

# MONETARY POLICY REPORT

June 2020



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\*/ This Monetary Policy Report uses data available as of 10 June 2020, except where indicated otherwise. It also takes into account the monetary policy decision announced on 16 June.



# PREFACE

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The Central Bank of Chile (CBC) conducts its monetary policy on the basis of inflation targeting and a floating exchange rate. This framework incorporates a commitment to using the available instruments to ensure that the two-year inflation forecast is 3%, independently of the current inflation level. Controlling inflation is the means through which monetary policy contributes to the population's welfare. Low, stable inflation promotes economic activity and growth while preventing the erosion of personal income. Moreover, focusing monetary policy on achieving the inflation target helps to moderate fluctuations in national employment and output.

The Monetary Policy Report serves three central objectives: (i) to inform and explain to the Senate, the Government, and the general public the Central Bank Board's views on recent and expected inflation trends and their consequences for the conduct of monetary policy; (ii) to publicize the Board's medium-term analytical framework used to formulate monetary policy; and (iii) to provide useful information that can help shape market participants' expectations on future inflation and output trends. In accordance with Article 80 of the Bank's Basic Constitutional Act, the Board is required to submit this report to the Senate and the Minister of Finance.

The Monetary Policy Report is published four times a year, in March, June, September, and December. It analyzes the main factors influencing inflation, which include the international environment, financial conditions, output and aggregate demand, and recent price and cost developments. The last chapter presents the considerations underlying the monetary policy strategy for the coming quarters and describes how the monetary policy reaction could change in the face of particular changes in the baseline scenario. Some boxes are included to provide more detail on issues that are relevant for evaluating inflation and monetary policy.

This Report was approved at the Board's meeting on 16 June 2020 for publication on 17 June 2020.

## **The Board**



# SUMMARY

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The evolution of the Covid-19 pandemic and the actions taken to contain it constitute a huge and unprecedented shock to the world economy. Its immediate impact has been severe, its duration longer than expected and its long-term repercussions still uncertain. All this has led to a sharper decline in activity and employment than was expected just a few months ago, and there is still a high degree of uncertainty regarding the evolution of the pandemic and the best strategies to combat it. No country in the world has been spared, so most of them are projected to experience significant drops in activity this year. Chile is no exception, so its largest contraction in 35 years is foreseen in 2020. In this context, the main components of domestic demand have experienced significant setbacks and inflationary pressures have been drastically reduced. The authorities have reacted with unprecedented responses to this scenario, using the policy space generated by decades of responsible macroeconomic and financial management. In view of the further deterioration of the macroeconomic scenario, at the June Monetary Policy Meeting the Board decided to intensify the monetary impulse through unconventional measures to support liquidity and credit. The fiscal impulse will also be intensified, based on the recent framework of understanding between the Government and the expanded Finance Committee on an Emergency Plan for the next twenty-four months.

Since January, the Covid-19 has been spreading rapidly around the world, shifting the focus of contagion and the stringency of mandatory and voluntary containment actions across continents. The evolution of economic indicators has reflected these changes. At the beginning of the year, China's data showed significant drops in consumption and investment, with first-quarter GDP falling by 7% annually, its first decline since the 1970s. More recent data, in line with the reduction in contagion and mobility restrictions, point to upturns in various dimensions. Europe, where contagions peaked later, saw significant drops in activity in the first quarter, with historic declines observed in various indicators during March and April. In recent weeks, quarantines have been lifted in several countries and various activities are being gradually reopened. In the United States, the economic figures for March and April fell sharply, and a process of reopening has already begun, even though the number of infections is still high and the latest data shows a surge in some states.



Meanwhile, Latin America is going through the most complex phase of the pandemic, with more limited resources to contain it. Several countries continue to see new records every day for infections and deaths. In Chile, after a declining trend in April, infection rates began to accelerate during May, forcing the adoption of more stringent sanitary containment measures and other adjustments in the strategies applied. Most importantly, the quarantine decreed in mid-May for a large part of the Metropolitan Region and the one imposed on a large part of the Valparaíso Region in mid-June.

The unparalleled nature of the situation makes it particularly difficult to make projections, as they depend largely on factors that escape economic analysis. For the immediate future, a significantly larger contraction is expected in the second quarter. After its downturn of the end of last year, the economy was recovering somewhat faster than expected, until the country entered phase 4 of the pandemic, which brought with it a series of control measures that severely affected activity from mid-March onwards, leading to a drop in activity of 3.1% annually. The impact was greater in April, when activity contracted by 14% annually. Quite naturally, the economic sectors where face-to-face contact is essential in their operation were the most affected, in particular retail, restaurants and hotels, transportation and various personal services. The stricter quarantines imply that activity indicators for May and June will probably be more negative than April's.

The evolution of the disease and the number of new infections makes it difficult to estimate for how long the tighter containment measures will remain active. Moreover, once these measures are lifted, it is uncertain whether there will be new outbreaks, how people's behavior will evolve and what the impact will be on the performance of different economic sectors. The experience of other countries could provide some insight into the sanitary and economic response to the reopening of cities. However, these processes are still too fresh to allow detecting patterns clearly, and it is far from evident how the particulars of social, climatic, and environmental developments may affect Chile's relative performance in this dimension. Finally, the outlook for demand will depend on the impact of the high uncertainty and loss of households' and companies' income.

The central scenario assumes that the quarantines will be lifted during the third quarter and the economy will be gradually reopened, thus allowing for a steady improvement in activity and the labor market. In any case, this considers that part of the practices of social distancing —mandatory and voluntary— will continue to be present for several quarters, so some economic sectors will take longer to return to their activity levels prior to the pandemic's outbreak. Thus, the economy will begin to recover in the second half of 2020, although activity will not yet reach its levels of the beginning of the year. Actually, it is expected that only towards mid 2022 will activity levels match those of the third quarter of 2019.

Our forecasts are subject to a much higher level of uncertainty than usual, leading to changes of its communication in this Report, mirroring the actions of central banks elsewhere. In normal times, the width of the growth range for the current year would be reduced to 0.75 percentage points, applying a criterion based on historical forecast errors. Instead, this Report factors the present uncertainty in by widening the 2020 GDP forecast range to two percentage points and the one for 2021 to 1.5 percentage points. For 2022, the width of the range is kept at one percentage point, considering that by then some relevant short-term uncertainties will have cleared up, such as the duration of quarantines and the impact of the agreed Emergency Plan. The variables of the macroeconomic framework in the central scenario (i.e. consumption and investment, among others) are still being published with an estimate, but the informative value of both these projections and the growth ranges is clearly lower than usual.

Considering the above criteria, the Board estimates that this year total GDP will post a contraction between 5.5% and 7.5%, and that the economy will begin to recover in 2021 and 2022, with growth rates ranging between 4.75% and 6.25% and between 3% and 4%, respectively.

In the central scenario, total consumption will contract by about 4% in 2020, mainly due to its private component. After the sharp fall of the second quarter, this projection assumes that households will continue to suffer from falling income and high uncertainty, elements that are being mitigated by social protection measures, such as the Emergency Family Income and the fiscal support programs focused on the most vulnerable.

In recent months, there has been a significant loss of jobs—in some cases temporarily—and a reduction in income, a factor that has also involved wage adjustments and a reduction in workers' working hours. Going forward, as contagion subsides and the economy gets back on track, there should be a significant, albeit incomplete, recovery in incomes, which should be reflected in consumption. On the one hand, self-employment—which in times of economic contraction tends to be a buffer for total occupation—has seen significant declines that can be associated with restricted human movement, so as soon as these measures are phased out workers could return to their jobs more quickly. On the other hand, the Employment Protection Law has allowed a significant number of workers—around 610,000 according to the data available at the statistical closing—to withdraw their unemployment insurance funds without losing the link with their employer. This will support a faster return to their jobs and an increase in their income once the pandemic is under control. In the meantime, the Emergency Plan agreed between the Government and the expanded Finance Committee will significantly extend compensatory transfers to households, with increased coverage, amount and duration.

## ECONOMIC GROWTH AND CURRENT ACCOUNT

	2019	2020 (f)	2021 (f)	2022 (f)
	(annual change, percent)			
GDP	1.1	-7.5/-5.5	4.75-6.25	3.0-4.0
National income	0.8	-5.9	6.2	3.6
Domestic demand	1.0	-10.4	7.7	4.1
Domestic demand (w/o inventory change)	1.5	-6.8	6.9	3.5
Gross fixed capital formation	4.2	-15.9	8.0	4.7
Total consumption	0.8	-4.2	6.6	3.2
Goods and services exports	-2.3	-0.3	3.2	3.3
Goods and services imports	-2.3	-14.1	11.2	5.8
Current account (% of GDP)	-3.9	0.8	-0.7	-1.3
Gross national saving (% of GDP)	18.9	17.5	17.2	17.3
Gross national investment (% of GDP)	22.8	16.7	17.8	18.6
GFCF (% of nominal GDP)	22.4	20.0	20.6	20.9
GFCF (% of real GDP)	21.8	19.6	20.1	20.4
	(US\$ million)			
Current account	-10,900	2,100	-1,700	-4,000
Trade balance	4,200	15,700	11,900	10,800
Exports	69,900	64,800	69,400	75,500
Imports	65,700	49,100	57,500	64,700
Services	-5,100	-3,900	-4,800	-5,000
Rents	-11,400	-10,800	-10,100	-11,300
Current transfers	1,400	1,100	1,300	1,500

(f) Forecast.

Source: Central Bank of Chile.

**INTERNATIONAL BASELINE SCENARIO ASSUMPTIONS**

	Avg. 00 - 07	Avg. 10-18	2019 (e)	2020 (f)	2021 (f)	2022 (f)
	(annual change, percent)					
Terms of Trade	8.2	1.5	-0.6	4.9	-0.5	0.2
Trading partners' GDP (*)	3.7	3.9	2.9	-3.6	4.2	4.5
World GDP at PPP (*)	4.5	3.9	2.8	-4.5	4.4	4.5
World GDP at market exchange rate (*)	3.3	3.1	2.5	-5.2	4.1	4.3
Developed economies' GDP at PPP (*)	2.4	1.9	1.7	-7.0	3.4	4.0
Emerging economies' GDP at PPP (*)	6.5	5.2	3.8	-2.4	5.3	4.9
External prices (in US\$)	4.6	1.0	-2.2	-7.4	3.7	5.0
	(levels)					
LME copper price (US\$/lb)	154	310	272	250	260	275
WTI oil price (US\$/barrel)	44	74	57	38	41	44
Brent oil price (US\$/barrel)	42	81	64	41	44	49
Gasoline parity price (US\$/mi3) (*)	366	623	491	313	319	374
Fed Fund Rate (%)	3,4	0,6	2,3	0,5	0,3	0,4

(\*) For definition, see glossary.

(e) Estimation.

(f) Forecast.

Source: Central Bank of Chile.

In the central scenario, investment will contract by about 16% in 2020, because of a sharp contraction in non-mining investment due to tighter and more constrained corporate cash flows and severe uncertainty. In addition, the execution of large-scale projects of 2020 has been postponed. By 2021 and 2022, investment is expected to pick up, considering that by then uncertainties will have cleared up or diminished, big investment projects will resume their full development and the Government will increase public investment in infrastructure and housing as part of the agreed Emergency Plan. It remains to be seen how companies will adjust to the higher leverage that is being generated to cover their current financing needs.

The effects of the high uncertainty in forecasting are also visible around the world. The same as in the Chilean case, the projections for world growth in 2020 have been significantly adjusted downwards in recent months. In the central scenario of this Report, the Board estimates that world GDP would fall by 4.5% this year, to grow 4.4% in 2021 and 4.5% in 2022. The copper price would average about US\$2.65 per pound over the period 2020-2022, and oil would average about US\$43 per barrel (Brent/WTI average) over the same period. The significant upward adjustment in the copper price leads to higher terms of trade in the projection horizon than was estimated in March, and provides support for exports.

Containing and overcoming the economic damage being caused by the pandemic has required large, coordinated efforts by the economic authorities. In several countries, central banks are using unconventional tools and governments have put in place substantial fiscal support packages for households and businesses. Primarily, the measures have been aimed at providing credit and liquidity to prevent the breakdown of relations between companies and their suppliers, customers and workers. Achieving this is key in reducing the persistence of the effects of the crisis. The determination and timeliness of the actions of the fiscal and monetary authorities around the world have been among the main factors contributing to the reversal of the dramatic deterioration of the financial markets at the onset of the pandemic. Beyond the recent ups and downs, compared to the second half of March, most of the financial variables show an improvement: the stock markets have recovered, long-term interest rates and spreads have declined, and most currencies have appreciated against the dollar. In addition, there have been increases in the prices of commodities, copper included.

In Chile, from mid-March to date, various government authorities have implemented measures to provide assistance to households and businesses. The Government has provided resources of the order of US\$ 17 billion, aimed at, among other things, protecting employment, supporting household income and injecting liquidity into the production system. This will complement the recently agreed Emergency Plan for Family Income Protection and Economic and Employment Reactivation. This involves funds of up to US\$ 12 billion

for the next twenty-four months. These resources will initially be used to reinforce transfers to the most vulnerable sectors through the Emergency Family Income. The Employment Protection Act will be also strengthened, as will unemployment insurance and support for the formal self-employed. Subsequently, the resources of this fund will be used to bolster economic recovery through plans to support employment and investment. The agreement assumes that this additional effort will be transitory, and will be followed by fiscal consolidation in the medium term, in order to avoid public debt exceeding 45% of GDP. Preliminary, according to the information known at the moment, the central scenario considers the effects of this plan on growth for the 2020-2022 period. More specific estimations of its impact can be made once the details are approved by Congress.

The situation of companies has also been cause for special concern, in particular because incentives for granting credit to those firms that, being solvent, are faced with significant liquidity problems because of the pandemic, will succeed in mitigating the negative effects of the present situation, avoiding bankruptcies that could result in permanent and unnecessary loss of productive capacity and jobs. In Chile, the combined measures adopted by the Central Bank using the Conditional Facility for Increased Lending (FCIC), the Finance Ministry through the Fogape state guarantees associated to the Covid-19 credit, and regulatory adjustments of the CMF have led to an increase in commercial credit at a real annual rate of close to 11% in May, which compares with the figures around 6.5% that prevailed up until February.

This countercyclical behavior of aggregate commercial credit, coupled with the increase in the share of credit destined to smaller firms, marks an important difference with other recessionary periods. However, the intensified negative effects of the pandemic on the economy has raised the financial requirements of companies, so the Board deemed it necessary to launch a second stage of the FCIC. The first stage of this facility has shown a high utilization of its resources: 83% of the total amount up to mid-June. In its second stage, the facility will commit funds amounting to US\$16 billion, the delivery of which will be more directly linked to the performance of credit targeted at small and medium size companies sectors, and non-bank credit providers, making it a good complement to the Covid-19 lines and the fiscal guarantees on which they are based.

Lastly, since the outbreak of the social crisis, the Bank has carried out several liquidity and asset purchase operations, which have helped to reduce frictions in portfolio adjustments associated with the changes in the perception of risk, to control increases in long-term rates and to avoid the paralyzation of non-bank credit channels. The special purchasing program announced on the June meeting is intended to enhance these measures. Particularly in its first month, this program will contemplate an amount of US\$1.5 billion, which will be used to purchase assets currently eligible for the Bank.

**INFLATION (1) (2)**

	2019	2020 (f)	2021 (f)	2022 (f)
	(annual change, percent)			
Average CPI inflation	2.3	2.7	2.2	3.0
December CPI inflation	3.0	2.0	2.8	3.0
CPI inflation in around 2 years (3)				3.0
Average core CPI inflation	2.3	2.4	2.2	3.0
December core CPI inflation	2.6	2.1	2.7	3.0
Core CPI inflation in around 2 years (3)				3.0

(1) For 2018, it shows annual change obtained with the 2013=100 basket. As from 2019, the 2018=100 basket is used, so figures are not strictly comparable with those of earlier years.

(2) Core inflation is measured using CPI excluding volatile items.

(3) Inflation forecast for the second quarter of 2022.

(f) Forecast.

Source: Central Bank of Chile.

In this scenario, inflation fell to 2.8% annually in May, influenced by the sharp drop in fuel prices. Core inflation —measured by the CPI excluding volatiles— remains at around 2.5% annually<sup>1/</sup>. A somewhat bigger increase in food prices stands out, where supply and demand factors combine, including a drought, logistic problems derived from movement constraints and increased demand for some basic consumables. The abrupt widening of the activity gap during the second quarter, together with the latest depreciation of the peso, significantly reduces inflationary pressures. In the central scenario, inflation will decline to near 2% at the end of 2020, and estimates are that only towards the end of the policy horizon —the second quarter of 2022—will it stand around 3% annually.

In this scenario, monetary policy will remain on a highly expansionary stance for as long as deemed necessary to ensure the convergence of inflation to the 3% target over the two-year horizon, and to safeguard financial stability. Consistent with this, at the June meeting the Board decided to keep the MPR at its technical minimum —currently estimated at 0.5%— noting that, in the central scenario, it would be kept there at least during the two-year policy horizon, and it expanded the use of non-conventional measures. In addition, it indicated that the possible expansion and/or adoption of other measures would be assessed according to the needs of the economy and the Bank's legal powers.

As always, there are sensitivity scenarios where the evolution of the macroeconomic situation could require adjustments to the monetary impulse. On this occasion, these scenarios respond to different assumptions about how the pandemic will behave and the subsequent recovery of the economy. In the first place, there could be a more benign scenario with a more favorable evolution of the virus, which would imply a faster rebound of activity in the second half of the year, allowing for a more vigorous recovery in consumption and investment. Conversely, there could also be a more pessimistic scenario, for example, if quarantines have to be extended into the second half of the year or expanded to more geographical areas. This would hit activity harder, further weakening consumption and investment. In the more benign scenario, the greater dynamism from the third quarter of this year onwards would lead to an earlier closing of the activity gap, which would support a somewhat earlier convergence of inflation. By contrast, the negative scenario would imply a more unfavorable and persistent evolution of the gap, with longer lasting weakness of inflationary pressures. In line with the high uncertainty and the difficulty of assigning a specific probability to each scenario, the Board considers that the risk balance for both growth and inflation is unbiased. This difficulty in differentiating the probability of occurrence of sensitivity scenarios from that of the central scenario is largely reflected in the exceptional broadening of the forecast range for 2020 and 2021.

<sup>1/</sup> For analysis and forecasting purposes, beginning in this Report the core inflation measure used will be the CPI minus volatiles. The methodology for constructing this indicator is described in box IV.1 in the December 2019 Monetary Policy Report, and in Carlomagno and Sansone (2019). The historic series of this indicator can be seen in the Bank's statistical data base.

Nevertheless, some scenarios that could be even more negative than those just proposed deserve special attention. The magnitude of the effects of the pandemic is very significant, and despite monetary and fiscal authorities having implemented an unprecedented package of measures, it is impossible to guarantee that the scale or duration of the damage will not be much greater than assumed, which could jeopardize financial stability. In such a situation, with the monetary policy rate already at its technical lowest, the Bank may need to maximize its use of the policy instruments it possesses. In this regard, the Board especially appreciates the support from congressmen of the Finance Committee of the Senate to a constitutional and legal reform that would expand the Bank's powers to act in exceptional situations where preserving financial stability especially requires it.

Over the last forty years, Chile has lived through three recessionary periods, one in the early 1980s as a result of the foreign debt crisis and the bankruptcy of the local banks, another in the late 1990s associated with the Asian crisis, and yet another in the late 2000s triggered by the Global Financial Crisis. Each of these episodes shows significant differences with the others, whether in terms of the origin of the crisis, the prevailing policy framework and response capacity, or the synchronicity of the effects among countries. The current situation bears little resemblance to any of them, given that this time its origin is not economic, its impact has been as synchronic as has been never seen among economies, and the public policy framework has a greater capacity to respond than it did in the past. Even so, the cost to the country of the current crisis will be high, and some sectors will require significant adaptations in the face of longer-lasting changes in their conditions and modes of operation. In response to the change of scenario, the Board has deepened the monetary impulse, committing to maintain it for a long period of time and to increase it if thought necessary to achieve the objectives of controlling inflation and safeguarding financial stability.



# MONETARY POLICY DECISIONS IN THE LAST THREE MONTHS

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## MARCH MEETING

For the March Monetary Policy Report (IPoM), the macroeconomic scenario had worsened drastically, due to the spread of COVID-19 and the measures adopted worldwide to contain it. Thus, the baseline scenario considered a contraction of the Chilean economy, which reflected both the drop in local output deriving from the direct effects of the pandemic and the lower external boost. The outlook was for a global recession this year, which would substantially reduce external demand and commodity prices, and a sharp deterioration in financial conditions—the most significant since the 2008–09 crisis. The global increase in risk perception and the large adjustments in asset prices, including plunging stock markets and widening spreads, limited access to financing for firms and governments. In this context, fiscal and monetary authorities around the world had implemented considerable large stimulus packages.

It was estimated that in Chile, as in other economies, the social distancing measures would have a major impact on output and demand, which would be exacerbated by the worsening of expectations and its effects on consumption and investment decisions. Furthermore, the country had already been weakened by the social crisis that erupted in October. Thus, the baseline scenario incorporated a GDP contraction of 1.5 to 2.5% for this year, a drop in investment on the order of 8%, and in consumption by around 2% annually.

The baseline scenario considered a drop in output starting in the second half of March and continuing through the second quarter. The economy would begin to recover in the third quarter, as the restrictions were lifted. There would still be an annualized contraction that quarter, but it would lead to a significant uptick of growth in the fourth quarter of 2020 and throughout 2021. In the baseline projections, large investment projects would return to normal starting in the third quarter of this year, and the institutional channeling of the social crisis would reduce uncertainty and avoid new episodes of violence. Additionally, the stimulus measures announced by the government and the Bank's

expansionary monetary policy, together with measures adopted to ensure monetary policy transmission and the normal functioning of the credit markets, would help contain the negative effects of the pandemic on economic and financial variables. However, these projections were subject to even greater uncertainty than in the December Monetary Policy Report. It was particularly difficult to estimate how the pandemic would evolve in Chile and the world and how the pandemic control measures would need to be adjusted to minimize the loss of human lives.

Medium-term inflationary pressures had eased substantially, given the drastic worsening of the economic scenario. Furthermore, oil and other fuel prices had fallen significantly, more than offsetting the cost pressures deriving from the depreciation of the peso. Thus, in the baseline scenario, headline inflation followed a downward trend, reaching 3% in the last quarter of 2020. Core inflation would fluctuate around 3% throughout much of the forecast horizon.

In this context, all the Board Members agreed that the assessment of the macroeconomic scenario and its implications for inflation left no doubt about the need to increase the monetary stimulus. They therefore agreed that the most appropriate action was to bring the monetary policy rate (MPR) to its effective lower bound of 0.5% and to clearly signal that this expansionary policy would be maintained for some time. Moreover, they emphasized the importance of unconventional measures for preserving the proper functioning of monetary policy transmission channels and the need to reinforce coordination with the other economic authorities. Therefore, they voted to increase the bank bond purchase program to a limit of US\$8 billion.

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## MAY MEETING

For the May meeting, the macroeconomic scenario had worsened more than projected in the March Report. Internationally, public and private forecasts pointed to a deeper global recession.



The data confirmed generalized contractions across the main economies in the first quarter, in many cases sharper than expected, and partial data for the second quarter suggested that the scenario remained weak. In particular, the confinement measures were likely to be extended, and several countries had recorded a significant increase in unemployment. To face this scenario, central banks and governments had continued to strengthen their stimulus plans. These measures had helped contain the deterioration of international financial conditions recorded in March, although there was still a high degree of uncertainty regarding the pandemic and the global economy.

Domestically, the drop in the IMACEC index in March had verified the start of the economic contraction process caused by the pandemic. Quantitative and qualitative information pointed to a sharp deterioration of the labor market. Expectations had worsened drastically, and investment indicators had also declined significantly. In March, annual headline inflation fell to 3.7%, while core inflation hovered around 2.5%. Although inflation expectations one year ahead had declined, at two years they remained around 3.0%. The local financial market, like the rest of the world, had recorded a more favorable performance.

One of the biggest issues was the high degree of uncertainty surrounding the speed of the recovery in the second part of the year, both locally and globally. This reflected not only the evolution of the pandemic, but also the fact that several sectors would have difficulty returning to previous activity levels, due to mandatory and voluntary confinement, which could push back the recovery of the economy further than estimated. This represented a challenge for inflation convergence to the target.

As indicated in March, commercial lending was fundamental for avoiding permanent damage to the economy. However, the available data at the time of the Meeting were inconclusive. On the one hand, commercial loans had increased since mid-March, and the Conditional Financing Facility for Increased Loans (FCIC)

had been used actively. On the other, there were still doubts about whether this growth was fully in step with the significant increase in cash flow requirements in the corporate sector, given the drop in sales. In particular, preliminary information showed that the growth rate of loans was lower for smaller firms than for large corporations. Going forward, it would be especially important to monitor the impact of the COVID credit lines with state guarantees, which favored the provision of credit to smaller firms, but which at the time of the Meeting had only recently entered into operation. At the same time, foreign and domestic bond issues had declined substantially beginning in March. Reactivating this market would be vital not only for delivering resources to large corporations, but also for opening space for smaller firms in the bank credit market.

In this scenario, all the Board Members agreed that the only option was to hold the MPR at 0.5% and reinforce the message that it would stay at that level for some time. They felt that the evolution of the macroeconomic scenario revealed that some of the risks discussed in the March Report had materialized and others were now more likely, which posed additional challenges for public policy and the institutions responsible for their application.

In this context, the Board voted unanimously to hold the MPR at 0.5%. All the Board Members agreed that the macroeconomic scenario would require a greater monetary stimulus. The MPR was at its effective lower bound, and the Board was committed to holding it there for some time. Consequently, additional efforts would need to focus on a wider, more systematic use of unconventional policies.

# I. INTERNATIONAL SCENARIO

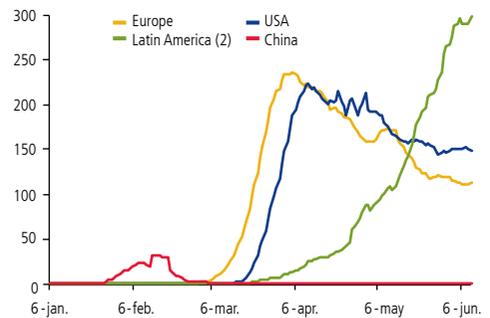
*This chapter analyzes the recent evolution of the world economy and the outlook for the next two years and describes the most probable external scenario and the main risks.*

The evolution of the international economic scenario continues to depend on the development of the COVID-19 pandemic. On the one hand, the real impact has been deeper than projected in March. The scope and duration of the quarantine measures imposed in many countries, together with the voluntary social distancing adopted by the population, have led to a drastic drop in output in most economic sectors. On the other, the extension of community lockdown and individual precautionary actions will result in a slower recovery of the global economy going forward.

Since late January, the disease has spread rapidly around the world (figure I.1). After the virus first appeared in China, the epicenter of contagion shifted in March and April to Europe and North America, in particular to the United States, and then to South America in May. This has been clearly reflected in the timing of the public health measures—both mandatory and voluntary—applied in different countries, which explains why some Asian countries have been gradually opening up their economies over the course of the second quarter, Europe has recently begun to do so, and Latin America is still under lockdown. In this context, global uncertainty remains very high (figure I.2).

The world economy contracted sharply in the first quarter, which has been exacerbated in the second quarter in line with the evolution of the pandemic and containment measures. The fall in private consumption is notable, after several years of stable performance (figure I.3). The retrenchment of this spending component has been led by non-durable goods and non-essential services. This is consistent with the job losses in many economies, and the increase in unemployment rates and unemployment benefit applications, against a background of increasing inactivity (figure I.4). The size of these trends has varied by country. In the United States, unemployment has risen substantially, from around 3.5% early this year to 13.3% in May. The latter

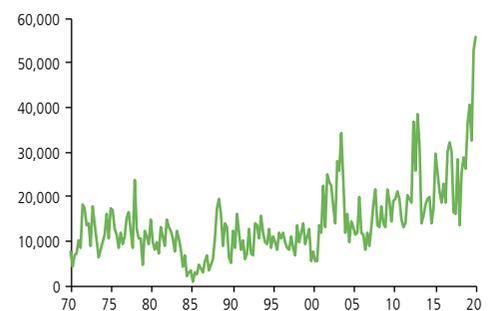
**FIGURE I.1**  
Weekly new confirmed COVID-19 cases (1)  
(in thousands)



(1) Change in number of confirmed cases in the last seven days.  
(2) Includes Argentina, Brazil, Chile, Colombia, Ecuador, Peru, and Mexico.

Source: European Center for Disease Prevention and Control (ECDC).

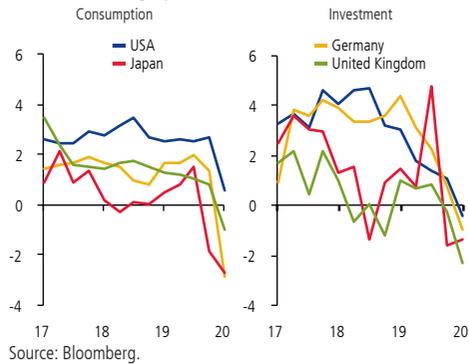
**FIGURE I.2**  
World uncertainty index (\*)  
(weighted average index by GDP of each country)



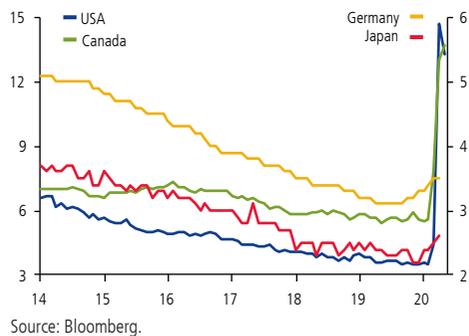
(\*) The index is calculated by counting the number of times the word “uncertainty” (or variants) appears in country reports by the Economist Intelligence Unit. This is then normalized by the total number of words in the report and rescaled by multiplying by 1,000. A higher (lower) number indicates greater (lower) uncertainty.

Source: Ahir, Bloom, and Furceri (2018).

**FIGURE I.3**  
Spending components in developed economies  
(real annual change, percent)



**FIGURE I.4**  
Unemployment rate in developed economies  
(percent)



**FIGURE I.5**  
Global PMI (1)  
(seasonally adjusted index)      Consumer confidence (2)  
(index: 2019=100; net answers)



(1) A value over (under) 50 indicates optimism (pessimism).  
(2) United States: University of Michigan index; China: National Bureau of Statistics; Japan: Cabinet Office; Germany: GfK.  
Sources: Bloomberg and JP Morgan.

figure represents a drop from the peak in April, and the market was positively surprised by an unexpected increase in job creation. Investment and foreign trade have continued to slow. The World Trade Organization's most recent Goods Trade Barometer anticipates a marked reduction in the first half, in line with an earlier WTO forecast pointing to a drop of up to 32% this year.

Expectations have also fallen strongly since the first of the year, reflecting the magnitude of the initial impact of the pandemic and the uncertainty surrounding its future consequences. Business expectations (PMI) are mostly in contractionary territory. Services expectations have diminished the most, consistent with the greater relative deterioration of these sectors vis-à-vis manufacturing. Different measures of consumer confidence also show a substantial decline (figure I.5). In various economies, however, expectations indicators have either stopped falling or turned up to a degree when contagion has slowed and the restrictions on mobility have been loosened. For example, in China, the PMI rebounded more than expected, to just above the pivot point. China also leads the improvement in other short-term indicators, such as industrial production, which recorded growth in annual terms after contracting in the first quarter of the year (-7.3% ,on average, between January and March).

The global financial markets have reversed the pronounced deterioration recorded at the start of the pandemic, aided by the monetary and financial stimulus measures being implemented around the world. They remain highly sensitive to news in either direction, however. Thus, with fluctuations, many financial variables have improved relative to the second half of March, when the markets suffered the worst stress in decades. Since then, the stock markets have generally risen, especially in the United States, where the bulk of the losses have been recuperated despite the wave of social protests that have overtaken the country. Volatility indexes and spreads decreased, while a large share of currencies appreciated against the dollar (figures I.6, I.7, and II.10). The capital exodus from the emerging bloc has tended to revert in recent weeks, with incipient inflows for some countries at the margin. Long-term interest rates declined again, backed by extensive bond buyback programs, and they remain low from a historical perspective. At any rate, the bulk of these indicators continue to point to less favorable international financial conditions than before the pandemic.

The monetary authorities have continued to provide a strong stimulus, reducing reference rates—to the effective lower bound in many economies—and extending their unconventional tools, which in many cases correspond to initiatives that directly support firms, as discussed in March (figures I.8 y I.9). Among the measures being implemented in the developed world, the U.S. Federal Reserve (Fed) offered additional facilities for firms, municipalities, and states with backing by the U.S. Treasury. The Fed has also started buying corporate debt in the secondary market and is expected to do the same in

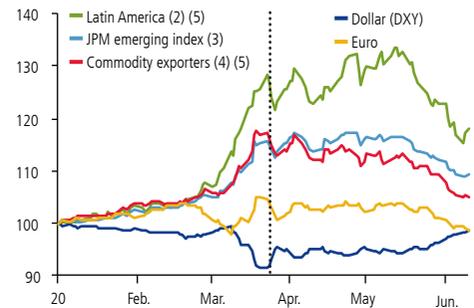
the primary market in the coming days. Taken together, these measures could contribute additional credit equivalent to nearly 20% of GDP. The European Central Bank (ECB) expanded its Pandemic Emergency Purchase Program (PEPP) beyond market expectations, up to €1.35 trillion. The plan was also lengthened, through June 2021. This comes in addition to earlier adjustments such as the reduction in bank requirements and new Pandemic Emergency Longer-Term Refinancing Operations (PELTRO). In the emerging world, China continued to reduce bank funding costs, while also introducing more instruments to support lending to small and medium-sized enterprises (SMEs). In Latin America, the range of actions being implemented includes reinforcing repo operations and allowing the use of corporate debt or bank loan portfolios as collateral for bank financing operations.

The fiscal sector has also maintained an active role. As of mid-May, around US\$9 trillion had been allocated to facing the pandemic at the global level, according to estimates by the International Monetary fund (IMF, 2020). In many countries, initiatives continue to be centered on protecting the workers and sectors that have been most affected by the current crisis. These include guaranteeing private debt, as mentioned, in coordination with the respective central banks, as well as spending packages, subsidies, and tax cuts. Most recently, new proposals being submitted include a nearly US\$3 trillion project in the United States, which would provide an additional round of direct payments to individuals, and a plan for €750 billion funded by governments in the European Union, which would mainly aid Spain and Italy. Germany has also announced new government stimulus measures, which would bring the total since the start of the pandemic to a little over €1.3 trillion (around 40% of the country's GDP).

A partial review of the impact of the macroeconomic policy adjustments shows an acceleration in the growth of bank credit in the developed world, in particular in the commercial segment (figure II.8)—the opposite of the usual trend in recessionary periods. Some data suggest that much of the credit is flowing to large firms, which has led to actions targeting funding for smaller firms in economies like the United Kingdom—including a loan program with a 100% state guarantee—and the United States. This contrasts with the trend in consumer portfolios, where the volume of lending has fallen drastically.

Most commodity prices have recovered somewhat since the March Report, although they remain lower than at the start of the year (figure I.10). This reflects both supply factors, associated with the effects of the public health measures and unilateral production cuts, and demand, due to the increase in output in Asia and the incipient reopening of Europe. In copper, the announcement of a reduction in the production forecast by mining companies has supported the price. In the days leading up to the publication of this Report, copper was trading over US\$2.60 per pound, the highest price since late January, accumulating an increase on the order of 10% relative to the

**FIGURE I.6**  
Selected currencies in 2020 (1)  
(index: 1-Jan-2020=100)



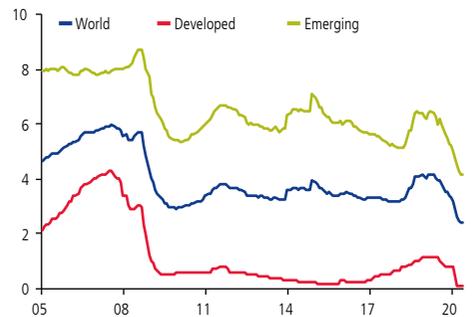
- (1) An increase (decrease) indicates depreciation (appreciation). Vertical dotted line marks the cutoff date of the March 2020 Report.
  - (2) Brazil, Colombia, Mexico, and Peru.
  - (3) JP Morgan index including Singapore, India, China, Chile, Mexico, Brazil, South Africa, Hungary, Russia, and Turkey.
  - (4) Australia, Canada, New Zealand, and South Africa.
  - (5) Constructed using the weights in the October 2019 WEO.
- Sources: Bloomberg and International Monetary Fund

**FIGURE I.7**  
Emerging market spreads  
(basis points)



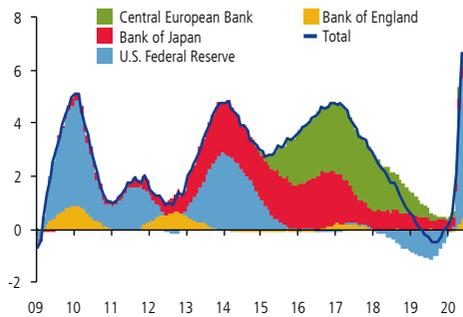
Source: Bloomberg.

**FIGURE I.8**  
Global monetary policy rates (\*)  
(percent)



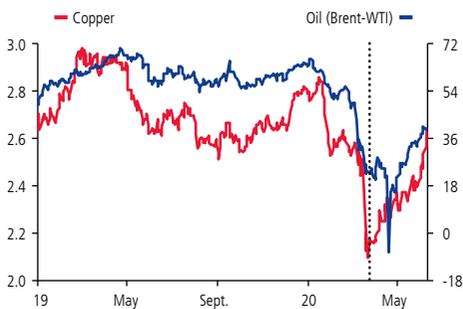
(\*) Rates are weighted by each country's GDP at PPP.  
Sources: Bloomberg and International Monetary Fund.

**FIGURE I.9**  
Monthly asset purchases of the main central banks (\*)  
(porcentaje del PIB)



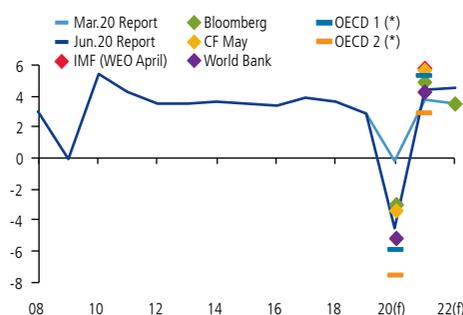
(\*) Twelve-month moving average; annualized monthly flow.  
Sources: Central European Bank, U.S. Federal Reserve, Bank of England, and Bank of Japan.

**FIGURE I.10**  
Commodity prices (\*)  
(dollars per pound; dollars per barrel)



(\*) Vertical dotted line marks the cutoff date of the March Report.  
Source: Bloomberg.

**FIGURE I.11**  
World growth  
(annual change, percent)



(\*) Two baseline forecast scenarios published by the OECD, considered equally possible by the organization.  
(f) Forecast.  
Sources: Central Bank of Chile, World Bank, Bloomberg, Consensus Forecasts, International Monetary Fund, and Organization for Economic Cooperation and Development.

cutoff date of the last Report. The oil price (Brent-WTI average) has been highly volatile and was briefly even negative, but it closed the same period with an increase of 45%, ending around US\$40 a barrel. OPEC-Plus decided to reduce global supply to shore up the price, although that agreement and recent Saudi announcements have disappointed the market. Finally, international food prices have tended to decline in recent months. In May, the FAO index fell for the fourth consecutive month, reflecting the effect of the pandemic on world demand for these products.

### Forecasts and risks in the external scenario

Economic forecasts have been revised substantially since March, with lower global output for the 2020–22 period than previously estimated. The new outlook is based on the much deeper contraction of the world economy in the first half of the year than projected, as well as a slower recovery going forward, mainly due to the extension of lockdown measures.

In the immediate term, it will be especially important to see the results of the relaxation of containment measures in Europe and the United States. As of the cutoff of this Report, the lifting of restrictions in some areas of trade and services had been announced or started. Mobility indicators also show an incipient increase, in line with the end of lockdowns. In these circumstances, and in the absence of a vaccine or herd immunity, there is a high degree of uncertainty about how contagion will evolve in the coming weeks (box I.1).

For this forecasting exercise, the output forecast scenario is highly uncertain both locally and internationally. The central scenario considers a slow recovery of the global economy, where infection rates do not rise significantly, based on the assumption that social distancing practices will be in place for a long time, affecting, in particular, activities that imply more direct contact between people. In this scenario, a global GDP contraction of 4.5% is projected for this year, followed by growth of the same magnitude over the next two years (figure I.11 and table I.1). With regard to commodities, the copper price and the oil price (Brent-WTI) will average around US\$2.65 a pound and US\$43 a barrel, respectively, in the 2020–22 period.

As described in the summary and chapter V of this Report, the international forecast also considers sensitivity scenarios that incorporate different paths for the pandemic control. On the one hand, there could be a relatively fast recovery of world output, assuming that the reopening of economies does not cause an increase in contagion and that social distancing measures are quickly reduced. In that case, the recovery to pre-pandemic output levels could be faster than projected. On the other hand, a fresh outbreak could force the declaration of new quarantine measures, with an effect on economic performance. It would

also intensify the voluntary adoption of social distancing and the associated structural changes. The materialization of one or the other of these scenarios would have a major impact on global growth, the recovery forecast for 2021–22, and the external boost to the Chilean economy.

An important aspect of the materialization of the central scenario or the alternatives is the change in spending patterns, such as the effect on services of a more persistent reduction in business travel or the impact on office vacancy rates deriving from the increase in working from home. While this would ultimately lead to a reallocation of resources among sectors, the processes are neither immediate nor fast, due to the specificity of capital and labor. Thus, under a scenario in which the pandemic causes more permanent changes in certain areas of the economy, there could be a slower adjustment that results in longer-lasting damage to jobs and income for households and firms (box V.1).

The uncertainty surrounding the evolution of the external scenario is reflected in outside forecasts. The common factor in all the projections is that they have become increasingly negative over the weeks, albeit with significant dispersion. For this year, the most recent forecasts from the main multilateral organizations run from a decline on the order of 3% to a drop of 7.6% in the most negative scenario proposed by the Organization for Economic Cooperation and Development (OECD). The OECD, the IMF and the World Bank have stressed that this will be the worst global recession in almost a hundred years. For 2021, the bulk of the forecasts range between 3.0 and 5.5% according to the same sources.

In any case, under all of the scenarios described above, there is still a threat to the liquidity, solvency, and sustainability of households, firms, and financial institutions—especially if there are new outbreaks of the virus or if the medium-term damage is greater, which would exacerbate the already-weak economy. In this type of context, and as revealed by the high volatility in the days preceding the publication of this Report, a sharp correction in the markets that could aggravate the economic situation cannot be ruled out, when the authorities have already implemented significant monetary and fiscal stimulus packages. With regard to the latter point, it is important to underscore that the stimulus measures will create enormous deficits in the majority of countries, in some cases leading to a structural deterioration in the fiscal position that will be difficult to overcome. This will further tighten global credit conditions for more vulnerable countries, including some Latin American economies that recorded

**TABLE I.1**  
World growth (\*)  
(annual change, percent)

	Ave. 00-07	Ave. 10-18	2019 (e)	2020 (f)	2021 (f)	2022 (f)
World at PPP	4.5	3.9	2.8	-4.5	4.4	4.5
World at market FX	3.3	3.1	2.5	-5.2	4.1	4.3
Trading partners	3.7	3.9	2.9	-3.6	4.2	4.5
United States	2.7	2.3	2.3	-6.4	2.5	4.8
Eurozone	2.2	1.4	1.2	-8.7	4.4	4.1
Japan	1.5	1.4	0.7	-4.7	1.1	1.7
China	10.6	7.9	6.1	0.6	7.3	6.3
India	7.1	7.4	4.2	-2.4	5.5	5.8
Rest of Asia	5.3	4.6	3.4	-2.0	4.0	3.5
Latin America (excl. Chile)	3.4	2.0	-0.7	-8.3	1.5	2.9
Commodity exporters	3.1	2.4	1.7	-6.3	3.9	4.2

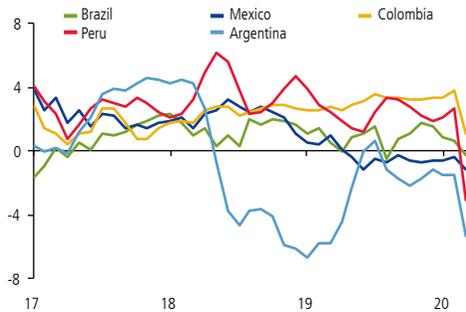
(\*) See glossary for definitions.

(e) Estimate.

(f) Forecast.

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

**FIGURE I.12**  
**Monthly activity index in Latin America (\*)**  
 (annual change, percent)

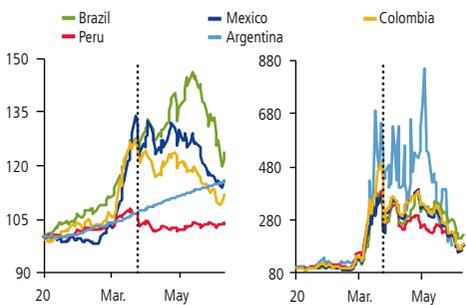


(\*) Three-month moving average.

Source: Bloomberg

a meagre performance even before the pandemic (figure I.12). Countries like Mexico and Argentina saw a deepening of their recessions in the first quarter, in a context in which the region was facing a series of concerns about the handling of the COVID crisis, the existence of socio-political tension, the effect of the drop in commodity prices, and the limited economic policy space. The accumulation of fiscal deficits has triggered an increase in the gross public debt of central governments, which averaged around 45% of GDP in the bloc in 2019, with variation among members—a full 15 percentage points above the trough of 2011 (ECLAC, 2020). At the same time, Latin America is one of the regions with the greatest financial deterioration in the year to date, especially Brazil (figure I.13).

**FIGURE I.13**  
**Latin American financial markets (\*)**  
 (index: 1-Jan-2020=100)



(\*) Vertical dotted line marks the cutoff date of the March 2020 Report.

Source: Bloomberg

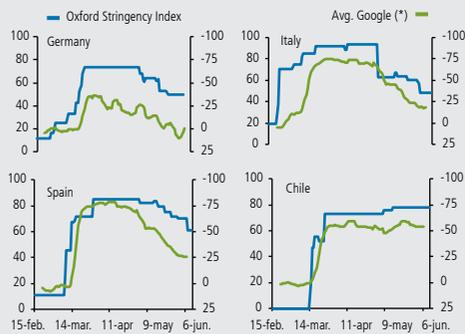
Another key risk is an escalation of trade tensions. In recent weeks, multiple threats have arisen between China and various economies, regarding responsibility for the origin of the pandemic. With the United States, the frictions have already taken shape on some measures, in particular in the areas of agriculture and technology. The U.S. dispute with China has intensified due to differences over Hong Kong's independence. There is also the risk associated with the recent wave of social protests in some countries, especially the United States, due to the potential economic impact.

## BOX I.1 GLOBAL COVID-19 OUTLOOK

### Introduction

Non-pharmaceutical interventions (NPIs), such as social distancing and restrictions on personal mobility, have been broadly used to face the COVID-19 epidemic. This box summarizes the global evidence on the economic impact of NPIs and outlines possible scenarios for the evolution of the virus and economic activity, based on the future path of NPIs.

**FIGURE I.14**  
Intensity of non-pharmaceutical interventions (\*)  
(percent)



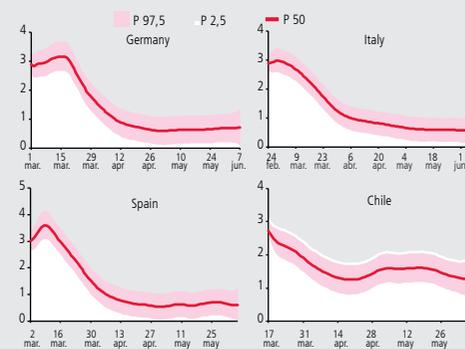
(\*) Seven-day moving average of Google Mobility Reports; excluding residential.  
Sources: Google and University of Oxford.

The uncertainty surrounding the economic impact of the pandemic is extremely high, which is reflected in the larger forecast interval in the central scenario of this Report. One possibility is a scenario in which the partial withdrawal of NPIs allows controlling the epidemic to a degree that supports some recovery of global economic activity. However, there is an alternative scenario in which it is necessary to maintain strict NPIs for some time, with a negative effect on output and on business and household income. Yet another possibility is that economic activity recovers more quickly, if the COVID-19

spread does not intensify as the NPIs are gradually abandoned. This indicates that monitoring the dynamics of COVID-19, as countries adjust their NPIs, will be of vital importance not only for learning from successful examples, but also for forecasting world growth in the coming years.

The NPIs adopted by the authorities aim to reduce physical interaction between people so as to reduce contagion. The Stringency Index calculated by the University of Oxford quantifies the intensity of NPIs applied in a large set of countries and studies their evolution over time<sup>1/</sup>. This information can be complemented by data measuring changes in people's movement, where the Google Mobility Reports (GMRs) are the best known example. Both the Stringency Index and the GMRs reveal that social interaction has diminished since March, but it has begun to increase again in some cases (figure 1.14).

**FIGURE I.15**  
Effective reproduction rate (RR) of COVID-19



Source: Arroyo et al. (2020).

<sup>1/</sup> For the data and methodology used to construct the Oxford containment and health index, see <https://www.bsg.ox.ac.uk/research/research-projects/coronavirus-government-response-tracker>.

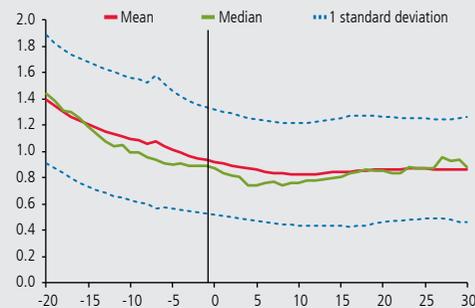


At the same time, the effective reproduction rate (RR) of the virus has decreased in several countries (figure I.15)<sup>2/</sup>. Chile diverged from this trend in late April, which led to the establishment of new NPIs, in particular more extensive lockdowns. This is a key factor explaining the worsening of the growth outlook for this year.

Expert consensus is that the NPIs have contributed to lowering the spread of COVID-19, since they have reduced social interaction and, therefore, contagion. These conclusions are obtained by studying how the spread of the virus would differ—measured by the RR and the number of cases or deaths—in response to changes in the Stringency Index or the GMR. The same results are found by studies based on simulation models that try to replicate the infection dynamics observed in the data, as well as models using econometric and statistical analysis.<sup>3/</sup> Given the brief period since the onset of the global pandemic, these studies were done when the NPIs were being strictly applied and mobility was reduced.

How will the virus evolve when the restrictions on social interaction and personal mobility are gradually lifted? Although the experience is quite recent, other countries can serve as the basis for analyzing this question. In countries that have increased mobility, the RR has been stable at around 1.0 in the sample considered, on average, after 30 days<sup>4/</sup> (figure I.16).

**FIGURE I.16**  
Effective reproduction rate (RR) after increase in mobility



Source: Central Bank of Chile.

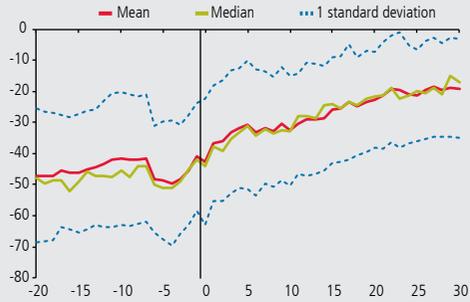
Several factors need to be taken into account when interpreting the results of this event study. First, mobility has only partially recovered in these countries (figure I.17), so it is unclear whether the RR will remain stable when the GMR reaches pre-pandemic levels. Second, although the GMR shows increased mobility, the Stringency Index remains high (figure I.18), especially in terms of measures that limit contact between people, such as school closures and restrictions on gatherings of more than ten people. Finally, it is possible that other factors not included in the event study are influencing the dynamics of the RR when mobility changes—for instance, the observance of personal hygiene standards, the capacity to identify and isolate new cases, and the use of social distancing practices.

<sup>2/</sup> The effective reproduction rate (RR) is the number of new cases deriving from each infected individual. The estimates used in this box are from Arroyo et al. (2020).

<sup>3/</sup> For example, Flaxman et al. (2020) uses epidemiological simulation models to study this phenomenon; Hsiang et al. (2020) use econometric methods.

<sup>4/</sup> The start of the event is defined as the first day of a series of five consecutive days in which the GMR rises at least 5 percentage points relative to the previous week. After the start date, there must be at least 30 days of data to be included in the sample. This leaves a total of 47 countries. The values of the RR used are calculated by Arroyo et al. (2020).

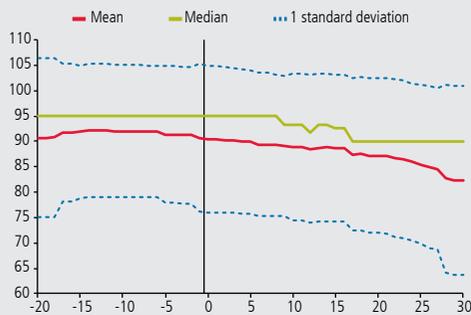
**FIGURE I.17**  
Increases in mobility  
(percent)



Source: Central Bank of Chile, based on Google Mobility Reports.

The Covid-19 pandemic is an event like very few in the last two centuries and whose future evolution is highly uncertain. This will depend on the biological characteristics of the virus, the measures adopted by the authorities and the change in people's behavior. The evidence presented in this Box shows that in some countries mobility has recovered without, until now, the rate of reproduction of the virus having increased. Monitoring this dynamic in the following quarters will be a relevant factor in projecting the world activity scenario for the next two years.

**FIGURE I.18**  
Stringency index after increase in mobility (\*)  
(percent)



(\*) Stringency index recalculated based on the following restrictions: school closures, cancellation of public events, restrictions on size of gatherings, prohibitions on international travel, and intensity of public information campaigns.

Source: Central Bank of Chile.



## II. FINANCIAL CONDITIONS

*This chapter reviews the evolution of local and international financial conditions.*

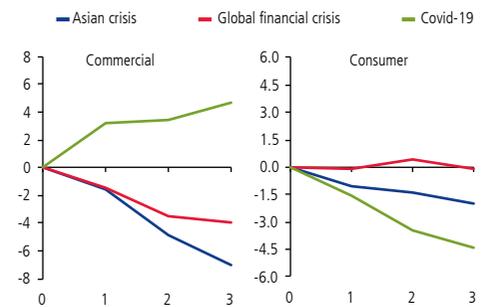
The effects of the pandemic have been larger than projected in March, resulting in greater damage in diverse areas of the economy and significant repercussions on business and household liquidity. The Central Bank acted early to implement several measures to address this situation and increase the supply of credit to firms, including the Conditional Financing Facility for Increased Loans (FCIC). These efforts have been complemented by measures adopted by Finance Ministry and the Financial Market Commission (FMC), such that the stock of commercial loans has increased since March—the opposite of the usual trend during a recession. Nevertheless, the pandemic has lasted much longer than estimated in the last Monetary Policy Report, and the financing needs of firms have risen in parallel. Thus, at its June Meeting, the Board decided to expand the unconventional liquidity and credit support measures, with the establishment of a second phase of the FCIC and a special asset purchase program. The two measures involve additional amounts of up to 10% of GDP.

### Bank credit

The annual growth rate of commercial loans has increased in recent months—from 6.5% in February to 11% in May, in real terms—which contrasts with the normal trend in periods of a strong contraction of economic activity. Consumer loans continue to follow a downward trend, begun in October of last year (figure II.1). The annual growth rate of mortgage loans remains just over 8%. Since the March Report, interest rates have fallen in the commercial segment, while they have risen in the mortgage and consumer portfolios, albeit only slightly in the latter case.

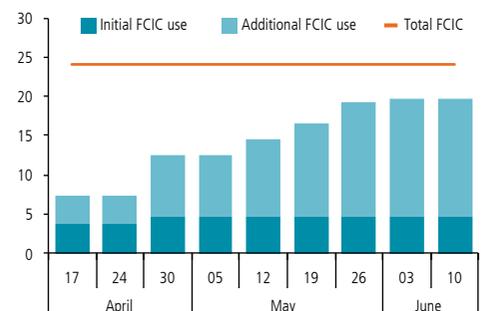
The increase in commercial lending has occurred in a context in which the Bank and other authorities have adopted a range of measures to facilitate growth. At a special meeting held on 16 March, the Board announced, among several other measures, the creation of the FCIC, which is a special bank funding line with resources and incentives to continue financing and refinancing loans to

**FIGURE II.1**  
Commercial and consumer loans during recessions  
(1) (2)  
(difference relative to annual change of period 0, percent)



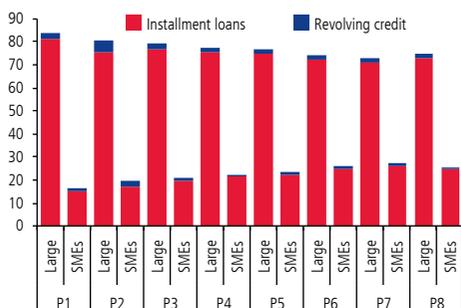
(1) Horizontal axis: months. Period 1 is the first month with a negative IMACEC.  
(2) Real data constructed with the spliced CPI series with base year 2018.  
Source: Central Bank of Chile, based on data from the FMC.

**FIGURE II.2**  
Additional FCIC line: Availability and use (\*)  
(US\$ billions)



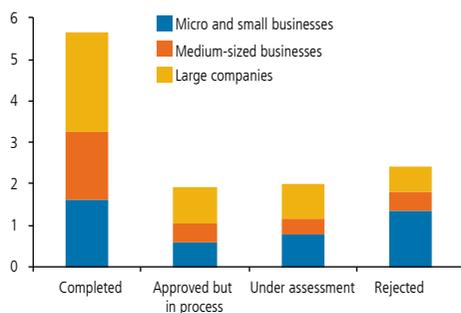
(\*) Based on F05 forms.  
Source: Central Bank of Chile.

**FIGURE II.3**  
Commercial flows, by size of firm (\*)  
(percent)



(\*) P1: 15-Mar to 9-Apr; P2: to 24-Apr; P3: to 30-Apr; P4: to 08-May; P5: to 15-May; P6: to 22-May; P7: to 29-May; P8: to 05-Jun.  
Source: Central Bank of Chile, based on data from F01, D34, and F05 forms.

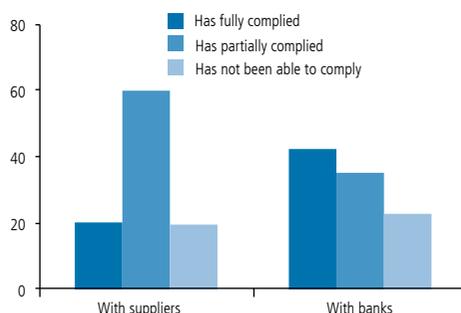
**FIGURE II.4**  
COVID-19 credit with FOGAPE guarantee, by application status and size of firm (1) (2)  
(US\$ billion)



(1) For the definition of firm size, see footnote 1/. (2) Data through 5 June 2020.

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

**FIGURE II.5**  
Compliance with financial commitments (\*)  
(percent)



(\*) For calculating the percentage, responses of "Not applicable" have been discarded

Source: Central Bank of Chile.

households and businesses, especially those that do not have access to the capital market. This facility had an initial line equivalent to US\$4.8 billion, which was rapidly used by the banking system, activating an additional line of US\$19.2 billion, for a total facility of US\$24.000 billion. On the cutoff date of this Report, the banking system had used around 83% of the available resources (around US\$20 billion), with some banks reaching their maximum limit (figure II.2). In part because of this facility, the share of small and medium-sized enterprises (SMEs) in the flow of commercial credit has increased since mid-March (figure II.3).

The lending incentives, especially to smaller firms, were complemented with special COVID-19 credit lines. This is an instrument created by the Finance Ministry, through which banks can provide low-cost, low-risk credit backed by state guarantees. Information from the FMC shows that between the start of this program (on 28 April) and 5 June, nearly US\$5.6 billion in credit had been granted through this mechanism (figure II.4). By size of firm, about 29% of the total has gone to micro and small businesses, 29% to medium-sized firms, and 42% to large companies<sup>1/</sup>. Of the total applications—around 223,000—about 38% have been delivered, 27% rejected, 17% approved but not yet delivered, and 13% are under evaluation. The increased access to credit for businesses is consistent with the results of a survey carried out between 19 and 26 May, covering firms that participate in the Business Perceptions Report (BPR). The results show that of the firms that have applied for credit since March (nearly half of the survey sample), a little more than half were approved, nearly a third are still waiting to hear back, and approximately a tenth were rejected.

The evolution of COVID-19 in Chile has caused a worsening of the macroeconomic scenario. This Report estimates a large output contraction in 2020, which has a direct impact on businesses' cash flow and thus on their financing needs. In this context, and consistent with the announcement that new conventional measures will be implemented if needed in line with the economic scenario, the Board decided to implement a second phase of the FCIC. This new phase adds a significant quantity of resources (US\$16 billion) and strengthens the incentives to supply bank credit to small and medium-sized businesses and to non-bank lenders, which will provide a solid complement to the COVID-19 credit lines backed by fiscal guarantees. The Board further agreed to implement a special asset purchase program for up to US\$8 billion, over a period of six months. Together, the two programs will mobilize additional resources of up to 10% of GDP. The significant quantity of low-cost funding with state backing should provide a strong incentive for financial institutions to continue to increase their lending and thus to cover the liquidity needs of firms that, while solvent, are facing tough times due to the pandemic.

<sup>1/</sup> Micro and small businesses: annual net sales of less than UF 25,000. Medium-sized businesses: annual net sales of UF 25,000 to 100,000 UF. Large firms: annual net sales of UF 100,000 to 1,000,000.

The importance of firms' financing needs is reflected in the results of the survey mentioned earlier. Almost half the respondents had cash flow problems in May, which the majority ranked as severe or serious. As a result, the majority have not been able to pay their suppliers in full, and nearly half are in arrears on bank debt (figure II.5). The survey also reveals that a large fraction of the businesses believe that they will need credit in the coming six months, primarily to finance working capital. Only a small minority of those surveyed signaled that they will need credit to finance some type of investment. Estimates based on tax information suggest that meeting cash flow requirements from April to September of this year will require an increase in bank credit equivalent to almost 9% of GDP (box II.1).

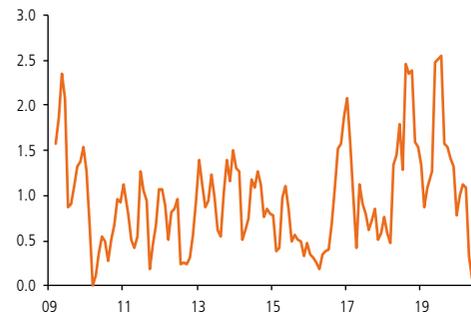
Data from the FMC show no relevant changes in arrears of 90 days or more in the banking system between February and April, with a slight increase in the personal segment—concentrated in consumer loans—and a slight decline for firms. For non-bank credit cards, arrears of 90 days or more rose to 11.7% in March, the highest rate on record. The FMC announcement of a special treatment for provisions on deferred mortgage payments favored refinancing. Thus, as of 5 June, banks and savings and loan associations had rescheduled around 30 and 26% of loans, respectively. For the former, most of the refinancing involved mortgage and commercial loans; for the latter, the consumer and commercial segments. In the coming months, it will therefore be important to monitor the possible intensification of default on financial obligations by businesses and households.

### Bond market

Corporate financing through the issue of local bonds has been limited thus far in the year, with a significant reduction in the number of announcements and in the amount issued, recording the lowest level since 2010 (figure II.6). At the same time, the share of large firms as recipients of bank credit indicates that they are using this channel to cover their financing needs. Non-bank corporate bond spreads have fallen, but they are still high relative to previous years (figure II.7).

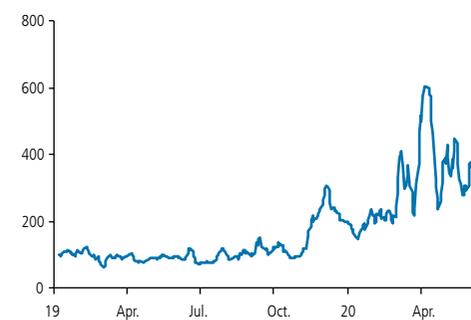
Bank bond spreads have come down since early April, in part due to the establishment of a bank bond purchase program for SOMA participants—of which US\$3.3 billion of the total US\$8.0 billion has already been used. Thus, since the March Report, bank bond spreads between seven and ten years have declined around 100 and 90 basis points (bp) for the AAA and AA segments, respectively.

**FIGURE II.6**  
Nonbank corporate issues  
(quarterly moving sum, US\$ billions)



Sources: Central Bank of Chile, based on data from the Santiago Stock Exchange and Bloomberg.

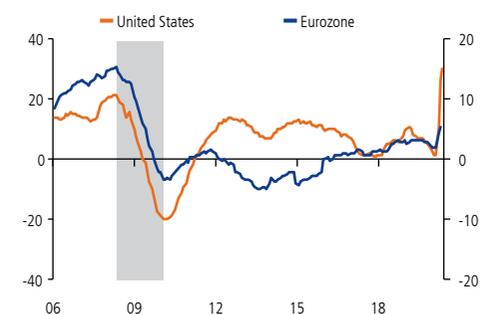
**FIGURE II.7**  
Nonbank corporate spread (\*)  
(weekly moving average, basis points)



(\*) Spread over UF-denominated sovereign bond. Weighted average by amount for spreads on A, AA, AAA, and BBB bonds.

Sources: Central Bank of Chile, Bloomberg, and Santiago Stock Exchange.

**FIGURE II.8**  
Commercial loans in developed countries (\*)  
(annual change, percent)



(\*) Gray area marks the global financial crisis.

Sources: Bloomberg and Federal Reserve Economic Data.

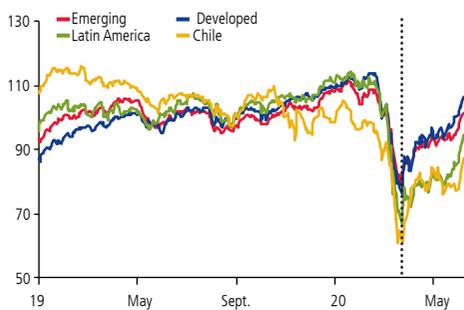
**FIGURE II 9**  
Central bank balance sheets (\*)  
(percent of GDP)



(\*) Developed: United States, Eurozone, England, Japan, Canada, and Switzerland. Emerging: China, Brazil, India, Mexico, and South Africa.

Sources: Bloomberg and central banks.

**FIGURE II.10**  
Stock markets (1) (2)  
(index: 2019–20 = 100)



(1) Regional stock indexes measured in local currency, from Morgan Stanley Capital International. For Chile, the IPSA is used.

(2) Vertical dotted line marks the cutoff of the March 2020 Monetary Policy Report.

Source: Bloomberg.

## Liquidity

Liquidity has increased in the local money markets in pesos and dollars since late March, due, in part, to Central Bank measures such as the repo and FX swap programs. Thus, the onshore spread decreased to around the level at the start of the year. The deposit-swap rate spread fell substantially in late March, reflecting high liquidity in the peso money market. Taken together with the reduction in exchange rate volatility and access to a series of multilateral and bilateral facilities from the Central Bank, the Board decided to initiate a process of gradually reducing its sales position in the non-delivery forward (NDF) market starting in the second week of June. In particular, US\$250 million will be allowed to mature weekly, which represents around 25% of maturities. This scheme assumes the partial rollover of contracts for around four months.

## Monetary policy of other central banks and the evolution of credit

In the developed world, the growth of consumer and commercial loans has followed a similar trend to Chile, although the magnitude of the increases and decreases varies by country. Thus, while consumer loans have slowed, commercial loans have picked up, in contrast to past recessions. In the United States, for example, commercial loans grew 30% in annual terms in May (figure II.8). Given that some data suggest that a significant share of the credit is flowing to large firms, many countries are targeting actions to finance smaller businesses, including the United Kingdom, which has launched a program of 100% state-backed loans, and the United States. In contrast, the opposite trend is found in consumer portfolios, where loan volumes have dropped off dramatically.

Since the start of the pandemic, many central banks have not only reduced their reference rates, but also introduced unconventional policies, such as asset purchase programs to inject liquidity into the economy. Between March and April, central banks in developed countries increased their net assets by approximately 8% of GDP (figure II.9). Most notably, the U.S. Federal Reserve (Fed) went from around US\$4.2 trillion in early March to US\$7.2 trillion on the cutoff date of this Report. For comparison, during the 2008 financial crisis the Fed's balance sheet grew from US\$0.9 trillion to US\$2.1 trillion. In addition, the Fed has moved toward buying corporate assets through the Primary Market Corporate Credit Facility and the Secondary Market Corporate Credit Facility, as well as financing small and medium-sized firms through the Main Street Lending Program. In emerging countries, this type of measure is less common, and reducing reference rates continues to be the primary monetary stimulus measure (figure I.8).

## Financial markets

The financial markets have reversed the sharp deterioration that marked the start of the pandemic, driven by the monetary and fiscal stimulus measures. Despite recent fluctuations, most financial variables have improved since the second half of March. Stock markets rose 27% in developed economies, 18% in emerging, and 22% in Latin America, measured by the MSCI World Index (figure II.10). Implied market volatility—measured by the VIX and the MOVE—has diminished. Long-term sovereign rates have been mixed—mostly stable in the developed world, but declining in the majority of Latin American economies. Both sovereign risk (CDS spreads and the EMBI) and corporate risk (CEMBI) have decreased for emerging countries and Latin America in general. In the same line, most currencies have appreciated against the U.S. dollar. Countries like Brazil and Mexico had recorded exchange rate trends that diverged from the rest of the region, as the sharp cuts in their monetary policy rates put downward pressure on the value of their currencies. However, in recent weeks the lower risk aversion in the markets has partially reversed this trend (table II.1). Indicators continue to show that international financial conditions are less favorable than before the pandemic, especially for the emerging economies.

In Chile, the markets have moved in line with the international trends, although some idiosyncratic movements reflect the spread COVID-19 at the local level. Since the March Report, the IPSA stock index increased 22%, with a recovery in most sectors. Some long-term benchmark rates hit historical lows, and sovereign (CDS spreads and the EMBI) and corporate (CEMBI) risk indicators decreased, although they remain high from a historical perspective. The Chilean peso appreciated, in line with the lower risk aversion and the evolution of comparable currencies, supported by the increase in the copper price, the pension fund sale flows, etc. Relative to the cutoff date of the March Report, the nominal exchange rate (NER) fell 7.7%. Multilateral exchange rates also decreased, around 7% for the MER, MER-5, and MER-X (figure II.11). The RER also dipped, reaching 100 in May (fixed-base index: 1986=100).

## International funding sources

In view of the risks of the current scenario, the Board has sought mechanisms to reinforce Chile's international financial position and create space for implementing new measures if necessary. Thus, at the request of the Bank, the International Monetary Fund (IMF) has granted access to a Flexible Credit Line (FCL) equivalent to about US\$24.0 billion, or over 60% of international reserves, for a two-year period. This instrument is very different from the traditional IMF lending mechanisms, in that it is only granted to countries with solid macroeconomic fundamentals and is intended to be used for crisis

**TABLE II.1**  
U.S. dollar exchange rates (1)  
(percent)

	Change, Jun. 20 Report			
	03.20	12.19	09.19	07.19
<b>Latin America (2) (3)</b>	<b>-3.1</b>	<b>14.9</b>	<b>16.0</b>	<b>18.9</b>
Brazil	1.9	21.3	25.4	28.0
Chile	-7.7	-1.4	10.3	12.2
Colombia	-10.2	5.2	6.4	8.5
Mexico	-7.3	12.4	10.3	13.9
Peru	-3.3	1.1	1.2	2.1
<b>Commodity exporters (2)</b>	<b>-7.1</b>	<b>3.2</b>	<b>2.3</b>	<b>3.5</b>
Australia	-13.4	-1.3	-1.7	0.6
Canada	-5.1	1.8	1.7	0.4
New Zealand	-8.4	0.3	-0.1	2.0
South Africa	-0.5	15.6	11.1	17.1
<b>Developed (2)</b>	<b>-2.7</b>	<b>-0.9</b>	<b>-0.7</b>	<b>-0.5</b>
Eurozone	-2.9	-1.8	-1.2	-0.5
Japan	-0.6	-0.7	2.0	-1.1
United Kingdom	-5.4	2.6	-3.0	0.7
<b>Other emerging</b>				
China	0.7	1.0	0.2	2.9
Rep. Korea	-2.1	3.4	0.5	2.3
India	0.8	5.5	5.6	8.4
Indonesia	-8.9	0.9	-0.2	-1.3
Poland	-4.5	1.2	0.3	2.6

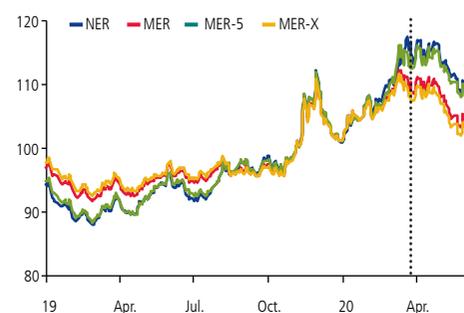
(1) The values reflect the percent change between the cutoff date of the corresponding Report and the cutoff of this Report. The NER of each series is calculated as the average of the last ten business days. Positive (negative) sign indicates depreciation (appreciation) of the currency against the U.S. dollar.

(2) Includes the currencies of the economies included in this table, using the weights in the April 2020 WEO.

(3) Excluding Chile.

Sources: Central Bank of Chile, Bloomberg and International Monetary fund.

**FIGURE II.11**  
Nominal and multilateral exchange rates (\*)  
(Index: 2019–20 = 100)



(\*) Vertical dotted line marks the cutoff of the March 2020 Monetary Policy Report.

Source: Central Bank of Chile.



prevention—that is, it is designed to address possible episodes of significant external stress, not to resolve a balance-of-payments crisis. The benefits of the FCL include reducing exposure to external risks at a time of high international uncertainty, boosting market confidence, helping to reduce the cost of funding, and allowing the Central Bank to continue to work proactively to reduce the risks to financial stability, support credit flows, and limit the economic contraction.

In addition, the Central Bank submitted an application to the Federal Reserve Bank of New York to participate in the Temporary Foreign and International Monetary Authorities (FIMA) Repo Facility, announced by the Fed in March. This overnight transaction service will allow the Bank to utilize temporary repurchase agreements, exchanging its U.S. Treasury securities for U.S. dollars. This will provide greater flexibility for conducting dollar swaps, by reducing transaction costs and providing access to dollars without having to sell the securities in the open market.

The Bank has also made progress on conversations with the People’s Bank of China (PBoC) to increase the amount of the yuan/peso (RMB/CLP) bilateral currency swap agreement to RMB\$22.0 billion for the Bank—with the equivalent in pesos for the PBoC—for a three-year period. The expansion of this facility aims to shore up Chile’s financial position and facilitate the country’s foreign trade operations with China that are made directly in CLP and RMB.

## BOX II.1

### FINANCIAL MARKET CONDITIONS AND POLICY MEASURES

The financial system plays a central role in a modern economy because it contributes to the efficient allocation of resources, channeling funds from people who save to people who are in need of financing. In the process, it reduces transaction and information costs, fostering an appropriate distribution of risk among economic agents and facilitating liquidity and maturity transformation. Fulfilling these functions is essential for economic development, as it supports business investment and household consumption. A stable financial system also facilitates the implementation of monetary policy, since policy transmission and effectiveness depend on appropriate price formation and risk taking by the agents that operate in the financial system. Consequently, preserving the stability of the financial system is a key concern of central banks around the world. The Central Bank of Chile is no exception, as policy is conducted from a macrofinancial perspective, with the objective of limiting the risks that threaten the continuity of internal and external payments. To meet this objective, the Bank is vested with a range of legal powers, regulatory authority, and policy tools (Monetary Policy Framework, 2020)<sup>1/</sup>.

The economic consequences of the pandemic have threatened the normal functioning of global financial systems and, therefore, their central role in the economy. The current crisis derives from a real shock in the form of a public health emergency, and thus, in contrast to the 2008–09 crisis, the epicenter is not the financial system. Nevertheless, the repercussions of the severe global economic contraction have generated instability in these markets, which have become potential amplifiers of the original real shock. These developments have led central banks to implement a series of policies to ensure the stability of their financial markets.

The crisis has had various destabilizing effects on the financial markets. On the demand side, to the extent that the shock has been perceived as temporary, businesses and households have increased their demand for resources in an effort to soften the effects. The mandatory temporary closure of businesses and the voluntary social distancing decisions by many people have implied a drastic reduction of income for many productive sectors. While firms have responded by adjusting their spending, the presence of fixed costs means that their cash flow needs have risen, and there is likely to be an increase in the demand for financing in order to cover these needs. Even firms that do not have problems today are likely to increase their demand for resources as a preventative measure, to protect against possible cash flow disruptions in the future. Similarly, in principle, household demand for consumer credit should increase in the face of the temporary reduction in their income, to avoid having to reduce their consumption to the same degree. On the supply side, it is very possible that the availability of funds in the financial markets will tighten as a result of the reduction of income that has accompanied this episode<sup>2/</sup>.

These opposing movements in the supply and demand for loanable resources in the financial markets are exacerbated by a key factor: the heightened demand for risk-free liquid assets. The unprecedented shock and the uncertainty regarding its future development have caused risk aversion to spike, as is normally the case in times of economic crisis, and market agents are seeking refuge in safe liquid assets. Thus, in the face of uncertainty, the perception of risk increases to the extent that there is less information on the repayment capacity of debtors.

<sup>1/</sup> In accordance with the legislation governing the Central Bank, which establishes the dual objective of price stability and payment system stability, the Bank shares responsibilities with the financial sector supervisors, including the Financial Market Commission (FMC) and the Superintendence of Pensions.

<sup>2/</sup> When the shock is perceived as more permanent and the limits of solvency and credit access are reached, firms will need to cut costs even further, eliminating jobs and not paying suppliers, thereby amplifying the crisis and making it more persistent.

This factor can be particularly harmful for the proper functioning of the financial markets, since it hinders the flow of funds from people who save to people who need financing, causing an inefficient allocation of resources and impeding liquidity and maturity transformation.

In response, the Bank has implemented a series of special measures, including market liquidity programs in pesos and bank lending support programs, which have helped stabilize the level of credit risk and provided a countercyclical stimulus for credit. However, estimates of the future cash flow needs of businesses reveal that the financial markets will face major challenges to continue to provide the required funds. Thus, the Bank has decided to intensify the monetary stimulus through unconventional measures to support market liquidity and bank credit. The credit measures are a good complement to the government programs based on state guarantees for bank loans, which are crucial for ensuring that bank financing continues to flow to firms. Together with the new resources provided by the Bank, these programs will provide the necessary elements to allow the financial markets to successfully meet this challenge, while at the same time achieving inflation convergence to the 3% target in the policy horizon of two years.

**Stress in international and domestic financial markets**

One way that the spread of COVID-19 was reflected in heightened stress in the global financial markets was the spike in risk premiums in corporate debt markets. In the United States, for example, investment-grade and high-yield bond spreads increased around 200 and 600 basis points (bp), respectively, between late February and late March, signaling a generalized rise in the perception of risk in these markets (figure II.12).

The higher debt costs were quickly propagated to emerging sovereign debt markets, where risk premiums also increased. The Latin American EMBI spread doubled in the same period, from 200 to over 400 bp. Chile was no exception: the spread soared to over 300 bp after hovering around 150 bp in the months prior (figure II.12).

The increase in debt spreads for emerging countries has been accompanied by a reduction in capital inflows to these economies, including Chile. Between March and May, portfolio

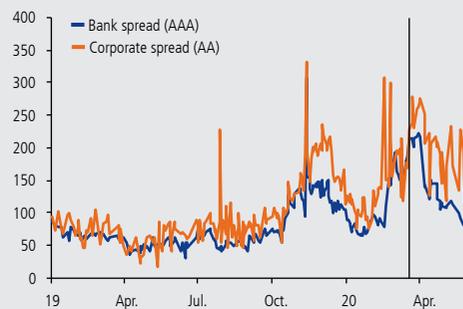
investments held in the country by non-residents contracted around US\$1.8 billion, mainly due to the sale of fixed-income securities. This outflow was offset by net capital inflows on the part of the pension funds (around US\$2.35 billion) and the government (US\$2.66 billion)<sup>3/</sup>.

**FIGURE II.12**  
Spreads on U.S. and sovereign debt (1) (2)  
(basis points)



(1) Corporate spreads for all U.S. sectors. Investment grade: corporate bonds with relatively low default risk; High yield: corporate bonds with a lower credit rating. (2) Vertical dotted line marks the first confirmed case of SARS-CoV-2 in Chile. (3) EMBI average for five countries in the region (Chile, Brazil, Mexico, Peru, and Colombia).  
Sources: Bloomberg and MINSAL.

**FIGURE II.13**  
Bank and corporate bond spreads in Chile (1) (2)  
(basis points)



(1) ASW of local bank and corporate bonds, with a maturity of seven to ten years. (2) Vertical line marks the date of the first purchase, 20 March.  
Sources: Bloomberg and Risk America.

<sup>3/</sup> Values for May are estimated. Government inflows only cover March and April.

## Increased cash flow needs of firms

The harmful effects of financial market instability are aggravated when, as a result of the drop in economic activity, firms have high cash flow needs and therefore require greater access to funding sources in order to cover them.

In late May, the Bank carried out a survey of the firms that participate in the Business Perceptions Report (BPR), which received around 320 responses. Of these, almost half of the surveyed firms reported that their financial situation had worsened since April, while a slightly smaller share said they were having cash flow problems. Of this group of firms, the vast majority described their cash flow problems as serious or severe. At the same time, a majority of the respondents believes that their company will need to apply for credit in the next six months, primarily for working capital. Only a very small fraction of the firms signaled that they will request credit for investment purposes.

Independent calculations, based on tax information reported by the firms, also point to an increase in financing needs. In the calculation, funding needs are approximated by the aggregation of negative operating results (losses), which are projected as a function of the sales forecast and operating expenses. It is assumed that if a firm has negative operating results, it will need financing to continue operating. It is further assumed that the historic distribution of financing between credit and debt—internal and external—continues to apply. The estimates reveal an operating deficit for the April–September period that is 89% higher than the same period in 2019, mainly explained by the trade and manufacturing sectors. This will require an increase in bank credit equivalent to around 9% of GDP in April to September of this year<sup>4/</sup>.

<sup>4/</sup> In the case of small and medium-sized enterprises (SMEs), the growth of the operating deficit vis-à-vis last year is estimated at 135%, versus 77% for large firms. The total requirement of the two groups of firms is estimated at 15% of GDP, of which 2.7% corresponds to SMEs and the remaining 12.3% to large firms. In the calculation of bank credit needs equivalent to 9% of GDP, it is assumed that 2.7% corresponds to SMEs, which finance the full requirement via bank lending, while roughly half of the needs of large firms (6.3%) is financed by bank credit, following the historic pattern where about 50% of aggregate financing of these firms is funded through the bank market. Finally, these calculations assume that trade credit between firms is not disrupted significantly. When financing needs are estimated assuming larger disruptions in trade credit—contractions of 25 and 50%—the need for bank credit increases from around 9% of GDP to around 11.5 and 14.0% of GDP, respectively. For more details, see Albagli, Fernández, and Luttini (2020).

## Economic policy measures and the state of lending

The Central Bank of Chile, like the majority of central banks, has implemented a series of special measures to address the challenges to financial market stability. These include facilities created to supply market liquidity in pesos, as well as liquidity tied to lending incentives<sup>5/</sup>. The market liquidity in pesos has been delivered through two channels: first, via Central Bank debt redemption operations, where US\$6.110 billion of the announced US\$8.514 billion program had been redeemed as of 10 June; and second, via bank bond purchases, where US\$3.302 billion of the announced US\$8.0 billion program had been purchased on the same date.

With regard to financing provided by the banks, the Central Bank has opened a Conditional Financing Facility for Increased Loans (FCIC) totaling US\$24.0 billion, while also expanding the list of instruments accepted as collateral for bank funding operations. As of the cutoff of this Report, the banks had used about US\$20 billion of the FCIC, equivalent to 83% of the allocated line (figure II.2)<sup>6/</sup>.

These measures have had important effects on both risk measures and bank credit. Bank and corporate spreads began to stabilize after the Central Bank began buying bank bonds (figure II.13), which coincided with the stabilization of external credit markets. In terms of bank credit, the stock of commercial loans has increased around US\$6.0 billion, with nominal growth of 5% between 13 March and 5 June.

Given these developments on the credit front, commercial loans have been countercyclical for the first time, growing while economic activity contracts in a recession, undoubtedly softening the real contraction (figure II.14). The cyclical component of commercial loans has grown above trend by about 2%, while output has contracted nearly 4% below the trend.

<sup>5/</sup> Market liquidity programs in dollars have also been implemented.

<sup>6/</sup> A new section has been added to the Central Bank's website to monitor these special measures: <https://www.bcentral.cl/web/banco-central/medidas-excepcionales>.

**FIGURE II.14**  
Commercial lending cycles and non-mining IMACEC (\*)  
(percent)



(\*) HP cycle of the natural log of seasonally adjusted variables in basis points, monthly frequency; smoothing parameter (lambda) equal to 14,400.  
Source: Central Bank of Chile.

Despite the recent behavior of bank credit, it is important not to underestimate the magnitude of the challenge going forward. As mentioned, firms' financing needs have increased as the economic contraction has worsened. Consequently, the growth of the stock of commercial loans will have to accelerate to be able to meet these increased cash flow needs. Estimates show that the average annual growth rate of the stock of nominal commercial loans that would satisfy the aforementioned cash flow needs between June and September is around 20.7%, compared with an average of 13.1% recorded between February and May.

Given this situation, the Board has decided to launch a second phase of the FCIC. This program includes stronger incentives for supplying bank credit to small and medium-sized businesses and to non-bank lenders. In this case, access to the funds is tied to the growth of lending in the commercial portfolio, with special incentives for banks that are actively delivering COVID-19 credit lines and lending to non-bank financial intermediaries. Importantly, the COVID-19 credit lines have a state guarantee (FOGAPE) and establish specific lending conditions. The objective is to ensure that firms have access to bank funding to face their current short-term liquidity problems. Non-bank financial intermediaries, in turn, complement the work of

banks by providing financing to households and firms through other financial products, such as factoring, so this incentive will contribute to boosting that market. Finally, the new FCIC initiative considers a total amount of US\$16 billion and will be implemented over the next eight months. Additionally, the Board voted to implement a special asset purchase program for up to US\$8 billion over six months. Taken together, the two programs will mobilize additional resources of up to 10% of GDP.

### Conclusions

The economic consequences of the pandemic and the increased risk perception have had a major impact on the financial markets, undermining their primary function of allocating resources between savers and debtors, as well as liquidity and maturity transformation. This phenomenon is occurring in both domestic and international financial markets.

In response, central banks around the world have launched a series of special measures, in accordance with the specific legal framework governing each institution. In the case of the Central Bank of Chile, the initiatives include the provision of market liquidity in pesos and support for bank lending. These programs are largely motivated by the clearly higher cash flow needs of firms, seeking to provide a mechanism for offsetting this increase through greater access to financing. As a result of these measures, credit risk has stabilized, and bank lending has evolved as desired, to the extent that firms have been able to mitigate the severe negative income shock. These measures will help reduce the number of business bankruptcies, thereby supporting jobs and household consumption. However, estimates of firms' future cash flow needs reveal significant challenges for the financial markets to continue supplying the necessary credit. Therefore, the Bank has decided to extend its market liquidity and bank funding facilities in order to provide the resources for meeting this challenge.

The calculation of the design and size of the measures was based on two elements: the economy's need for credit and the need for these resources to be available at low rates for a long period of time. With regard to the former, the reference point was the cash flow estimates presented in this box. The liquidity supplied by the Bank vastly exceeds that amount, given that every peso of liquidity cannot be expected to translate into one peso of credit. With regard to the latter, the two FCIC

phases consider sufficiently long maturities to ensure that the financial intermediaries' funding costs remain low for several years. Additionally, the Bank has acted in the bank bond market, redeemed its debt, and expanded the list of eligible instruments accepted as collateral, all of which should contribute to keeping medium-term funding within appropriate ranges given the current reality.

As emphasized throughout this Report, there is a very high degree of uncertainty regarding the future evolution of the macroeconomic scenario. To the extent that the risks to the downside materialize, the disruptions to the financial markets will probably increase and will require more sources of funding. In that regard, fiscal policy, through state guarantees for bank loans, as well as other measures currently being discussed to give the Central Bank more monetary instruments, will be fundamental for continuing to meet the potential challenges that could arise in the financial markets.



### III. OUTPUT AND DEMAND

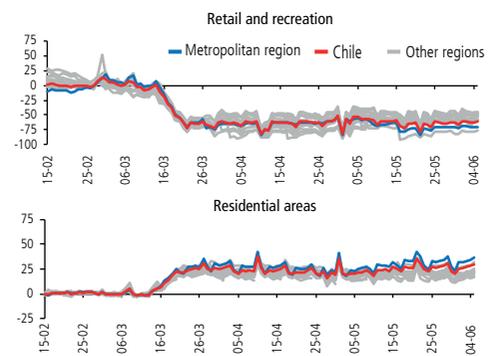
*This chapter reviews the recent evolution of output and demand and their short-term outlook, in order to examine possible inflationary pressures.*

The economic contraction that began in Chile in the second half of March has been larger than projected in the last Monetary Policy Report. The spread of COVID-19 in the country made it necessary to implement stricter sanitary containment measures over a longer period than expected in March. In particular, based on the lockdowns implemented throughout most of the Santiago Metropolitan Region since mid-May and a large share of the Valparaíso Region starting in mid-June, the output data for those months are expected to be more negative than April, which recorded a larger-than-expected contraction. In any case, there is tremendous uncertainty surrounding the evolution of output in the short and medium terms, in particular due to doubts regarding how the contagion rate will evolve and how and when the containment measures will be lifted. There are also doubts about the extent of people’s social distancing practices and how it will affect the performance of activities characterized by closer personal contact, which could have a major impact on the labor market given that these sectors are more relatively labor intensive.

Output data for the first four months of the year reveal two phenomena. First, the monthly IMACEC indexes for January and February showed that output had recovered faster than expected following the significant disruptions stemming from the events of late last year. Second, the IMACEC of March and April revealed the sudden economic contraction that began in mid-March, once the country entered the fourth phase of the pandemic—according to the World Health Organization’s classification of pandemic phases—and containment measures were established, together with voluntary social distancing practices throughout the country. The latter is evident in the significant reduction in mobility starting in the second half of March, not only in regions under lockdown, but also in areas that were not subject to mandatory confinement (figure III.1). As expected, sectors such as restaurants and hotels, transport, personal services, and trade recorded the largest negative impacts (figure III.2).

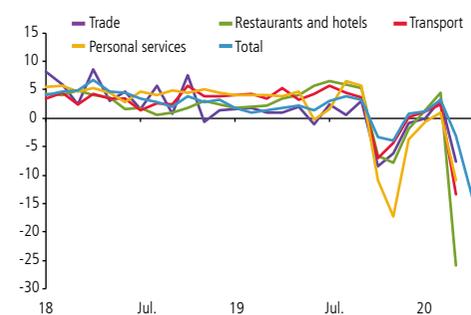
April, the first full month of containment measures, recorded an annual GDP contraction on the order of 14% (just over 15% for non-mining GDP). This figure was considerably below market expectations: the May Economic Expectations

**FIGURE III.1**  
Evolution of mobility (1) (2)  
(change from baseline, percent)



(1) Data reflect the change in the number of people going to the indicated places (or time spent there) compared to the reference date (or baseline). Baseline is the median, for the respective day of the week, in the five-week period from 03-Jan-2020 and 06-Feb-2020.  
(2) Data through 05-Jun-2020 (last data available on the cutoff of this Report).  
Source: Google Mobility Reports on communities in response to COVID-19.

**FIGURE III.2**  
IMACEC: Total and selected sectors  
(annual change, percent)



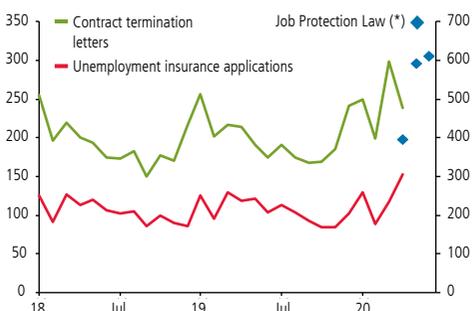
Source: Central Bank of Chile.

**FIGURE III.3**  
Labor market: Employed and inactive population  
(millions of people)



Source: National Statistics Institute (INE).

**FIGURE III.4**  
Labor market: Administrative sources  
(thousands)



(\*) Accumulated approved applications. For the month of June 2020, includes data through the 7th.

Sources: Labor Office and Superintendence of Pensions.

Survey (EES) anticipated an annual contraction of around 8%. In this context, the outlook for the second quarter has deteriorated significantly, reflecting both the April data and the fact that the evolution of the virus has necessitated stricter and longer containment measures than considered in the baseline scenario of the March Report. From early May to mid-June, the percentage of the population under lockdown increased from approximately 28% to nearly 42%, while the GDP share of communities under quarantine grew from just over 35% to around 46%<sup>1/</sup>. The impact on the economy's performance is reflected in the June EES, which estimated an annual contraction of the May IMACEC of 15.5% and drastically reduced the second-quarter forecast, from an annual contraction of 7% in the May survey to 13% in June.

The labor market has recorded a significant reduction in jobs and people's income over the past few months. Both surveys and administrative sources reveal these effects. In the case of the National Employment Survey carried out by the National Statistics Institute (INE), data for the February–April moving quarter indicate that the drop has been greatest in trade, agricultural segments, industry, restaurants and hotels, and construction. According to this survey, in the moving quarter ending in April, over 680,000 jobs were lost relative to the same period of 2019, and these were concentrated among self-employed workers. The employment rate fell sharply in the last survey, on a much higher magnitude than the increase in the unemployment rate. The main explanation behind the difference is the strong expansion of inactivity, which recorded the biggest increase of the last ten years (15.4% annual), mainly due to people who are not looking for a job but are available to work, as a result of discouragement and/or restrictions imposed by sanitary containment measures (figure III.3). These effects have been softened, in part, by the Job Protection Law (JPL), which has given workers access to unemployment insurance benefits without losing their jobs<sup>2/</sup>. The available data on the cutoff date show that around 610,000 people have benefited from the law, as reflected in the strong increase in absentee workers (44.2% annual) in the INE survey<sup>3/</sup> (figure III.4). By sector, use of this measure is highest in construction, trade, and restaurants and hotels. The impact on the labor market is also reflected in hours worked, which fell to 34.5 hours a week in the last survey (–8.4% annual), the lowest level in history (box III.1).

The labor market deterioration has led to a reduction in workers' income. The annual growth of nominal wages reported by the INE—the labor cost index (LCI) and the wage index (WI)—fell to 2.2 and 2.6%, respectively. This reflects

<sup>1/</sup> Estimate based on 2018 nominal GDP, weighted by the percentage of business days under lockdown in the month and the percentage of the population affected by containment measures, according to the 2017 Census (INE).

<sup>2/</sup> Unemployment benefits are initially paid out of the individual's unemployment insurance account and, when that is depleted, the Solidarity Fund. In both cases, the payment is staggered (decreasing over time) and takes into account the type of contract (permanent or temporary), which translates into different maximum payouts; percentages of salary received; and maximum and minimum limits when the charge is to the Solidarity Fund. For domestic workers, the payment is made through their pension fund, for up to five months—if extended for more than 30 days and the worker has a balance in that account—with a staggered reduction in the percentage of taxable monthly income received.

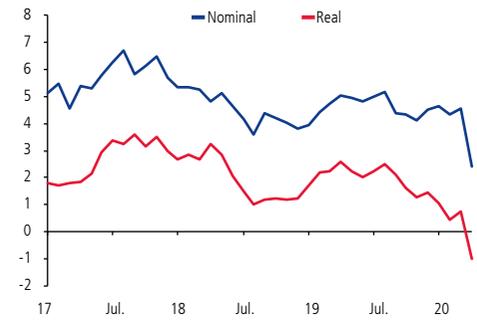
<sup>3/</sup> Absentee workers are still employed and either receive some income for their job or will return to work in four weeks or less.

a substantial reduction in total hours worked, especially overtime. By sector, the reduction in wages was generalized, but it was particularly notable in transport, trade, and construction. As a result, real annual wage growth fell 1.2 and 0.8% (LCI and WI, respectively) (figure III.5). The drop in income has been partially offset by subsidies and support programs established in April and May.

Going forward, as contagion slows and the economy begins to pick up, labor relations and income can be expected to recover, albeit incompletely, which should be reflected in consumption. On the one hand, job losses have been largely concentrated in self-employment—which usually acts as a shock absorber for total employment in periods of economic contraction—and these jobs could recover quickly once the mobility restrictions are lifted. On the other, the large number of people who have used the job protection program have maintained their employment relationship. This should promote a faster job reentry and an increase in income once the pandemic is under control. In addition, jobs on suspended projects and, to a lesser extent, commission-based sales jobs should recover once the containment measures are lifted. In the meantime, the recently agreed Emergency Plan will significantly increase household transfers, expanding their coverage, amount, and duration.

Nevertheless, there is a high degree of uncertainty regarding the evolution of the labor market, depending on the speed of the economic recovery in the second half of the year. Some broad indicators point to greater underutilization and possible further deterioration in the coming months. This is the case with the combined unemployment rate and potential labor force<sup>4/</sup>, which rose to 23.8% in the moving quarter ending in April (16.4% in the quarter ending in January). The Internet job listings index (CBC) decreased in recent months, and business expectations on hiring (IMCE) declined, especially in construction (figure III.6). Consumer expectations on unemployment in the next twelve months (IPEC) have risen. The results of the survey of BPR participants suggest that some of the layoffs since March could be permanent. Just under half of the respondents indicated that they had used the job protection program. Of these, many foresee that the temporary job suspensions and cutback in hours will last for several months, and almost half believe that it will be difficult to bring back their workers once the job protection program has ended (box III.1). It is also possible that the labor market recovery could be delayed if the impacts of the pandemic lead to a substantial reallocation of jobs between firms and sectors, which would have persistent effects on income as it would require significant retraining of the workforce.

**FIGURE III.5**  
Labor market: Wages (\*)  
(annual change, percent)



(\*) Simple average of WI and LCI.

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

**FIGURE III.6**  
Labor market: Outlook  
(indexes)

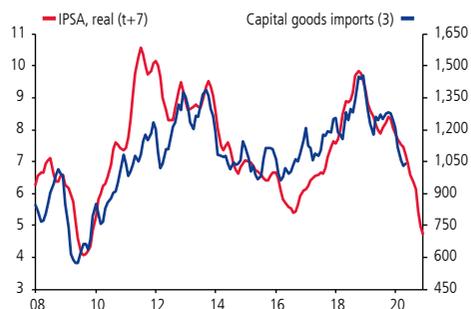


(\*) Simple average of question on job expectations (IMCE) in construction, trade, and industry.

Sources: Central Bank of Chile and Icare.

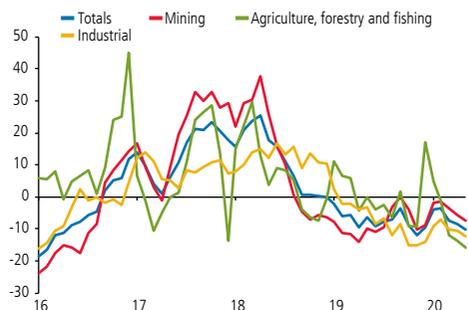
<sup>4/</sup> SU3: The share of people who are unemployed (including available new hires who have not yet started their job) and who are part of the potential labor force, relative to the broad labor force (including available new hires and the potential labor force).

**FIGURE III.7**  
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 April and May 2020, data for the first quarter of that year are repeated.  
(3) Excluding other transport vehicles.  
Sources: Central Bank of Chile and Bloomberg.

**FIGURE III.8**  
Goods exports (\*)  
(annual change, percent)



(\*) Three-month moving average. Nominal series.  
Source: Central Bank of Chile.

The magnitude of the immediate effects of the pandemic on employment and income is consistent with the performance of consumption. Retail sales—excluding essential goods—and new car sales have collapsed, while an increasing number of firms consider that their inventories are high and future sales will drop (IMCE). At the same time, consumer expectations (IPEC) are at or near historical lows.

Investment has also declined significantly, initially due to the work stoppages imposed by lockdowns and the adjustments made to accommodate social distancing on sites that are still operating. In the case of construction and other works, the survey by the Corporación de Desarrollo Tecnológico de Bienes de Capital (CDTBC) for the first quarter of this year—using data collected when strict containment measures were just beginning to be applied—reported a substantial drop in investment planned for 2020, due to a rescheduling of projects to the coming years. The April report by the Chilean Chamber of Construction (CChC) projects an annual decrease of 10.5% in construction investment for this year. This reflects a contraction in investment amounts related to private residential construction—both unsubsidized real estate projects and projects subsidized through social programs—and infrastructure. New home sales in Greater Santiago (CChC) continued to decline sharply in the first quarter of this year. Given that the supply has not changed, this has increased the time needed to sell through the existing stock, to over 30 months (versus about 20 months, on average, between 2015 and 2019).

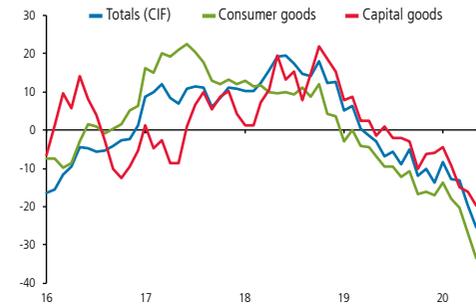
With regard to the machinery and equipment component, nominal capital goods imports have continued to steadily decline, and the drop in the local stock market (IPSA) points to a poor performance going forward (figure III.7). Business expectations—the IMCE excluding mining—have fallen to historical lows, especially in construction. Investment expectations in trade and industry remain low. Finally, different surveys of the BPR participants suggest that most investment projects have been put on hold if they are not considered essential for business operations and that credit applications in the next six months will be allocated not to investment, but to solving cash flow problems (box II.1).

In the external sector, all shipments have fallen, especially in industrial sectors like wood pulp, metal products, and chemicals, as well as agriculture, livestock, forestry, and fishing. Mineral shipments such as copper and iron have recorded a relatively better performance (figure III.8). At the same time, the significant adjustment in domestic spending is causing an important contraction in imports, in particular non-essential consumer goods and capital goods, which will result in a larger current account surplus this year relative to the forecast in the March Report (figure III.9).

On the fiscal front, the different government authorities have implemented a wide range of measures to support households and firms since mid-March. The government has delivered resources totaling around US\$17 billion, aimed at protecting jobs, supporting household income, injecting liquidity into the productive system, etc. In addition, an agreement has recently been reached on an Emergency Plan for Family Income Protection and Economic and Employment Reactivation, with a fund of up to US\$12 billion over the next twenty-four months. Initially, these resources will be allocated to reinforcing transfers to the most vulnerable segments of the population through the provision of emergency family income; strengthening the job protection program and unemployment insurance; and providing support to formal independent workers. Subsequently, resources from this fund will be used to promote the reactivation of the economy through job and investment incentive plans. Under the agreement, this additional effort is intended to be temporary and will be followed by fiscal consolidation in the medium term, to avoid an expansion of public debt in excess of 45% of GDP. The central forecast scenario used in this Report considers a preliminary estimate of the effects of this Emergency Plan on economic growth in 2020 to 2022, based on the information available to date. More specific estimates of the impacts will be made once the details are approved by Congress.

**FIGURE III.9**

**Goods imports (\*)**  
(annual change, percent)



(\*) Three-month moving average. Nominal series.

Source: Central Bank of Chile.



## BOX III.1

### THE IMPACT OF COVID-19 ON THE LABOR MARKET

The COVID-19 pandemic is having a very significant impact on all aspects of the economy. The voluntary and mandatory containment measures have strongly affected output. On the one hand, businesses have seen a drastic decline in sales, which has led to a reduction in the demand for labor, especially in sectors where personal contact is an important part of the work. On the other, the need to isolate—voluntarily or involuntarily—to avoid contagion has prevented many people from performing their normal activities. Although the fast transition to remote work has helped mitigate this shock to a degree, not all activities are adaptable to a teleworking scheme, so these physical restrictions continue to be highly significant. Notably, self-employment, which usually acts as a shock absorber in times of economic contraction, has dropped sharply as the public health restrictions have prevented people from carrying out this type of work.

The different labor market indicators capture this deterioration, although with some singularities specific to the shock that is being faced and the mitigation policies that have been adopted. The National Employment Survey carried out by the National Statistics Institute (INE) reveals an increase in national unemployment in the February–April moving quarter, to 9%, versus 7.0–7.5% throughout most of 2019. More recent surveys, like the one published by the Catholic University of Chile, signal that the unemployment rate was on the order of 11% in May. Administrative data on formal employment show a similar trend. According to data from the Labor Office, in March 2020 the number of firings reached almost 300,000 people (annual increase of 38%), with an additional 238,000 people in April (annual increase of 11.4%). This rise in firings cuts across all sectors, but it has been especially strong in sectors such as construction, restaurants and hotels, trade, transport, and services.

While the increase in unemployment reflects the major job losses occurring in various economic sectors, there has been an even larger reduction in the employment rate. In the moving quarter

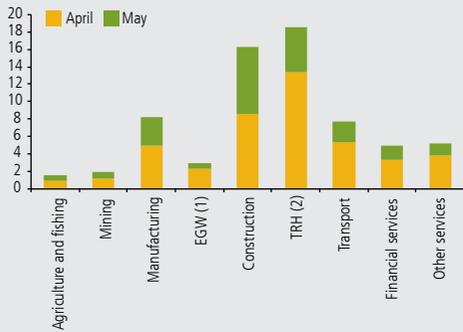
ending in April, the latter fell to 52.7%, fully 5 to 6 percentage points (pp) lower than the level recorded throughout 2019. Comparatively, this drop in employment is substantially greater than the increase in the unemployment rate, which was on the order of 2 pp through April. The reason behind this difference is the strong increase in inactivity (figure III.3). Data from the INE survey show that over 95% of those who lost their job in the last moving quarter became inactive. This means that although they are unemployed and want to work, they are not actively looking for a job. What explains this behavior? One plausible reason is that the set of containment measures—both voluntary and involuntary—prevents people from performing wage work. Factors such as quarantine and school closures would support this hypothesis. Another plausible explanation is discouragement. The job search process could be put on hold for a time, not only because of the associated costs, but also due to a perception that there are not enough jobs available. In fact, the Job Vacancy Index maintained by the Bank shows an annual decrease of 65% in May.

Another important factor in the current labor market adjustment is the Job Protection Law (JPL). This initiative allows employers whose business was totally or partially affected by the containment measures to temporarily suspend their labor contracts, allowing their employees to access unemployment insurance benefits<sup>1/</sup>. Conceptually, the suspension helps firms avoid firing their workers in response to restrictions that temporarily affect their income-generation capacity, allowing both parties to maintain valuable labor relationships that can be reactivated once the crisis is over. The program has been used massively: as of 7 June, over 610,000 workers had accessed the job protection mechanism (figure III.4). In particular, it has been used extensively in sectors like construction, trade, and restaurants and hotels, reaching nearly 20% of workers in these

<sup>1/</sup> For employers, the suspension implies that they are no longer required to pay wages and non-wage compensation. To cover part of workers' lost wages during the suspension, the employer must submit a request for payment with a charge to unemployment insurance. The employer must continue to pay pension, welfare, and health benefits, calculated over the total original income, throughout the contract suspension period. Employees that are registered under the Job Protection Law are not recorded as unemployed in the official statistics.

sectors (figure III.10). Notably, while this measure preserves the labor relationship, it still implies a reduction in income for the workers.

**FIGURE III.10**  
Workers with an approved suspension application, by economic sector  
(percent of formal wage workers in the sector)



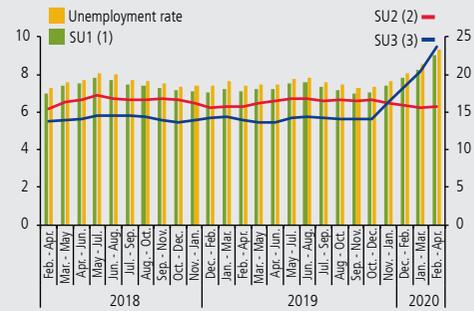
(1) Electricity, gas, and water. (2) Trade, restaurants, and hotels.

Sources: Central Bank of Chile and Superintendence of Pensions.

The use of the job protection mechanism is clearly reflected in the increase in absentee workers and the decrease in the number of hours worked, as seen in the INE Employment Survey. The data for April show that the category of absentee workers—people who have a job but who are not working at this time—has grown considerably relative to the same period of last year, reaching 14% of total workers (5 pp more than a year ago). The increase in absentee workers has also had an impact on the number of hours worked, which fell to around 35 hours per week, equivalent to an annual drop of 8.4%.

Some complementary labor market indicators show a greater deterioration than the unemployment rate, consistent with the set of trends described above. In particular, in the moving quarter ending in April, the underutilization rate—which considers the potential labor force—increased almost 10 pp relative to the same period of last year. This is explained by the fact that the majority of people who recently lost their jobs have left the workforce, as they have been unable to find work in the current climate (figure III.11). In practice, this means that—all else constant—if all these inactive people reentered the labor force at once, the unemployment rate would increase by this magnitude. While this type of adjustment is, of course, hypothetical, it provides a better calibration of the state of the labor market.

**FIGURE III.11**  
Unemployment rates and labor force underutilization (percent)



(1) Unemployment rate with available new hires. (2) Combined unemployment and involuntary part-time rate. (3) Combined unemployment rate and potential workforce.

Source: National Statistics Institute (INE).

Given the global scope and synchronicity of the shock associated with the pandemic, most economies are observing an impact on employment. In Europe, aggressive job protection policies have meant that the effects have been very limited in the main countries in the region, despite the restrictions on activity. For example, in Germany, the Kurzarbeit program, in place for over a century, has allowed employers to significantly reduce workers' hours, with much of the lost wages made up with public funds. In France, the government covered wages for two months in firms that had to close temporarily. In the Americas, in contrast, the impact has been very significant in the majority of countries. The United States and Canada recorded major job losses in April and May, with over a 10% annual contraction in employment. This has translated into a sharp increase in the unemployment rate, although the U.S. data point to the start of a recovery at the margin. In Latin America, the data show a very substantial deterioration in Colombia and Peru, in the midst of prolonged isolation processes that are still in place, with very steep drops in employment and participation rates.

**Outlook**

The future development of the pandemic and its economic impact are subject to a very high degree of uncertainty, as reflected in the greater width of the 2020 forecast interval, the sensitivity scenarios described in chapter V of this Report, and the evidence on past recessions for a large set of countries (box

V.1). For the moment, the immediate impact of the pandemic has vastly exceeded projections, and its future evolution is highly uncertain, since it depends on variables that escape economic factors. The central scenario assumes that, to the extent that contagion declines and the economy begins to pick up, there should be a strong, albeit incomplete, recovery of income. This assumption is based on a rapid recovery of self-employed jobs; a faster job reentry for workers who were suspended under the JPL; and an increase in employment and income in the trade sector, which should recover in line with the lifting of isolation measures. In the meantime, the Emergency Plan recently agreed by the government and Congress will significantly extend compensatory transfers to households, expanding the coverage, amount, and duration.

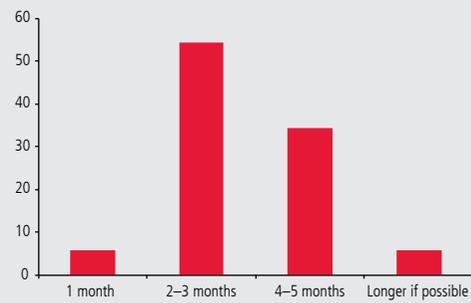
In any case, uncertainty is high, and the various alternative scenarios cannot be discarded. With regard to the labor market and wage employment, of particular concern is a scenario in which the persistence of significant health restrictions prolongs or accentuates the current labor market deterioration, both at the intensive margin—associated with a reduction of jobs at companies that continue to operate—and at the extensive margin—associated with the closure of firms that are no longer viable due to worsening economic conditions<sup>2/</sup>. Unemployment could remain high for a long time if the adjustment of the economy involves a substantial reallocation of jobs between firms and sectors, which would have persistent effects on income as it would require significant retraining of the workforce.

During the week of 1–8 June, the Central Bank carried out a survey of the people who participate in the Business Perceptions Report (BPR), to explore the recent evolution and outlook of the labor market. Responses were received from nearly 230 firms, covering all regions and economic sectors. The results show that a large share of the respondents have had to lay off workers since March, with differences in magnitude among firms. Among those who have had to implement layoffs, around a third believe that the downsizing could be permanent. Just under half of the respondents reported using the JPL. With regard to the future, the results show that a large share of respondents believe that the temporary job suspensions and cutback in hours will last for several more months (figures III.12 and III.13). Additionally,

almost half of those who have used the job protection program believe that it will be difficult to bring back their workers once the suspension period has ended (figure III.14). In sum, the survey results confirm the complexity of the labor market situation and point to factors that could push back recovery.

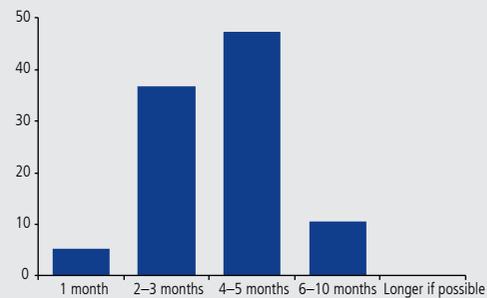
**Conclusions**

**FIGURE III.12**  
Estimated length of job suspension  
(percent of total responses)



Source: Business survey, Central Bank of Chile.

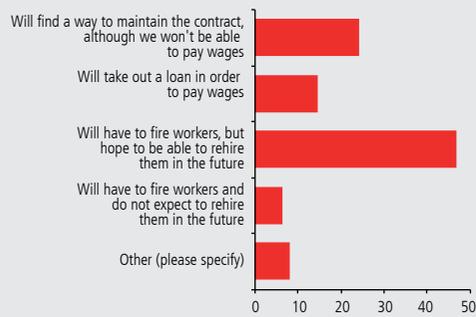
**FIGURE III.13**  
Estimated length of cutback in hours  
(percent of total responses)



Source: Business survey, Central Bank of Chile.

<sup>2/</sup> These effects could be exacerbated by spillovers between firms connected through a network of buyers and suppliers. A scenario involving the bankruptcy of key firms in the network—typically large firms with many connections—could have a severe impact on employment in other businesses in the network.

**FIGURE III.14**  
**Expectations on reincorporating workers after the suspension period is over**  
 (percent of total responses)



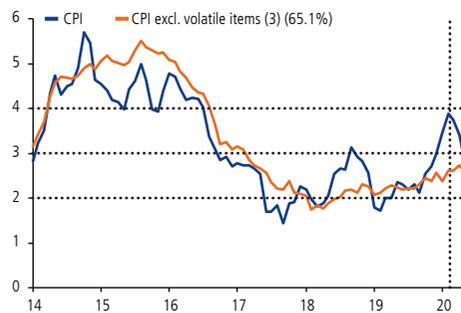
Source: Business survey, Central Bank of Chile.

The economic effects of the pandemic are immense. In the second quarter of 2020, activity is contracting significantly, which has translated into major job losses and an increase in unemployment. The singularity of the shock has led to adjustments in other labor market variables that tend to be more stable, with a sharp increase in inactivity and absentee workers. In fact, broader unemployment measures have recorded a substantially larger increase. At the same time, the loss of formal wage jobs has been attenuated to an extent by the use of the JPL.



## IV. PRICES AND COSTS

**FIGURE IV.1**  
Inflation indicators (1) (2)  
(annual change, percent)



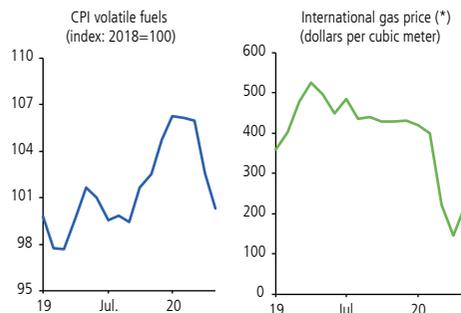
(1) Vertical dotted line marks the cutoff of the March 2020 Report.  
(2) In parentheses: the share of the total CPI basket. (3) For more details, see Monetary Policy Report, December 2019, box IV.1; and Carlomagno and Sansone (2019).

Sources: Central Bank of Chile and National Statistics Institute.

*This chapter analyzes the recent evolution of the main components of inflation and costs, identifying the current sources of inflationary pressure and their likely evolution in the future.*

The downturn in the economic scenario caused by the spread of COVID-19 has significantly reduced inflationary pressures. The prolongation and intensification of the pandemic has undermined output and local demand more than expected, causing a sharp increase in the output gap in the immediate term. In addition, the exchange rate has descended from its March peak. Thus, compared with the last Report, the inflation outlook has been revised downward substantially, largely due to the core component, anticipating a fast descent in the coming quarters. Between February and May, annual headline inflation fell from 3.9 to 2.8%, influenced by the drop in fuel prices, while core inflation, measured by the CPI excluding volatile items,<sup>1/</sup> stayed around 2.5% (figure IV.1).

**FIGURE IV.2**  
Volatile fuels inflation and international gasoline price



(\*) 87 octane gasoline in the U.S. market.

Sources: Bloomberg and National Statistics Institute.

### INFLATION<sup>2/</sup>

Between February and May, accumulated headline CPI inflation was 0.2 percentage points (pp), reflecting an increase in non-volatile prices (1.0 pp in the period) and volatile food prices (2.1 pp in the period). In contrast, volatile fuel prices accumulated a negative month-on-month change of 5.5 pp, bringing the annual inflation rate down to -1.3%, versus 8.6% in February. The trend in these prices is mainly explained by the drop in gasoline prices (-45% between February and May in the international market) (figure IV.2). Electricity rates have not changed in recent months. Thus, on aggregate, annual volatile energy inflation decreased to -0.3% in May (10% in February).

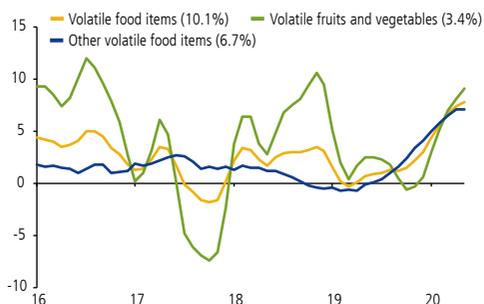
Since February, food prices have generally increased. In the volatile component, fruits and vegetables rose 3.3 pp between February and May. The increase represents an atypical trend in terms of seasonality. This may be related to

<sup>1/</sup> For a definition of CPI inflation excluding volatile items, see the Monetary Policy Report, December 2019, box IV.1.

<sup>2/</sup> Unless otherwise indicated, the inflation series and components use the new indexes with base year 2018=100, so they may not be strictly comparable with earlier data.

**FIGURE IV.3**

**Volatile food inflation (1) (2)**  
(annual change, percent)



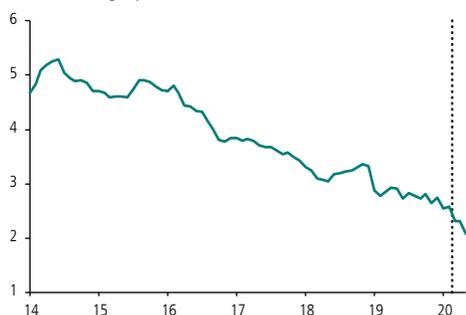
(1) Three-month moving average of annual change.  
(2) In parentheses: the share of the total CPI basket.

Sources: Central Bank of Chile and National Statistics Institute.

the effects of the drought in some regions of the country, which intensified in the last quarter of 2019. Thus, the annual inflation rate of these prices was 11.1% in May (8.1% in February) (figure IV.3). Other volatile food prices also recorded positive inflation, of 1.6 pp between February and May, which may reflect tight supply due to logistical problems associated with the pandemic. On aggregate, the annual inflation rate of volatile food prices rose from 7.5% to 8.6% between February and May. Non-volatile food prices also rose in the same period, possibly affected by greater demand for non-perishables. In sum, annual food inflation totaled 6.6% in May, versus 6.1% in February. In the world market, food prices have generally fallen since the start of the year. Specifically, the FAO food price index dropped from 7.5% annual in February to 6.5% annual in May.

**FIGURE IV.4**

**Non-volatile services inflation (1) (2) (3)**  
(annual change, percent)



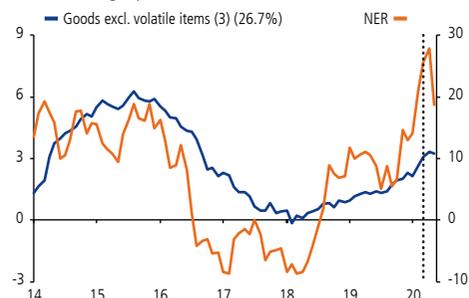
(1) Vertical dotted line marks the cutoff of the March 2020 Report.  
(2) Accounts for 38.4% of the total CPI basket. (3) For more details, see Monetary Policy Report, December 2019, box IV.1; and Carlomagno and Sansone (2019).

Sources: Central Bank of Chile and National Statistics Institute.

Non-volatile services inflation, whose prices are more closely tied to the state of the output gap, increased 0.8 pp between February and May. In this period, there was a drop in university education services and some transport and telecommunications services, offset by increases in health-related services. The slowdown in services is occurring in a context of lower wages, a trend that has intensified relative to the months before the pandemic. In annual terms, non-volatile services inflation continues to ease, settling at 2.1% in May (2.6% in February). Taking a longer perspective, this indicator continues to follow the downward trend of the past several years (figure IV.4).

**FIGURE IV.5**

**Goods inflation excluding volatile items and nominal exchange rate (1) (2) (3)**  
(annual change, percent)



(1) Vertical dotted line marks the cutoff of the March 2020 Report. (2) In parentheses: the share of the total CPI basket. (3) For more details, see Monetary Policy Report, December 2019, box IV.1; and Carlomagno and Sansone (2019).

Sources: Central Bank of Chile and National Statistics Institute.

Non-volatile goods inflation increased 1.2 pp between February and May. The evolution of this core component has been in line with the accumulated depreciation of the peso since the second half of 2019 (figure IV.5). In the BPRs of the last six months, import firms have related pressures associated with the accumulated increase in the exchange rate in previous quarters, and some signaled that they had already made price adjustments. The pass-through of the exchange rate movement to prices was greater in categories like computers and new automobiles in recent months. In contrast, other imported products, like men's clothing, showed a marked decline in May. Thus, on aggregate, annual non-volatile goods inflation was 3.2% in May (2.7% in February).

With regard to inflation surprises, the data have been lower than projected in the March Report, explained mainly by the non-volatile component, in particular the lower-than-expected inflation of university education services in March. With regard to the volatile component, there were opposing forces, with surprises to the downside in some goods and services, such as tourism packages, certain clothing and footwear products, and financial expenses

(affected by the temporary elimination of the stamp duties), which were offset by surprises to the upside in fuels, mainly associated with the dynamics of gas prices.

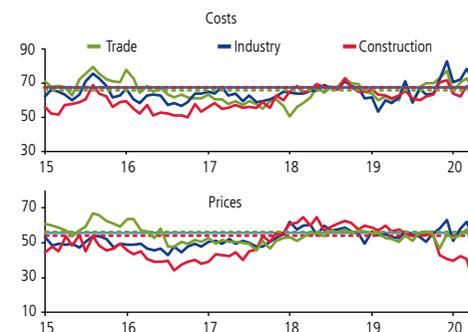
In the face of the pandemic, Chile and other countries are encountering new challenges associated with tracking prices in a context of multiple impediments to mobilization, as well as the closure of businesses. In this regard, the INE issued a technical note<sup>3/</sup> identifying alternative sources for data collection—such as websites, communication with suitable informants, or other alternative sources—in the event that in-person data collection is not possible. It also discussed the use of imputation methods when these alternatives are not sufficient to achieve the necessary representativeness. One such method is to carry data forward, taking the price from the previous month as a reference. These procedures are in line with recommendations by institutions that publish price statistics manuals and guidelines, such as the IMF and Eurostat. In particular, the last-observation-carried-forward method was used for some recreation and cultural services in the April CPI, and other services were added in the May CPI, such as tourism packages, air transport, and some education<sup>4/</sup>

### Short- and medium-term outlook

Inflationary pressures have declined drastically since March. Data on both output and the labor market point to an abrupt expansion of excess capacity, with a deeper contraction of economic growth projected for 2020. In addition, the recent appreciation of the peso has reduced the pressure that had been accumulating over the past several quarters on the exchange rate front. Thus, in the central scenario, annual inflation will drop to around 2% by the end of this year and will only reach 3% toward the end of the policy horizon—namely, the second quarter of 2022.

The different indicators of market expectations also point to a scenario with scarce inflationary pressures. Qualitatively, expectations for costs and sales prices in three months have fallen (IMCE), especially in construction, which is far below its historical average (figure IV.6). With regard to inflation expectations one year ahead, inflation insurance dropped to 1.8% (2.5% in March). For the same horizon, the Financial Brokers Survey (FBS) and the Economic Expectations Survey (EES) for June projected inflation of 1.9% and 2.5%, respectively. Two years ahead, the FBS put inflation at 2.6%, while the median of the EES stayed at 3% (figure IV.7). However, in the latter case, there was an increase in the percentage of survey respondents who believe that inflation will be below the target in two years.

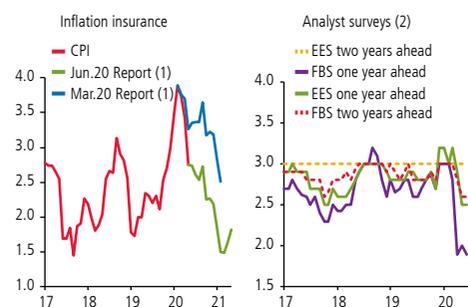
**FIGURE IV.6**  
IMCE: Cost and price expectations (1) (2)  
(diffusion index)



(1) A value over (under) 50 indicates expectations of growth (contraction). (2) Horizontal dotted lines indicate historical averages from January 2004 to May 2020 for each series.

Source: Icare/Universidad Adolfo Ibañez.

**FIGURE IV.7**  
Inflation expectations  
(annual change, percent)



(1) The March 2020 and June 2020 Monetary Policy Reports use the average of the last ten business days through 23-Mar-2020 and 10-June-2020, respectively. (2) The FBS is for the first half of each month through January 2018. From February 2018 on, the data are from the last survey published in the month, including the survey published on 11-Jun-2020. In months when the survey is not published, the last available survey is used.

Sources: Central Bank of Chile and National Statistics Institute.

<sup>3/</sup> For more details on the methodology, see INE, “Separata Técnica: Índice de Precios al Consumidor, Contingencia COVID-19,” May 2020.

<sup>4/</sup> See INE, “Separata Técnica: Índice de Precios al Consumidor,” May 2020.



## V. FUTURE EVOLUTION OF MONETARY POLICY

*This chapter presents the most likely path of monetary policy over the next two years. It is based on the Board's assessment of the dynamics foreseen for inflation in the policy horizon, with the information at hand at the close of this Report. It also describes some sensitivity scenarios and explains how the monetary policy response could change in those cases.*

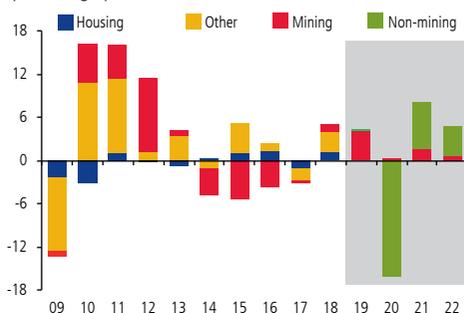
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### EVOLUTION OF THE 2020–2022 MACROECONOMIC SCENARIO

The evolution of the Covid-19, together with stricter and more prolonged sanitary containment measures, are causing a significant impact on activity and demand. The data for March and April showed falls in the Imacec of 3.1 and 14.1% annually, with deeper falls in those sectors where face-to-face contact is needed or where business has been halted by the mandated quarantines. Accordingly, these same sectors are the ones where most jobs have been lost in recent months and where a greater number of workers have been placed under the Employment Protection Act. In this context, and bearing in mind the current quarantines in much of the Metropolitan Region and Valparaiso, the projections of economic contraction for the second quarter have intensified significantly. The June Economic Expectations Survey (EES) foresees that GDP will fall by 13% annually in that period, which compares with the 7% drop anticipated in the May Survey.

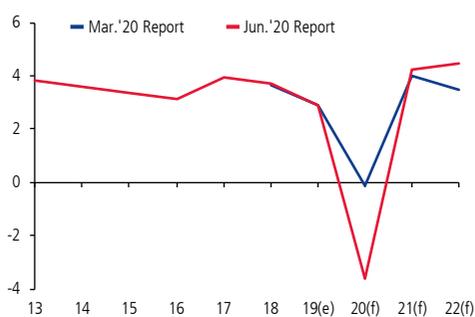
Going forward, the high uncertainty about the evolution of the pandemic makes it difficult to estimate the duration and depth of its impact on the economy. The experience of other countries, which have already begun to lift confinement measures, could give some idea of what the sanitary and economic response to the reopening of cities might look like (box V.1). However, these processes are still too recent to detect patterns clearly. In fact, while there have been no major outbreaks in Europe, in countries such as Israel, Iran, and some regions of China, the increase in contagion has led to re-establish stricter practices or announce a possible reinstatement of confinement. The spread of the disease is also subject to the influence of idiosyncratic or environmental factors specific to each country and it is not evident how Chile's relative performance will be in this dimension. Meanwhile, many doubts surround the impact that high uncertainty and the loss of jobs and income of households and businesses will have on the demand outlook.

**FIGURE V.1**  
Real annual contribution to GFCF (\*)  
(percentage points)



(\*) Housing investment uses household investment data from National Accounts by Institutional Sector. The Other GFCF component is treated as a residue. Forecasts for the years 2019, 2020, 2021 and 2022 are made using forecasting models of the Central Bank of Chile and sectoral sources, such as investment plans and the CBC survey.  
Source: Central Bank of Chile.

**FIGURE V.2**  
Trading partners' growth  
(annual change, percent)



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

This context of greater uncertainty has had tangible effects on the projections by public and private entities. For example, the forecasts for the evolution of global activity in 2020 and 2021 show unusual amplitude, with major revisions in quite limited periods of time. Chile's growth projections also show significant differences. The EES results for June reflect two very distinct groups, one estimating that the GDP contraction this year will be less than 4.5% and the other believing that it will be more than 5%. Something similar is foreseen in 2021, where expectations regarding the year's growth are split into those who believe it will exceed 4% and those who place it below 3.5%. Affected by the same uncertainty, making projections has also become more complex for central banks. Thus, the communication of these forecasts has undergone significant changes in recent weeks, combining cases in which the projection ranges have been extended, specific projections have not been published and, in general, the uncertainty surrounding the projections has been communicated (box V.2)..

In this Report, reflecting the unusual increase in uncertainty, the Board has decided to widen the projection range for GDP variation from 0.75 percentage points (pp) to 2pp in 2020 and from 1pp to 1.5pp in 2021. For 2022, a forecast range of 1pp is maintained, assuming that by those dates some important uncertainties should have dissipated, such as the duration of the most stringent containment measures and the impact of the recent Emergency Plan agreed between the Government and the extended Finance Commission. Considering the above, the Board estimates that this year the economy will contract between 5.5% and 7.5% annually, while in 2021 and 2022 it will grow between 4.75% and 6.25%, and between 3% and 4%, respectively. The central projection scenario continues to depict a macroeconomic framework that presents specific values for the projected variation in consumption and investment, among others. However, the information content of these figures, as well as that of the growth ranges, is lower than usual given the already mentioned increase in uncertainty.

All in all, in the central scenario, the economy is projected to evolve in a context where the stricter sanitary containment measures will be gradually relaxed during the third quarter. This implies that the quarantines currently in force will reduce their geographical spread before coming to an end, but social distancing practices, both mandatory and voluntary, will persist. This will lead to a gradual but heterogeneous recovery across economic sectors, with those that involve more personal interaction recovering at a slower pace. With this, the economy will begin to show positive quarter-on-quarter expansion rates from the third quarter onwards, despite that in annual terms the variation in activity will continue to be negative.

In this scenario, total consumption will contract by 4.2% in 2020 (driven by its private component). By components, consumption of durable goods is expected to take the biggest hit this year. This is consistent with the decline in income

(partly offset by Government subsidies), the increased financial burden on households, the role of uncertainty surrounding future income, and the greater difficulty in accessing credit. This scenario assumes that as the economy picks up, employment and income will begin to recover and will boost consumption, particularly for the self-employed or those benefited by the Employment Protection Act.

For gross fixed capital formation (GFCF), the central scenario assumes a contraction of 15.9% in 2020, mainly explained by the significant drop in non-mining investment (Figure V.1). In addition to the well-known meager effective results, the prospects for the second half of the year are affected by the rescheduling of large-scale investment projects reported by the CBC survey. It is also assumed that companies will allocate a large portion of their resources to cover cash needs, keeping investment expenditure in check for some quarters. In fact, different inquiries among IPN participants indicate that the bulk of projects considered non-essential for the functioning of their businesses has been shelved. A fraction of these respondents add that possible credit requests during the next six months will be used to cover liquidity needs and not to invest. Real estate investment will also be affected, as new housing projects dwindle in view of an observed decrease in demand.

In 2021, the central scenario assumes a significant rebound in the growth rates of the expenditure components, which to some extent is the natural response to the steep decline expected in 2020. Thus, in this scenario, consumption will grow 6.6% in 2021, declining to 3.2% in 2022, consistent with the economy adjusting to trend-growth expansion rates. On the other hand, investment will grow 8% annually in 2021 and 4.7% annually in 2022. The growth forecast for both years considers that the pandemic will have been controlled, which will reduce social distancing measures and allow the free operation of economic activities and the respective increase in employment and income. It also considers a reactivation of the large investment projects and a greater external boost, as the world economy also overcomes the impact of the pandemic. In any case, a key point of attention in these forecasts is how the increase in corporate indebtedness to cover current cash needs will affect the future evolution of investment.

The important fiscal impulse in response to the Covid-19 pandemic has helped mitigate its impact and will also sustain the recovery in consumption and investment, especially next year. The central scenario includes a preliminary estimate, considering the information known at the moment, of the effects of the recently agreed Emergency Plan for Family Income Protection and Economic and Employment Reactivation, which involves funds of up to US\$12 billion over the next twenty-four months. More specific estimates of their impacts will be possible once details are approved by Congress. The package of measures, among other objectives, seeks to protect employment, support household income, provide liquidity to the productive system and boost economic recovery via, for example, increased public investment in infrastructure and housing.

**FIGURE V.3**

Terms of trade  
(index, 2013=100)

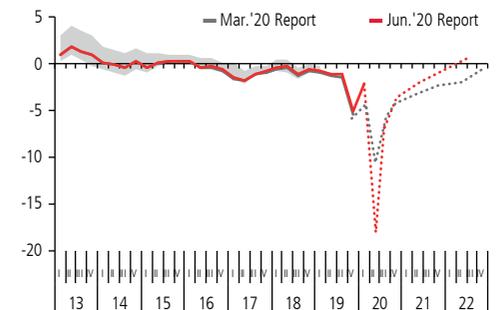


(f) Forecast.

Source: Central Bank of Chile.

**FIGURE V.4**

Activity gap (1) (2) (3)  
(percentage points)



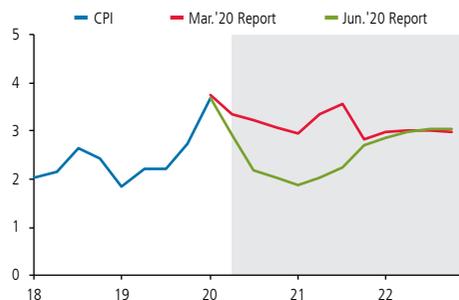
(1) Gray area shows minimum and maximum ranges for gap estimates, using different potential GDP inference methods (trivariate, FMV-X, HP, SVAR, MEP, SSA and XMAS Migration gap). See Aldunate et al.(2019).

(2) Dotted lines show forecast.

(3) The calculation of the gap in March Report, derived from the MSEP model, considered an annual growth for potential non-mining GDP of 1.4%, 1.9% and 2.4% for 2020, 2021 and 2022, respectively. For this Report, the productivity inference of the XMAS model is used, so it contemplates a projection for potential GDP of -1.7%, -0.2% and 1.9%, respectively. For more details see Central Bank of Chile (2020), Use of Macroeconomic Models.

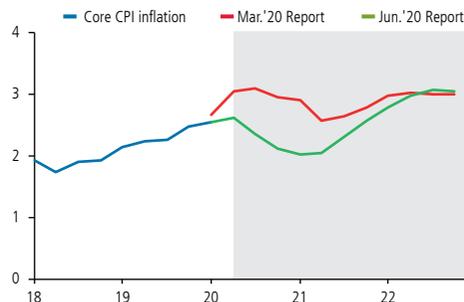
Source: Central Bank of Chile.

**FIGURE V.5**  
CPI inflation forecast (1) (2)  
(annual change, percent)



(1) For 2018, the annual variation of CPI is obtained by splicing the 2013=100 series with the monthly variations of the 2018=100 basket starting in February 2018. See box IV.1, March 2019 Report. (2) Gray area, as from second quarter 2020, shows forecast. Sources: Central Bank of Chile and National Statistics Institute (INE).

**FIGURE V.6**  
Core CPI inflation forecast (1) (2) (3)  
(annual change, percent)



(1) For 2018, the annual variation of core CPI is obtained by splicing the 2013=100 series with the monthly variations of the 2018=100 basket starting in February 2018. See box IV.1, March 2019 Report. (2) Gray area, as from second quarter 2020, shows forecast. (3) The March Report refers to the CPIEFE while for this Report it refers to the CPI without volatiles. Sources: Central Bank of Chile and National Statistics Institute (INE).

The impulse that the Chilean economy will receive from abroad this year will be substantially lower than estimated in March, mainly because a much deeper global recession is foreseen (Figure V.2). In the central scenario, world GDP is expected to contract by 4.5% this year, with falls of over 8% in the Eurozone and Latin America. As for our trading partners' activity, a 3.6% drop is anticipated for 2020, a result that reflects 0.6% growth in China and a 6.4% fall in the United States. For 2021-2022, the central scenario assumes a significant recovery of the world economy and the trading partners, which will see rates of expansion around 4.5% in both years.

Although persistently below the levels of early this year, the price of most commodities showed a rebound from the end of March. The central scenario raises the outlook for copper and oil (Brent-WTI average) in 2020 to \$2.5 per pound and \$40 per barrel, respectively (\$2.15 and \$34 in March). For the 2021-2022 period, an upward trend in these prices is still being considered. In particular, the average price of copper is estimated at US\$2.68 per pound for the period and oil at US\$45 per barrel (US\$2.65 and 47 in March). With this, the terms of trade's trajectory will be above the one considered in March, during the entire projection horizon (Figure V.3).

Regarding the current account, a surplus of 0.8% of GDP is projected for this year (0.3% in March). Behind this revision are contractions of imports and exports that are expected to be deeper than thought in March, but with a more marked adjustment in the case of imports. This is in line with the significant decline foreseen in domestic spending, which will not be fully offset by Government savings depletion. Also affecting the revision is the increase in the terms of trade, in particular the revision of the copper price. For its part, and consistent with an adjustment of the current account that responds more to quantities than to prices, the estimate of the current account deficit at trend prices is also adjusted importantly, reducing it to 1% in 2020, from 4.8% in 2019<sup>1/</sup>.

The deeper than expected drop in activity in the second quarter led to an abrupt opening of the gap. This is partly offset by the negative effects of recent months on potential growth, due to the reduction in productivity caused by the stricter measures to control the pandemic. Going forward, the gap will narrow, closing in the second quarter of 2022 (Figure V.4). In fact, the projected trajectory for GDP assumes that only towards mid-2022 will it recover the levels of the third quarter of 2019. Nevertheless, these projections are subject to a greater than usual degree of uncertainty and do not include changes in trend growth.

<sup>1/</sup> This measure adjusts the value of mining exports and fuel imports considering deviations in the prices of copper and oil from their long-term values. The same applies to income and transfers associated with copper exports. Other exports and imports are valued at 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 uses long-term prices of US\$2.7 per pound of copper and US\$70 per barrel of oil (see box V.2 in the September 2012 Report, and box V.1 in the December 2015 Report).

In the central scenario, the drastic reduction in inflationary pressures will drive a decrease in the annual variation of both headline and core inflation to figures of the order of 2% in the coming quarters, to converge to the 3% target by the end of the policy horizon, i.e. the second quarter of 2022 (figures V.5 and V.6).

### MONETARY POLICY STRATEGY

At the May Monetary Policy Meeting, the Board decided to keep the monetary policy rate (MPR) where it now estimates to be its technical minimum: 0.5%. At the same time, it noted that monetary policy would remain in a highly expansionary stance for an extended period of time, and that options would be evaluated to intensify the monetary impulse and lend support to financial stability by using unconventional instruments in case the evolution of the economy so required.

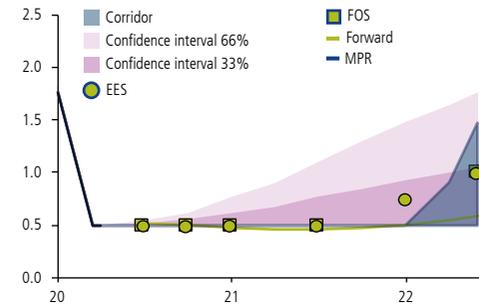
At the June meeting, the Board kept the MPR at 0.5%, the only option discussed for it. Also, in view of the deterioration of the macroeconomic scenario, the need to enhance the monetary impulse, and in line with what had been stated in May, the Board decided to extend the unconventional measures in place. First, it decided to launch phase 2 of the Conditional Facility for Increased Lending (FCIC). In this second stage, the facility will commit funds for US\$16 billion, effective for eight months. This program involves strengthening the incentives to lend to small and medium-sized enterprises, and to non-banking credit providers. Second, it agreed to implement a special asset purchase program of those instruments currently eligible for the Bank, which in its first month of operation will amount US\$1.5 billion.

Going forward, the Board evaluates that monetary policy will continue on a highly expansionary position for an extended period of time, so as to ensure the convergence of inflation to the 3% target within the two-year horizon and to support financial stability. In particular, the Board estimates that, in the central scenario, the MPR will remain at its technical minimum for at least the entire two-year policy horizon. The Board will also continue to assess the possibility of extending unconventional measures and/or taking different actions according to the needs of the economy and the Bank’s legal powers.

As always, there are sensitivity scenarios where the evolution of the macroeconomic situation could require adjustments to the monetary impulse. On this occasion, given what is needed to achieve inflation’s convergence, such sensitivity scenarios —reflected in the MPR corridor— lead, in any of them, to the policy rate being held at its current value over almost the entire policy horizon<sup>2/</sup> (Figure V.7). The sensitivity scenarios analyzed differ in the assumption made about the evolution of the pandemic and the later recovery of the economy. First, conditions could be more benign, allowing for a faster economic

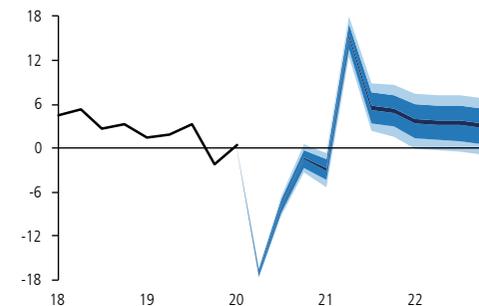
<sup>2/</sup> The MPR corridor shows the range of trajectories consistent with the baseline scenario, which includes the central projection scenario and those sensitivity scenarios that are consistent with activity growth in the upper and lower bounds of the forecast range, but that could require different MPR trajectories to achieve the inflationary convergence within the policy horizon. See box V.1, Monetary Policy Report, March 2020.

**FIGURE V.7**  
MPR corridor (\*)  
(percent)



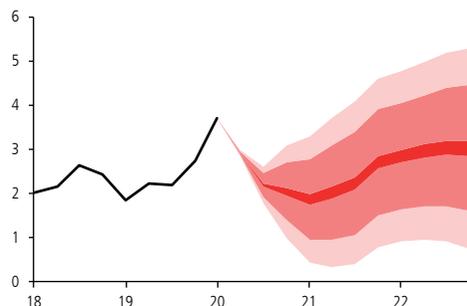
(\*) The corridor is built following the methodology of Box V.1 of the March 2020 Report. It includes the FOS of June 11, the EES of June 9 and the Forward curve derived from the prices of financial assets at statistical closing.  
Source: Central Bank of Chile.

**FIGURE V.8**  
Quarterly GDP growth scenarios (\*)  
(annual change, percent)



(\*) The figure shows confidence interval of baseline projection over the respective horizon (colored area). Confidence intervals of 10%, 70% and 90% around the baseline scenario are included. Confidence intervals are built based on the RMSE of averaged MASMPEP models from 2009 to 2017. Also, the intervals contain the risk evaluation on growth performed by the Board.  
Source: Central Bank of Chile.

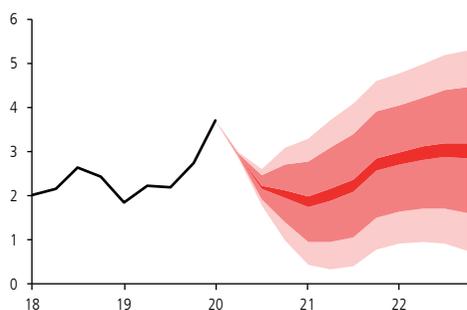
**FIGURE V.9**  
CPI inflation forecast (\*)  
(annual change, percent)



(\*) The figure shows confidence interval of baseline projection over the respective horizon (colored area). Confidence intervals of 10%, 70% and 90% around the baseline scenario are included. Confidence intervals are built based on the RMSE of averaged MAS-MEP models from 2009 to 2017. Also, the intervals contain the risk evaluation on inflation performed by the Board. For 2018, the annual variation of CPI is obtained by splicing the 2013=100 series with the monthly variations of the 2018=100 basket starting in February 2018. See box IV.1, March 2019 Report.

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

**FIGURE V.10**  
Core CPI inflation forecast (\*)  
(annual change, percent)



(\*) The figure shows confidence interval of baseline projection over the respective horizon (colored area). Confidence intervals of 10%, 70% and 90% around the baseline scenario are included. Confidence intervals are built based on the RMSE of averaged MAS-MEP models from 2009 to 2017. Also, the intervals contain the risk evaluation on inflation performed by the Board. For 2018, the annual variation of CPI is obtained by splicing the 2013=100 series with the monthly variations of the 2018=100 basket starting in February 2018. See box IV.1, March 2019 Report. This underlying CPI Report refers to CPI without Volatiles.

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

recovery. This could be the case, for example, due to a more favorable behavior of the pandemic, which could trigger a faster rebound of activity in the second half of the year, contributing to a more vigorous recovery of consumption and investment. The earlier closing of the activity gap that would occur in this context could mean that inflation would converge to the target sooner. The external impulse would be greater in the face of a faster recovery of world activity, which would also have a positive impact on the prices of commodities. Should this scenario of a higher dynamism occur, it is possible that monetary policy normalization might begin towards the end of the projection horizon, as the upper bound of the monetary policy rate corridor shows.

Meanwhile, a more negative environment in which controlling the pandemic takes longer than foreseen or spreads to other geographic areas or leaves scars in some economic sectors that hinders its recovery cannot be ruled out either. This would cause even more negative consequences on activity, considering that the impulse from abroad would also suffer the effects of the resurgence of infections in other countries. In this scenario, the economy would reach pre-pandemic levels only by the end of 2022, further hindering the process of inflation convergence.

Looking into these scenarios and in line with the high uncertainty and difficulty to assign an accurate probability to each scenario, the Board considers that the risk balance is unbiased for both activity and inflation (figures V.8, V.9 and V.10). This difficulty to differentiate the probability of occurrence of sensitivity scenarios from that of the central scenario is largely reflected in the exceptional widening of the forecast ranges for 2020 and 2021.

Overall, even more negative scenarios than those proposed deserve special attention. The magnitude of the effects of the pandemic is very significant and although the monetary and fiscal authorities have implemented an unprecedented combination of measures, it is not possible to guarantee that the scale or duration of the damage will not be much greater than assumed, jeopardizing financial stability. In such a situation, with the monetary policy rate already at its technical minimum, the Bank may have to make extreme use of its available policy instruments. In this regard, the Board especially appreciates the support that Congressmen from the Finance Committee of the Senate have expressed for a constitutional and legal reform that would expand the Bank's powers to act in exceptional situations where the preservation of financial stability especially requires it.

## BOX V.1

# POST-PANDEMIC ECONOMIC RECOVERY

### Introduction

The COVID-19 pandemic has forced the authorities to impose a mandatory suspension of commercial, educational, and professional activities, as well as lockdowns in numerous communities. Additionally, households have voluntarily reduced their consumption and work in order to reduce the possibility of contagion. The consequences of these decisions have been significantly more negative than estimated in the March Monetary Policy Report. At the same time, there is a very high degree of uncertainty regarding the medium-term outlook for the economy, depending on how the pandemic evolves, the containment measures, and household and business decisions once the lockdowns are lifted.

This box reviews the evidence on recovery from deep recessions in recent history, as well as the main mechanisms that had an effect in these episodes. It also explores preliminary evidence on the recovery that is already starting to emerge in other economies. The objective is to identify elements that could be important during the post-pandemic recovery in Chile.

The historical evidence shows that, in the face of major recessionary shocks, the economic recovery process tends to be slower, possibly due to hysteresis in the labor market, other non-linear phenomenon associated with the destruction of production chains and labor relations, and complications in financial markets deriving from this destruction. In a situation like the current one, which directly affects firms, the risk that economic relationships will be broken and these non-linearities will emerge is high.

It is necessary, however, to take this evidence solely as indicative of how the post-pandemic recovery could unfold, since the nature of the current shock—a health crisis—is different from past recessions, and there is no systematic historical evidence on recovery from comparable shocks. Furthermore, the magnitude of the fiscal and monetary support programs is unprecedented,

and they are focused on preserving jobs and credit, preventing commercial and labor relations from breaking, and thereby reducing the damage to the economy generated by the strong output contraction. To the extent that these programs are successful in achieving these objectives, the eventual recovery could be faster than observed in recent history.

### Economic recovery: The role of hysteresis and non-linearities

The literature on economic recovery after a deep recession shows that large recessionary shocks are associated with a slower recovery, compared to shocks that give rise to a milder recession. A number of channels have been identified through which recessions sometimes tend to propagate over time, making the recovery a slow process. Blanchard et al. (2015), using data on 122 recessions in 23 developed countries between 1960 and 2015, show that in 70% of the cases, GDP remains below its pre-recession trend. This is explained, in part, by the type of shock affecting the economy, which can have direct short- and long-term effects (financial crises, supply shocks), as well as by the presence of hysteresis (persistence of the effects), which implies that recessions can have permanent effects on the output level relative to its trend. The elements underlying this hypothesis include the following: (i) high unemployment, which becomes permanent for many workers through a loss of human capital; (ii) a reduction in investment, which reduces the capital stock; and (iii) a reduction in R&D, which causes a permanent decline in productivity.

Moreover, large shocks can have a more-than-proportional effect due to other non-linearities. These include the destruction of production chains, the destruction of financial relations between debtors and banks, the fixed costs of business liquidation and startup, the fixed costs of exporting, etc., which slow or impede the return to a trend growth path when a shock causes a strong output contraction. These mechanisms would not operate, or would be much less relevant, in the case of smaller shocks.

Table V.1. complements the work of Blanchard et al. (2015), identifying 575 episodes of deep recession in a much larger sample of countries—138 in total—in the 1960–2014 period. This group of events is used to study the behavior of GDP in the two years after the recessionary episode. The table shows the average growth rate (between episodes) for the first year of the recession (t0) and the two subsequent years (t0+1 and t0+2) for two groups of events: (i) recessions where the contraction at t0 was less than 5%; and (ii) recessions where the contraction at t0 was more than 5%. As the table shows, the growth rate at t0+1 is four times lower for the group of more severe recessions. At t0+2 there is a bigger uptick for the group of severe recessions, but the GDP level is still around 4% lower than before the recession, whereas for the group of milder recessions with a contraction of less than 5%, the GDP level exceeds the pre-recession level by almost 3%<sup>1/</sup>.

Table V.2 complements the analysis, presenting the results of a regression between the accumulated growth in the first two years after each recession and the growth rate in the first period of the recession. While there is a recovery in the first year after the crisis, one would expect that accumulated growth would fluctuate around zero and that there would be no significant correlation with the magnitude of the crisis in the initial period. This recovery effect would appear to exist in the crisis group with a contraction of less than 5% at t0, since the coefficient is low, despite being significant, and the goodness of fit, measured by the R2, is low (0.013). In contrast, for the crisis group with a contraction of over 5% at t0, the relation between accumulated growth and the contraction in the initial period is significant and close to 1, which indicates the absence of a recovery effect in the second period, and the R2 is significantly higher (0.449). Figure V.11 plots the observations in each of the groups, and here again, we find that there is a relation between the depth of the recession in the first year and accumulated growth in recessionary episodes of over –5%.

<sup>1/</sup>The results hold qualitatively if a lower threshold is used (2% instead of 5%) to define the two types of recessionary episodes. Finally, the regression results in table V.2 hold when we control for the level of development, measured using the country's initial GDP per capita. See Valencia and Villacorta (2020).

**TABLE V.1**  
Average growth between crises

	t0	t0+1	t0+2
Growth in t0  ≤ 5%	-1.83%	1.68%	2.32%
Growth in t0  > 5%	-8.60%	0.36%	3.59%

Source: Central Bank of Chile.

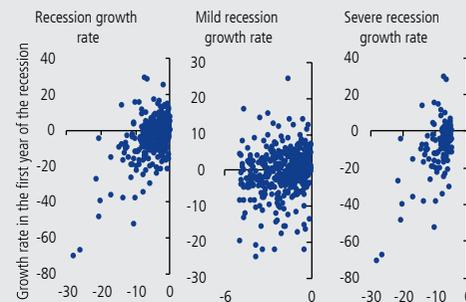
**TABLE V.2**  
Accumulated growth (1)

	All	Less than -5%	More than -5%
Growth in t0	1.039***	0.291**	1.185***
R2	0.290	0.013	0.449
Observations	575	447	128

Source: Central Bank of Chile.

(1) \*, \*\*, \*\*\* Statistically significant at 10, 5, and 1%, respectively.

**FIGURE V.11**  
Accumulated growth versus growth in first year of the recession (\*) (percent)



(\*) Accumulated growth rate is the sum of the growth rate in t and t+1, where t is the recessionary period.

Source: Central Bank Chile.

The above exercises confirm the idea that large shocks have a higher probability of generating a slower recovery than smaller shocks. Another mechanism that can deepen a recession and trigger higher persistence operates through the banking system. If the crisis affects bank equity, this could create an amplification effect on the recession through credit restrictions that depress aggregate investment (Gertler and Kiyotaki, 2010). This latter point is important in the context of COVID-19, to the extent that the liquidity problems faced by firms can develop into a solvency

crisis. This can happen if many firms cease to be profitable due to structural changes in demand deriving from the pandemic, or if, in the search for liquidity, they wind up with excessive debt (Stein et al., 2020; Segura and Villacorta, 2020)<sup>2/</sup>. As described below, there is already partial evidence of this structural change in some economies.

### Reallocation of resources within and between sectors during the recovery

Another propagation mechanism, which can also imply a slower and sectorally asymmetrical recovery, derives from the fact that more or less restrictive social distancing measures will probably be necessary for a long time, until either more effective treatments are found that make the disease less dangerous or herd immunity is achieved in the population. Additionally, there could be more or less permanent effects on people's preferences due to the fear of contagion, the change in hygiene habits, and the adoption of new technology in daily life. Finally, the destruction of jobs and firms in sectors that have been strongly affected by the crisis could result in a loss of specific human and physical capital in these sectors, which may be slow to recover. All these factors can lead to a reallocation of resources both within and between sectors, with a shift away from firms/sectors that require more person-to-person contact and toward firms/sectors where such contact is avoided, for a period that extends beyond the duration of the containment measures.

Barrero et al. (2020) provide recent and preliminary evidence of this reallocation in the United States. Using firm-level data from the Survey of Business Uncertainty (SBU), the authors show that the expected job reallocation rate among firms increased from 1.54% in January to 5.39% in April. At the same time, the expected sales reallocation rate among firms went from 0.24% in January to 3.78% in April<sup>3/</sup>. These indicators suggest a probable increase in the reallocation of jobs among firms over the course of the year, as well as a reallocation of demand. The authors also calculate that around 42% of the jobs that have been destroyed to date in this country as a result of the economic emergency will be permanently lost, due to job reallocation to other firms and/or activities.

### Conclusions

The historical evidence on strong economic contractions shows that they can lead to hysteresis in the labor market and other non-linearities associated with the destruction of production chains and labor relations, which can make recovery from a deep recession slower and less vigorous than in the case of milder recessions.

Nevertheless, the nature of the current economic contraction is quite different from past events. How much faster the recovery will be relative to historical episodes of severe recession will depend on the traditional hysteresis mechanisms that have historically operated in such periods, how the pandemic evolves at both the local and global levels, and, finally, whether there are more or less permanent structural reallocations. The fiscal job protection policies that are being deployed in Chile and around the world aim to promote a faster, more vigorous recovery.

Another important lesson to be drawn from the literature review is that crises that set off bigger problems in the financial system tend to leave a more permanent footprint. To avoid this, the implementation of monetary policies that support lending are key, to the extent that they prevent an even greater propagation of the COVID-19 economic shock. Monetary policy is called on to play an important role in providing the necessary liquidity for a range of programs. But it is also important to understand its limits, and caution must be taken to ensure that the monetary policy measures do not result in the assumption of significant credit risk—a role that falls to fiscal policy. For that reason, in the current situation, monetary and fiscal policy must be closely coordinated. One example is the FCIC, which in different phases aims to supply liquidity to the banking system to promote lending to firms, backed by partial state guarantees. The Board will continue to closely monitor the solvency of the different market agents, and these policies will be reinforced if the evolution of the economy requires it.

<sup>2/</sup> While the financial channel is undoubtedly important, it is not the only explanation for the slow recovery following severe recessions. The regression results in table V.2 are qualitatively similar if we consider a subsample of 493 episodes where bank crises are excluded, which suggests that the non-linearities described above go beyond the phenomena associated with financial market disruptions and are essential for explaining the persistence of recessions. See Valencia and Villacorta (2020).

<sup>3/</sup> The job reallocation indicator summarizes how much of the change in employment in the group of firms reporting expected job losses in the next twelve months is absorbed by the group reporting expected job growth in the same period. The same idea applies to the sales reallocation indicator.

## BOX V.2 COMMUNICATION ON FORECASTING UNDER SCENARIOS OF HEIGHTENED UNCERTAINTY

The COVID-19 pandemic has generated a significant increase in uncertainty regarding both the evolution of the disease and the depth and duration of its economic impact. This box reviews the relation between uncertainty and recessionary periods, with an emphasis on the effect on economic forecasts.

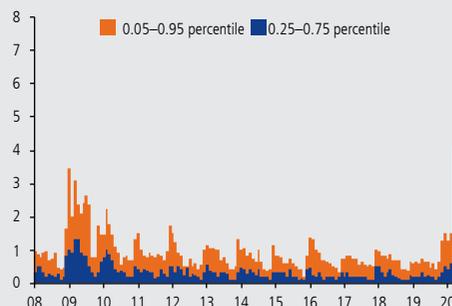
The causes and impacts of uncertainty on economic activity have been studied extensively in the economic literature. Bloom (2014) shows that uncertainty increases notably during recessionary periods. This greater uncertainty, in turn, has a negative impact on economic activity, since the value of postponing investment and consumption decisions increases when the range of possible future scenarios is unclear. Moreover, under a more uncertain scenario, risk premiums rise, increasing the cost of financing and thereby depressing business and consumer spending.

With regard to why uncertainty increases during episodes of economic contraction, one of the factors identified in the literature is the greater difficulty of making forecasts. Since recessions are infrequent events, it can be challenging to predict their intensity and duration. Consequently, in recessionary periods, there is greater dispersion among the available forecasts, as well as larger differences between the forecasts and the subsequent real data. Both elements are found in the case of Chile. The dispersion of growth forecasts for this year by the people surveyed for the Economic Expectations Survey (EES) is currently greater than in the history of the survey (figure V.12). With regard to forecast errors, the evidence shows that the root mean squared error of the GDP forecast in a recession year (2009) is 2.5 times greater than in the 2010–18 period.

In the face of this heightened uncertainty, the Board has decided to increase the range of the growth forecast for 2020, from 0.75 percentage points—the normal range in the June Monetary Policy Report—to 2.0 percentage points; and for 2021, from 1.0 to 1.50 percentage points. Given the greater uncertainty observed in all economies, many central banks have similarly

opted to adjust the way they deliver their growth forecasts, so as to illustrate the uncertainty of the economic scenario for this year and next. Some central banks have chosen to publish forecasts for multiple scenarios, while other have reported a wider growth range than is their traditional practice (tables V.3 and V.4).

**FIGURE V.12**  
Dispersion of GDP growth forecasts for this year in the EES  
(percentage points)



Source: Central Bank of Chile.

**TABLE V.3**  
2020 growth forecasts in different central banks (\*)  
(percentage points)

	Scenarios			Previous forecast width
	Negative	Intermediate	Positive	
Eurozone	-12.6	-8.7	-5.9	1.0 percentage point
Spain	-15.1	-11.6	-9.0	Point forecast
Italy	-13.1	-9.2	--	Point forecast
Germany	-10.0	-7.1	-3.4	Point forecast
Sweden	-9.7	--	-6.9	Point forecast
Norway	-6.6	-5.2	-3.8	Point forecast
New Zealand	-9.8	-17.5	-8.3	Point forecast
Mexico	-8.3	-8.8	-4.6	1.0 percentage point
Japan	Range from -5 to -3			0.2 percentage point
Colombia	Range from -7 to -2			

(\*) Classification of positive, negative, or intermediate depends on accumulated growth in 2020 and 2021.

Sources: Central banks of each country.

**TABLE V.4**  
**2021 growth forecasts in different central banks (\*)**  
 (percentage points)

	Scenarios			Previous forecast width
	Negative	Intermediate	Positive	
Eurozone	3.3	5.2	6.8	1.5 percentage points
Spain	6.9	9.1	7.7	Point forecast
Italy	3.5	4.8	--	Point forecast
Germany	-0.5	3.2	5.6	Point forecast
Sweden	1.7	--	4.6	Point forecast
Norway	-1.8	3.0	4.9	Point forecast
New Zealand	5.0	16.9	7.9	Point forecast
Mexico	-0.5	4.1	4.0	1.0 percentage point
Japan	Range from 2.8 to 3.9			0.3 percentage point
Colombia	No forecast			

(\*) Classification of positive, negative, or intermediate depends on accumulated growth in 2020 and 2021.

Sources: Central banks of each country.



# GLOSSARY

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**Baseline scenario:** Includes both the central forecast scenario and those sensitivity scenarios whose implications for the growth of output and demand are consistent with the range of forecasts in each Monetary Policy Report, but that could require different monetary policy paths to achieve the convergence of inflation within the policy horizon.

**CEMBI:** Corporate Emerging Market Bond Index. A measure of corporate risk, calculated by J.P. Morgan as the difference between the interest rate on dollar-denominated bonds issued by banks and corporations in emerging economies, and the interest rate on U.S. Treasury bonds, which are considered risk free.

**Central forecast scenario:** The forecast scenario that the Board considers to have the highest probability of occurrence.

**Commodity exporters:** Australia, Canada, and New Zealand, weighted at PPP (using data from the April 2020 WEO).

**CPI excluding volatile goods:** Represents 26.7% of the CPI basket and includes the following subclasses: Flours and cereals; bread and other bakery products; canned fish and shellfish; milk; yoghurt and dairy desserts; butter and margarine; dried and preserved fruits; sugar and sweeteners; jams, dulce de leche, and other sweet spreads; candy, chocolate, and other confections; ice creams; salt, herbs, spices, and cooking condiments; sauces and dressings; soups, baby food, and non-dairy desserts; coffee and substitutes; tea; cocoa and nutritional powders; mineral water and purified water; soft drinks; liquid and powdered juices; distillates; beer; clothing fabrics; men's clothing; school uniforms; clothing articles and accessories; home maintenance and repair items; household furniture; household textiles; white goods; small household appliances; household goods and utensils; tools; home fixtures; household cleaning products; therapeutic products; new automobiles; used automobiles; motorcycles; bicycles; auto parts and accessories; automotive oils and lubricants; audio equipment; computers and printers; games and videogame consoles; sporting, camping, and recreational equipment; pet food and accessories; school textbooks; books; newspapers; school supplies; office supplies; personal care products; personal hygiene products; beauty products; jewelry and wristwatches; other personal products.

**CPI excluding volatile services:** Represents 38.4% of the CPI basket and includes the following subclasses: Clothing cleaning and repair services; rent; home maintenance and repair services; sanitation services; other home-related services; furniture repair services; home appliance repair services; domestic services; medical services; dental services; medical and diagnostic laboratory services and radiology services; other professional health services; hospitalization services; automobile maintenance and repair services; parking services; motor vehicle registration services; urban passenger transport services; telecommunication services; veterinary services; services provided by



recreational and sports centers; sports and recreation classes; photographic services; television services; preschool, primary, and middle school education services; high school education services; university preparatory education services; higher education services; food and beverages consumed outside the home; take-out food; accommodation services; hair styling and personal care services; other services.

**CPI excluding volatile items:** The CPI basket excluding volatile components and representing 65.1% of the total CPI basket. The index breaks down into non-volatile goods and services sub-indexes.

**CPI, other volatile items:** Represents 17.2% of the CPI basket and includes the following subclasses: Wine; cigarettes; women's clothing; children's clothing; men's footwear; women's footwear; children's footwear; water and sewage services; home decorations and accessories; medications; other medical products; highway passenger transport services; air passenger transport services; combined passenger transport services; telephone equipment; televisions; cameras; audio and video recording equipment; gardening and flowers; services provided by cultural centers; gambling; package travel services; non-specific educational services; transportation-related insurance; financial services management expenses; and condominium fees.

**CPI, volatile energy:** Represents 7.5% of the CPI basket and includes the following subclasses: Electricity; natural gas, network; natural gas, canisters; other fuels for domestic use; automotive fuels.

**CPI, volatile foods:** Represents 10.1% of the CPI basket and includes the following subclasses: Rice; pastas; fresh beef; refrigerated or frozen beef; fresh pork; refrigerated or frozen pork; fresh chicken; refrigerated or frozen chicken; processed meats and cold cuts; fresh, refrigerated, or frozen fish; fresh, refrigerated, or frozen shellfish; cheeses; eggs; cooking oils; fresh, refrigerated, or frozen; fresh, refrigerated, frozen, or preserved vegetables; dried legumes; and potatoes and potato products.

**CPI, volatile items:** Represents 34.9% of the total CPI basket. The index breaks down into volatile foods, volatile energy, and other volatile CPI sub-indexes.

**CPIEFE:** CPI excluding food and energy prices, leaving 73.2% of the total CPI basket. The index breaks down into the CPIEFE goods and the CPIEFE services sub-indexes.

**Effective lower bound:** A structural parameter—like the neutral MPR or the trend and potential growth rate of the Chilean economy—that is periodically evaluated by the CBC Board. In the most recent assessment, as in 2009, the Board estimates that the current value of the effective lower bound of the MPR is 0.50%; that is, the lowest MPR level that allows the adequate functioning of the money markets. It could, however, be reevaluated in the future.

**EMBI:** Emerging Market Bond Index. A measure of country risk, calculated by J.P. Morgan as the difference between the interest rate on dollar-denominated bonds issued by emerging economies, and the interest rate on U.S. Treasury bonds, which are considered risk free.

**EPI:** External price index for Chile, or external inflation, calculated using the wholesale price index (WPI)—or the CPI if the WPI is not available—expressed in dollars, of the main trading partners included in the MER.

**Excess capacity:** A broader set of indicators for measuring inflationary pressures, which includes not only the output gap, but also labor market conditions, electricity consumption, and installed capacity utilization in firms.

**Forecast horizon:** The period for which the macroeconomic forecast is formulated based on the models used by the CBC. It is normally a period of three years.

**Growth of trading partners:** The growth of Chile's main trading partners, weighted by their share in total exports over two rolling years. The countries included are the destination for about 94% of total exports, on average, for the 1990–2019 period.

**IVUM:** Import price index.

**Latin America:** Includes Argentina, Bolivia, Brazil, Colombia, Mexico, and Peru, weighted at PPP using data from the World Economic Outlook (WEO, April 2020).

**MER-5:** MER against the following five currencies: Canada, the Eurozone, Japan, United Kingdom, and United States.

**MER-X:** MER excluding the U.S. dollar.

**MER:** Multilateral exchange rate. A measure of the nominal value of the peso against a broad basket of currencies, weighted as for the RER. For 2020, the following countries are included: Argentina, Bolivia, Brazil, Canada, China, Colombia, France, Germany, India, Italy, Japan, Mexico, Netherlands, Paraguay, Peru, Republic of Korea, Spain, United Kingdom, United States, and Vietnam.

**NER:** Nominal exchange rate.

**Neutral MPR:** The monetary policy interest rate that is consistent with the long-term equilibrium GDP growth rate (after the effects of transitory shocks in the economy have dissipated) and with inflation at the 3% target. The neutral interest rate is one of the structural parameters that the Board uses to assess the current state of the economy and its outlook and to calibrate monetary policy. Monetary policy is considered accommodative (restrictive) when the MPR is below (above) the neutral rate.

**Output gap:** A key indicator for measuring inflationary pressures, defined as the difference between the economy's actual output and its current production capacity in the non-mining sectors (non-mining GDP).

**Policy horizon:** According to the Central Bank of Chile's monetary policy framework, the policy horizon is a period of two years from the time the projections are made. Inflation should converge to the target in this period, and thus the projected MPR should be consistent with this objective.

**Potential GDP:** The economy's current production capacity. Also called short-term potential GDP.

**RER:** Real exchange rate. A measure of the real value of the peso against a basket of currencies, which includes the same countries used to calculate the MER.

**Rest of Asia:** Hong Kong, Indonesia, Rep. Korea, Malaysia, Philippines, Singapore, Taiwan, and Thailand, weighted at PPP (using data from the April 2020 WEO).



**Risk scenarios:** Forecast scenarios that the Board estimates to be less probable and that are more extreme than the baseline scenario; they are discussed in the corresponding chapters of each Monetary Policy Report.

**Sensitivity scenarios:** Alternative forecast scenarios that the Board considers to have a comparable probability of occurrence vis-à-vis the central forecast scenario.

**Trend GDP:** The medium-term growth potential of the Chilean economy, where the effect of shocks that usually alter production capacity in the short term have dissipated and the production factors are thus used normally. In this context, growth depends on the structural characteristics of the economy and the average growth of productivity, variables that, in turn, determine the growth of production factors.

**World growth at market exchange rate:** Each country is weighted according to its GDP in dollars, published by the IMF (WEO, April 2020). The sample of countries used in the calculation represent around 91% of world growth. For the remaining 9%, the average growth rate of advanced and emerging economies is used for the 2020–2022 period.

**World growth:** Regional growth weighted by share in world GDP at PPP, published by the IMF (WEO, April 2020). World growth forecasts for the 2020–2022 period are calculated from a sample of countries that represent about 86% of world GDP. For the remaining 14%, the average growth rate of advanced and emerging economies is used.

## ABBREVIATIONS

<b>BCP:</b>	Central Bank bonds denominated in pesos
<b>BCU:</b>	Indexed Central Bank bonds denominated in UFs
<b>BLS:</b>	Bank Lending Survey
<b>BPR:</b>	Business Perceptions Report
<b>CDTBC:</b>	Corporación de Desarrollo Tecnológico de Bienes de Capital
<b>CPI:</b>	Consumer price index
<b>CPIEFE:</b>	Consumer price index excluding food and fuels
<b>EES:</b>	Economic Expectations Survey
<b>FBS:</b>	Financial Brokers Survey
<b>FFR:</b>	Federal funds rate
<b>FMC:</b>	Financial Market Commission
<b>IMCE:</b>	Monthly Business Confidence Index
<b>IMF:</b>	International Monetary Fund
<b>INE:</b>	National Statistics Institute.
<b>IPEC:</b>	Consumer Confidence Index
<b>IPSA:</b>	Selective Stock Price Index
<b>LCI:</b>	Labor Cost Index
<b>MER:</b>	multilateral exchange rate.
<b>MPR:</b>	Monetary policy rate.
<b>MSCI:</b>	Morgan Stanley Capital International
<b>OECD:</b>	Organization for Economic Cooperation and Development
<b>OPEC:</b>	Organization of the Petroleum Exporting Countries
<b>PDBC:</b>	Central Bank discount promissory notes
<b>RER:</b>	Real exchange rate.
<b>RPI:</b>	Retail price index
<b>SNA:</b>	System of National Accounts
<b>UF:</b>	Unidad de fomento, an inflation-indexed unit of account
<b>WI:</b>	Wage Index

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Corporate Affairs Division

JUNE 2020

ISSN: 0716-2219

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