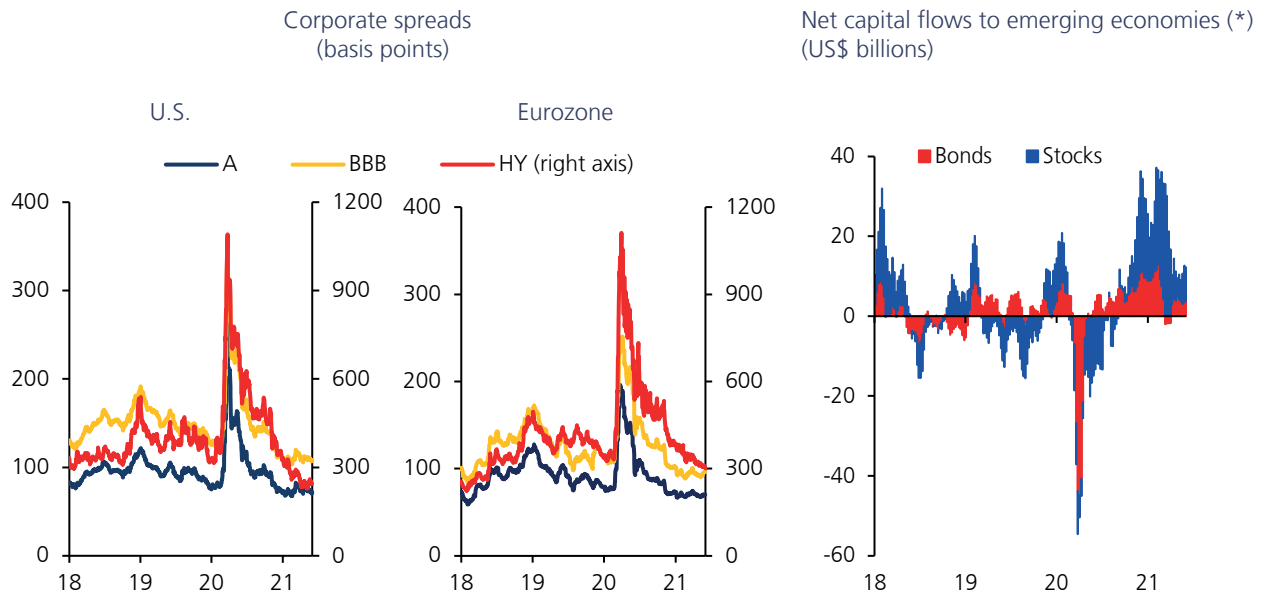


FIGURE I.4 CONFIDENCE INDICATORS (1)
(standard deviations)



(1) Consumer confidence standardized by mean and standard deviation of period 2006-2021; for services, 2018-2021; for manufacturing, 2012-2021. (2) For Brazil, services PMI is used; for Chile, IMCE trade category; for Colombia, commercial confidence; for Mexico, non-manufacturing PMI. (3) For Peru, business confidence is used.
Sources: Bloomberg and BCRP.

FIGURE I.5 FINANCIAL CONDITIONS



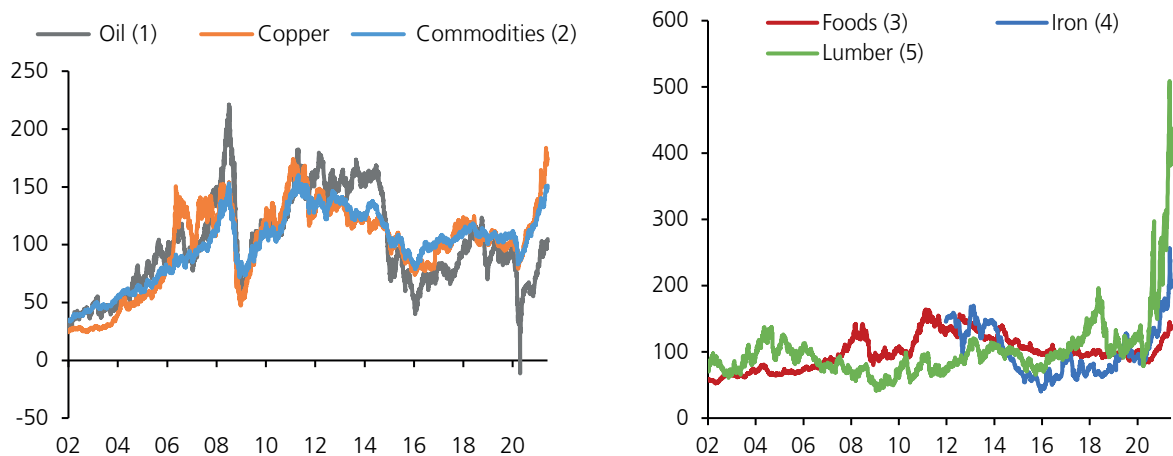
(*) Accumulated in four moving weeks. Considers cumulative flows up to 2 June 2021.
Sources: Bloomberg and Emerging Portfolio Fund Research.



The recovery and improved outlook for the main economies have continued to drive commodity prices, which combine with supply disruptions due to climatic and logistical difficulties, amid the depreciation of the dollar worldwide. Thus, the prices of several commodities have soared to historical peaks, including copper (figure I.6). Chinese imports of the metal have remained at record levels, in view of the infrastructure programs implemented and the recovery of world demand for goods. On the supply side, meanwhile, stock market inventory levels have remained low. Thus, after reaching a record quotation of US\$4.86 per pound in the first half of May, the price of the metal was around US\$4.5 at the statistical close of this Report (+11% since the March close). Oil has continued to recover (+3.7% since March, for the WTI-Brent average), in line with the higher demand of the main consumers while supply has continued to be constrained by OPEC+.

Commodity prices have risen across the board. Along these lines, wood has exhibited an upward trend since the beginning of the pandemic, which intensified with the recovery of the housing and construction sectors, especially in the U.S., causing global shortages. All this in the face of the inability of sawmills around the world to meet these requirements, which has pushed prices to record highs. In the case of iron, strong demand from steel producers, mainly in China, and some supply constraints in Brazil have pushed prices to all-time highs. Foods also rose, with recent increases in vegetable oils, sugar and corn, which, according to the FAO, are partly attributed to adverse weather conditions in some producing countries, as well as logistical difficulties.

FIGURE I.6 COMMODITY PRICES
(index, 2002-2021 avg.=100)



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

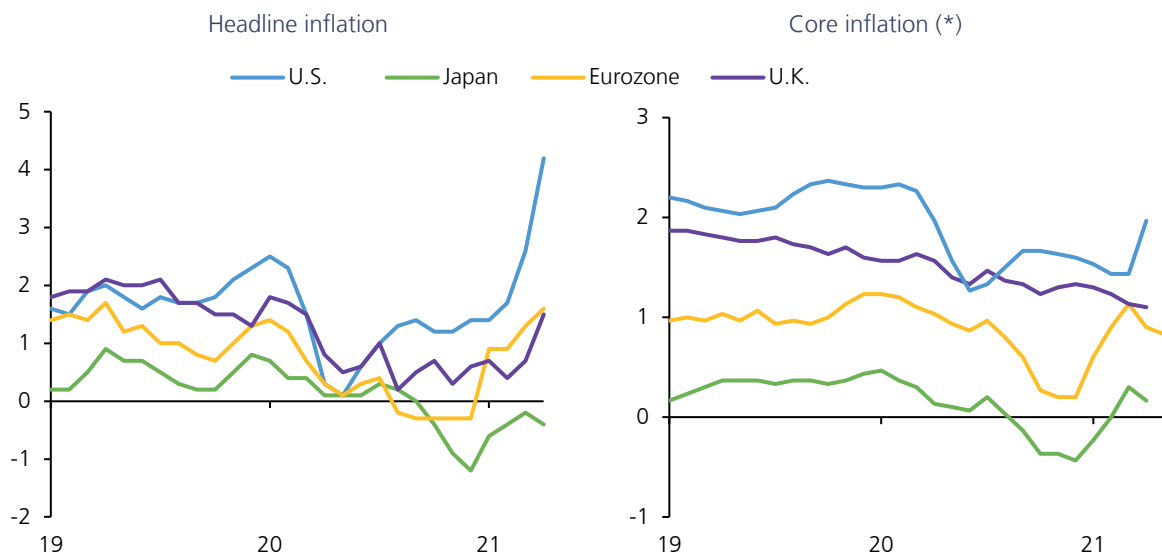
Source: Bloomberg.



In this context, the terms of trade are corrected upwards in the projection horizon, it being the main factor behind the greater external impulse for the Chilean economy. The copper price has reacted to the higher current and expected demand in a context of short-term supply limitations, which should ease as new projects enter the pipeline^{1/}. Furthermore, within this framework, its long-term prices have been corrected upwards (Box V.3). For 2021, a copper price of US\$4.25 per pound is projected (US\$3.95 in the March Report), while the oil barrel is adjusted to US\$64 (US\$61.5 in March for the WTI-Brent average). Thus, the terms of trade will grow 17.4% in 2021 (11.7% in the March Report)^{2/}.

Higher commodity prices, together with the base effect of fuels and the supply constraints in place, have led to higher inflation in several economies (figure I.7). Inflation records have risen especially in the U.S. taking the markets by surprise. These increases are explained by the recovery of fuel prices, as well as by the rise in commodities and some intermediate goods. On top of this, there are supply constraints in several markets in the midst of the reopening of economies. The tight capacity of suppliers, in a context of high demand, has led to delays in meeting purchase orders, either because of input shortages and/or congestion in distribution chains (figure I.8), in a scenario of high transportation costs around the world (figure IV.6).

FIGURE I.7 WORLD INFLATION
(annual change, percent)



(*) Three-month moving average of annual variations.
Source: Bloomberg.

^{1/} See [Box I.1 in March 2021 Monetary Policy Report](#).

^{2/} More detail in chapter V.



FIGURE I.8 GLOBAL MANUFACTURING PMI: SUPPLIERS' DELIVERY TIME (*)
(diffusion index)



(*) A lower index means longer suppliers' delivery time.
Source: JP Morgan/IHS Markit.

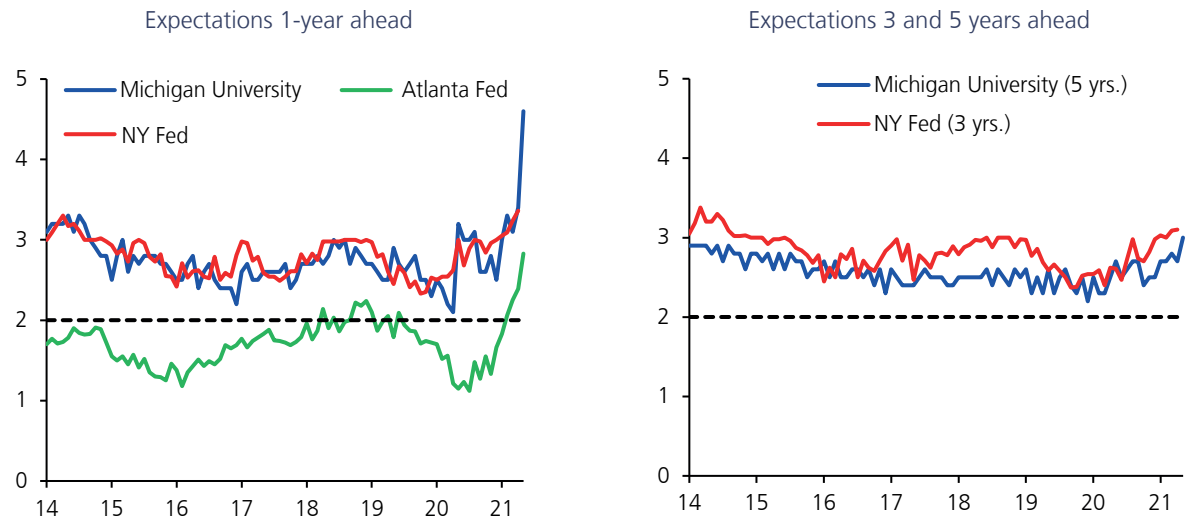
The global recovery and improved outlook have reduced the need for further fiscal stimulus, in a context of continued highly expansionary monetary policies. The deployment of fiscal measures has continued to support households and businesses, particularly in the developed world. The announcements made in the U.S. during March, in addition to the provisions approved during 2020, continue to be the largest in magnitude, and there is debate about their timing and effects on inflationary pressures. Since March to date, most economies have not announced new fiscal packages to mitigate the effects of the pandemic. On the monetary front, most authorities have maintained the incentives and have not changed forward guidance. As the recovery has taken hold, some central banks—such as the Bank of Canada and the Bank of England— have announced or launched the withdrawal of part of their unconventional policies. In Brazil, meanwhile, interest rate hikes have continued in the recent past, in the face of higher inflationary risks.



RISKS

Although global inflationary pressures are perceived as transitory, the risk of a reversal in financial conditions has gained some more ground given the increased concern about inflation in the U.S. (figure I.9). Looking ahead, inflation in the U.S. economy is expected to rise, a trend that should be reversed as the supply of goods normalizes and the lifting of restrictions redirects part of the demand towards services. The Federal Reserve (Fed) announced that there will be no changes in its monetary normalization given that the pressures are believed to be temporary. However, should demand remain buoyant for longer than expected, a scenario of more persistent pressures cannot be ruled out. To the extent that this significantly affects U.S. inflation expectations, it could have implications for the Fed's monetary policy path. This is particularly sensitive in an environment of high levels of corporate and government debt and heterogeneity in the recovery across countries, leaving emerging economies particularly exposed.

FIGURE I.9 U.S. INFLATION EXPECTATIONS (1) (2)
(annual change, percent)



(1) The Michigan University and the NY Fed compile household expectations; Atlanta Fed, corporate costs. (2) Dashed horizontal line marks Fed's inflation target.

Sources: Federal Reserve and Michigan University.

The occurrence of the most adverse scenarios associated with the pandemic has decreased in developed economies; however, the disparity in the speed of vaccination with emerging countries could amplify the differences in recovery. In countries with higher inoculation rates, uncertainty regarding health developments has diminished, although the possibility of new strains remains. On the other hand, vaccination in emerging countries could be an even greater stumbling block if progress takes longer than expected. In the case of Latin America, even slower vaccination and the difficulty in controlling outbreaks and/or a worsening of the idiosyncratic factors mentioned above would further hinder the process of exiting the crisis. Likewise, the calibration of the withdrawal of fiscal and monetary packages continues to be a sensitive factor to monitor, in order not to compromise the recovery and at the same time to reduce the risks of macroeconomic and financial stability imbalances.



Box I.1:

Effects of Covid-19 on global long-term growth

This box summarizes the international evidence on the effects of Covid-19 on long-term growth based on information provided by multilateral organizations and market expectations indicators. This body of information indicates that, compared to pre-pandemic expectations, by 2024 the level of world GDP will be between 3% and 5% lower. This impact will be heterogeneous across countries, with emerging and developing countries being the most affected. The effect will also be smaller in countries that have had a greater fiscal policy response and whose economic structure is less dependent on tourism (IMF, [2021](#)). Regarding the long-term growth rate, the effects would also be more severe in emerging and developing countries than in higher-income economies. (table I.1).

TABLE I.1 EFFECTS IN GDP LEVEL 5 YEARS AHEAD
(difference with pre-pandemic forecast, percent)

	World	Advanced	Emerging
Worldbank	-5.0		
OECD (*)	-3.0	-1.6	-2.2
IMF	-2.8	-0.7	-4.2

(*) Median of each group estimates for World Bank and OECD; For FMI, averages.

Sources: World Bank (2021), IMF (2021), and OECD (2021).

Despite the particular elements of the Covid-19 crisis, one of the guidelines international organizations have used to estimate its long-term effects has been the behavior of countries in other economic downturns^{1/}. The analysis of such episodes shows that deep recessions have persistent repercussions, albeit smaller in sanitary crises than in financial crunches. The drop in activity observed in previous episodes is mainly explained by lower productivity levels and, especially in financial crises, by slower growth of the capital stock.

The loss of welfare that would result from the Covid-19 crisis is associated with lower productivity levels and, in the case of emerging economies, a slower pace of capital accumulation. This implies that investment has been adversely affected by the higher uncertainty caused by the Covid-19 crisis, coupled with higher indebtedness to navigate the crisis, which would affect capital spending decisions. Along with this, the very fact that agents anticipate (from previous experience) that deep recessions have long-lasting effects on GDP also depresses investment. It is important to note that these effects on capital accumulation could be greater than expected

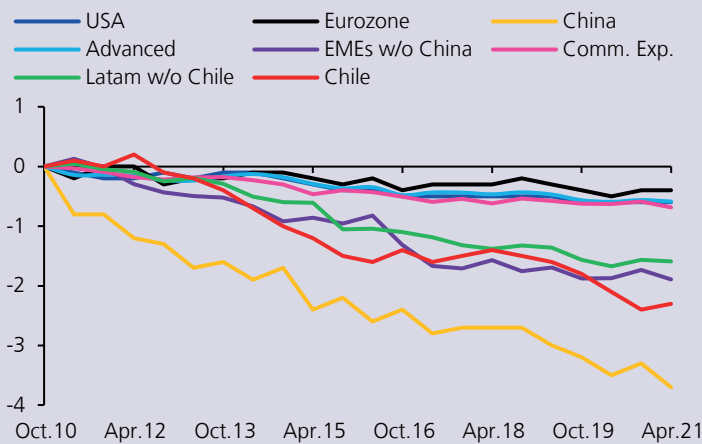
^{1/} See World Bank ([2021](#)), IMF ([2021](#)), OECD ([2021](#)).



if the Covid-19 crisis ends up having more negative financial repercussions than has been assumed so far. As for the expected post-pandemic drop in productivity, part of it is linked to lower capital accumulation and to the trends observed after previous crises. Finally, it is worth noting that the IMF (2021) analysis indicates that permanent losses in the GDP level will be lower in those countries whose policy response was stronger in 2020.

Market expectations for long-term growth have been adjusting systematically downward over the last ten years. The markets' view is derived from the Consensus Forecasts survey, which twice a year presents projections of trend growth over a 6-to-10-year horizon. These data show that medium- and long-term the growth outlook for the world shows a very pronounced downward revision trend over the last eleven years. Indeed, between October 2010 and October 2019, trend growth prospects were reduced by 0.6 percentage points (pp) for developed economies, by 2.5pp for emerging economies, and by 1.6pp for Latin America (figure I.10). After Covid-19, the corrections have been smaller, with the exceptions of China and Chile, which maintained similar trends to their previous ones (table I.2). This relatively benevolent view of the long-term growth rate in developing countries contrasts with that of the World Bank (2021), which estimates for the 2020-2029 decade a reduction of 0.6pp per year in potential GDP growth in this group of economies. This slowdown would be explained in equal parts by lower contributions from investment and productivity.

FIGURE I.10 ADJUSTED GROWTH FORECASTS 6 AND 10 YEARS AHEAD AS FROM OCTOBER 2010 (*)
(percentage points)



(*) Differences between the forecasts at each date (April and October of each year) and those of October 2010. Averages of advanced economies, emerging economies, Latam and commodity exporters weighted by GDP at purchasing power (PPP). Advanced economies include USA, Canada, Eurozone, Norway, United Kingdom, Japan, Australia, New Zealand. Emerging economies excluding China considers Hong Kong, India, Indonesia, Philippines, Singapore, South Korea, Taiwan, Thailand, Argentina, Brazil, Chile, Colombia, Mexico and Peru. Latam considers Argentina, Brazil, Chile, Colombia, Mexico and Peru. Commodity exporters considers Canada, Australia, New Zealand and Norway.

Source: Consensus Forecasts.



TABLE I.2 GROWTH FORECASTS 6 AND 10 YEARS AHEAD (1) (2)
(percent)

	Developed	EMEs w/o China	USA	Eurozone	China	Commodity Exp.	Latam w/o Chile	Chile
Oct-10	2.1	5.7	2.6	1.6	7.8	2.7	4.2	4.9
Oct-15	1.8	4.7	2.2	1.3	5.6	2.3	3.1	3.4
Oct-19	1.6	3.8	2.0	1.2	4.6	2.0	2.6	3.1
Apr-21	1.5	3.8	2.0	1.2	4.1	2.0	2.6	2.6
Change in forecast								
Apr.21-Oct.10	-0.6	-1.9	-0.6	-0.4	-3.7	-0.7	-1.6	-2.3
Oct.19-Oct.10	-0.6	-1.9	-0.6	-0.4	-3.2	-0.6	-1.6	-1.8
Apr.21-Oct19	0.0	0.0	0.0	0.0	-0.5	-0.1	0.0	-0.5

(1) Consensus Forecast estimate for Chile, which differs from the Central Bank of Chile's forecast presented in Box V.1 in this Report. (2) Averages of developed economies, emerging economies, Latam and commodity exporters weighted by GDP at purchasing power (PPP). Developed economies include: Australia, Canada, Eurozone, Japan, New Zealand, Norway, U.K. and U.S. Emerging economies (excluding China) considers Hong Kong, India, Indonesia, Philippines, Singapore, South Korea, Taiwan, Thailand, Argentina, Brazil, Chile, Colombia, Mexico and Peru. Latam considers Argentina, Brazil, Chile, Colombia, Mexico and Peru. Commodity exporters are Canada, Australia, New Zealand and Norway.

Source: Consensus Forecasts.

Projections for medium-term convergence

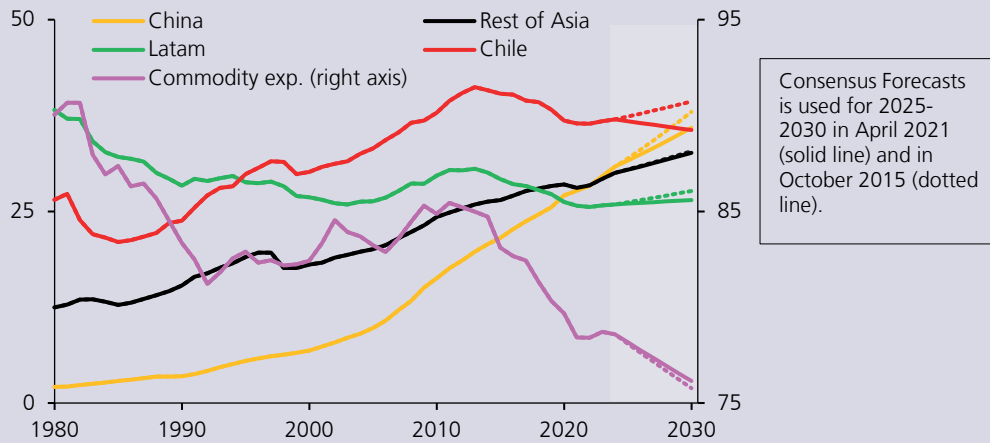
The last two decades have witnessed greater convergence among GDP per capita levels worldwide. As documented by Kremer, Willis, and You (2021), although income gaps between countries have shown changing patterns over time, they have tended to close in recent years. Thus, the relative gaps between poor and rich countries went from being constant during the 1960s to widening significantly during the 1970s and 1980s, when many low-income countries experienced zero or negative growth (what the authors call "economic disasters"). However, this divergence in countries' income began to narrow during the 1990s and became a convergence at the turn of the century, a phenomenon that continued and became more pronounced during the past two decades. During the last twenty years, not only was there a lower frequency of "economic disasters", but there was also a significant acceleration in the growth of low- and middle-income countries, accompanied by a slowdown in developed economies.

The next ten years will see a greater divergence between the income levels of developed and emerging countries, reversing the trend of recent decades. This will result both from (i) the already mentioned greater impact of Covid-19 on developing than developed economies, and (ii) the widespread slowdown in the trend growth rate anticipated by the market (table I.2). This is shown in figure I.11, which presents, for some areas and countries, the evolution of their GDP per capita relative to that of the U.S. under two long-term post-2024



growth assumptions: the projection in the most recent Consensus Forecasts survey, and our projection of October 2015 ^{2/}. Thus, both the pre-Covid-19 trends and the unequal economic consequences of the pandemic will contribute to widening the relative development gaps between emerging economies and the advanced world, a trend that is particularly pronounced in the case of Chile, considering the recent revisions to its trend growth estimate (Box V.1).

FIGURE I.11 PER CAPITA GDP'S EVOLUTION AND FORECASTS (*)
(relative to U.S. GDP, percent)



(*) Per capita GDP at constant prices (PPP at 2017 prices), as a percent U.S. GDP of each year. Series from 1980 through 2020, as well as projections through 2024 are taken from the April 2021 WEO. To forecast GDP between 2025 and 2030, 6- to 10-year growth projections from Consensus Forecast of April 2021 (solid line) and October 2015 (dotted line) are used. For Chile, instead of the most recent Consensus Forecast survey, the 2026-2030 trend growth projection presented in Box V.1 of this Report is used in the solid line. Population growth in each country between 2025 and 2030 is projected by extrapolating the latest value projected in the April 2021 WEO. The averages for Latam economies (Argentina, Brazil, Chile, Colombia, Mexico and Peru), Rest of Emerging Asia (Hong Kong, Singapore, Thailand, Taiwan, Korea, Philippines, Indonesia, Malaysia and Vietnam), and commodity exporters (Australia, Canada, Norway and New Zealand) are weighted by their population in 2020.

Sources: Central Bank of Chile based on April 2021 WEO and Consensus Forecast data.

^{2/} For Chile, instead of using the latest Consensus Forecasts survey, the trend growth forecast for 2026-2030 is used. See box V.1 below.



II. FINANCIAL CONDITIONS

The sustained recovery of the global economy has continued to underpin the performance of international financial markets, as reflected in the performance of stock markets, interest rates and commodity prices. The local market followed these trends in the first part of the year; however, in recent weeks idiosyncratic factors have become more prevalent, with a sharp drop in stock prices, a multilateral depreciation of the peso and a more pronounced rise in long-term interest rates. As for credit, supply and demand conditions look more favorable, although some sources reveal that a fraction of the smaller companies or those in the sectors hardest hit by the pandemic are facing more constraints when needing to take on debt. In this context, the Bank maintained the MPR, while unconventional policies were recently ended.

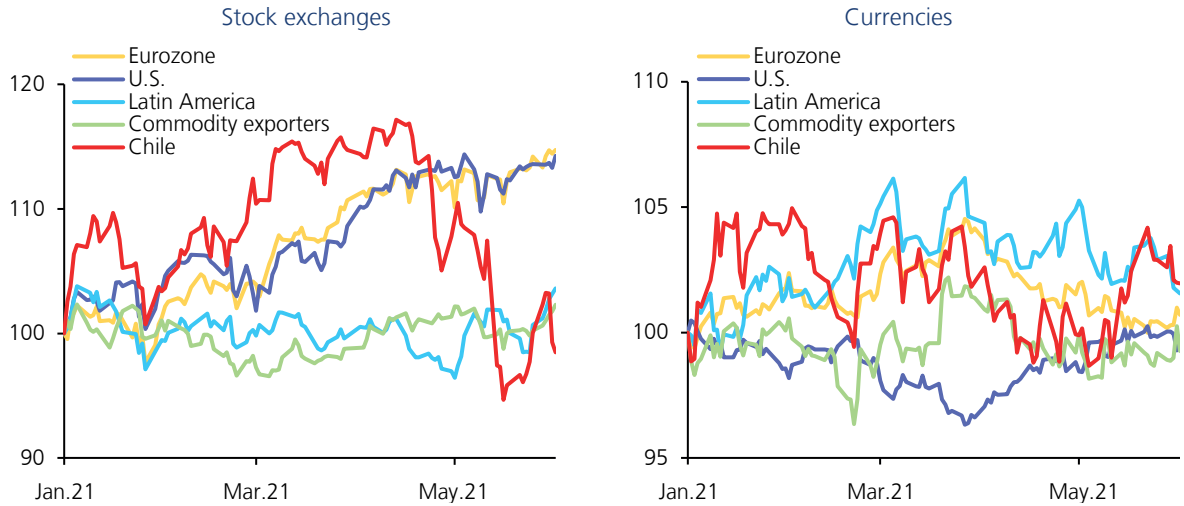
EVOLUTION OF FINANCIAL MARKETS

International financial markets maintain a positive tone, supported by the steady recovery of world activity, the expansionary macroeconomic policies and the greater openness of an important group of economies, especially developed ones. In general, since the end of March—the statistical cutoff of the last Report—stock markets and commodity prices have risen further, with some of them reaching new highs, while an important group of risk premiums decreased (figure II.1). With ups and downs, most currencies have appreciated against the dollar, amid capital inflows to emerging economies. In the developed world, nominal interest rates on 10-year benchmark bonds remained rather stable in the United States, the United Kingdom and Japan, while in some Eurozone countries there were limited increases. In all cases, these rates remain low from a historical perspective.

The Chilean market replicated international movements early in the year. However, in recent weeks idiosyncratic factors have been gaining importance. Thus, during the second quarter, a decoupling with respect to the main economies has been observed, in a context in which local uncertainty indexes remain high by historic standards (figure II.2). Idiosyncratic factors comprise several elements, whose individual effects are difficult to distinguish. These include surprises in actual activity data, changes in sanitary measures, expectations of higher fiscal spending, and political, legislative and institutional events, such as the approval of the third pension savings withdrawal and the outcome of the mid-May elections. In this environment, sovereign risk premiums (CDS) have risen to their highest levels in several months, although they remain low from a historical perspective. Previously, major rating agencies had announced the downgrading of the country's credit rating, largely on the grounds of weakening public finances.

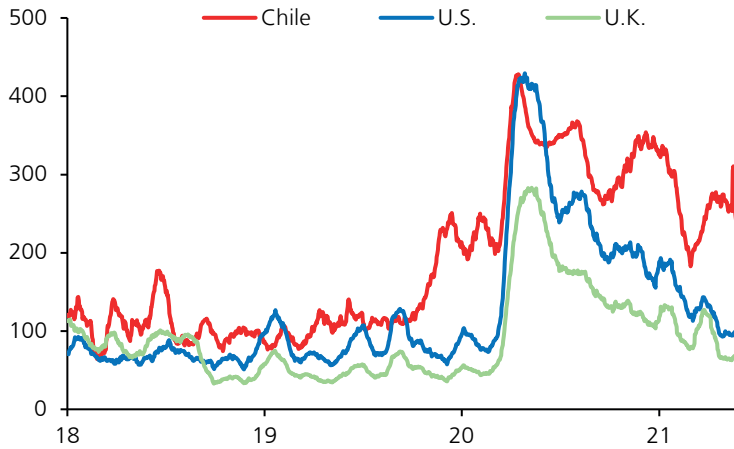


FIGURE II.1 GLOBAL FINANCIAL MARKETS (*)
(index, 4 January 2021=100)



(*) Simple average of respective indexes. Latin America considers Brazil, Colombia, Mexico, and Peru; commodity exporters are Australia and New Zealand. Data up to 4 June 2021.
Sources: Central Bank of Chile and Bloomberg.

FIGURE II.2 PERCEPTION AND UNCERTAINTY - EPU AND DEPUK (*)
(index)



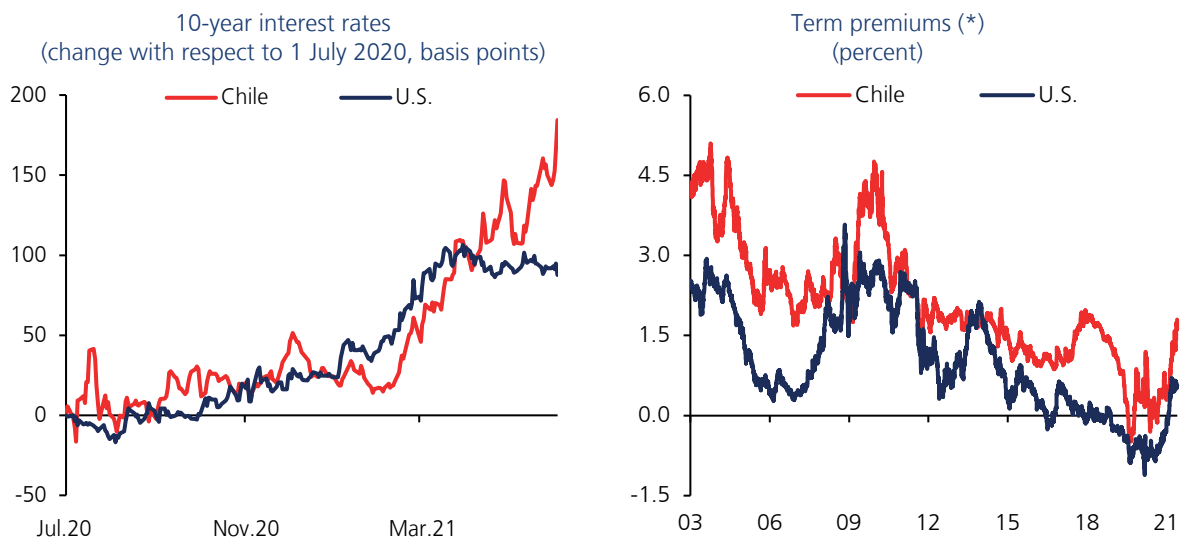
(*) Moving 30-day average. Data up to 4 June 2021.
Sources: Becerra and Sagner (2020), and www.policyuncertainty.com.



The higher risk perception has had adverse effects on the performance of the stock exchange and the peso, which has also been highly volatile. The trajectory of the IPSA diverged from the rest of the stock markets as from the second half of April (-14% from that date until the week prior to the publication of this Report), undoing a large portion of the gains accumulated during the year. With marked swings, the peso showed no big changes compared to the statistical cutoffs of this and the last MP Reports. In any case, the behavior of the local currency tended to diverge from what would be inferred from its short-term fundamentals. In particular, it does not fully reflect the sharp increase in the copper price, which has been reaching all-time highs.

In the domestic fixed-income market, long-term interest rates accumulated significant increases, associated with a decompression of term premiums. A good share of this is explained by the aforementioned institutional events, in addition to better expectations for local activity, all of this in a scenario of a more expansionary fiscal policy. From the statistical cutoff of the March Report until the week prior to the release of this one, the 10-year nominal yield rose by around 100 basis points (bp), while its U.S. counterpart was fairly stable (figure II.3). The re-composition of premiums and a more positive short-term outlook have also led to significant increases in the rates of shorter peso instruments. Furthermore, this occurs in a context in which institutional agents' demand for these securities has fallen, which has resulted in the local market demanding higher premiums for sovereign debt placements. In any case, the liquidity premiums (BTP-SPC) are still negative at terms shorter than 10 years, amid the extraordinary actions of the Central Bank and the appetite for these bonds, among other destinations, for their use as collateral in the Credit Facility Conditional on Increased Lending (FCIC). On the UF benchmark curve, rate increases have been bigger. Two-year instruments were also influenced by the decrease in inflation expectations due to the bill about a temporary cut in the VAT (figure II.4).

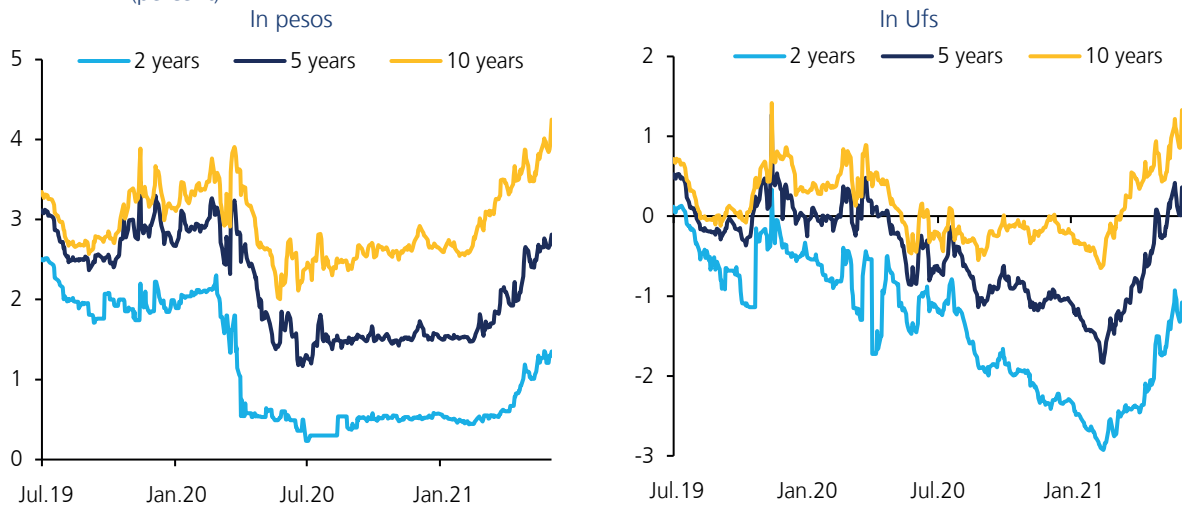
FIGURE II.3 INTEREST RATES ON NOMINAL 10-YR BENCHMARK BONDS IN CHILE AND THE U.S.



(*) Chile's term premiums calculated using methodology of Beyzaga and Ceballos (2017). Data up to 4 June 2021.
Sources: Central Bank of Chile, Bloomberg, and New York Federal Reserve.



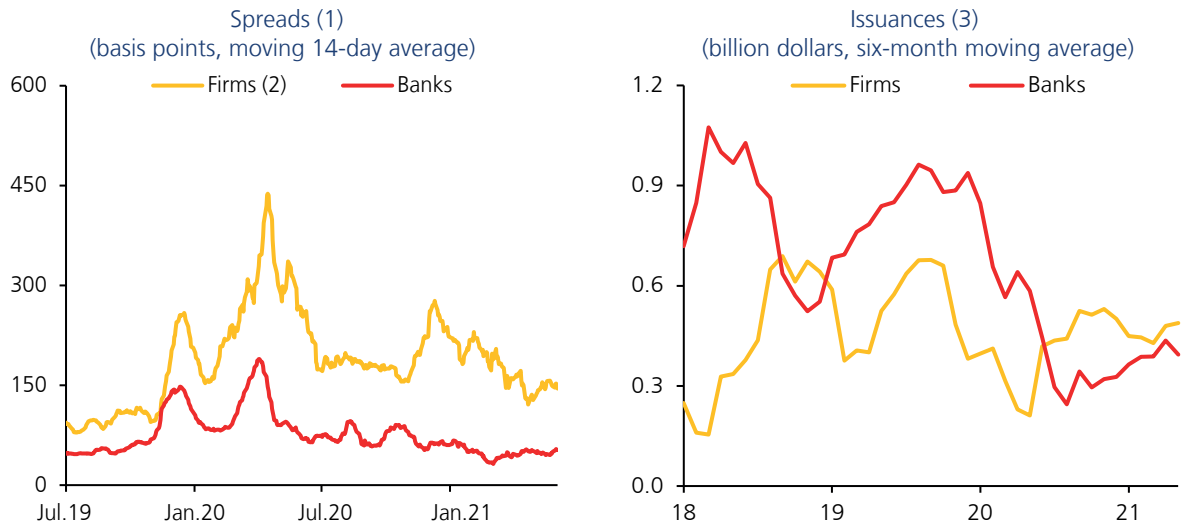
FIGURE II.4 INTEREST RATES ON BENCHMARK BONDS (*)
(percent)



(*) Data up to 4 June 2021. Source: Central Bank of Chile.

In the Chilean bond market, bond issuance has remained subdued. Spreads have been approaching their pre-social-crisis values, particularly those of the banking segment (figure II.5). Compared to what was observed before October 2019, the rate of return on bank and corporate bonds shows greater heterogeneity by sector and risk category. Meanwhile, in the money market, the cost of financing in pesos remains at minimum levels. As part of the management of its unconventional tools, in recent weeks the Bank increased the issuance of Discount Notes (PDBC) —whose stock has compensated the fall in time deposits—, keeping its implicit interest rates in a range between the FCIC rate (MPR) and the FPD (MPR- 25bp). The banks’ liquidity in dollars reached record highs, partly as a result of the withdrawals from pension funds, which has kept low the cost of dollar financing.

FIGURE II.5 LOCAL BOND MARKET

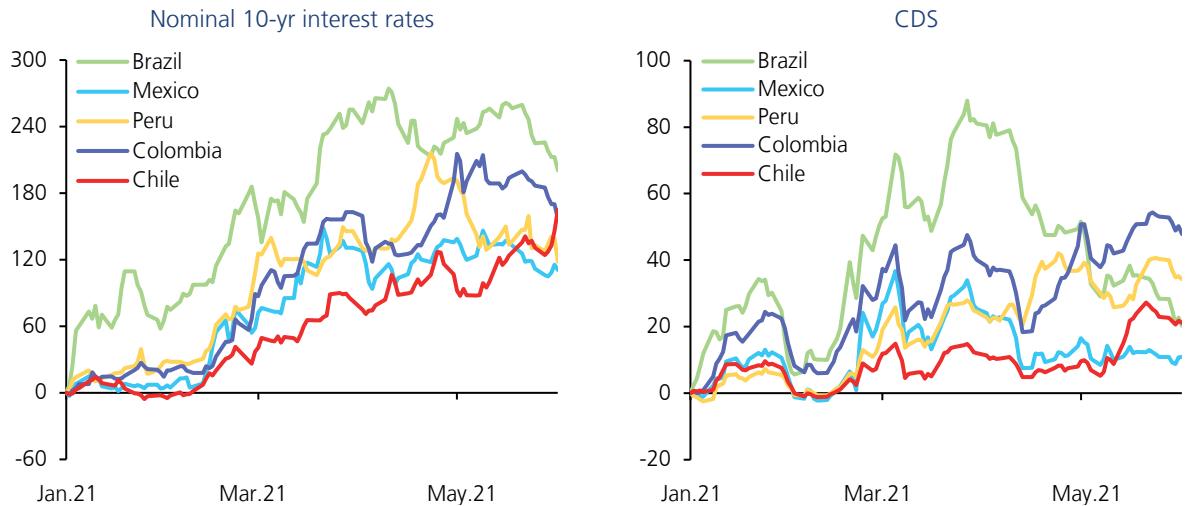


(1) Difference between the IRR of the traded bond and corresponding BCU rate over the same term. Benchmark rate updated to 3 June. (2) Excludes BB or lower risk rating. (3) May 2021 bank issuances consider data up to the 18th. Source: Central Bank of Chile based on data from the Santiago Stock Exchange and the Financial Market Commission.



The overall performance of Latin American markets also maintains discrepancies with other counterparties, amid a complex sanitary, political and social situation in the region. This has heightened the uncertainty associated with idiosyncratic elements in some countries, that are compounded with deeper macroeconomic imbalances in the wake of the pandemic and sluggish vaccination processes. So far this year, several of these economies have accumulated significant increases in spreads and interest rates, among other adjustments (figure II.6).

FIGURE II.6 LATIN AMERICAN FINANCIAL MARKETS (*)
(change with respect to 4 Jan 2021, basis points)



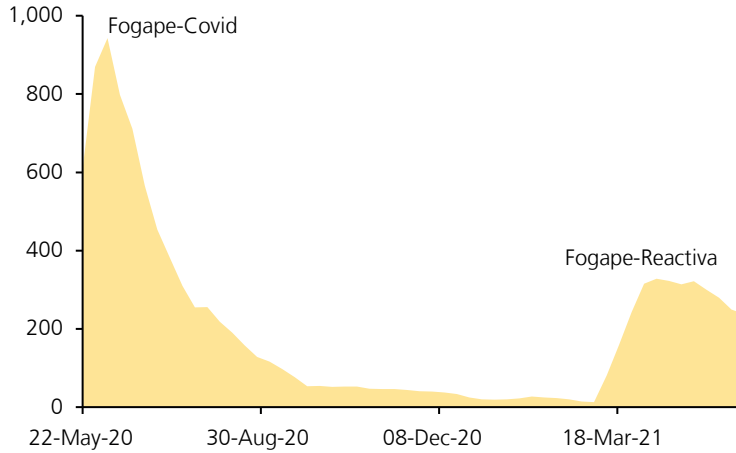
(*) Data up to 4 June 2021.
Sources: Central Bank of Chile and Bloomberg.

EVOLUTION OF BANKING CREDIT AND MONETARY AGGREGATES

In the commercial portfolio, the flows associated with Fogape-Reactiva have remained dynamic in recent months (figure II.7). At the statistical cutoff, this program accumulated disbursements for nearly US\$ 5.5 billion, with operations concentrating in micro and small enterprises, while, by sector, just under half has gone to commercial activities (figure II.8). In any case, real annual growth of commercial loans is in the negative (-3.3% in May). The high comparison base is relevant here, since in the same period last year cumulative liquidity and credit increased to address the pandemic. The active granting of the Fogape-Covid in the second quarter of 2020 will deepen the base effect in the calculation of future figures.

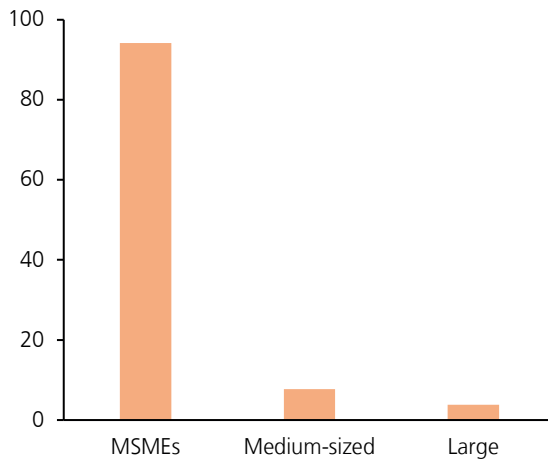


FIGURE II.7 FOGAPE CREDITS (*)
(monthly flows, billion pesos)



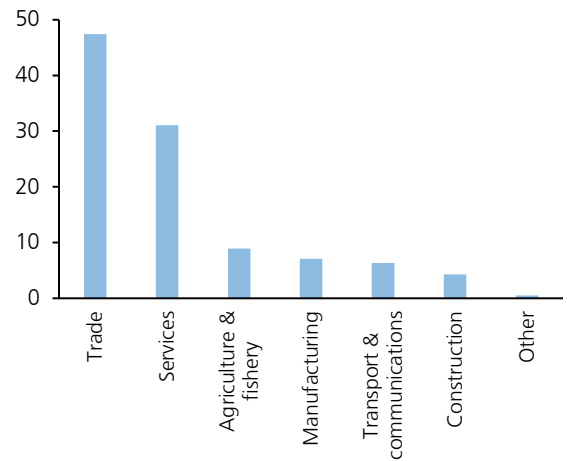
(*) Figures up to 31 May, moving four-week average. Only for the last week of the series, Fogape-Covid, data from www.fogape.cl. Sources: Financial Market Commission and www.fogape.cl.

FIGURE II.8 FOGAPE-REACTIVA (*)
(thousands of operations)
By size of enterprise



(*) Figures up to 31 May. Source: www.fogape.cl.

By economic sector

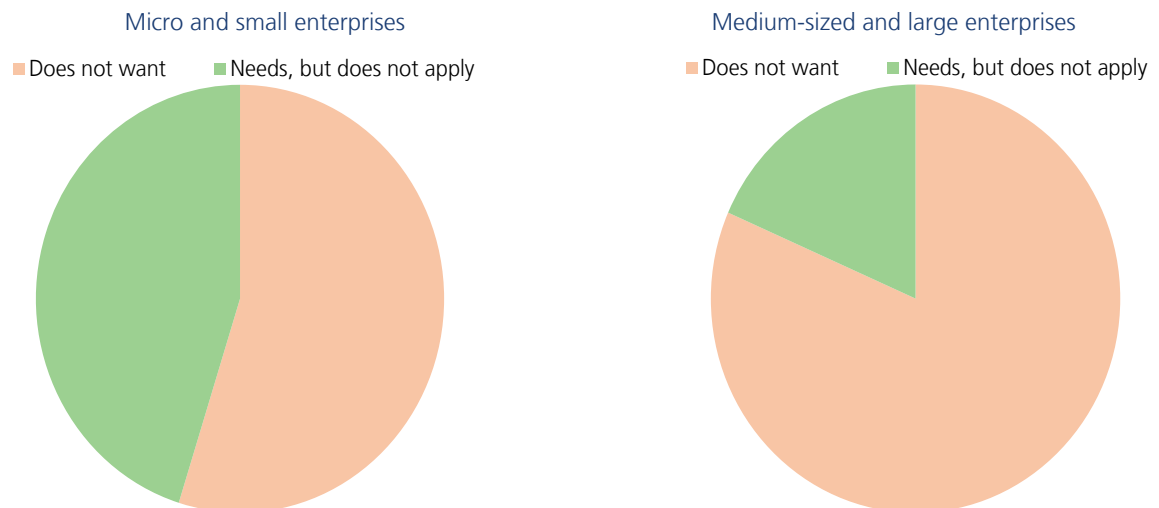




Access to bank credit varies across firms. Although the smaller firms account for most of the Fogape loans, other sources suggests that another fraction of them have not applied for new funds even though they need them (Figure II.9). Respondents to the latest [Business Perceptions Report](#) (IPN), which was published in early May, cite as their main reasons their incapacity to borrow, unfavorable lending conditions, or a heavy financial burden. A number of companies are also reluctant to acquire more commitments, among other reasons because of the high sanitary uncertainty that prevailed at the time of the IPN. In the areas most affected by the pandemic, firms are cautious in their borrowing decisions and some continue to face certain constraints, in a context in which several of them are highly leveraged ([Financial Stability Report \(FSR\) for the first half of 2021](#)). At the same time, however, the IPN also reports that credit continues to flow to those companies that do request it.

FIGURE II.9 BUSINESS PERCEPTIONS REPORT - MAY 2021

Reasons not to apply for a loan in the last three months
(percent of total responses among those who did not apply)



Source: Central Bank of Chile.

Household credit performance has not varied materially, although supply conditions are seen as more relaxed in the margin. According to the [Bank Lending Survey of the first quarter](#), a fall in the portfolio risk perception has been one of the main elements explaining this gained flexibility. Meanwhile, banking-sector respondents to the [IPN](#) also mention that portfolio purchases continue to prevail over the provision of new loans, favored by factors such as financial portability and the low level of interest rates. In this scenario, the consumer segment continues to show negative real annual growth rates (-16% in May), consistent with the implementation of the various measures to support household liquidity and the still partial recovery of employment, while mortgage loans are practically unchanged (5.1% in May).



At the same time, portfolio risk indicators remain bounded, with the fall in corporate and household credit standing out. On the corporate side, the greater credit utilization of the first stages of the pandemic has been reversing, often taken for precautionary purposes. The leverage of small and medium-sized enterprises has also tended to moderate, amid a gradual recovery of sales. In the personal segment, some of the pension-funds withdrawn has been channeled to debt repayment. Both segments also saw an active policy of loan renegotiations over the course of last year. All these elements, plus the employment-support programs and direct transfers programs have played a part in keeping default indexes contained for all the segments.

The strong monetary impulse in place continues to favor low interest rates for all the portfolios. Consumer and commercial recorded declines since the March Report, to 18.1% and 4.8% annually in pesos in May, respectively. Housing showed no big change, at 2.4% annually in UFs in May.

About monetary aggregates, M1 growth continues to be driven by the agents' liquidity-support measures. The third withdrawal has had a significant impact on cash in circulation and sight- and current-account balances, as did withdrawals one and two. Meanwhile, the Central Bank of Chile again made available some tools to accommodate the money supply to these requirements. In May, M1 (nominal average) posted annual expansion of 56% (45% in April).

MONETARY POLICY AND RISKS

The Board has kept the MPR at its technical minimum (0.5%), and the [unconventional programs](#) recently ended in accordance with the established terms and amounts. In the first days of June, the reinvestment period of bank bond coupons concluded, the stock of which will gradually diminish as the assets in the portfolio mature. In turn, the use of the phase three of the FCIC was completed (around 15% at the close of the March Report).

After the approval of the third withdrawal of pension savings, [new measures](#) were adopted, directed at safeguarding financial stability. These aim to contain the volatility that could be generated in the markets due to the portfolio adjustments of pension funds and insurance companies in the asset liquidation process. This includes the reopening of the Cash Purchase and Forward Sale (CC-VP) for the remainder of the program, whose use has been significant (current stock of around US\$6.8 billion).

Financial conditions remain favorable both internationally and locally. However, the risks on this front have been gaining relevance, particularly due to the continued rise in the valuation of global equity assets and doubts about inflationary pressures in the U.S. Even though the sanitary emergency is far from over, the agents' adaptation to the new operating conditions and the advances in the vaccination processes have allowed the recovery of the different economies to go on. This has led to a higher valuation of some riskier assets, with an abrupt correction being a latent threat. The momentum of monetary and fiscal policies has supported the rebound, whose pace and timing of extinction continue to pose great challenges not only in economic terms, but also for the development of financial conditions. In the United States, the strong fiscal packages have given rise to concerns about inflation and certain episodes of volatility in long-term interest rates. This, amid cost pressures that have risen dramatically in various regions of the world, and which could spill over to other economies, particularly damaging financing conditions in those whose recovery has lagged the most or have deeper macroeconomic imbalances. At home, the participation of institutional investors in the financial market has decreased as a result of the pension fund withdrawals. This reduces the capacity for resource intermediation in the economy, affecting its long-term development ([FSR](#)).

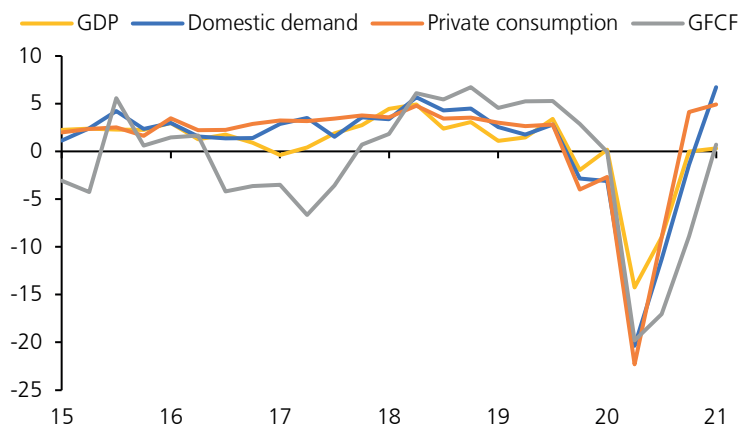


III. ACTIVITY AND DEMAND

In the first four months of the year, the economy performed well above expectations, reflecting a reduced effect of the sanitary restrictions. Private consumption continued to be driven by pension savings withdrawals and fiscal transfers. Investment brought a positive surprise, particularly in the machinery and equipment component. Despite these many positive signs, the successive resurgence of infections, the application of new quarantines, the significant lag in some economic sectors and in part of the labor market, and the persistence of high uncertainty have worsened the general economic perception. Actually, local financial markets have been reflecting this outlook, decoupling from trends of the rest of the world (chapter II). In the meantime, major extensions of tax benefits for households and small businesses have been announced, which, together with improved performance, lead to a significant increase in expected growth for this year compared to March, prompting an earlier-than-expected closing of the activity gap.

Between January and April, the national economy performed better than expected. By sectors, the dynamism of trade and the growth of industry continue to stand out, while some of the services sectors have not yet fully recovered. From the point of view of domestic demand, private consumption of goods showed significant expansion rates above the levels of previous years, with spending on durable goods in the first quarter approaching 50% annually. The increase in liquidity caused by the first two withdrawals of pension savings, the fiscal transfers and the greater freedom of mobility during the summer months were decisive in this result. Gross fixed capital formation (GFCF) also improved with respect to the end of 2020, thanks to the rebound in the machinery and equipment component (figure III.1).

FIGURE III.1 GROSS DOMESTIC PRODUCT AND DOMESTIC DEMAND
(annual change, percent)

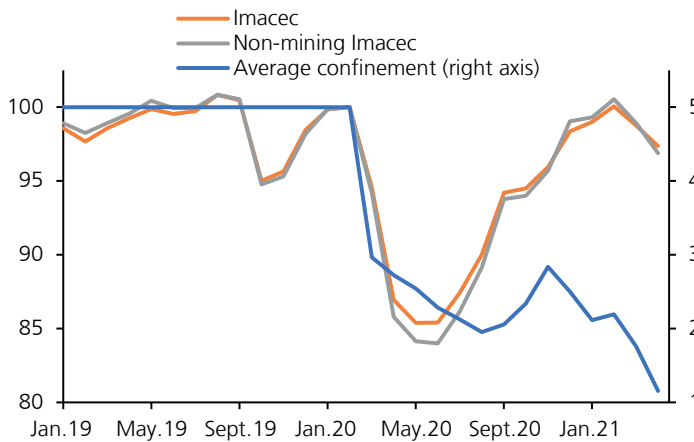


Source: Central Bank of Chile.



The results of March and April stand out, showing a notoriously milder than expected impact of the stricter quarantines. Since early March, the number of communes in phase 1 and phase 2 of the Step-by-Step plan escalated significantly. Thus, the percentage of the national population under total or week-end quarantine went from 54% at the beginning of March to 98% in mid-April. The projections included in the last Report assumed that the stricter sanitary restrictions would cause a significant drop in activity in March and April, though not as bad as the drop observed a year before (Box III.1). The magnitude of the decline in activity in March and April (-1.3% and -1.4% in the seasonally-adjusted series, respectively) was lower than anticipated and about one-fifth of the figures seen at the beginning of the pandemic. This result reaffirms the fact that the economic effects of this type of measures are less severe than at the pandemic's onset (figure III.2 and table III.1).

FIGURE III.2 POPULATION BY PHASE OF STEP-BY-STEP PLAN AND IMACEC (*)
(seasonally-adjusted series; index, Feb.20=100; phase)



(*) Average confinement is calculated by weighting each phase by number of population confined. A lower number means more restrictions to mobility and gathering.

Sources: Central Bank of Chile, National Statistics Institute, and Health Ministry of Chile.

TABLE III.1 EVOLUTION OF QUARANTINED POPULATION, MOBILITY AND ACTIVITY
(percent)

	mar.20	apr.20	may.20	mar.21	apr.21	may.21
Quarantined population (1)	2.0	15.4	32.9	36.1	87.0	50.3
Google Mobility (2)	-12.6	-50.6	-48.6	-25.4	-38.7	-25.1
Non-mining Imacec (3)	-5.7	-14.1	-15.7	-1.0	-3.0	-

(1) Monthly average. Quarantines began on 26 March 2020. As from the start of the Step-by-Step plan, people in phase 1 are considered. (2) Monthly average. Difference with respect to January 2020. Data up to 23 May. Simple average of workplaces, retail, and supermarkets. (3) Difference with respect to January 2020. Seasonally-adjusted series.

Sources: Central Bank of Chile, Google and Health Ministry of Chile.

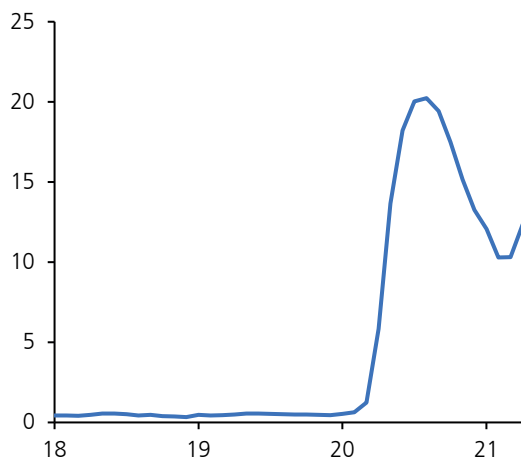
The better adaptation of companies and individuals to the demands of social distancing has been a key factor in the improved performance of the economy, a phenomenon that has been present in several countries. The better performance observed in recent months is only partly explained by a smaller drop in mobility—around 50% in March-April 2020, on average, compared to 32% in the same months of 2021 (table III.1)—, and would mainly reflect the better adaptation of various sectors to operate under restrictions. In addition to work



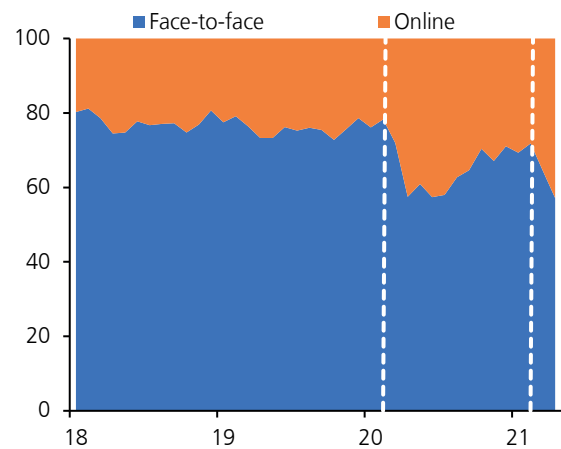
permits for commuting and the implementation of sanitary protocols in the workplace, the most used forms of accommodation have to do with the adoption of technologies that make it possible to keep complying while avoiding human contact; basically, teleworking and online shopping (figure III.3). Data obtained from the INE Employment Survey show that the percentage of salaried workers working from home went from less than 1% before the pandemic to around 12% at present, having peaked at over 20% in mid-2020. Information from Transbank reveals that the online sales channel has replaced a large part of face-to-face sales in the months of toughest restrictions, reaching a 40% share of retail sales in April this year, almost double what it was in February of last year. The international scenario shows the same trends, with important increases in teleworking and online sales during 2020 in the United States, the United Kingdom and the Eurozone, among others. However, there has been some decline in telework in recent months in countries that have been easing their sanitary restrictions.

FIGURE III.3 ADAPTATION MEASURES

Work from home
(percent of total salaried workers)



Face-to-face and remote sales (*)
(percent of sales via Transbank)

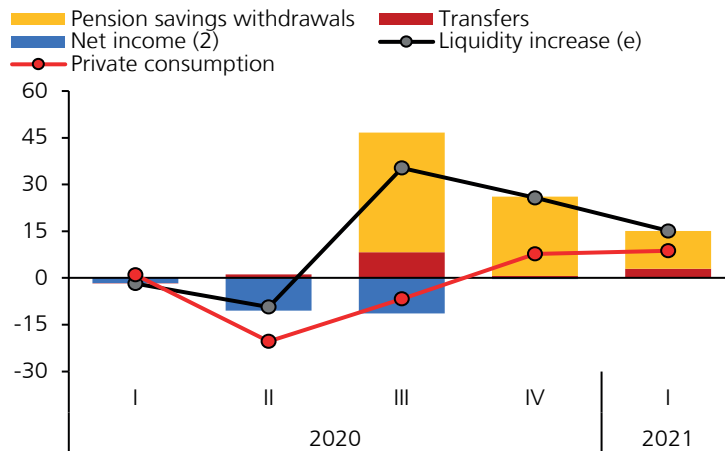


(*) Left vertical line indicates arrival of pandemic in Chile. Right vertical line indicates tightening of quarantines in March 2021. Sources: National Statistics Institute and Transbank.

The boost from private consumption has also played a relevant role in the economy's recent performance, reflecting the impact of income-support measures. First-quarter data showed an increase in private consumption of almost 5% annually (4.1% in the previous quarter). At the components level, as previously noted, spending on durable goods continued to grow at very strong rates. Disaggregated data show an increase in the consumption of technological devices—cellular phones, computers and tv sets—and automobiles. Information from retail trade (IACM) and supermarket sales (ISUP) show that, in April, consumption of goods remained dynamic. Consumption of services, on the other hand, continues to show negative annual variation rates (-2.5% in the first quarter), affected by the restrictions on their operations. Thus, there was lower spending on transportation, restaurants and hotels, and cultural and leisure activities, in a context of significantly increased household liquidity, due to both a partial recovery of labor income—wage mass—and the pension fund withdrawals and fiscal transfers (figure III.4).



FIGURE III.4 LIQUIDITY INJECTIONS, INCOME, AND PRIVATE CONSUMPTION (1)
(nominal annual change, percent)



(1) Estimated increase in household liquidity in first quarter 2021 and respective contributions (i.e. net income, transfers, and two first pension fund withdrawals), based on projections consistent with this Report's central scenario. (2) Sum of work income and other income, discounting net taxes and net social security payments. Sources: Central Bank of Chile, Finance Ministry and Superintendency of Pensions.

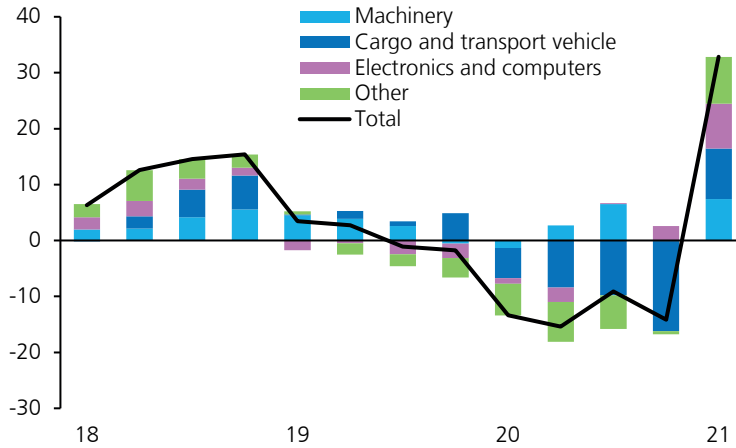
Investment regained some dynamism in the first part of the year, particularly in its machinery and equipment component. GFCF grew slightly in the first quarter (0.7% annually), with very dissimilar behavior of its components. On the one hand, machinery and equipment GFCF rose 21.5% annually, the first positive figure since the social crisis and the onset of the pandemic. These data included higher imports of cargo vehicles —trucks and vans— and computer equipment, reflecting the adaptation of companies to teleworking and online sales (figure III.5). The construction and works item, on the other hand, posted an annual drop of around 10%, as it continued to be affected by construction and engineering investment projects being postponed or slowed down due to the pandemic-related restrictions. Worth mentioning is also inventory buildup, especially of manufactured products —particularly copper— and machinery and equipment.

The evolution of durable consumption and investment in machinery and equipment was reflected in a significant increase in imports, and a reduction of the current-account surplus. Nominal imports of goods (CIF) grew 27.8% annually in the first quarter (-4.7% the previous one), scoring the first positive figure since the first quarter of 2019, and the largest magnitude in almost ten years. This result was driven by all categories, but mainly, on the consumption side, durable goods, and in capital goods, cargo vehicles and computer equipment. Exports of goods increased by 27.3% annually, mainly due to the higher price of mining products such as copper and iron. Meanwhile, the cumulative annual balance of the current account reflected a surplus equivalent to 0.9% of GDP (1.4% at the end of 2020).

Although the economy shows a significant recovery after the major shock of the pandemic, this recovery is heterogeneous across sectors and firm sizes, which is partly explained by differences in adaptive capacity. By sector, the performance of restaurants and hotels, construction and transportation has not yet returned to pre-pandemic levels, while trade and industry did so six months ago or more (figure III.6). About size, the May Business Perceptions Report (IPN) showed that smaller businesses were the most affected by the March and April quarantines, with more than half of micro and small businesses reporting that they had closed their operations, at least partially. In comparison, only one-third of medium and large companies reported the same.

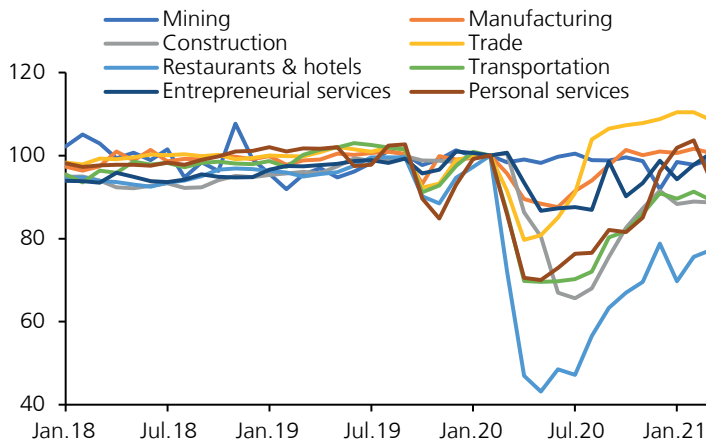


FIGURE III.5 REAL CAPITAL IMPORTS (*)
(annual change, percent; contributions)



(*) Deflated by quarterly capital price index.
Source: Central Bank of Chile.

FIGURE III.6 IMACEC BY SECTORS
(seasonally-adjusted; index, Feb.20=100)

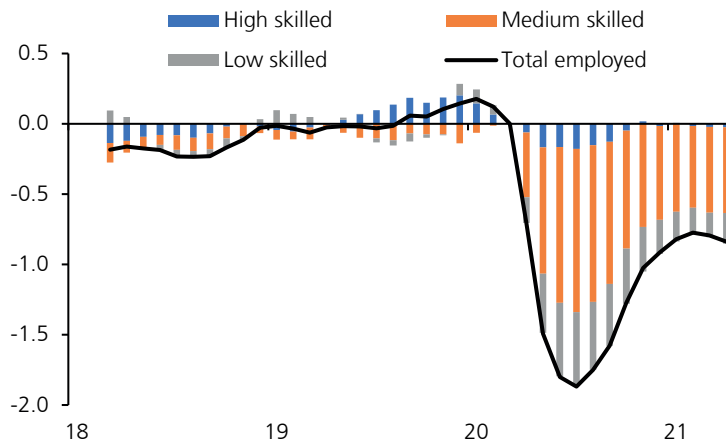


Source: Central Bank of Chile.

In the labor market, differences in the impact of the pandemic and its subsequent recovery are also evident across firm sizes and skill levels. The smallest firms show the sharpest declines in salaried employment and the smallest increases in the use of work from home. By type of employment, the fall in private salaried employment is explained exclusively by medium- and low-skill jobs (figure III.7). Women have also been more affected by the pandemic, either because their jobs frequently belong to the service sectors or because they have been unable to seek employment due to the need to devote themselves to housework (Box III.1).



FIGURE III.7 EMPLOYMENT BY SKILL LEVEL (1) (2)
(difference with respect to March 2020; millions of persons)



(1) According to ILO, the skill level is measured by considering the following aspects: (i) nature of work performed in relation with characteristic tasks and duties (ii) formal education level necessary for competent performance of the job; and (iii) amount of informal training on the job and/or previous experience in related occupation that is required for competent performance of the job (2) Data in quarterly moving averages. Sources: National Statistics Institute (INE) and International Labor Organization (ILO).

Still, the labor market as a whole has improved from its worst levels of last year, albeit with differences in magnitude depending on the different sources of information. On the one hand, the INE, the Catholic University, and the University of Chile surveys show that employment has recovered about half of what was lost during the worst days of the pandemic. On the other hand, the number of contributors to the AFP and unemployment insurance—which reflect formal salaried employment—has increased significantly with respect to mid-2020, returning to levels comparable to pre-pandemic ones (figure III.8). It is important to bear in mind that, although all the sources of information cited reflect some improvement in the labor market, their differences and implications with respect to the economic situation should be analyzed with caution, as they could reflect methodological differences in their construction.

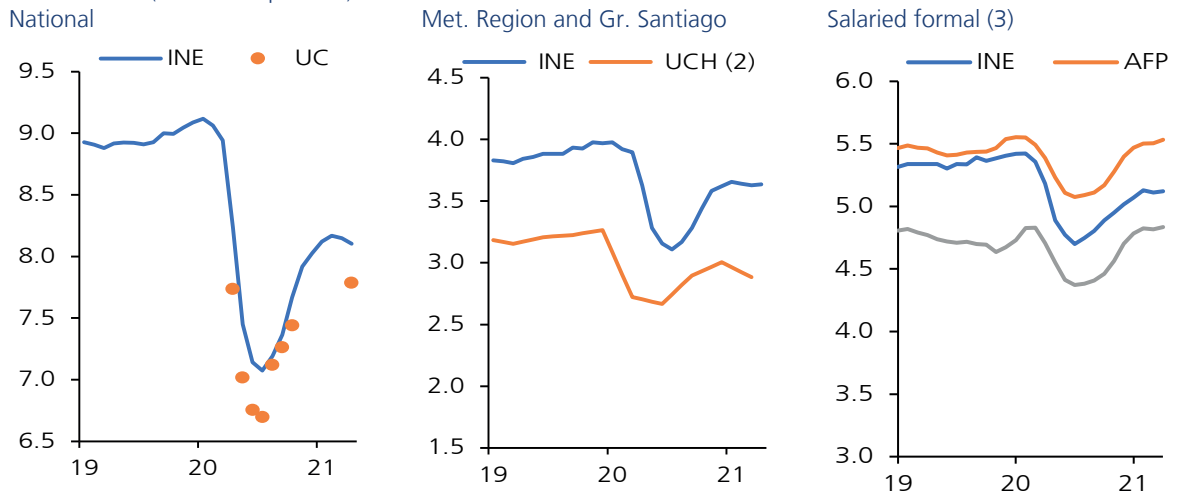
Labor demand has also recovered, in a context of still contained supply. Internet job advertisements show a significant rebound (figure III.9a). The IMCE, after some decline in April, reflects neutral expectations regarding employment in the short term in trade, industry and construction, although somewhat more positive in the latter. Meanwhile, according to the INE, labor supply has remained contained. On one hand, a labor participation rate below the figures of recent years is observed (56.9% in the moving quarter ending April 2021 versus 61.9% on average between 2010 and 2019). On the other hand, the willingness to work longer hours has declined significantly throughout the pandemic (figure III.9b). Factors such as fear of infection and family responsibilities—mainly for women—explain the greater inactivity in the labor force, in a context in which support measures have encouraged people to stay at home (Box III.1). This is consistent with the responses of IPN interviewees in May, who reported greater difficulty in hiring, especially for lower-skilled job categories, and with the recovery of real wages.

Despite the good performance of the economy, the negative evolution of infections, the persistence of quarantines, and the delays in the recovery of part of the labor market keep consumers' expectations pessimistic. The Economic Perception Index (IPEC) has remained in pessimistic territory for several quarters, albeit with a gradual reversal as of mid-2020. This process was interrupted in March and April, in a more complex sanitary context. As a matter of fact, in May, the month in which quarantines began to be lifted and new income-support



measures were paid out, consumer expectations rose. Business expectations (IMCE) have remained slightly optimistic, although with fluctuations at the sectoral level. This contrasts with high-frequency information from financial markets, including the stock market, long-term interest rates, and the nominal exchange rate, whose divergence from trends elsewhere could denote a deterioration in expectations in recent weeks.

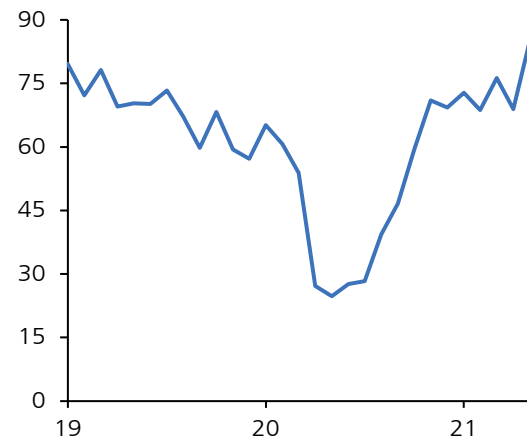
FIGURE III.8 SELECTED EMPLOYMENT INDICATORS (1)
(millions of persons)



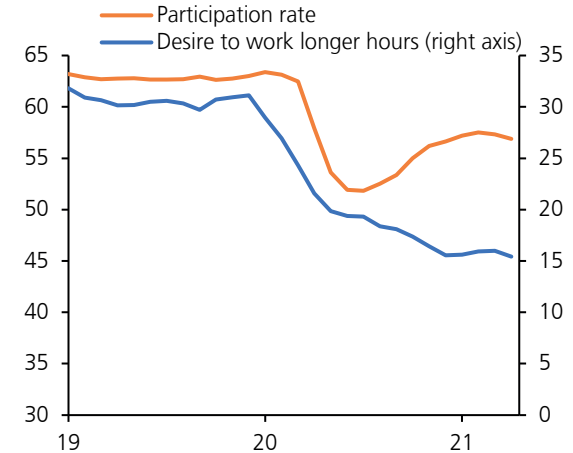
(1) INE, AFC, and AFP data in moving quarterly averages. (2) Quarterly data with monthly interpolation. (3) INE stands for salaried formal employment; AFP measures number of dependent contributors, salaried public workers, and household help whose employer made normal payments to the individual pension fund capitalization account; AFC refers to number of dependent contributors (salaried private workers) whose employer made normal payments to unemployment insurance. Sources: Catholic University Survey Center, INE, Superintendency of Pensions, and University of Chile.

FIGURE III.9 LABOR MARKET DEMAND AND SUPPLY SIGNALS

a. Job ads on Internet
(index, Jan.2015 average =100)



b. Participation rate and desire to work longer hours (*)
(percent; percent of total workforce)



(*) Moving quarterly averages.
Sources: Central Bank of Chile and National Statistics Institute (INE).



In this context of a very heterogeneous recovery, the Government has announced important extensions of tax benefits for households and small businesses. During the second quarter, a reinforcement of the middle-class bonus and the Emergency Family Income (IFE) was announced, together with a complementary bonus to the third withdrawal of pension funds for people with empty accounts. In addition, in the context of the Common Minimums Agenda, a substantial extension and expansion of transfers has just been approved, including an extension of the IFE's amount and coverage, which will reach more than 15 million people during the next four months, and subsidies and tax benefits for micro and small businesses are also under discussion. The sum of these initiatives will bring fiscal spending growth to around 25% nominal in 2021, which compares to the 5% considered in the March Report. This will lead to a significant overshoot of the structural deficit programmed for the year, which the government would formalize by invoking an "escape clause" of the committed fiscal targets. Although new official projections are not yet available, it seems clear that, despite the improved outlook for activity, this year's fiscal impulse will not only exceed the forecast, but will be significantly higher than it was in 2020.

The improved performance of the economy in the first four months of the year and, above all, the greater boost to consumption from the massive liquidity injection measures, mean that the growth forecast for this year is significantly increased from March. In the central scenario, GDP will increase between 8.5% and 9.5% this year (between 6% and 7% in March), leading the projected activity gap to close earlier than expected and to be positive for some quarters (chapter V). About two thirds of the difference with the March forecast is explained by the accumulation of spending stimulus measures, and the other third, mainly due to the better start of the year and adaptation of the economy. Regarding demand, the central scenario considers that in the short term, the massive fiscal transfers and the third withdrawal of pension savings will maintain the strong impulse to private consumption, which will expand by around 15% during 2021. Investment, in turn, will grow 11.4% annually in this scenario, while total exports will grow by slightly more than 1%. Thus, a recovery scenario clearly biased towards consumption is emerging, which, if maintained or deepened with more pro-cyclical policies, could incubate larger macroeconomic imbalances, a risk that should be duly monitored. Finally, it is important to stress that these projections continue to assume that the population will be growingly deconfined during the second half of the year and that other social distancing measures will be relaxed, as the goals of the vaccination process are achieved. However, in the most recent period, infections have soared and quarantines have been reimposed in several communes. If this intensifies, the opening could be slower, delaying the closing of the activity gap, requiring the current expansionary monetary policy to be maintained for some more time.



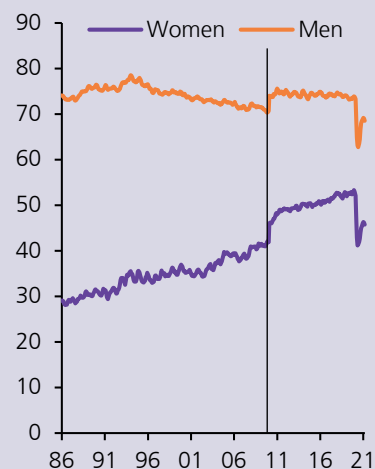
BOX III.1:

Impact of the pandemic on the female labor market

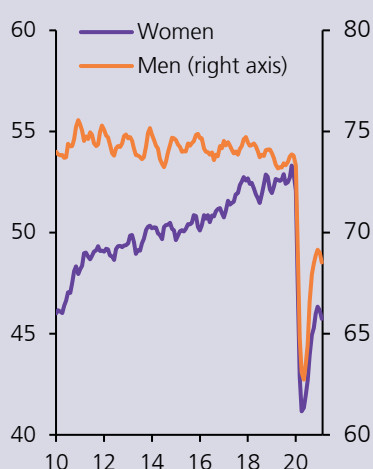
More than a year into the Covid-19 crisis, the adaptation of individuals and businesses, together with the strong impulse of public policies, has allowed the economy to rebound, although this has not been the case with equal intensity for all economic agents. The data show differences in activity levels across sectors and firm sizes. The same is true across types of workers, depending on what sector they work in and how skilled they are for their jobs. Moreover, the effects is differentiated by gender, with women being more penalized than men. Until the pandemic outbreak, female labor force participation had been growing for at least three decades, in a context of stagnant and slightly decreasing male participation (figure III.10). However, the pandemic reversed the gains in female participation of recent years. The magnitude of women's exit from the labor force is evident in the fact that during the second and third quarters of 2020, the female unemployment rate fell below the male rate, reversing the historical trend.

FIGURE III.10

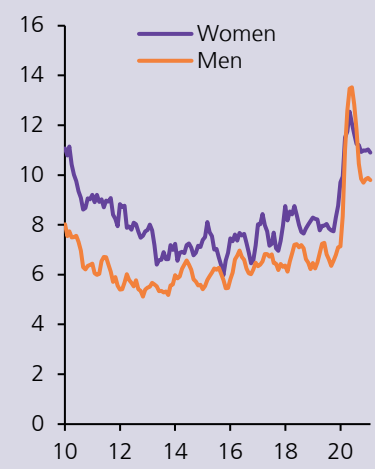
HISTORIC PARTICIPATION RATE
(1986-2021) (*)
(percent)



PARTICIPATION RATE
(2010 – 2021)
(percent)



UNEMPLOYMENT RATE
(2010 – 2021)
(percent)



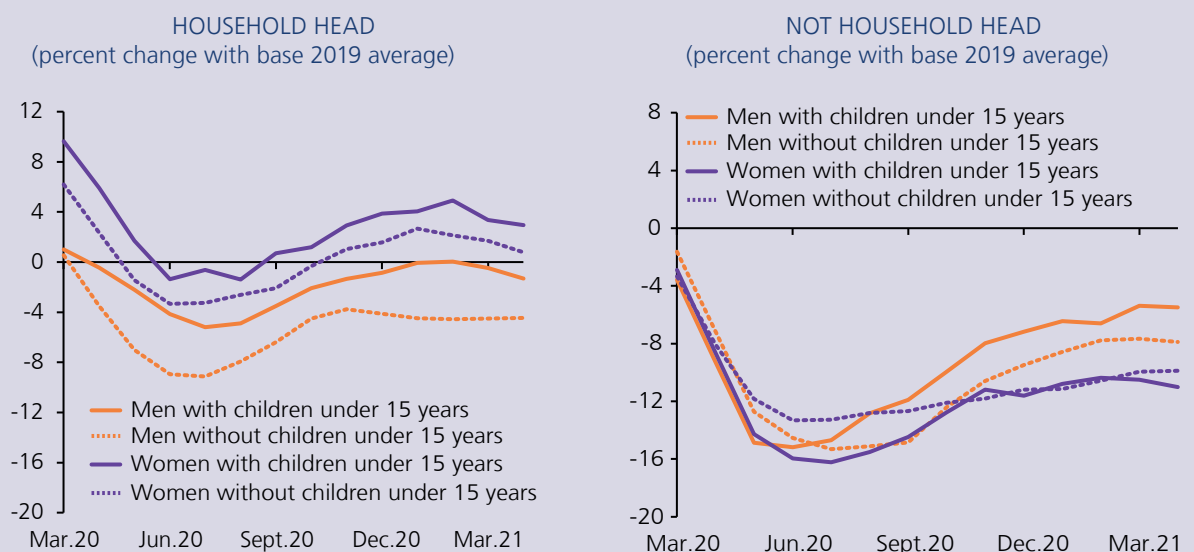
(*) Non-spliced series. Vertical dotted line shows break in the series due to methodological changes.
Source: National Statistics Institute (INE).



This box examines the transmission channels through which the pandemic has affected female labor market trends. On the labor demand side, the fall in employment has been particularly sharp in activities requiring high social contact, such as retail and services, all of which are intensive in employing women. Although some of these sectors have already recovered or even outperformed their pre-pandemic activity levels, the same has not been true for employment, as in the case of retail. On the supply side, female participation has been affected by women’s need to devote more time to caring for their families. According to the 2015 National Time Use Survey, the time spent by women in household and care-giving tasks corresponds to an average of 5.6 hours per day, more than double the time spent by men (2.6 hours). The pandemic has generated an increase in this burden without improving the distribution of work between women and men. Actually, in the Covid Social Survey, 81% of households reported that the division of household chores performed by men and women had not changed because of the pandemic. Thus, if before the pandemic the value of unpaid work in the home was estimated to be close to 21% of GDP —about two thirds of which was done by women— preliminary estimates indicate that, by 2020, this would have increased to 26% of GDP^{1/}.

The role of household head and the presence of minors in the home determine the labor force status of individuals. In general, the initial impact of the pandemic was much more pronounced on the participation of women and men who were not the heads of the households, as such role is closely linked to that of the main economic provider. In the case of men, the presence of minors in the household positively affects their participation in the labor market, irrespective of their status as heads of household. Conversely, in the case of women who are not the head of the household, the presence of minors negatively affects their participation, because they often have to dedicate themselves to their care. However, among female that are heads of household, the opposite effect is seen (figure III.11), as most female-headed households tend to be single-parent ones, where the woman is the sole economic provider, and is therefore exposed to the double burden of stretching her time between work and home.

FIGURE III.11 CHANGE IN PARTICIPATION ACCORDING TO PRESENCE OF CHILDREN IN THE HOME



Source: National Statistics Institute (INE).

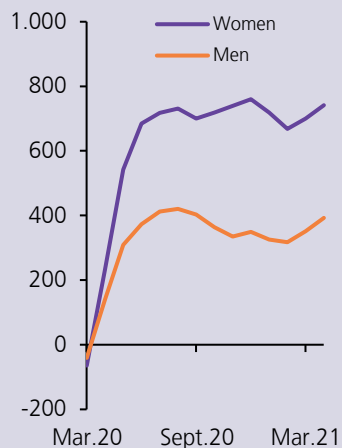
^{1/} Estimating Non-remunerated Household Work, 2020, Statistics Division, Central Bank of Chile.



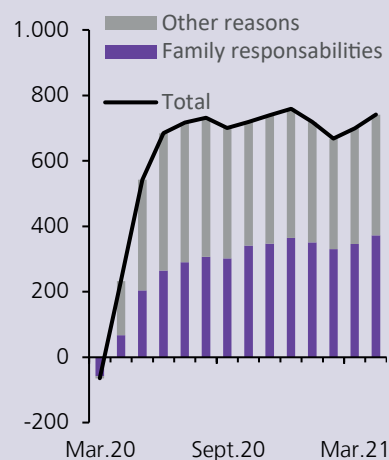
Persistent declines in participation rates harbor the risk of capacity losses in the labor market. The analysis of people outside the labor force can be broken down into two groups. The first are the so-called potentially active inactive, i.e., those who are not participating, but are willing to work or are looking for a job. This group showed a considerable increase during the first six months of the pandemic, which has then been reversing. The other group are the regularly inactive, where the exit from the labor force is of a more permanent nature. This group also shows an increase in the last year, which is greater in the case of women and where the reasons of family responsibilities play a very important role, which is not the case for men (figure III.12). The trend growth estimate considered in this Report assumes that female participation will return to pre-pandemic levels and will follow a trajectory of convergence towards the figures observed in OECD countries. However, there is the risk of a prolongation of the conditions imposed by the pandemic that could lead to a permanent exit of some women from the labor force, due, among other reasons, to the obsolescence of their skills, which would result from longer-lasting unemployment.

FIGURE III.12
REGULARLY INACTIVE BY GENDER

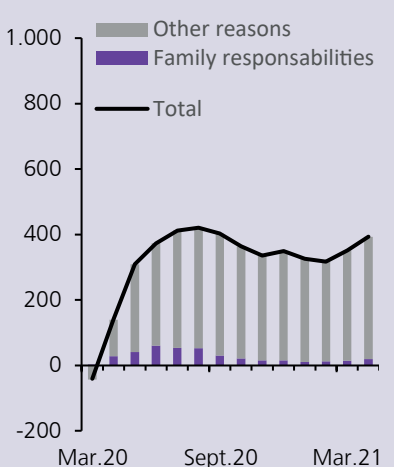
(difference w/r to Feb.20, thousands)



WOMEN'S REASONS
FOR REGULAR INACTIVITY
(difference w/r to Feb.20, thousands)



MEN'S REASONS
FOR REGULAR INACTIVITY
(difference w/r to Feb.20, thousands)



Source: National Statistics Institute (INE).

The analysis of the international economies shows that the sharp drop in women's labor participation is not exclusive to Chile, but has occurred on a global scale, affecting developed, emerging and less developed countries alike ^{2/}. One of the reasons for this has to do with the closure of educational centers, transferring all caregiving functions to the home. A second reason is that the pandemic has had a greater impact on the sectors requiring high social interaction, which are usually intensive in the employment of women and lower-skilled young people. On the other hand, the effects of the pandemic on the female labor market have increased the risk of automation, as many companies in Chile and the world have adjusted, or are in the process of adjusting, their operating models^{3/}.

^{2/} See, for example, the most recent report by the International Labor Organization (2021) for a global analysis, and Albanesi and Kim (2021) for a U.S.-specific analysis.

^{3/} IMF (WEO, April 2021).



Quantitative analysis of possible scarring of the female workforce

In order to assess the risks involved in the recovery of the female participation rate, a qualitative study was conducted in May 2021 based on interviews to women who lost their jobs during the last 14 months and live with people in need of care^{4/}. The purpose of the study was to try to understand the relationship of these women with the labor market, their role in caring for family members and how this influences their expectations of being reinserted into the labor market. Because this study is not based on surveys or statistical information, it is not intended to estimate the prevalence of women who will return to the labor force once the pandemic is over. Rather, it attempts to describe the types of situations to which women who have had to leave the labor force are exposed, and what conditions might determine their expectations for re-entering the labor force.

Consistent with the information on the reasons for women leaving the labor force, the interviews confirm that family responsibilities do affect the search for work. In fact, almost all the women stated that, since the pandemic has made it impossible for people outside the family nucleus to help with caregiving duties, they are the ones who must perform these tasks.

Many of the women interviewed reported that taking on caregiving tasks has given them satisfaction, since they have been able to dedicate more time to those they care for and, in the cases of women with small children, it has been fundamental in supporting remote education. However, in general, the importance of being able to reconcile caregiving with employment is emphasized. Three groups can be identified when looking at expectations about returning to the labor market. In the first group, there are those who expect to be fully reintegrated in conditions similar to their pre-pandemic jobs, either because of economic necessity or because they were satisfied with their previous employment situation and wish to go back to work as soon as possible.

“Yes [I think I will get back to work], because it's my emotional need. It has to do with my personal and professional development that has been put on hold, I am f-r-u-s-t-r-a-t-e-d,' I mean I love, I ADORE my kids, but one thing does not eliminate the other (laughs) 'cause I... I am no longer happy staying at home. I need to use my brain, do something else” (30-to-45 years old, college educated).

The second group—the majority— includes those who wish to be employed, but with a lighter workload that allows them to balance their occupation with caregiving. In any case, there are some difficulties among this group, for example, that reinsertion may be conditional on the pay, since they require a level of income that allows them to outsource part of the care they are currently providing. Although online work emerges as a viable option, this is not a widespread alternative, especially in certain occupations. Moreover, in the absence of a clear delimitation between the teleworking day and the fulfillment of domestic and care work, the burden or stress for women could be even heavier than with a face-to-face job. This is especially complex in the case of mothers of young children.

^{4/} This box presents a summary of the main findings. For more detail on the methodology, an interview guideline, and results, see Muñoz, Pérez, and Zapata (2021).



“

“Once the pandemic is over, when normality returns, I have to look for a paid job again, but I think that there, in that case, it is starting from zero. I don’t know if I am going to look for a position like the one I had, with the salary I had, and with the time I was giving. I think I am going to look for a position that allows me to do both things and not in a mediocre way (...) Even if it means that the wallet is a little lighter” (30-to-45 years old, high-school educated).

”

Finally, the third group is concentrated in older women, and is composed of those who will probably not re-enter the labor force. In addition to the difficulties mentioned above, there is the importance attributed to the caregiving role assumed during the pandemic and the lack of support networks. In a number of cases, this is related to a certain economic slack that allows them to adjust their expenses accordingly.

“

“Why would I go back to work? I mean, I don’t know, if there is no food on the table, if there is not enough to pay for basic needs, I would be forced to, but as long as that is covered, I feel that for me and for many women, the work situation was like a final departure” (30-to-45 years old, college educated).

”

Conclusions

Despite the difficulties in determining the ultimate impact of the pandemic women’s work, all indications are that the participation rate will recover over time. However, there is the possibility that, as the economy opens up, forms of underutilization of the labor force will persist. The interviews conducted point to the existence of three distinct groups among women who have had to leave the labor force to devote themselves to care tasks, defined by their expectations with respect to the link they will have with the labor market in the future. Knowing the prevalence of each of these groups is beyond the scope of this box, but it is possible to identify the risks associated with the preponderance of each of them.

The first two groups will contribute to the recovery of participation rates. However, if the second group prevails, more forms of labor force underutilization may be seen in the future; for example, in a reduction in working hours, or a reconversion to less productive occupations that allow to combine care tasks and working life, such as self-employment or informality. Women in the third group will have an impact on the loss of capabilities in the labor market or, at least, will result in female participation rates recovering more slowly than expected.

The factors determining the prevalence of each group will depend not only on women’s expectations, but also on the duration of the confinement measures, the reopening of educational centers and the recovery of the most affected branches of activity that used to be intensive in female work. The trend GDP estimates contained in this Report assume that female participation rates will recover what has been lost and converge to rates comparable to OECD levels in the long term. Difficulties in the reinsertion of women into the labor force could obviously affect these estimates.



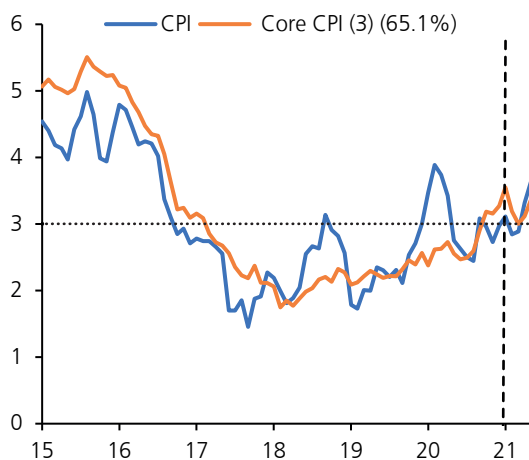
IV. PRECIOS Y COSTOS

Both headline and core inflation have increased, to close to 3.5% in May. This driven by the prices of goods and fuels. All this in a context in which the economy has performed above expectations, there have been added significant boost to domestic expenditure, inventories are yet to be fully restored, and corporate costs have remained pressured by the global increase in input prices and transportation costs. Accordingly, the central scenario considers that headline and core inflation will approach 4% annually, with headline going past that level in the short term. At the beginning of next year, inflation will begin its process of converging to the 3% target, as the extraordinary boost to expenditure dissipates and the effects of the reduction in the monetary stimulus take hold in the economy.

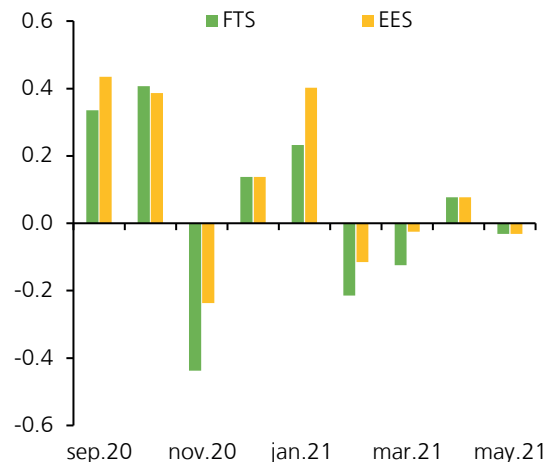
RECENT EVOLUTION OF INFLATION

Total inflation rose to 3.6% in May, driven by the prices of goods —especially core— and fuels. The former continues to be pressured by low inventories, supply problems and high demand for some products. In fuels, the increase in the price of oil and the low base of comparison of the same period last year have had a major impact. Core inflation of services, while still contained in general, show incipient increases in non-administered and non-indexed items. At the same time, food prices have reduced their contribution to inflation. In monthly terms, inflation figures have brought less surprises than they have in previous quarters (figure IV.1).

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



INFLATIONARY SURPRISES (4)
(percentage point)



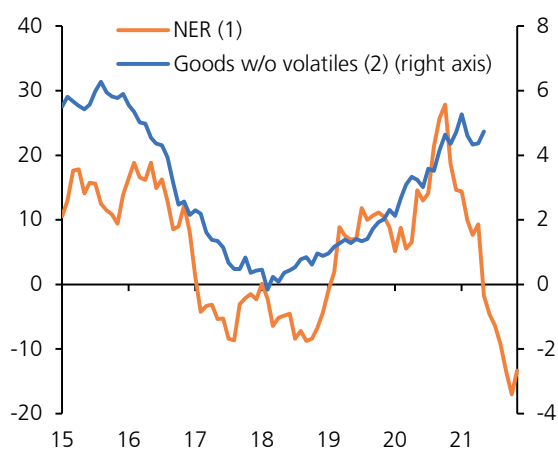
(1) Dotted vertical line indicates statistical close of March 2021 Report. (2) In parentheses, share in total CPI basket. (3) Core inflation is measured using CPI excluding volatile. For more detail, see [Box IV.1 in December 2019 Report](#) and [Carlomagno and Sansone \(2019\)](#). (4) Considers latest figure available before the publication of CPI change in respective month.

Sources: Central Bank of Chile and National Statistics Institute (INE).

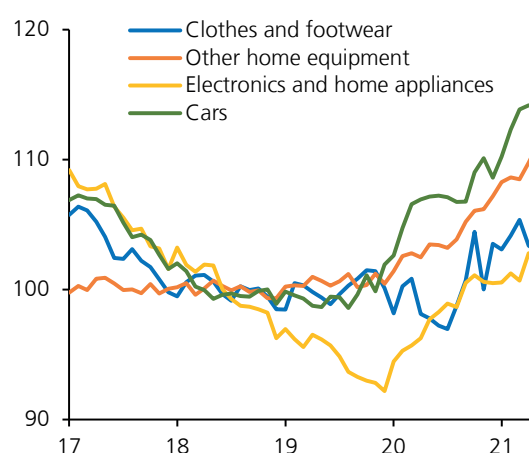


Persistently high demand, particularly for imported products, and inventory levels that continue to be perceived as tight despite the recovery of imports, have continued to pressure the prices of core goods. Thus, as of May, the annual variation of core CPI for goods reached 4.7%, noting that the prices of some of the goods affected by high demand have continued to rise in recent months. This has occurred in a context where the peso, beyond a depreciation in recent weeks, has appreciated considerably since May 2020 (13.3%), without goods inflation showing the usual correlation with this variable (figure IV.2). In this sense, the respondents to the [May Business Perceptions Report](#) (IPN) ratified what has already been mentioned in previous reports: that the fall in the exchange rate would not be reflected in their sale prices, since it would help to absorb cost increases or recover margins (figure IV.3).

FIGURE IV.2 CORE GOODS INFLATION AND NER
(annual change, percent)



GOODS AFFECTED BY HIGH DEMAND
(index 2018=100)



(1) Nominal exchange rate. Lagged six months. (2) Accounting for 26.7% of CPI basket.

Sources: Central Bank of Chile and National Statistics Institute (INE).

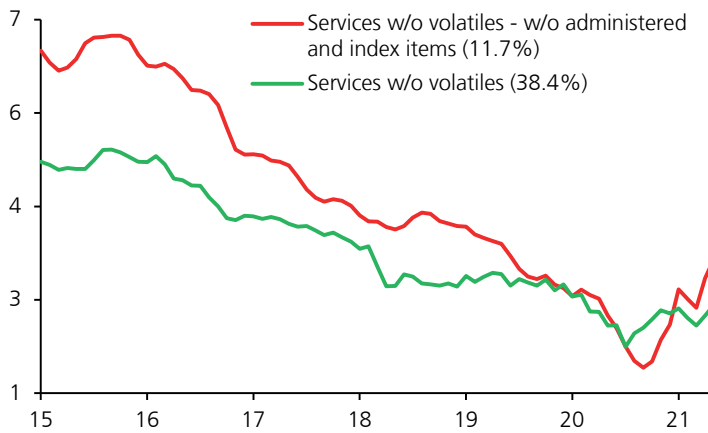
Services inflation has remained contained—somewhat above 2% annually most recently—in a context in which operating restrictions in these sectors have increased in the past few months. In any case, incipient increases can be observed in items that are neither managed nor indexed (figure IV.3). Price imputations are at somewhat lower levels than those reported by the INE at the statistical closing of the previous Report (around 23% of prices as of May) and continue to affect mainly the prices of the Restaurants and hotels and Recreation and culture categories^{1/}.

Energy prices have continued to rise, in line with the increase in global oil prices (figure IV.4). The price of an oil barrel (Brent-WTI average) has continued to rise, now standing at around US\$67 at the statistical close of this Report (+3.7% over the previous statistical close). This increase has been gradually passed through to local fuel prices, consistent with the stabilization mechanism (MEPCO). The increase in fuel CPI, combined with a low comparison base, has been the main factor behind the increase in energy prices, which have been showing positive annual variation rates since April (5.7% in May).

^{1/} See the INE's booklet [Separata Técnica Índice de Precios al Consumidor Contingencia COVID-19](#), May 2021.

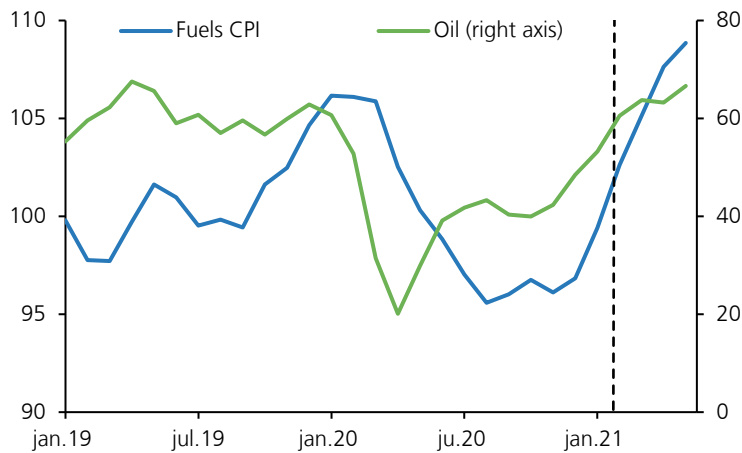


FIGURE IV.3 CORE SERVICES INFLATION (*)
(annual change, percent)



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

FIGURE IV.4 FUEL CPI AND OIL PRICE (1) (2)
(index, 2018 base =100; dollars per barrel)

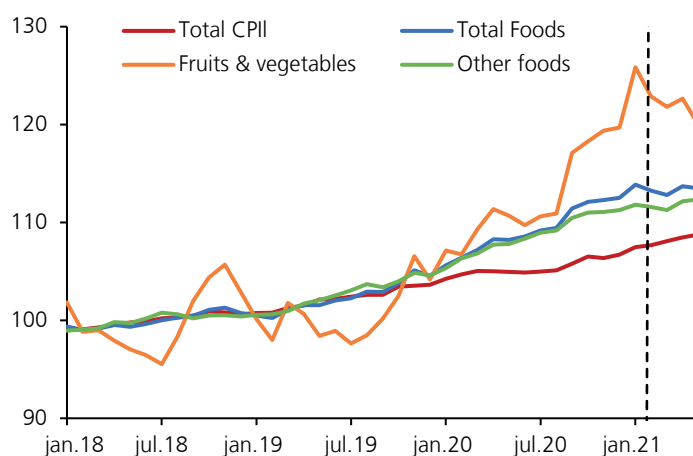


(1) Dotted vertical line shows statistical close of March 2021 MP Report. (2) Brent-WTI average price per barrel.
Sources: National Statistics Institute and Bloomberg.

Food prices have stabilized in the margin and their contribution to annual inflation has been moderating, contrasting with the rise that international indicators continue to show. Both the prices of fresh fruits and vegetables and other foodstuffs have maintained similar levels to those at the beginning of the year, growing by 4.8% annually in May on aggregate. In contrast, in other countries, food inflation has continued to rise, especially in emerging economies. In fact, the food price index (FAO) rose again in April, to annual variation rates of around 30%. This behavior has been influenced by strong demand and reduced supply, due to difficulties in harvests and/or lower production of some products, partly affected by adverse climatic factors in producing countries (figure IV.5).



FIGURE IV.5 IPC DE ALIMENTOS (*)
(index, 2018 base =100)



(*) Dotted vertical line shows statistical close of March 2021 MP Report.

Sources: Central Bank of Chile and National Statistics Institute (INE).

COSTS

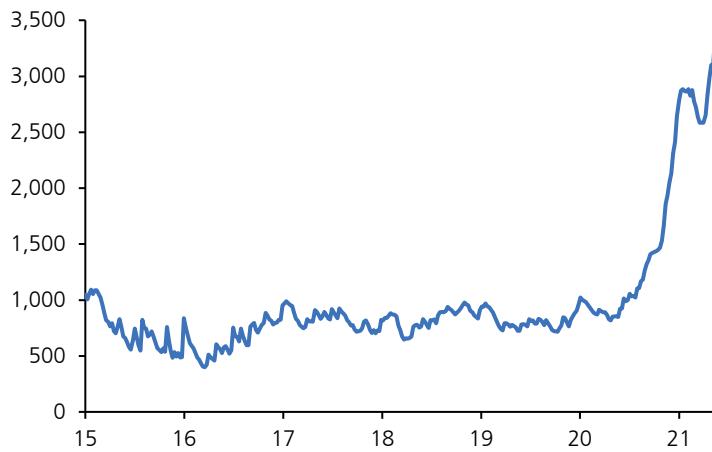
The increase in the prices of commodities and transportation worldwide has intensified the cost pressures faced by companies. The recovery of the world economy has increased the demand for inputs, causing significant price increases in wood, iron and food, among other products (figure I.6). Worth noting is also the addition of higher transportation costs, especially of maritime freight (figure IV.6). Both situations have been reflected in higher producer and consumer price indexes, which has been particularly noticeable in emerging economies, mostly Latin American. Qualitative information reported by various monetary authorities also shows increases in the prices of inputs, construction materials, agricultural produce and transportation^{2/}. Similarly, the IPN of May reported that companies perceive increases in the prices of inputs and costs of machinery, tools and technology.

Difficulties in the supply of inputs or products for sale have also been a problem for companies, which, combined with still strong demand in some sectors and for some types of goods, have kept inventory levels tight. Several respondents to the May IPN ratified this view, expressing greater concern about problems in the supply of inputs and products to sell, which had spilled over to more items. Among the main reasons, they pointed out the increase in demand favored by the increased liquidity available to some of their clients, several supply difficulties that have affected their production rhythm, and logistic problems derived from the pandemic. This is consistent with the supply chain bottlenecks also reported at the global level (figure I.8). In fact, the current inventory situation continues to be rated as insufficient by companies in trade and manufacturing (figure IV.7). Imports of consumer goods have been recovering since the middle of last year, amid wholesale and retail sales that have sustained strong dynamism (figure IV.8).

^{2/} See, for example [Agents' Summary of Business Conditions](#) of the Bank of England, [The Beige Book](#) of the U.S. Federal Reserve, [Regional Network Report](#) of the Bank of Norway and [Business Leaders Survey](#) of the New York Federal Reserve.



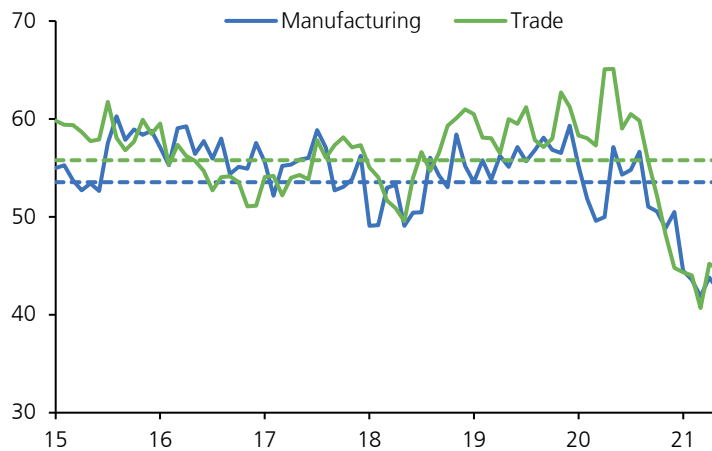
FIGURE IV.6 INTERNATIONAL COST OF MARITIME FREIGHT (*)
(dollar for a 20-foot container)



(*) Weekly data from Shanghai Containerized Freight Index that weights the prices of 15 routs from Shanghai, for a 20-foot container.

Source: Bloomberg.

FIGURE V.7 IMCE: CURRENT INVENTORY SITUATION (1) (2)
(diffusion index)

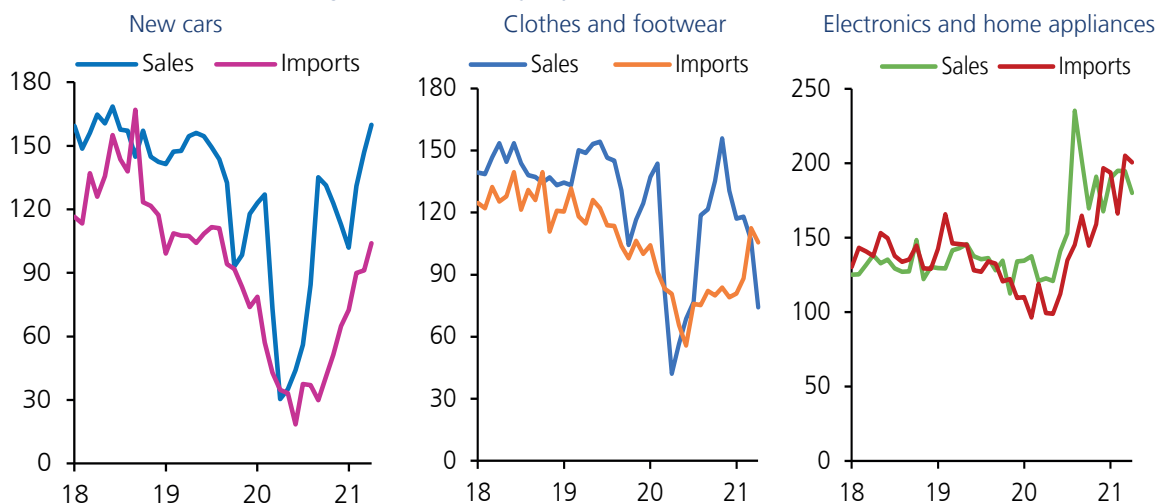


(1) Value above (below) 50 indicates perception of excessive (insufficient) inventories. (2) Dashed horizontal lines show historic averages spanning from January 2004 to May 2021 for each series.

Source: Icare/Universidad Adolfo Ibañez.



FIGURE IV.8 REAL SALES AND IMPORTS (*)
(index, 2014 average =100, seasonally-adjusted)

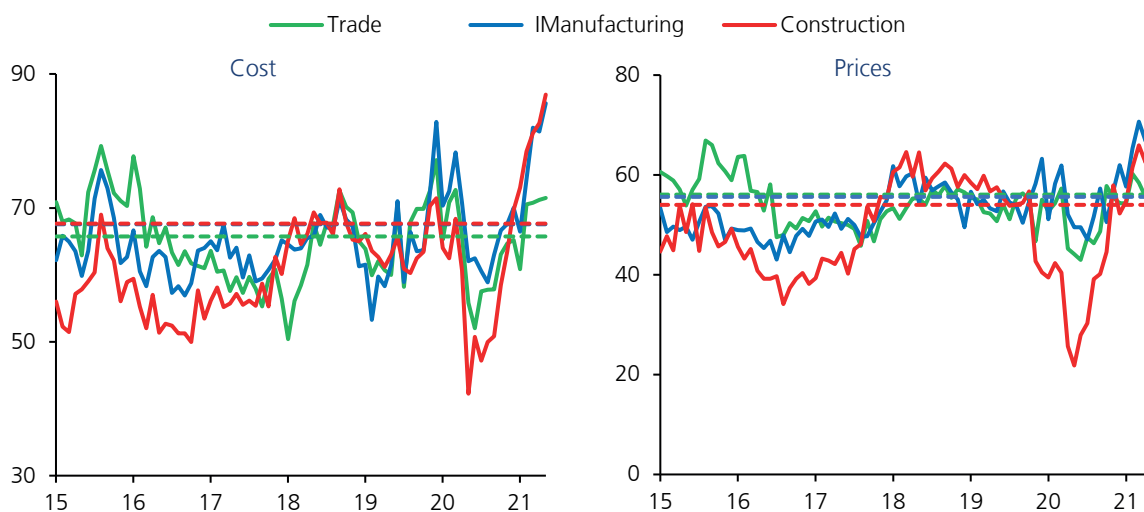


(*) Data up to April 2021. Nominal imports deflated by the CPI of new cars, clothes & footwear and electronic products (including home appliances, fax machines, audio equipment, and cell phones), as appropriate. Electronics and home appliance imports include cell phones, computers, tv sets and home appliances.
Sources: Central Bank of Chile and National Statistics Institute (INE).

Expectations are that these cost pressures will continue, but their pass-through to prices will be mixed.

Several respondents to the May IPN commented that the higher cost pressures have led them to raise their selling prices. However, the pass-through has been heterogeneous across sectors, as some manufacturing industries, construction and mining sectors have been able to pass them through or plan to do so soon, while in the sectors most affected by the pandemic, the magnitude of the pass-through has been smaller or they will be unable to do so. Similarly, three-month cost expectations (IMCE) continued to rise, although at a slower pace than price expectations. In any case, both are above their historical averages (figure IV.9).

FIGURE IV.9 IMCE: COST AND PRICE EXPECTATIONS (1) (2) (3)
(diffusion index, pivot 50)



(1) Value above (below) 50 indicates expected expansion (contraction). (2) Dashed horizontal lines denote historic averages since January 2004 through May 2021 for each series. (3) Expectations are for 3 months ahead.
Source: Icare/Universidad Adolfo Ibañez.



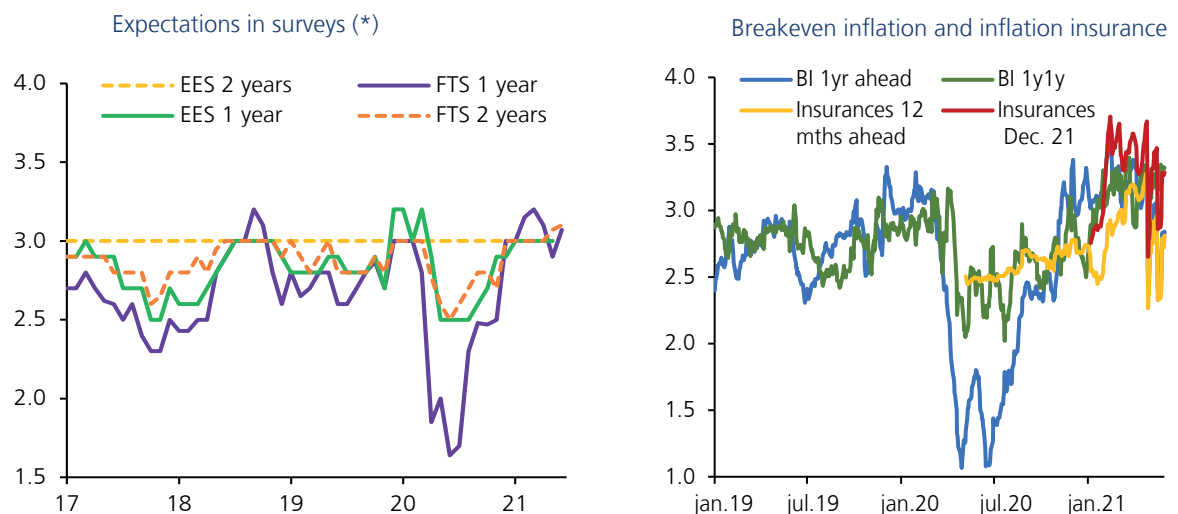
Pressures from labor costs have remained contained, beyond increases in some items. Nominal wages reported by the INE —WI and LCI— have recovered, growing at annual rates of 5.8% and 6.2% in April, respectively, which is attributed to the low comparison base. By sectors, the contribution of trade continued to stand out, in addition to the recovery of construction. A large proportion of respondents to the May IPN survey reported difficulties in finding staff, especially for lower-skilled jobs such as construction and agriculture. The outlook for six-month wages (IMCE) remains around historical averages.

INFLATION OUTLOOK

In the central scenario, greater demand and cost pressures, as well as supply difficulties, will push inflation above 4% for the remainder of the year. At the beginning of next year, it will begin its convergence process towards the 3% target. In the short term, it should be noted that the higher demand for goods and services combined with the current supply difficulties in the economy will drive up core inflation. This is taking place in a context in which the observed and expected better performance of the economy will lead the activity gap to close earlier than expected. In the case of headline inflation, the rise in fuel prices and the low comparison base will bring the annual CPI increase close to 4.5% in the coming months. Subsequently, at the turn of 2022, inflation will begin a process of convergence to the 3% target, as demand and cost pressures ease, supply problems are solved and monetary policy moderates the current stimulus.

Private inflation expectations place inflation at around 3% per year in the one and two-year terms. At one year, expected inflation in the May Economic Expectations Survey (EES) remained at 3%, while that of the Financial Traders Survey (FTS) for the first two weeks of June decreased to 3.1% (3.2% at the statistical close of the previous Report). The expectations implicit in the prices of financial assets show a decline in recent weeks, in line with the progress of the discussion on VAT rate cut for some goods and services. Two years ahead, both surveys see inflation at around 3% (figure IV.10).

FIGURE IV.10 INFLATION EXPECTATIONS
(annual change, percent)



(*) The Financial Traders Survey (FTS) considers survey of first half of each month up to January 2018. From February 2018 onwards, considers the last survey published in the month, including the one published on 3 June 2021. For those months where no survey is published, the latest survey available is used.

Sources: Central Bank of Chile, ICAP and Tradition Chile.



V. FUTURE EVOLUTION OF MONETARY POLICY

The improved performance of the economy, the significant boost to domestic demand, the imbalances in the dynamics of private expenditure and production, plus cost-push pressures, will influence the behavior of prices. More expansionary fiscal policy and highly dynamic consumption will make it less necessary for the monetary impulse to support the recovery of the economy with the current intensity, so it should gradually begin to moderate, earlier than was expected in the previous MP Report. This will help to avoid that an increase in inflation —currently around 3.5%— rises costs of living and erodes purchasing power of the households most affected by the crisis. Even so, the MPR is expected to remain below its neutral level throughout the policy horizon, sustaining a recovery process that is bound to meet with significant new challenges.

MONETARY POLICY STRATEGY

The central scenario in this Report assumes that the activity gap will close sooner than anticipated. A considerable increase in private consumption is observed and projected, fueled by the increased liquidity available as a result of the third withdrawal of pension savings and, especially, the massive fiscal transfers. The latter, in turn, contributes to an even more expansionary fiscal policy than previously expected. Thus, a recovery scenario strongly biased towards consumption is emerging, which, if maintained or even deepened with more pro-cyclical policies, could incubate larger macroeconomic imbalances, a risk that must be duly anticipated.

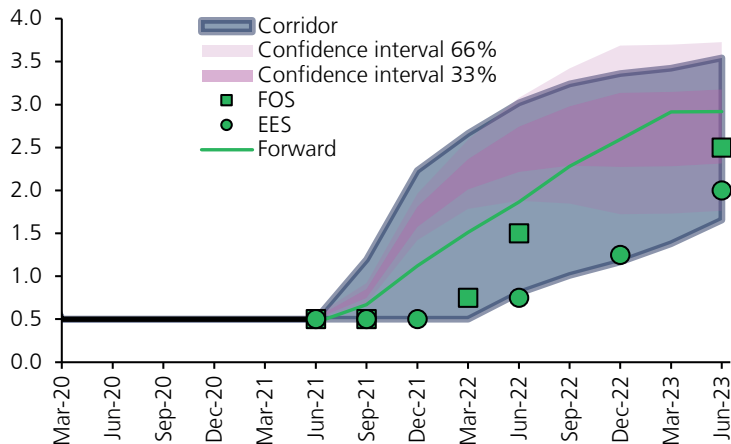
Going forward, the higher fiscal expansiveness and stronger consumption will mean that less monetary impulse will be needed to support the economy's recovery, so it should begin to moderate gradually, earlier than was foreseen in the last Report. This will help to avoid the build-up of inflationary pressures at a particularly sensitive moment in the recovery. Even in a context of gradual normalization, monetary policy will continue to accompany the upturn of the economy. Thus, starting from one of the most expansive levels compared to peer economies, in the central scenario the MPR is anticipated to remain below its neutral value throughout the two-year policy horizon.

It must be noted that in this Report the Board updated its estimate for the neutral MPR. In real terms, the estimations aggregate yields numbers in the order of 0.5%. According to the range of estimates and the uncertainty that surrounds its calculation, the Board considers that the neutral MPR lies between 3.25% and 3.75% in nominal terms, i.e., a 50 bp cut in the bounds of the range estimated until March. This partly reflects the global trend towards lower neutral interest rates observed in recent years and is consistent with the reduction in trend growth estimated for Chile. The technical minimum of the MPR remains at 0.5%, bearing in mind that the conditions that led to this level have not changed. In any case, it is important to note that the interbank rate can move within a corridor of +/-25 basis points around the MPR level. In fact, in periods of highly expansionary monetary policy, the interbank rate can be below its technical minimum, given this corridor. This has been the case last year and was too in 2009, when the MPR also stood at 0.5% and the Bank used the Term Liquidity Facility (FLAP), as a supplementary measure to the monetary policy.



As always, monetary policy implementation will be contingent on the effects of incoming information on the projected inflation dynamics. Thus, the Board considers a fan of sensitivity scenarios, which may require a monetary policy action different from the one described in the central scenario, as can be derived from the MPR corridor. In addition, it stands out that in the more positive scenario it would reach its neutral value during the second half of 2022 (figure V.1). These scenarios are reviewed in more detail 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 FOS of Jun 3, the EES of May 11 and the quarter's mean smoothed forward curve. 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.

PROJECTIONS FOR ACTIVITY AND DEMAND IN THE CENTRAL SCENARIO

In the central scenario, the economy will grow this year between 8.5% and 9.5%, considerably more than estimated in March (6 to 7%)^{1/}. For 2022 and 2023, projected growth ranges are revised downward from March. Thus, GDP will grow between 2% and 3% next year (3% to 4% in March), and between 1.75% and 2.75% in 2023 (2.5% to 3.5% in March) (table V.1).

With respect to the last Report, nearly two thirds of the difference with the March forecast for 2021 growth is explained by the accumulation of expenditure-boosting policies, and the other third mainly by the better beginning of the year and agents' adaptation. In the central scenario, private consumption will grow around 15% this year, around 3 percentage points higher than expected in March. This projection assumes that the greater fiscal transfers^{2/} and the third withdrawal of pension funds will have an impact on GDP of around 1.5 percentage point this year (figure V.2). Regarding the third withdrawal, it is expected to be spread over several quarters, so that the cumulative effect of the three withdrawals will be visible through 2022.

^{1/} This Report maintains the forecast range for the current year at one percentage point, reflecting that uncertainty is still a reality.

^{2/} This projection assumes, in the context of the Common Minimums Agenda, a substantial extension and expansion of transfers, including a increase in the Emergency Family Income, which will reach more than 15 million people over the next four months.

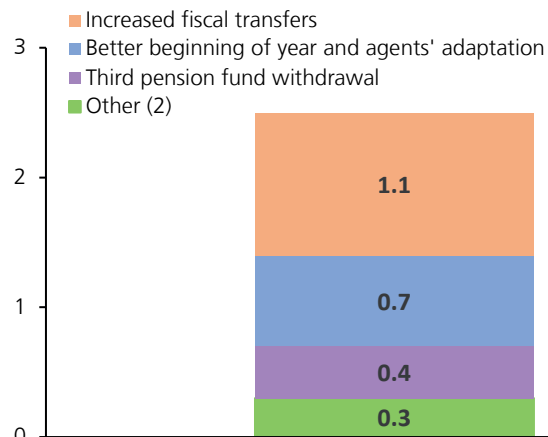


TABLE V.1 ECONOMIC GROWTH AND CURRENT ACCOUNT

	2020	2021 (f)	2022 (f)	2023 (f)
	(annual change, percent)			
GDP	-5.8	8.5-9.5	2.0-3.0	1.75-2.75
National income	-4.7	12.4	2.1	1.3
Domestic demand	-9.1	15.5	1.5	1.6
Domestic demand (w/o inventory change)	-7.9	13.3	1.7	1.4
Gross fixed capital formation	-11.5	11.4	3.2	2.0
Total consumption	-6.8	13.8	1.3	1.2
Private consumption	-7.5	15.1	1.3	1.0
Goods and services exports	-1.0	1.1	5.4	4.2
Goods and services imports	-12.7	23.2	2.7	2.5
Current account (% of GDP)	1.4	-0.8	-1.1	-1.9
Gross national saving (% of GDP)	21.2	20.0	20.1	19.8
Gross national investment (% of GDP)	19.8	20.8	21.1	21.7
GFCF (% of nominal GDP)	20.9	19.9	20.4	20.8
GFCF (% of real GDP)	20.7	21.2	21.3	21.3
	(US\$ million)			
Current account	3,370	-2,500	-3,800	-7,100
Trade balance	18,369	20,100	19,300	15,600
Exports	73,485	99,300	100,600	100,000
Imports	55,116	79,200	81,300	84,400
Services	-4,998	-6,700	-8,300	-8,900
Rent	-10,964	-17,400	-16,700	-15,700
Current transfers	963	1,500	1,900	1,900

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

FIGURE V.2 CONTRIBUTIONS TO REVISION TO 2021 GDP GROWTH 2021 (1)
(percentage points)



(1) Built using midpoint of forecast range of March and June 2021 Monetary Policy Report. (2) Includes external sector and mining.
Source: Central Bank of Chile.

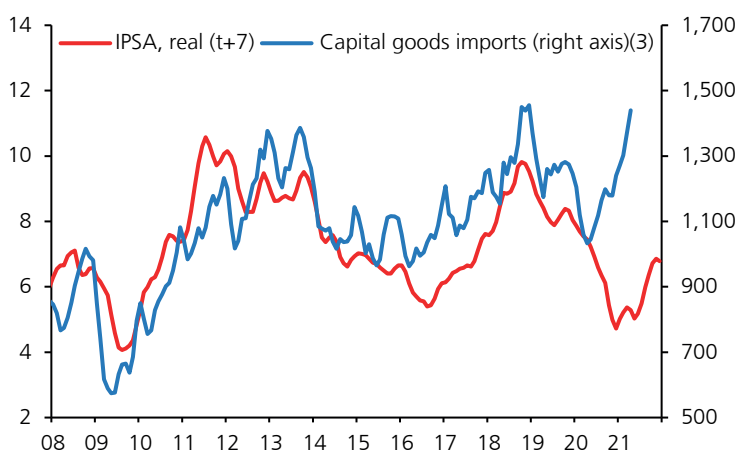


As for the better starting point left by the effective data of the first four months of the year, it is worth noting that the impact of the tightening of sanitary restrictions in March and April was much softer than estimated in the last Report. These results reflect that adaptation has been better than anticipated, thanks to the adoption of protocols and tools that make it possible to perform economic activities while avoiding human contact, as well as other adjustments in the context of the Step by Step plan. This trend, which can be observed in several economies, considers factors such as the use of e-commerce, the implementation of work from home in activities that do not require face-to-face interaction, and the adoption of sanitary protocols for those that do require it, among many others. The impulse to the demand of the public policies and the favorable financial conditions have also contributed to the better performance of the economy.

The slowdown foreseen in 2022 and 2023 responds to the higher comparison base of 2021, the gradual reduction of consumer incentives and limited investment dynamism. In the central scenario, consumption will decelerate to growth rates close to 1% in the next two years. In these figures, the high comparison base effect is even more important, given the 15% expansion of private consumption in 2021, which combines with the extinction of the massive income support measures and the gradual recovery of the labor market as the deconfinements and opening of the economy unfold.

As for gross fixed capital formation (GFCF), beyond the higher figure in the first quarter and the cyclical recovery expected for this year, prospects point to limited dynamism. On the one hand, this reflects the weakness of its construction and works component, which fell by 10% annually due to the slower pace and postponement of works in the context of the pandemic. In addition, the latest available version of the CBC's survey of large-scale investment projects shows little change in the number and volume of projects committed for the next years, and historically low entry of new projects, trends that have been present for some quarters now. On the other hand, although the machinery and equipment component of investment rose significantly in the first part of the year, the overall evolution of the stock market and imports of capital goods suggest a not-so-optimistic outlook ahead (figure V.3). Thus, and consistent with the downward correction of trend GDP, in the central scenario GFCF will grow 11.4% in 2021, 3.2% in 2022 and 2.0% in 2023 (9.2%, 4.9% and 3.3% in the March Report) (figure V.4). Thus, in 2023, GFCF will approach 20.8% of GDP in nominal terms (21.6% in the previous Report).

FIGURE V.3 CAPITAL GOODS IMPORTS AND IPSA (1) (2)
(2013 US\$ thousands; 2013 US\$ millions)

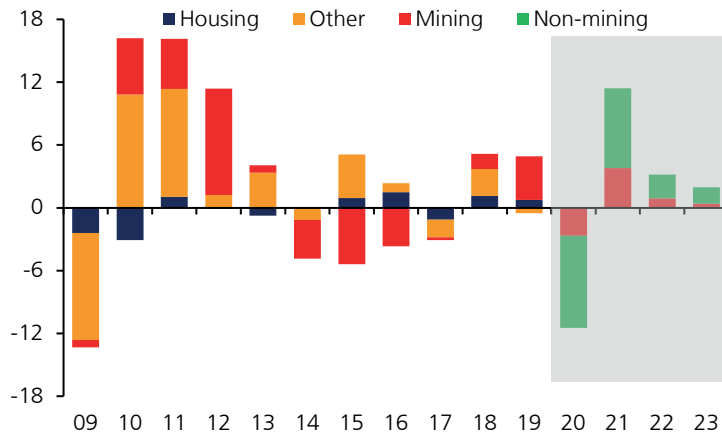


(1) Quarterly moving averages. (2) Series deflated by the capital goods import price index, with base year 2013=100. Spliced with the base year 2008=100 series using annual changes. For second quarter, data for the first quarter of that year are repeated. (3) Excluding other transport vehicles.

Sources: Central Bank of Chile and Bloomberg.



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



(*) Until 2019 effective data is used. Total GFCF for 20 as published on May 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.

The investment dynamics forecast is done in a context of high uncertainty during several quarters.

As can be seen in the Economic and Political Uncertainty Index (EPU) and in the responses of [Business Perceptions Report \(IPN\)](#) interviewees in May, uncertainty is persistently high. In the case of the EPU, although its value has decreased since the onset of the pandemic, it is still above its figures prior to the social outbreak in October 2019. In May's IPN, more than half of the companies surveyed —mainly during April— were having second thoughts about the execution of their investment plans for this year or would not execute them at all. This was mainly because the sanitary tightening in March and, to a lesser extent, the political scenario, had increased uncertainty with respect to a few months back.

Regarding the external scenario, the global outlook for this year and next has been consolidating, where the dynamism of developed economies stands out.

Added to this is a view that the more permanent effects of Covid-19 would be less in advanced economies than in emerging ones (Box I.1). In the central scenario, our trading partners are expected to grow 6.7% this year (6.3% in March), in line with the progress in vaccinations and the improved outlook of consumers and companies, mainly in the developed world. In terms of the composition of expenditure, while the recovery of activity in the main economies was initially driven by consumption, between late 2020 and the turn of 2021, investment outperformed consumption. For 2022 and 2023, trading partners' growth is virtually unchanged with respect to the March Report. Still, divergences persist in the pace of recovery among economies, with a more complex outlook expected in those that lack a significant vaccination plan in the near term or are experiencing complications from a social and/or political standpoint. Latin America provides an example of this, as growth for this year is corrected to 4.4% due to a better starting point (3.8% in March), but is counterbalanced by a downward adjustment for 2022 to 2.6% (3.2% in March) (table V.2).



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

	Avg. 10-19	2020 (e)	2021 (f)	2022 (f)	2023 (f)
World GDP at PPP	3.7	-3.2	6.5	4.4	3.5
World GDP at market exchange rate	3.1	-3.4	6.1	4.3	3.0
Trading partners	3.9	-2.1	6.7	4.3	3.5
United States	2.3	-3.5	6.8	4.0	2.0
Eurozone	1.4	-6.6	4.2	4.5	2.5
Japan	1.3	-4.8	2.9	2.2	1.1
China	7.7	2.3	9.0	5.4	5.4
India	7.1	-8.0	10.0	5.8	6.2
Rest of Asia	4.5	-2.4	6.1	4.8	3.9
Latin America (excl. Chile)	1.8	-7.6	4.4	2.6	2.0
Commodity exp.	2.4	-4.3	4.9	3.7	2.2

(*) For definitions, see Glossary.

(e) Estimate. (f) Projection.

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

The main factor driving the upward correction of external momentum is the improvement in the terms of trade, given the increase in the projected price of copper. In the projection horizon, copper prices are expected to be higher than expected in March, averaging US\$4.25, US\$4.0 and US\$3.70 per pound in 2021, 2022 and 2023, respectively (table V.3). These prices respond to the higher current and expected demand, amid a positive scenario of global recovery, which drove prices to record levels during May. The price correction is also an update of its long-term value, which now stands at US\$3.3, compared to the previous estimate of US\$2.7 (Box V.3). The price of oil, like that of copper and many other commodities, has also risen, due to demand being still high in a context of limited supply. Its projected values for the period 2021-2023 are also revised upwards, even though the long-term price is corrected downwards, to US\$60 per barrel (Box V.3). This correction in fuels, added to higher commodity prices and current bottlenecks, will generate transitory increases in external inflation that will partially offset the effects of higher copper prices on Chile's terms of trade. However, some of the widespread increases in commodity prices should be undone as supply regularizes. Considering all these factors, the terms of trade would grow 17.4% during 2021 (11.7% in March) (figure V.5).



TABLE V.3 INTERNATIONAL BASELINE SCENARIO ASSUMPTIONS

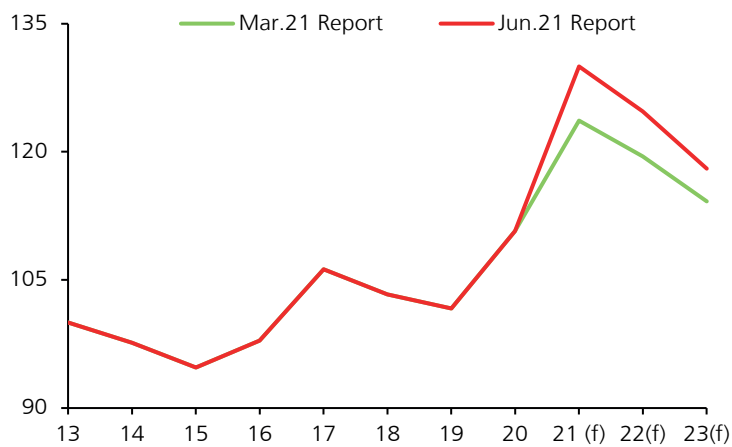
	Avg. 10-19	2020	2021 (f)	2022 (f)	2023 (f)
		(annual change, percent)			
Terms of trade	1.1	8.9	17.4	-4.1	-5.4
External prices (in US\$)	0.6	-1.5	9.3	1.8	2.4
		(levels)			
LME copper price (US\$/cent/pound)	306	280	425	400	375
WTI oil price (US\$/barrel)	72	39	63	60	57
Brent oil price (US\$/barrel)	80	42	65	64	61
Gasoline parity price(US\$/m3) (*)	610	333	541	526	500
US Federal Funds Rate (%)	0.7	0.5	0.3	0.3	0.6

(*) 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.



Despite the higher growth in domestic expenditure, the projected deficit for the current account this year is similar to the March forecast, due to the rise in the copper price. For the years 2021, 2022 and 2023, current-account deficits are anticipated to be on the rise: 0.8%, 1.1% and 1.9%, respectively (0.9%, 1.6% and 2.4% in the March Report). The slight change in the projected deficit does not prevent the current-account balance from posting significant variation between 2020 and 2021. Actually, the balance will move from a surplus of 1.4% last year to a deficit this year. This variation is explained by the substantial increase in domestic spending, which has been concentrated in durable goods. Consistent with this, in the moving year ending in the first quarter of 2020, the current-account balance has already declined to 0.9% of GDP. Measured at trend prices^{3/}, the current account presents deficits between 3.1% and 3.5% for the period 2021-2023, reflecting the boost to private spending, after a surplus of 1.7% in 2020. However, these figures are significantly lower than previously estimated—closer to 5.5% of GDP—, due to the higher long-term copper price, and to a lesser extent, the lower long-term oil price.

The growth forecast continues to assume that the epidemiological evolution will allow to begin lifting the sanitary constraints in the second half. Thus, it is expected that the lagging sectors will regain greater dynamism and accelerate the recovery of employment. In any case, with respect to March estimates, the opening of the economy would be somewhat more gradual in the short term, considering that the percentage of the population in the strictest phases of the Step by Step plan remained high during most of the second quarter, even with the reinstatement of quarantines in some highly populated communities during the past several weeks.

Regarding fiscal policy, the extension of the benefits granted by the Government means that this year the fiscal impulse will be greater than that contemplated in the March Report. Thus, in the central scenario, fiscal expenditure will grow a nominal 25% this year, which compares with the 5% considered in the March Report. This considers the announcements already materialized and the additional spending that, among others, will result from the recently approved new support measures for households and that will add a stronger impulse than that contemplated in March. This will lead to a significant overshoot of the structural deficit planned for the year. In any case, the actual deficit will be lower than the structural deficit due to the sharp increase in the copper price and the upward correction of this year's GDP. In an international comparison, the sum of the increase in spending and revenue foregone in the years 2020-2021 is equivalent to some 15% of GDP, that is, close to the figures observed in economies such as Germany, the United Kingdom and Japan, and much higher than what is seen in other Latin American economies—where the bulk of the boost occurred back in 2020.

For 2022 and 2023, it is assumed that a fiscal impulse as significant as this year's will not be required, giving way to policies focused on the most lagging segments and the stabilization of public finances. Thus, after record-high expansion in 2021, the fiscal accounts should embark on a path of convergence to structural targets and towards a sustainable public debt-to-GDP ratio, in line with the recommendations of the Autonomous Fiscal Council. This could be reinforced by permanent increases in tax revenues, derived from the reforms that have recently been announced by the Government.

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



REVISIONS TO TREND GROWTH, POTENTIAL GROWTH, AND CAPACITY GAPS

For this Report, the Board updated the structural parameters of the economy. In the case of trend growth, the new estimate yielded a lower figure given the revision of projected growth in total factor productivity (TFP). A backward-looking review of the data shows lower historical average growth in TFP and a downward trend in its evolution since the late 1990s, beyond a transitory reversal in the second half of the 2000s. In fact, between 2011 and 2019, TFP saw an average annual contraction of 0.4%, which compares to the average growth of 0.7% observed between 1997 and 2019. It should be noted that the slow TFP growth of recent years is a phenomenon that is also observed across the world, especially after the global financial crisis of 2008-09. Thus, projected TFP growth is reduced from an average of 1% for the next ten years, to 0.35% (Box V.1). It is worth noting that this re-estimation of TFP growth considers the revision of data updated since 2017, because in the previous revision of trend growth —[June 2019](#)— the only change was that it considered the impact of immigration on the labor force. TFP growth was not updated then. In any case, the uncertainty surrounding the TFP estimate remains high, which is reflected in the wider range of the estimated range for trend growth.

Non-mining trend GDP growth is estimated to be in the 2.4% to 3.4% range in the period 2021-2030, which compares with the previous estimate of 3.25% to 3.75% for the period 2019-2028. It is important to emphasize that this estimate does not consider the potential effects —upward or downward— caused by structural changes induced by the pandemic or by the political/institutional process underway.

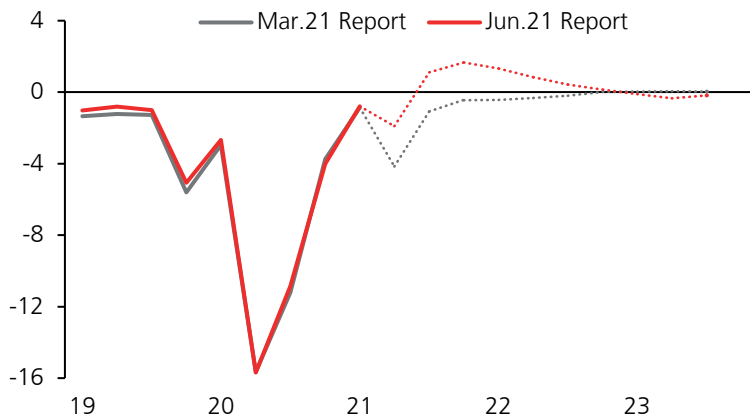
In turn, potential GDP growth is adjusted upwards with respect to the March 2020 Report, bearing in mind the greater adaptive capacity of the economy and the milder scars being left by the pandemic. Thus, the estimate of potential growth for the 2021-2023 period stands at around 2.1%, which compares with the figure of roughly 1.7% considered until March. Beyond the different sign of the re-estimation of potential and trend growth, in the medium term both figures should converge. For projection purposes, this convergence will gain strength from 2023 onwards.

Considering the improved actual and expected GDP performance this year, in the central scenario, the closing of the activity gap will occur sooner than anticipated. Strong domestic demand growth will boost actual GDP in the short term. Because of this, and despite the upward correction to potential GDP, the gap will close during the third quarter of this year, turning positive for some quarters. It will then decline in 2022, as the boost to private spending diminishes, oscillating around zero until the end of 2023 (figure V.6).

In any case, beyond the anticipated closing of the activity gap, there is still slack in some markets due to the heterogeneity of the economic recovery. In the labor market, although the numbers have improved from their worst of last year, different sources of information show an uneven recovery in employment. This has been influenced by factors such as occupational category or skills. At the same time, it continues to stand out that the female participation rate is still below its pre-pandemic levels, largely affected by the responsibilities that many women have needed to assume in household chores (Box III.1). In addition, as noted on previous occasions, the impacts of the pandemic have been dissimilar across economic sectors. The May's IPN revealed that the size of firms has also been relevant in explaining differences in recovery. This is because larger companies have been able to better adapt their operations to the current sanitary context.



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



(1) Historic estimates of the gap have changed because of recalculation of Potential GDP. The forecast uses the Multivariate Filter, which factors in the new Non-mining trend GDP (2021-2030 average: 2.9%). (2) Dotted lines show forecast.
Source: Central Bank of Chile.

CONVERGENCE OF INFLATION TO THE TARGET

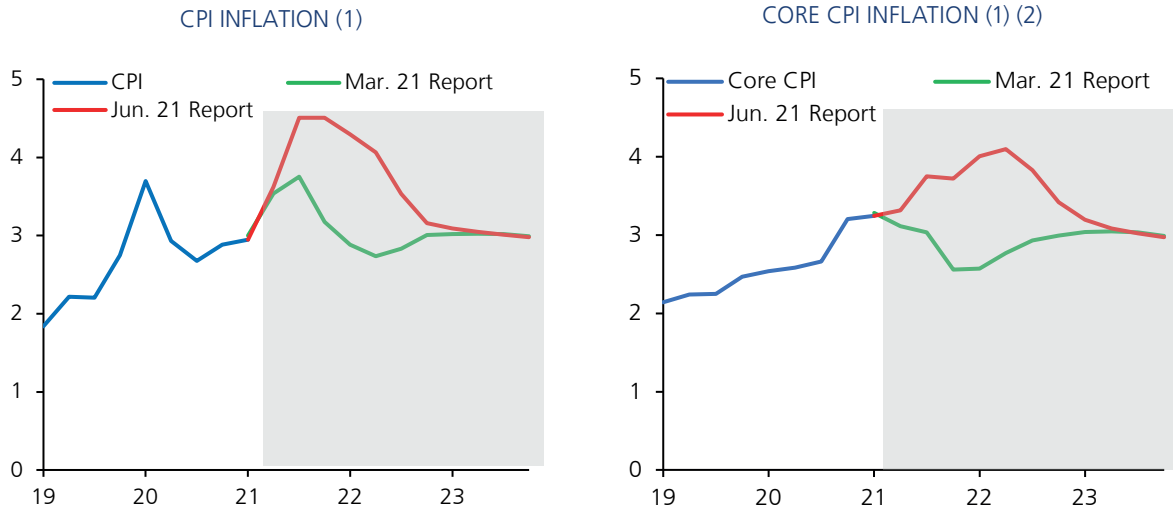
Inflation has evolved in line with expectations, with annual CPI change rising to 3.6%. In recent months, inflation has been determined by the behavior of the prices of goods and fuels. The former continue to be under pressure due to reduced inventories, supply problems and high demand for some products. Fuel prices were mainly affected by the oil price increase and the low comparison base in the same period of last year. Core inflation of services, while still contained in general, show incipient increases in non-administered and non-indexed items. At the same time, food prices have reduced their contribution to inflation.

In the short term, headline inflation is expected to rise to above 4%, driven by higher demand pressures, rising costs and the evolution of energy prices. In the central scenario, core inflation will be on an upward trajectory in the coming quarters, approaching 4% annually by the end of this year and the turn of 2021. Rising energy prices, especially fuels, will continue to dominate the volatile component of headline inflation. Thus, the CPI change will be around 4.5% during the second half of 2021, closing the year at 4.4% (table V.4). Towards the end of 2022 and early 2023, CPI inflation will fall towards 3%, where it will stand at the end of the policy horizon, this time the second quarter of 2023 (figure V.7).

Private inflation expectations foresee inflation near 3% annually in one and two years. In the case of inflation one-year ahead, these expectations reflect lower figures than those projected in the central scenario, coinciding with a macroeconomic environment where the dynamism of the economy assumed in these projections is lower, aside from assigning some probability to the effect of the VAT reduction on short-term inflation. In fact, the median of the May [Economic Expectations Survey \(EES\)](#) forecasts that one-year-ahead inflation will be 3%, while the growth forecast for 2021 stands at 6.2%. The expectations implicit in the prices of financial assets show a drop in recent weeks, in line with the progress of the debate on the reduction of the VAT rate for some goods and services. It must be noted that this reduction is not contemplated in the central scenario of this Report.



FIGURE V.7 INFLATION FORECAST
(annual change, percent)



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

TABLE V.4 INFLATION (1)

	2020	2021 (f)	2022 (f)	2023 (f)
	(annual change, percent)			
Average CPI	3.0	3.9	3.8	3.0
December CPI	3.0	4.4	3.1	3.0
CPI in around 2 years (2)				3.0
Average core CPI	2.7	3.5	3.8	3.1
December core CPI	3.3	3.9	3.3	3.0
Core CPI around 2 years (2)				3.1

(1) Core inflation is measured using the CPI excluding volatile. (2) Inflation forecast for the first quarter of 2023. (f) Forecast.

Source: Central Bank of Chile.



SENSITIVITY AND RISK SCENARIOS

The central projection scenario considers a set of assumptions such as those described in the preceding paragraphs, which shape the estimations presented. However, sensitivity exercises can be performed on these assumptions that, while keeping GDP growth within the expected ranges, require a somewhat different monetary policy action. These scenarios are the ones that make up the MPR corridor (figure V.1).

On the one hand, demand may expand more than projected, either due to greater propensity of households to consume—in a context of economic deconfinement—or due to fiscal transfers in excess of those already considered. In the latter case, tax, liquidity, or public investment measures can also be added, making fiscal policy behavior even more procyclical. In such a situation, higher inflationary pressures would result in the need for an earlier withdrawal of the monetary stimulus, which is reflected in the upper bound of the MPR corridor.

On the other hand, investment continues to be the most lagging component of expenditure, and scenarios in which its evolution is less favorable than expected cannot be ruled out. First-quarter data show that investment in construction and works has not recovered, that no major investment projects have entered the surveys and that local political/legislative events have affected the stock market, which is usually correlated with the future evolution of investment. If this situation were to worsen to the point of stagnation or reversal of investment, the monetary policy stance would have to remain highly expansionary for longer, which is reflected in the lower bound of the MPR corridor.

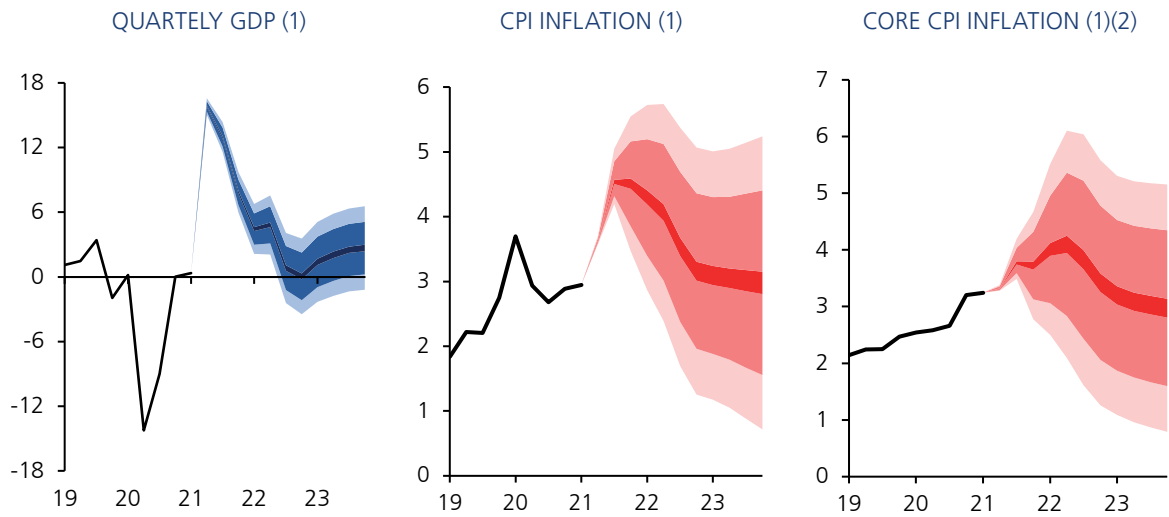
Despite the significant recovery of the economy, the Covid-19 phenomenon is still present and unexpected things can still happen. The central scenario assumes that during the second half of the year there will be growing deconfinement of the population and a relaxation of social distancing measures, as the goals of the vaccination process are achieved. However, slower opening scenarios are possible, either because of an adverse evolution of infections or the incidence of new virus variants. As a matter of fact, infections are again on the rise and quarantines have been reinstated in several communities. If this situation intensifies, the opening of the economy could be slower, delaying the closing of the activity gap, requiring the current monetary expansionary stance to be maintained for some more time.

Globally, it cannot be ruled out that the cost pressures faced by firms around the world may have longer-lasting effects on inflation. World recovery, within a context of ongoing logistical problems for production, has led to cost increases across the board. For the moment, this is expected to be a transitory phenomenon, as the gradual opening of economies and greater adaptation will normalize the supply of many goods and services. However, due to the strong demand stimulus added in the last year, local inflation could be somewhat higher than forecast in the short-term. The transitory nature such a scenario does not require a monetary policy reaction. However, a different scenario would emerge if global inflationary pressures had a more persistent impact on domestic inflation. The latter would call for an earlier withdrawal of the monetary stimulus.

Besides the sensitivity exercises, risk scenarios in which the changes in the economy would be more significant and where the monetary policy reaction should be more intense are also analyzed. Locally, the risks associated with an evolution of public finances that is unclear as to their long-term stabilization are worth noting, which could affect local financial conditions, investment, and the perception of country risk. Internationally, the main risk continues to be an abrupt change in global financial conditions, an event that has become more prevalent due to doubts about the evolution of inflation in the U.S. The intensity of these scenarios may jeopardize the convergence of inflation within the policy horizon, placing activity below the expected ranges and/or compromising the proper functioning of financial markets (figure V.8).



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



(1) 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.
Source: Central Bank of Chile.



BOX V.1:

Trend GDP

This Box presents the results of our trend growth update, a variable related to the economy's medium- and long-term growth capacity^{1/}. The main results are as follows: first, trend non-mining GDP growth for the period 2021-2030 is estimated to be between 2.4% and 3.4%, with a midpoint at 2.9%. This is equivalent to a 0.6 percentage point (pp) reduction in the estimate's midpoint, and a widening of the range by half a pp with respect to the 2019 estimate, which was in the range 3.25% and 3.75%, with a midpoint of 3.5%.

Second, the revision is mainly explained by a downward revision to the total factor productivity (TFP) growth forecast. This assumption is based on the consolidation of a downward trend that began in the early 1990s, which was only temporarily reversed during the commodity price boom of the second half of the 2000s. Thus, although the simple average (median) of TFP growth between 1997 and 2019 is 0.7% (0.5%), it drops to -0.4% (-0.3%) if only the 2011-2019 period is taken into account (figure V.9)^{2/}.

Third, there is a high degree of uncertainty about this estimate, which is reflected in its wide estimation range of 1 pp, more than the one used in the last update (1/2 pp). This range incorporates both a scenario where TFP grows at zero rate, as it has done in the last decade, and another where it accelerates and manages to maintain the average observed between 1997 and 2019.

Fourth, this downward trend of TFP coincides with a decline in productivity in other countries, both developed and emerging (Box I.1), particularly since the Global Financial Crisis of 2008-2009. The evidence also confirms that other commodity-producing countries experienced transitory increases in the TFP growth rate during the commodity boom of the mid-2000s.

Fifth, the declining TFP trend on aggregate is confirmed through productivity measurements with (anonymized) micro-data from Chilean firms. This analysis allows to identify deeper causes in the productivity dynamics, showing that reallocation as a dynamic driver of productivity has been eroded, in particular the relationship between firms' growth and their productivity. And finally, this analysis reveals how the increase in productivity during 2020 occurred in a context of sharp drops in employment, which is quite atypical for the history of productivity in Chile.

^{1/} The concept of trend GDP differs from potential GDP in that the latter refers to the level of GDP consistent with stable inflation and, therefore, is the appropriate measure of the activity gap associated with inflationary pressures in the short term. Since trend GDP is related to the medium-term growth capacity of the economy, in the long run both measures converge to the same number. However, in the short term, temporary elements that alter productive capacity, such as temporary productivity shocks and factor use limitations, can generate differences between the two indicators. Hence the importance of analyzing them separately (for more details, see chapter 1 in Central Bank of Chile, [2017](#)).

^{2/} As will be described below, the year 2020 was atypical, as TFP rose in a context of high job destruction. Therefore, for this analysis it was considered appropriate to exclude that year from the historical average.



Estimating trend growth

Following the logic of previous exercises, the estimation of trend growth separates GDP between mining and non-mining³. For non-mining GDP, the estimate is based on the Cobb-Douglas type production function methodology, which assumes that trend growth can be decomposed as follows in terms of percentage growth in the variables analyzed:

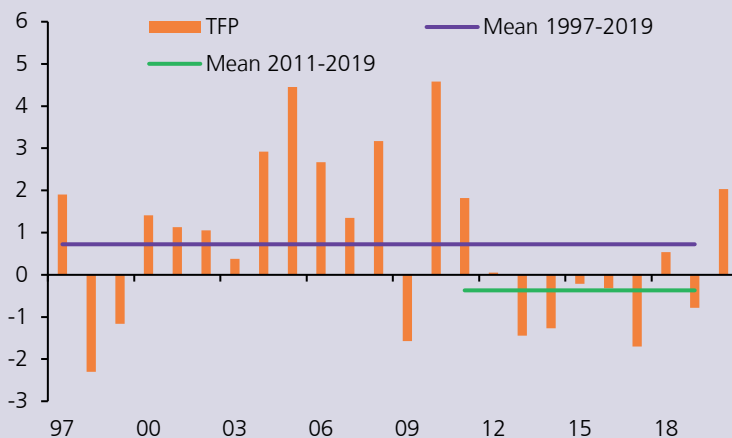
$$\Delta Y = \Delta TFP + \alpha \Delta L + (1 - \alpha) \Delta K,$$

where ΔY is trend GDP growth, ΔTFP is trend total factor productivity growth, α is the share of labor in GDP (assumed to be equal to 0.5, as in previous exercises), ΔL is trend growth in total hours worked—employment per hours per week—adjusted for quality, and ΔK is capital growth (adjusted for intensity in the use of this input).

The main change in this update is the downward revision to the TFP growth forecast, in response to its ever more apparent downward trend in this variable, which has been observed for much of the last decade. Thus, on this occasion, annual TFP growth of 0.35% is used as an assumption, i. e. the midpoint between the average historical growth from a longer perspective (0.7%) and zero growth (0%), somewhat higher than has been observed in the past decade (figure V.9).

The estimate for the period 2021-2030 shows that labor's contribution to trend growth will be 1.4 pp (table V.5, first row). This compares with the 0.9pp that had been estimated for a similar horizon in the last update, and which already included the higher projection of migration flows, extensively analyzed at the time (Aldunate

FIGURE V.9 TFP GROWTH IN NON-MINING GDP (*)
(percent)



(*) 1997-2019 mean is 0.7% and 2011-2019 mean is -0.4%.

Source: Aguirre et al. (2021).

³Up until 2017, the GDP was broken down between natural resources GDP—mining, fishing and EGW—and Other GDP (Fuentes, Fornero and Rubio (2018)). The results of this exercise are very similar with either decomposition.



et al., 2019). The contribution of the labor factor is increased because it is assumed that labor will recover from its low levels during the pandemic. This is consistent with the assumption that the Covid crisis will not leave permanent scars in the labor market, so that the participation rate and hours worked—which fell during 2020— will recover their pre-pandemic trends. The secular demographic trend towards greater aging and a lower birth rate follow the dynamics of the previous exercise.

Regarding the increase in the capital stock, its contribution to trend growth is estimated to be 1.1pp in the 2021-2030 period. This is 0.6pp less than estimated in 2019 for the 2019-2028 decade, and consistent with the investment projections for the 2021-2023 period reported in this Report, which also respond to the lower investment necessary to keep the capital-output ratio constant as from 2024. This assumption is consistent with the methodology of previous exercises^{4/}.

Thus, in the central scenario, the estimate for non-mining trend GDP growth is 2.9% for the ten-year period 2021-2030 (table V.5, first row). To estimate the trend growth of total GDP, the mining sector growth forecast is added. This is based on information from Cochilco and the analysis of the historical evolution of the copper ore grade. As has been the trend in recent years, its growth is expected to be lower than that of non-mining GDP: 2% for the next ten years. Thus, in the central scenario, total GDP growth for the decade 2021-2030 stands at 2.8%.

TABLE V.5 TREND GDP GROWTH PROJECTIONS (*)
(percent)

	Trend GDP growth projections					
	Non-mining GDP	Mining GDP	Total GDP	Capital	Labor	TFP
2021-2030	2.9	2.0	2.8	1.1	1.4	0.35
2026-2030	1.7	2.0	1.7	0.9	0.5	0.35

(*) Mining weights 12% of total GDP.

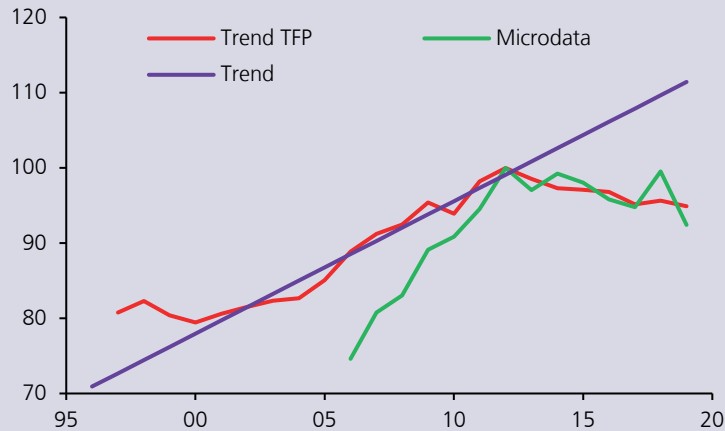
Source: Central Bank of Chile.

While the trend non-mining GDP growth of 2.9% represents the central estimate, the Board considers that the 2.4% to 3.4% range appropriately captures the greater uncertainty associated with this calculation. This uncertainty relates mainly to different assumptions for the evolution of production factors, particularly TFP growth. The lower range is characterized by zero TFP growth, in line with the fact that the level of TFP has been

^{4/} For details on the modeling strategy, see Aguirre et al. (2021).



FIGURE V.10 TFP LEVEL IN CHILE (*)
(2012=100)



(*) The figure presents the TFP levels calculated with the trend approach and using the aggregate micro productivity data at the firm level. The TFP level is computed by normalizing to 100 its 2012 value, which corresponds to the peak in both measures. The trend presented is calculated using the average TFP growth in trend GDP between 2000 and 2011.

Source: Aguirre et al. (2021).

relatively stagnant in the last decade (figure V.10). The upper range assumes that TFP resumes a faster pace compared with recent years, such that the historical average does not change (0.7%)^{5/}.

It should be noted that the trend projection for the 2021-2030 horizon is influenced by a strong recovery in the years 2021 and 2022, particularly of the labor factor. To isolate this effect, the average trend growth for the second half of the projection horizon (2026-2030) is presented, which is lowered to 1.7% (table V.5, second row).

TFP dynamics and determinants

Historical series of Chile's TFP show a clear downward trend after peaking in the mid-1990s. This was momentarily interrupted towards the end of the 2000s, coinciding with the commodity super cycle (figure V.11)^{6/}.

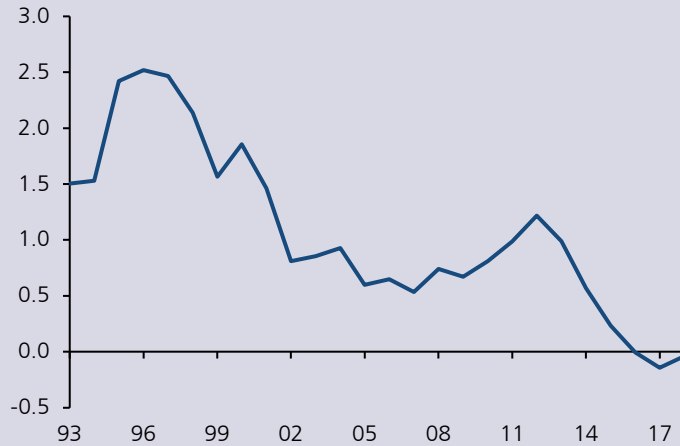
The TFP decline of the last decade is not a phenomenon exclusive to Chile. It has been extensively studied for developed economies. Its causes are believed to have ranged from a weakness in global demand (Summers, 2015), to the higher cost of innovations (Gordon and Sayed, 2019), to the obstruction of incumbent firms to

^{5/} For a discussion of the scenarios, see Aguirre et al., 2021.

^{6/} Formal econometric tests confirm the existence of a downward trend as a determinant of TFP evolution in Chile since the 1990s. They also confirm that TFP has been procyclical, with the year 2020 being a notable exception, as will be detailed below. Finally, a positive correlation is found with the copper price (Aguirre et al., 2021).



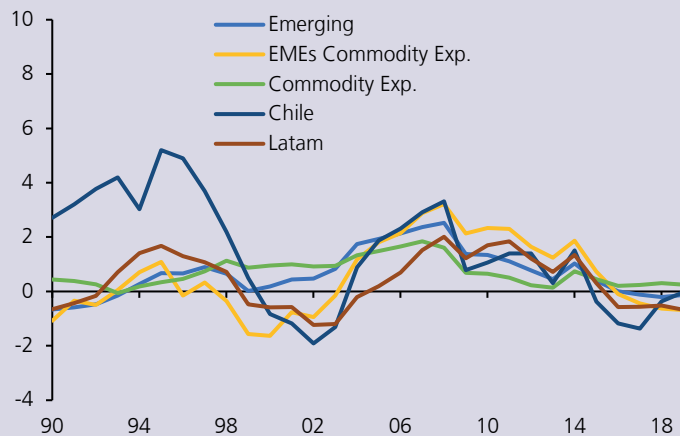
FIGURE V.11 TFP GROWTH, 1993-2019 (*)
(10-year moving average, percent)



(*) The series synthesizes different alternative measures of TFP in Chile available in the literature. The value presented for each year equals the average between that year and the previous nine years.

Source: Aguirre et al. (2021).

FIGURE V.12 TFP GROWTH IN EMERGING COUNTRIES AND COMMODITY EXPORTERS (*)
(percent)



(*) For each year, the median TFP growth in each group of economies is used; then the 5-year moving average is used. Emerging economies follow the IMF World Economic Outlook classification. Latin America includes 21 countries from North, Central and South America. The group of commodity exporters includes five economies: Australia, Canada, New Zealand, Norway and South Africa. For Emerging commodity-exporting countries the criteria of Aslam et al. (2016) is used.

Source: Central Bank of Chile, based on Penn World Tables. See Aguirre et al. (2021) for more details.



the innovation of entrants (Aghion et al., [2019](#); Akcigit and Ates, [2021](#)). Recently, it has been documented that this phenomenon has also occurred in developing countries. In these cases, the Global Financial Crisis of 2008-2009 was also the starting point for the decline (World Bank, [2021](#)), clearly manifested in commodity-exporting countries (figure V.12)^{7/}.

Productivity at the firm level in Chile

Since TFP can be viewed as the aggregation of firm-level productivities, a quantification and analysis based on micro data is informative about the determinants of the TFP decline. This section summarizes the findings of this exercise, in which firm-level productivity is estimated using tax data—kept confidential to protect the taxpayer's identities—over the period 2005-2020^{8/}. The correlation between the TFP data presented above and the productivity measure that results from the aggregation of firm-level measures is high (0.71), and also points to a stagnation of productivity in Chile over the last decade (figure V.10).

During the period 2006-2011, average productivity growth at the firm level was 5.02%, while in the period 2012-2019 it was -1.03% (table V.6, panel A). To understand the microeconomic origins of this slowdown in aggregate productivity, it is useful to disaggregate it into a first component that is given by the variation associated with incumbent firms that survive between one year and the next (the intensive margin) and a second component that is given by the contribution of both entering and exiting firms (the extensive margin)^{9/}. This decomposition shows that all of the drop in productivity growth between 2006-2011 and 2012-2019 is due to the fall in the productivity of incumbent firms (-6.07%), and not to changes in the dynamics of firm entry and exit (table V.6, panel B).

^{7/} The relationship of TFP with commodity prices does not seem to be exclusive to Chile. It is also observed in other commodity exporting countries, especially during this century. The correlation for Latin American countries is around 0.3. Aguirre et al. ([2021](#)) present evidence of this, as well as a summary of the theories that can explain this co-movement.

^{8/} The estimation uses a Cobb-Douglas production function of value added with two production factors: capital and labor, similar to the one presented for TFP. To solve endogeneity problems in productivity estimation resulting from the simultaneity between productivity and the firms' factor decision, standard knowledge frontier methods are used (Akerberg, Caves and Frazier, [2015](#)). To move from productivity estimated at the firm level to aggregate productivity, size weights are used, considering their aggregate value relative to the economy's GDP. For more details, see Aguirre *et al.* (2021).

^{9/} The formulas and details of this decomposition can be seen in Aguirre et al. ([2021](#)).



TABLE V.6 PRODUCTIVITY GROWTH OF CHILEAN FIRMS AND THEIR SOURCES, 2006-2019 (*)
(percent)

Panel A: Total changes, 2006-2019	
Productivity growth, 2006-2011	5.02
Productivity growth, 2012-2019	-1.03
Difference between 2012-2019 and 2006-2011	-6.05

Panel B: Breakdown of Intensive-Extensive margin	
Incumbent firms	-6.07
Entry and exit	0.02

Panel C: Breakdown of incumbent firms	
Intrafirm (within)	-3.94
Reallocation	-2.13

Panel D: Reallocation breakdown	
Reallocation composition (between)	1.68
Efficiency of reallocation (covariance)	-3.81

(*) Aggregate productivity changes and breakdowns based on estimated firm-level productivity for the period 2005-2019. Numbers are in percentage points (pp). Panel A shows the average aggregate productivity growth for 2005-2011, 2012-2019 and the difference in pp of the averaged growth of the two periods. Panel B shows the breakdown of aggregate productivity growth in the variation explained by incumbent firms and the extensive margin explained by firm entry and exit. The panel shows the pp difference in the average of both components between 2005-2011 and 2012-2019. Panel C shows the decomposition of incumbent firms' productivity growth into an intrafirm component (known as "within" in the literature), and a reallocation component. In turn, the latter decomposes into one of composition ("between") and one of reallocation efficiency ("covariance") in panel D.

Source: Aguirre et al. (2021).

To understand where the decline in incumbent firms' productivity growth comes from, their growth is disaggregated into two additional components that observe both the productivity growth within each firm and the reallocation between them (table V.6, panel C). The former, called intra-firm ("within" in the literature), measures the productivity growth of each firm using its size in the previous year as a weight. The latter measures the reallocation between firms and, in turn, can also be decomposed into two (table V.6, panel D). The first, called the reallocation composition (or "between"), measures the growth in firm size weighted by its productivity in the previous year. A positive value implies that there is productive reallocation, to the extent that firms whose



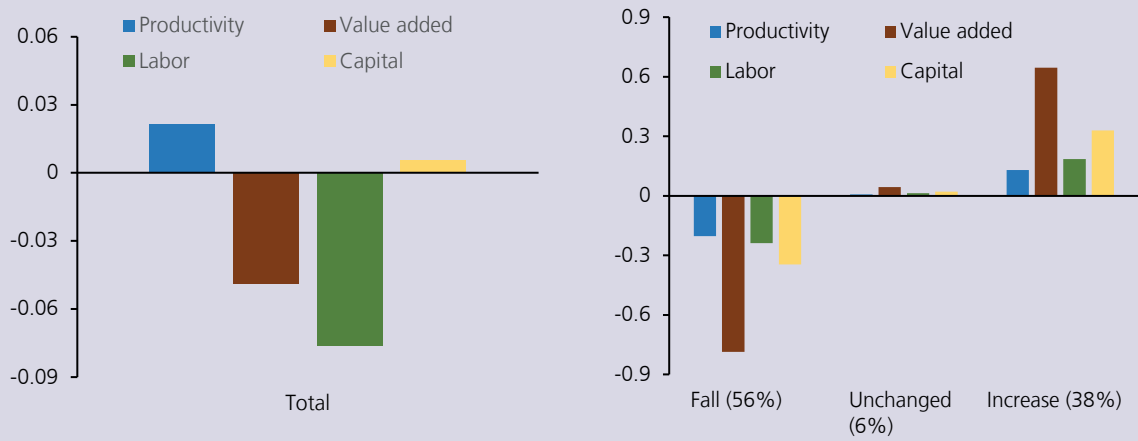
(lagged) productivity levels are high tend to grow more than those with low productivity levels. The second measures the efficiency of reallocation (“covariance”) within the current year, being positive if those firms where productivity grew more are also those that increased in size. Thus, it measures the efficiency of the economy’s dynamism, as it shows whether resources are reallocated to firms whose productivity grows.

The results in panels C and D show that about two thirds of the fall in productivity (-3.94%) is associated with within-firm growth, and the other third is associated with reallocation (-2.13%). The latter, in turn, is explained by a drop in reallocation efficiency of -3.81%, having been partly offset by the between component, which rose 1.68%. This means that not only did firm productivity fall between 2006-2011 and 2012-2019, but so did the efficiency of the economy’s dynamism, understood as the capacity for resources to be reallocated to firms with growing productivity.

The year 2020 was an atypical one in terms of TFP dynamics, as it increased at the same time that activity fell. This contrasts with past experiences in which recessionary or slowdown periods were accompanied by declines in TFP, as already documented. The wealth of micro data also serves to better understand the context in which productivity moved during the past year. The data show that, although productivity increased on aggregate, there was great heterogeneity in its variation, with more than half of the firms showing declines (figure V.13). In this group, value added and employment also fell, but the latter to a lesser extent. Typically, during crises, firms try to maintain employment because of the difficulties associated with re-hiring workers after the crisis (a phenomenon known as “labor hoarding”), which generally leads to a drop in productivity. On the other hand, firms that exhibited an increase in value added also saw employment increase, although not as intensively, implying an increase in measured productivity. Overall, this behavior of productivity during the Covid-19 crisis suggests being cautious when extrapolating recent events into long-term opinions on productivity.



FIGURE V.13 PRODUCTIVITY GROWTH BREAKDOWN IN CHILEAN FIRMS, 2020 (*)
(percentage points)



(*) In the left panel, the breakdown of aggregate productivity growth, weighted by value added, corresponds to the contribution of value added growth, labor growth and capital growth of firms. In the right panel, productivity growth is broken down by groups of firms that had productivity declines of more than 3%, had productivity growth between -3 and 3%, and increased their productivity by more than 3%. The results are not entirely comparable between the two panels as those in the right panel are winsorized at 5%. The numbers in parentheses show the size of each group in terms of value added relative to the total.

Source: Aguirre et al. (2021).



Box V.2:

Neutral interest rate

The neutral monetary policy interest rate —NMPR— represents the long-term level that the MPR should reach in the absence of temporary shocks. Its comparison with the current MPR is a key input in the calibration of the expansionary stance of monetary policy insofar as it anchors its level, marking the value to which the MPR should converge in the absence of these future shocks, once the economy has normalized. Given its importance, and the fact that its value may vary depending on the more structural conditions of the Chilean and world economy, the Board periodically updates its estimate.

The two years since the last update of the NMPR —Box V.2 in June 2019 Report—, have been characterized by extraordinary macroeconomic volatility, in the midst of an accentuation of the downward trend in monetary policy rates both globally and locally. In this context, the Bank has considered it appropriate to revise the set of models used to estimate the NMPR, including new methodologies in line with the practice of other central banks. This box presents the results of these estimates.

The median of the different methodologies places the NMPR at 0.5% in real terms, which is chosen by the Board as the new real NMPR level. Adding the 3% inflation target yields a nominal NMPR of 3.5%, a downward revision of 50 basis points from the midpoint of the range chosen for the June 2019 estimate. Additionally, taking into account the degree of uncertainty that surrounds these estimates, the Board considers that the nominal NMPR range will be between 3.25% and 3.75%. The width of this range is the same as before.

Lowering the NMPR is not only a response to the recent decline in domestic and foreign policy rates. Its reduction is in line with a sustained global downward trend in short-term rates —especially since the 2008-09 Global Financial Crisis—, related to the greater appetite for safe and liquid assets.

Definition and relevance

The NMPR is defined as the interest rate that is consistent with GDP at its long-term equilibrium level (trend) and inflation at the 3% target, once the effects of temporary shocks in the economy have dissipated. For this reason, the NMPR is inherently a policy rate associated with the long-run, to which the effective NMPR is expected to converge gradually in the absence of further shocks that move the economy away from its trend level. Hence, the NMPR referred to here is understood as the trend neutral^{1/}.

The NMPR is a variable relevant for the calibration of monetary policy, because it provides a reference for the evaluation of the monetary impulse by anchoring the level of monetary policy, marking the value to which the

^{1/}In the academic literature there is also the concept of a short-term neutral rate, characterized as the one that prevails in the absence of price stickiness, and that can fluctuate throughout the business cycle. The NMPR estimates presented here is not associated with this concept, but with a long-term neutral or trend rate.



rate should converge, once the economy returns to its trend path^{2/}. It should be stressed that the NMPR is a rate free of risk and term premiums. Therefore, to the extent that these components may fluctuate over time, changes in the NMPR will not necessarily be accompanied by equivalent movements in longer-term market rates, nor in their expectations. It is possible to see NMPR on a downward trend while the rates on risky assets remain constant or even rise.

Methodologies used

The NMPR is a variable that cannot be directly observed, so it must be inferred from observable variables. Such inference can be made with different methodologies, with results that may vary among different approaches. For the estimation of the neutral interest rate, the practice of different central banks, including the Central Bank of Chile, has been to choose a wide array of models, since the estimators are subject to significant uncertainty^{3/}. The estimates reported in this box use information up to the first quarter of 2020, thus avoiding the period of the pandemic, in order not to contaminate estimates associated with the long term with a period of temporarily high volatility.

The choice of NMPR calculation methodologies takes into account several aspects: (i) their previous use, so as to maintain consistency over time; (ii) their use in other central banks; (iii) the applicability of each method for the Chilean economy; and (iv) the degree of certainty in the inference of the level of the neutral rate. With these criteria, five approaches are considered, summarized below table V.7^{4/}.

TABLE V.7 ESTIMATIONS OF THE REAL NEUTRAL RATE
(percent)

Method	Real NMPR
1. Stochastic trend – BCP10	0.6
2. <i>Convenience Yield</i>	0.6
3. Adjustment for term premiums	-0.2
4. Euler equation	0.5
5. Taylor rule	0.3
Median	0.5

Source: Aguirre et al. (2021).

^{2/}Although the difference between the MPR and the NMPR may provide a measure of the monetary impulse, it may not be accurate as the short-term neutral rate (see footnote above) may have moved away from the NMPR due to the shocks that the economy is experiencing.

^{3/}Aldunate et al. (2019) present other central banks' estimates and their related uncertainty.

^{4/}Aguirre et al. (2021) describe in detail of the methodologies presented here, in addition to other complementary approaches and robustness tests considered.

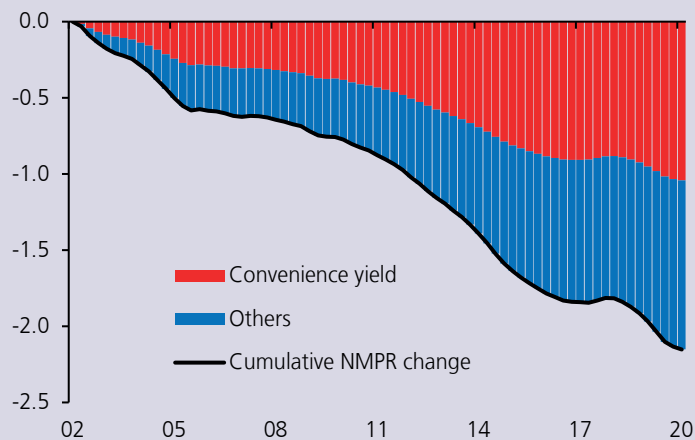


(i) **Stochastic trend inference considering inflation and price movements of risk-free financial assets.**

Following the methodology described by Del Negro et al. (2017), the trend neutral rate is estimated as the common stochastic trend between short- (MPR) and long- (BCP10) term risk-free assets. In addition to the above variables, the estimation uses the MPR and inflation expectations as observables, assumes common trends, and imposes theoretical restrictions. According to this methodology, the NMPR at the peak is 0.6% in real terms (3.6% in nominal terms).

(ii) **Stochastic trend inference considering convenience yields.** Also following the methodology described by Del Negro et al. (2017), the one in (i) is extended, allowing to observe data on 10-year BBB corporate bond returns. This allows identifying the premium associated with the preference for safe and liquid assets, which the specialized literature has termed “convenience yield” (Krishnamurthy and Vissing-Jorgensen, 2012). This methodology also estimates that the NMPR at its peak is 0.6% in real terms (3.6% in nominal terms), showing a drop of slightly more than 2pp from 2002 to date, half of which is explained by increased preference for safe and liquid assets (red area, figure V.14).

FIGURE V.14 DECOMPOSITION OF NMPR DROP AND PREFERENCE FOR SAFE AND LIQUID ASSETS (*)
(percent)



(*) The figure decomposes the NMPR drop between 2002.Q1 and 2020.Q1, between preference for safe assets (convenience yield) and other factors such as the stochastic discount factor.

Source: Aguirre et al. (2021).

(iii) **Direct observation of market expectations for long-term rates corrected for term premiums.**

The NMPR is defined as the level where the MPR should be in the absence of shocks. It is possible to think that in five to ten years, the cyclical effects of transitory shocks will have dissipated, so that the level of the expected real rate in five to ten more years provides a reasonable approximation of the NMPR. This rate, the so-called 5-in-5 rate, is derived from financial asset prices corrected for term premiums. Using this methodology, the current NMPR is estimated at -0.2%. The low level at the end of the sample reflects the downturn in activity at the end of 2019 and the adjustment in the market interest rate structure.



(iv) **Inference considering inflation and GDP movements (Euler equation).** This measurement follows the methodology proposed by Holston, Laubach and Williams ([2020](#), [2017](#)), which is widely used in several central banks. This methodology seeks to infer the trend level of the interest rate from observations of activity, inflation and the MPR, considering restrictions derived from economic theory —through the Euler equation— that link activity with the rate of inflation, and the interest rate with trend growth factors, among others. The most recent review is also followed here, where the authors propose an exogenous adjustment for abrupt drops in activity. The estimate of the real NMPR at the peak is 0.5% (3.5% nominal), with a decreasing trend in the sample. It should be stressed, however, that the degree of uncertainty about this inference is considerable.

(v) **Taylor rule.** The Taylor rule ([1993](#)), links the MPR to deviations of core inflation from the 3% target and the activity gap. By estimating the reaction coefficients of this empirical relationship, the unconditional mean is derived, which is assumed to be equal to the long-term MPR. After subtracting the inflation target, the NMPR is estimated to be 0.3% in real terms (3.3% nominal).

Conclusions

The update of the NMPR estimate shows that its level —considering the median of five estimates— is around 0.5% in real terms. After adding the inflation target and considering the uncertainty surrounding the estimates, the Board estimates that the nominal NMPR lies within a range between 3.25% and 3.75%, with its midpoint at 3.5%. This is 50bp below what was considered in the last update, performed in June 2019.



BOX V.3:

Long-term price estimation for copper and oil

The central baseline scenario of this Report corrects the long-term assumption for the prices of copper and oil, raising the former from US\$2.7 to US\$3.3 per pound and lowering the latter from US\$70 to US\$60 per barrel. These prices correspond to the levels at which the value of copper and oil are expected to be in ten years' time. The long-term prices of these products are essential to evaluate the current state and long-term convergence of the Chilean economy.

The expected evolution of long-term copper demand depends on two key factors: the uses of copper associated with the so-called "green wave" and the conventional use of copper^{1/}. The demand for copper associated with the "green wave" corresponds to only 5% of total demand today, but is expected to increase exponentially over the next ten years^{2/}. This expected growth has increased in recent years as countries have become more committed to addressing climate change. This increase is expected to be offset by slower growth in demand associated with conventional use as China, the main copper-importing country, moves from an investment-driven economy to a consumption-driven one.

The copper industry expects that production will grow sufficiently to meet projected demand over the next four years, requiring new projects to be added thereafter. In addition to the expected increase in production from projects already in operation, there will be the start-up of some new mining projects and an increase in the extraction of copper from other sources, such as scrap. By 2030, however, new projects, not yet committed, will be needed to meet the expected excess demand.

Various experts estimate that a real copper price of around US\$3.3 per pound in 2030 will be sufficient to balance out the market. Estimating long-term prices requires determining the price that encourages the entry of new projects so that, given the demand and supply forecasts, the market will be in equilibrium in the long term. A price of around US\$3.3 per pound would encourage the entry of the necessary projects to satisfy the projected excess demand in 2030. In the last year, several international organizations and specialized institutions have raised the price of copper expected in five to ten years' time to near this number^{3/}.

The calculation of long-term prices is subject to a high degree of uncertainty. The expected evolution of copper demand hinges on the uncertainty associated with the aforementioned factors. In addition, demand depends on what happens with copper substitutes, such as aluminum, where climate change and carbon taxes could significantly affect the price, given the high gas emissions required for producing it. At the same time, production and the start-up of new mining projects are highly sensitive to changes in countries' legislation. Furthermore, the estimation of project costs relies on a number of important assumptions that could vary, including the required rate of return on equity.

^{1/} Box I.1 in March 2021 Monetary Policy Report.

^{2/} Commodities Research Unit (2021).

^{3/} World Bank (2021) and IMF (2021).



Unlike with copper, long-term oil price estimates have fallen in recent years, driven by the entry of new technologies for extraction and production, as well as by the projected fall in demand. The entry of shale oil has lowered average global oil extraction costs. In addition, the “green wave” would discourage the demand for oil compared to projections of a few years ago. All in all, a price of around US\$60 per barrel is expected to be sufficient to balance out the market over the long term.



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