PRESENTATION BEFORE THE FINANCE COMMISSION OF THE HONORABLE SENATE OF THE REPUBLIC*

Mario Marcel
Governor
Central Bank of Chile
31 March 2021

* The March 2021 *Monetary Policy Report* can be found at http://www.bcentral.cl.

I. Introduction

Madam President of the Senate's Finance Commission, Senator Ximena Rincón, Senators members of the Commission, ladies, gentlemen,

I am grateful for your invitation to present the vision of the Board of the Central Bank of Chile (CBC) on the latest macroeconomic developments, our economic outlook and implications for monetary policy. This vision is reflected in detail in our March 2021 *Monetary Policy Report* we just released this morning. The background information in it provides the backdrop for the decision that the Board adopted at its Monetary Policy Meeting yesterday.

I will take this opportunity to extend a special greeting to Senator Rincón for assuming the chairmanship of this Committee. I would also like to thank Senator Pizarro, who has stepped down from the Committee, for the attention he always paid to the CBC in our frequent appearances, often under his presidency. Attention for which we also thank senators Montes, García, Coloma, and Lagos-Weber.

You will notice some changes in this presentation. One of them is our new graphic identity, which has been modernized as part of an effort to adapt to the increased use of digital media, on the one hand, and to broaden access to our communications, on the other. You will also notice a seal that identifies the CBC as one of the "*Best Place to Work*" in Chile in 2020. This fills us with pride, as it reflects not only a strategic effort to be an employer of excellence, but also a special concern for our personnel throughout the Covid-19 pandemic.

The last few months have confirmed that the Chilean economy has been making progress in its process of recovery from the severe shock caused by the pandemic. After the substantial drop in activity in the second quarter of last year, 2020 ended with greater dynamism than anticipated, denoting a better adaptation of businesses and households to the sanitary emergency, coupled with the support of a sizeable monetary and fiscal impulse. Thus, the outlook for recovery in 2021 has strengthened, supported by the sustained progress of the vaccination campaign, the greater external impulse, and the continuity of expansionary policies.

In the immediate term, however, the tightening of restrictions that has been implemented in recent weeks will negatively affect the economy in the second quarter of this year, especially during April. This will undoubtedly be a complex time for many families and small businesses. But, unlike what happened at the beginning of the pandemic, as a country, we have managed to adapt many activities to the restrictions, and public policies have already reacted to this situation providing timely assistance to the most affected families, who can continue to adjust to the forced changes in the mobility of people and the situation in their own homes.

In any case, we must be clear about what is happening today with the additional restrictions: although they impose costs that are necessary in order to overcome the sanitary emergency, they do not derail the process of economic recovery. To the extent that the evolution of infections improves, and the favorable progress of vaccinations continues, it will be possible to strongly ease the restrictions and reopen larger sectors of the economy.

We will have to carefully monitor how the economy evolves in this new stage due to the possible after-effects of the unprecedented shock we have endured. The recovery will probably continue to be heterogeneous, with significant lags in the sectors that are most intensive in human interaction and employment, which helps to explain the big gaps that persist in the labor market.

At the global level, the correct calibration of monetary and fiscal incentives by the authorities of the countries in terms of their scope, magnitude and permanence is key, in order to affirm the recovery without creating macro-financial imbalances. Equally important are the scars that the pandemic will leave on households and businesses—including their deteriorated financial situations—and its impact on the dynamism of the economy going forward.

The CBC will do everything in its power, within its institutional mandates and the instruments at its disposal, to ensure that the economy successfully overcomes the challenges ahead. This commitment is expressed not only in the timeliness and effectiveness of the measures we adopt, but also in explaining their rationale and scope to the public, in which this *Report* plays a critical role.

I will now go on to describe our assessment of the economic outlook and its risks. In the last part, I will refer to the important progress that the CBC has made in generating more granular and qualitative information on the functioning of our economy.

II. The macroeconomic scenario

The information we have compiled in the past few months shows that that the Chilean economic recovery, which began in June last year, extended and intensified into early 2021. GDP closed 2020 with a–5.8% drop annually, in the most favorable bound of the negative growth range foreseen in December (-5.75 to -6.25%). End of 2020 data show that during the third and fourth quarters a good part of the 13% drop in GDP in the second quarter was undone. Incoming information suggest that the trend remained at least up until mid-March.

There are still important differences in performance across sectors. The evolution of retail is noteworthy, which went from being one of the most affected sectors to one showing the strongest and earliest recovery. Manufacturing industry has also experienced a significant upturn. The most lagging activities continue to be those that require more social interaction or where remote work is less viable. Examples of this are services, construction, and transportation. Mining was not impacted so much during the peak months of the pandemic, although its level of activity began to decline in the second half of 2020, because of technical factors such as maintenance downtime and lower ore grades (Figure 1).

The increasing number of firms that have been able to accommodate the pandemic-related working conditions has been key in the improved performance of the economy. Upon the onset of the sanitary emergency, many measures of human distancing were adopted that hindered or halted the operation of many economic activities. As time passes, firms and households have been adjusting to these constraints, via a strong development of online sales—favoring trade—, teleworking, logistic services, and a set of regulations being implemented that allow operating while reducing the possibility of infection.

As we show in a box in this *Report*, after restrictions began in March 2020, their tightening moved in tandem with reductions in activity. This relationship diminished towards mid-year, with the start of the *Step-by-Step Plan* and the gradual adaptation of businesses and households. Actually, the economic recovery began at the time of the most restrictive period in 2020, while the limitations imposed between December and January had a lesser impact. By sector, adaptation can also be observed, but at quite different speeds. Retail stands out, with a rapid adaptation and the boost to consumption coming from the withdrawal of pension savings. This contrasts with construction, where private projects were prevented from operating in quarantined districts (Figure 2).

Research conducted inside the CBC has also analyzed these results from a geographic perspective, finding significant heterogeneity among the countries many macrozones. In such cases, the moment each of them saws

their respective peak of infections and restrictions during 2020 is decisive. Thus, while the Metropolitan Region experienced the greatest restrictions between June and August, in the Northern and Central macro-zones, this occurred around September and with new increases in infections at the beginning of 2021. It should be noted that in the Central, South, and Southern macro-zones the recovery has been slower, which could be explained by greater difficulty in adapting due to territorial factors, such as higher transportation and logistics costs in more isolated areas (Figure 3).

Macroeconomic policy has provided unprecedented support, using the space accumulated in previous years to sustain workers, households, and businesses. In the case of the CBC, this has translated into some 20 measures aimed at expanding monetary impulse, stimulating credit, smoothing the adjustment of financial markets, and recovering part of the policy space to face new risks. The Monetary Policy Rate (MPR) completed a full year at its technical minimum and the non-conventional policy measures have mobilized resources of close to 13% of GDP. This has allowed the economy to navigate this crisis with a countercyclical behavior of credit and record low interest rates (Table 1).

One key challenge of the Covid-19 crisis has been to design macroeconomic policies that can help firms survive, which, while viable in the medium term, have been hit by a massive liquidity shock because of the sanitary restrictions. In Chile, this motivated the creation of Covid-FOGAPE credit programs and the CBC's *Financing Facility Conditional on Increased Lending* (FCIC). In addition to supporting the country's productive capacity, these programs would enable an earlier recovery of the labor market and household earnings. In the September 2020 *Monetary Policy Report*, we documented preliminary evidence of the positive impact of these programs on business survival, but we also raised some red flags by showing a significant increase in the proportion of firms that ceased to report sales for several months.

This *Report* presents new evidence showing that an important number of those firms that ceased to report any sales when the pandemic began have resumed sales, and at the same time the creation of new firms has rebounded strongly and is back to the numbers of past years. This has made it possible to recover commercial relations between businesses and contribute to the recent dynamism of the economy. The information at hand shows some characteristics of the new companies, showing that their sectoral composition, size, and hiring intensity are not very different from their historical patterns. Although there are many dimensions of analysis pending before a more complete diagnosis can be made, this background information is encouraging, suggesting that the most negative scenario for the Chilean productive sector seems to have been avoided so far (Figure 4).

The Chilean economy has also benefited from international conditions that have recovered faster than we projected, where the massive monetary and fiscal packages have also played a significant role. The fast improvement of the Chinese economy and other trading partners has boosted our exports. Thus, in China both manufacturing output and retail sales have already recovered their pre-pandemic levels, a phenomenon that is also observed in the manufacturing output of the Eurozone and in retail sales in the United States (Figure 5).

Commodity prices have risen across the board, and copper is above USD 4 per pound—a record high since 2011. The increase in the price of the metal has been supported by the rapid recovery of China and other Asian countries, the rise in global industrial production and low inventory levels in the stock market. As discussed in one of the boxes in this *Report*, the central scenario assumes that the copper price will moderate in the coming years, but still remaining above its medium-term level. This assumes that the factors that have determined its recent rises will lose some traction in the coming years. In any case, the evolution of the copper price marks an important difference with respect to other past recessionary episodes, a risk that was also insinuated at the beginning of the pandemic.

In this context, nominal exports increased significantly in the second half of 2020. The year closed with a total of near USD 73 billion and annual growth of 7% with respect to 2019. Such a rebound owed to higher prices and greater volume sales. Last January and February this trend was boosted by increased agricultural shipments (Figure 6).

On consumption, the dynamics of household spending has been determined by a combination of restrictions to the supply of services and the impulse from the income and liquidity support measures. Consumption contracted sharply in the second quarter of 2020 due to the sanitary restrictions, lost jobs and the high uncertainty regarding the effects of the pandemic. In the second part of the year, although important restrictions on the consumption of services remained, the tradable component of spending accelerated as a result of greater liquidity from pension savings withdrawals and effective fiscal support measures (Figure 7).

After nearly a decade of negative balances, in 2020 Chile's Current Account recorded a surplus of USD 3.37 billion, equivalent to 1.4% of GDP. This sharp correction from a deficit of 3.7% of GDP in 2019 is among the steepest among a set of emerging countries. A box in this *Report* examines the composition and particularities of this adjustment, showing that the increase in savings and decrease in investment that led to the Current Account reversal were mostly related to: (i) restrictions on mobility that deterred consumption, especially of certain services; (ii) precautionary behavior associated with the greater uncertainty and rapid deterioration of the labor market; (iii) households and businesses facing significant liquidity constraints during the first few months of the pandemic; and (iv) the significant copper price increase I just discussed (Figure 8).

There is no evidence linking the variation of the Current Account with external financing restrictions, which is usual with this type of phenomenon. From a comparative perspective, current account reversals during the Covid-19 crisis were less common in developed countries, probably due to the existence of a more extended social safety net that contributed to a more rapid expansion of fiscal transfers, helping to sustain higher levels of aggregate expenditure.

Although the recovery has been spreading, the labor market continues to show significant lags, especially in some sectors. The information available at the close of this *Report* shows that employment has recovered across all occupational categories but remains significantly below pre-pandemic levels. Other sources confirm the increase in employment, although with some difference in level (Figure 9). By sector, the recovery of employment has been slower in services requiring more personal interaction. Activities such as lodging, food services, and artistic and recreational events are still among the most affected. It is worth noting that the retail sector, which has seen a significant rebound, also fails to report a labor recovery consistent with its levels of activity.

On the labor demand side, there have been some signs of a rebound in the past few months. The CBC's internet job offers index has returned to nearly pre-pandemic levels, while hiring plans as measured by business expectations have risen. In any case, as I will discuss below, the employment outlook presents risks. In the February *Business Perceptions Report* (IPN), the firms surveyed report that they have increased their headcount from a few months ago, but do not expect it to increase much further in a year's time.

As for labor supply, a unique feature of this episode has been a sharp increase in inactivity. In recessionary periods, this behavior is typically associated with discouragement. However, this time it has been mostly linked to the pandemic, either by people who could not go to work or by people who had to quit their jobs to devote themselves to childcare and family responsibilities, given the suspension of face-to-face services. The latter has been especially important for women, whose participation in the labor market has been greatly affected by the

pandemic. Although in recent months the causes of inactivity linked to Covid have decreased, recovering women's positions is one of the biggest challenges in the reactivation of the economy (Figure 10).

Investment has seen a slower recovery compared to consumption, affected by high uncertainty about the evolution of the pandemic and the firms' financial burdens. In the second half of 2020, several large-scale projects that had been halted during the first wave of the pandemic were reactivated, and data at the margin show more dynamic capital goods imports. However, the speed of recovery of investment has been slow and no significant acceleration of the non-mining private component is expected for the moment.

The December survey of the *Capital Goods Corporation* showed a decline in investment this year below earlier forecasts, due to some shelved real-estate projects and rescheduled mining and industrial projects. Information contained in the February IPN indicates that investments are focused on refurbishment of existing machinery and infrastructure and process automation. Respondents continue to point out that projects are affected by uncertainty regarding the evolution of the pandemic, the perception of insufficient demand, and a heavier financial burden (Figure 11).

As for financial conditions, global markets, Chile included, have reflected progress in the recovery of activity and the improvement of expectations around the world. Stock market indicators and long-term interest rates have risen in several economies. In Chile, these trends have been replicated and, as activity has recovered and the outlook has improved, 10-year sovereign bond rates have risen (by 50 basis points since the beginning of 2021) (Figure 12).

Although the steepening of the yield curve is a natural response to the global recovery, the appropriateness of monetary and fiscal stimulus of the current magnitude has begun to be debated in some economies. The case of the United States is noteworthy, where the significant fiscal package recently approved, plus the commitments of substantial additional resources for investment in infrastructure and the environment, have had considerable effects on interest rates, which could have an impact on inflation. Thus, in the days following the approval of the latest fiscal package, United States' 10-year interest rates rose by 10 basis points (bp), adding to the 110 bp increase they had already accumulated since early August 2020. Although some analysts have expressed concern about the pressures that these measures could generate on prices, medium-term inflation expectations have not changed much. At the same time, the Federal Reserve has reiterated its forward guidance, confirming that it will maintain a strong monetary impulse for a prolonged period of time.

Regarding credit, commercial loans have posted slower annual growth from their mid-2020 peak, as businesses were in need of emergency funding. Actually, the focus of credit demand has shifted to the need for debt refinancing, as the pandemic continues. To support this process, the Government launched the FOGAPE-Reactiva program, which was complemented by the CBC with a third tier of the FCIC. This facility began operating on 1 March and, by the end of the year, the banks had used around 15% of the USD 10 billion available in this third stage (free version) (Table 2).

Personal credit has not altered its recent trends, with a sharp contraction of consumer credit and stability in the increase of mortgage loans. Interest rates remain limited for all the credit categories.

III. Our projections

Although in the immediate future a setback is anticipated due to the tightening of sanitary measures, the outlook for activity this year is better than was expected in the December *Report*. This is explained by the better

starting point left by the economy between late 2020 and early 2021, the favorable international outlook and the rapid progress of the vaccination campaign in Chile. The new cumulative evidence on the effects of this latter factor allows forecasting that towards the second half this year we will see advanced opening of the economy. All this has translated into better business and household expectations, and higher private growth projections (Figure 13).

Our growth forecast for 2021 is increased from December, with no significant changes for the ensuing years. In the central scenario, our growth projection for 2021 is increased to a range between 6.0 and 7.0% (5.5-6.5% in December), while for 2022 it remains between 3.0 and 4.0%. For 2023, it is between 2.5 and 3.5%, somewhat below the trend growth estimate. In any case, the uncertainty regarding the latter estimate is high, as the pandemic has caused significant effects in different areas, such as financial health, business productivity or the functionality of logistics chains, which could have varied effects on medium-term growth capacity. This situation will be assessed in the June *Report*, where the economy's structural parameters will be updated.

The central scenario projections assume that the external impulse will remain positive, with the terms of trade around 10% above our December estimate and a strong recovery of the world economy in 2021.

About fiscal policy, we assume that the strong impulse will continue this year and will decline gradually as the sanitary emergency eases and fiscal consolidation advances. Furthermore, we consider that the process of constitutional debate will follow the established institutional channels and there will be no more severe violent episodes.

For expenditure, we anticipate significant recovery of private consumption thanks to the opening of the economy and households' available liquidity. We also foresee a more dynamic investment in public projects and that associated with large-scale mining and energy projects, but for now no significant recovery is foreseen in non-mining corporate investment (Table 3).

Inflation will rise temporarily to around 4% in the coming months due to higher energy prices and other volatile components, starting to converge towards the policy target in the second half of the year. Inflation has been around 3% in recent months, with significant fluctuations due to the particular conditions imposed by the pandemic on the availability of certain goods and services. Before starting its convergence to 3%, annual inflation will be affected by the low price of oil in the second quarter of 2020, which, combined with its rise in recent months, will bring the annual CPI variation to near 4%. In the opposite direction, the appreciation of the CLP from its levels at the end of last year. Core inflation—which excludes volatiles—will fall to 2.6% by the end of this year to then return to 3% (Figure 14).

IV. Sensitivities and risks

Despite the recent good performance of the economy, several risks persist due to the unprecedented shock caused by the pandemic. On the one hand, the impact of the vaccination process still has some way to go before it is reflected in the epidemiological evolution and sanitary measures. Add to this the possibility of new waves of infections and new strains of the virus. In Chile, the worsening sanitary situation has forced about 85% of the population to be in total confinement, which will negatively affect the economy in the second quarter. In any case, this effect will be milder than at the beginning of the pandemic, because companies and households have made progress in adapting to the new conditions, the restrictions themselves have been adapted and public policies already have a set of tools to face this situation and help the most affected, adjusting support in accordance with the evolution of mobility restrictions and the needs of the people.

Although the sanitary restrictions should be eased as vaccination progress and translate into fewer severe cases putting pressures on the health system, a less favorable evolution of the virus cannot be ruled out, which might have repercussions on the more vulnerable activities and businesses. If such a scenario reduced inflationary prospects hand in hand with a wider activity gap, monetary policy could remain at its minimum for longer than has been anticipated in the central scenario.

On the other hand, there is also the possibility for a slower recovery of labor and investment. Despite the capacity for adaptation that so far firms have enjoyed, some factors such as higher uncertainty, hindrances for businesses to honor their financial commitments, longer lasting than expected constraints or losses in productivity, could have a stronger effect than foreseen. In such a case, investment and job creation could take longer to rebound which, in turn, would have negative effects on activity, demand and inflation, holding back the normalization more than what we have considered in the central scenario.

There are also scenarios where short-term growth could exceed expectations. We cannot rule out that, once herd immunity has been achieved and restrictions are eased for several businesses to operate, the strong increase in savings in liquid instruments that built up during 2020 is used in consumption. Here it should be noted that, of the total pension savings withdrawn by pension fund affiliates under the two approved reforms, roughly 37% is still held in extremely liquid forms, such as checking accounts and demand accounts, while another 17% has been invested in traditional savings instruments, such as time deposits or mutual fund shares (Table 4). The "unidentified" component also includes a fraction of funds stored in cash. If a significant proportion of all these funds—approaching 7% of GDP—were to be allocated to consumption, especially of services, this would lead to a somewhat faster-than-expected closing of the gaps, leading to monetary normalization to begin sooner than assumed in the central scenario.

After considering all these sensitivity scenarios, the Board estimates that the risk balance for both inflation and activity is unbiased.

In any case, the possibility of more adverse scenarios that could push the economy off its projected trajectory is still present, particularly because of the sanitary evolution of the pandemic, the way the various economies will recovery, and the scars that the crisis will leave.

One such risk arises from the fact that, contrary to the simultaneity observed at the beginning of the pandemic, the speed of economic recovery is very uneven among countries, which could mean that the withdrawal of stimuli in the most advanced economies, such as the United States, could trigger a tightening of financial conditions for the countries that are lagging behind in the process. Chile, like several of its main trading partners—China and the United States—has enjoyed a faster-than-expected economic recovery process, where the significant monetary and fiscal impulse and the prospects opened up by the progress in the vaccination program have been combined. Other economies, in particular several emerging ones, are still badly hit, with prospects of a slower recovery and more vulnerable to such a scenario.

This draws attention to the importance of duly calibrating the additional fiscal stimulus packages for global recovery. After a crisis that has hit the world over, one key question is how much should fiscal and monetary stimulus policies, which have far exceeded their historical frameworks, be maintained or even deepened. On the one hand, it is important to avoid pulling out of these policies prematurely, when the evolution of the pandemic and its impact on the economy are still uncertain and many economic agents are still in fragile positions. On the

other hand, the continuation of generalized stimulus beyond what is necessary may trigger inflationary pressures, speculative bubbles and problems of fiscal sustainability, which could undermine market expectations.

V. Monetary policy

Going forward, it will be very important for monetary policy to distinguish between transitory price movements —caused by the diverse behavior of economies and market adjustments after an unprecedented shock— and more sustained increases in inflation. In the central scenario, the Chilean economy will continue to recover activity and employment, with inflation standing at the 3% target over the 24-month policy horizon. In the meantime, our forecasts show that inflation will see a transitory increase induced by the behavior of volatile prices, especially of food and energy. In contrast, core inflation will decline to around 2.5% by the end of this year, to then return to 3% by the end of 2022.

The Board estimates that, despite an improved economic outlook, the convergence of inflation to the target within the policy horizon calls for monetary policy to remain highly expansionary. Accordingly, the MPR will be kept at its minimum of 0.5% until the recovery of the economy takes hold and spills over to the lagging components of spending, which will still take several quarters. Future changes in monetary policy will depend on the evolution of the macroeconomic outlook and its implications for inflation. Regarding non-conventional measures, they will continue to operate under the current conditions, complementing the monetary policy stance defined by the MPR, and any changes to it will be announced with sufficient notice.

VI. The importance of a more granular vision of the economy and the formulation of policies

The economic impact of the social crisis and the shock caused by Covid-19 have been very different from that observed in the traditional economic cycles examined in the economic literature and which have affected our country in the past. The fact that these shocks have had a non-economic origin and, at the same time, have had a direct impact on the productive system, has made it necessary to review not only concepts and models, but also the information that informs economic analysis and policy decisions.

In the particular case of the CBC, we have seen that our diagnosis, forecasts, and policy measures have required a more granular and advanced analysis than traditional economic indicators allow. Thus, since the last quarter of 2019, we have made intensive use of administrative databases, microdata analysis, special surveys, and other big data sources, such as population mobility indicators. In several cases, this information has been key to fine-tune the measures adopted by the CBC.

The utilization of this type of information is not an emergency incident, nor is it an effort limited to the current situation. For several years now, we have been working on the access to and use of administrative databases, qualitative information, and big data, which has been intensified as part of our *2018-2022 Strategic Plan*.

Beyond its obvious technical value, we see in the use of microdata and qualitative information an opportunity to gain a vision of the economy that is closer to the reality of the people and companies that give life to it, also recognizing the diversity of the country. For this reason, we see in this area a more far-reaching projection, which is not limited to the CBC, but also for other policy decision makers—including the National Congress—and the academic world as well.

Please allow me to briefly review the various products and projects on which we are embarked, in order for you to have a concrete view of their value for understanding the real functioning and diversity of the economy and for informing public policy (Table 5).

The Household Financial Survey. This survey is a project that the CBC launched back in 2007 and that has allowed us to have a financial X-ray of Chilean households, with greater coverage and depth than was allowed by traditional statistics. It allows us to look at the financial system from the perspective of individuals, covering all possible sources of credit, savings destination, and use of financial services, regardless of their counterparties. This tool has allowed us to quantify the relevance of non-bank credit providers and identify the information asymmetries that exist in this market. This has led us to insist on the need for a consolidated debt register, a message that we have conveyed during the last decade in our *Financial Stability Report*.

During this year we will have a new application of this survey, either face-to-face or online, depending on the sanitary reality. Its results will be paramount to size the impact of the pandemic and related actions on the financial situation of households, and to help in the design of future public policies oriented to this sector.

Businesses microdata. To address the need for access to granular and massive sources of information for macroeconomic analysis, significant resources have been allocated to improve access, management, and analysis of microdata on companies, including tax and financial information. This has improved the depth and timeliness of economic diagnosis. In fact, the analysis of microdata at the firm level made it possible to anticipate the deterioration of activity after the social outbreak of 2019, and subsequently complemented qualitative information on the improved economic activity figures of the first months of 2020.

With the massive arrival of the Covid-19 pandemic in March 2020, the use of microdata made it possible to quantify the demand for credit and the financing needs of the corporate sector to contain the deterioration of the real economy. This analysis was key to calibrating the FCIC amounts. In September 2020, the microdata proved to be a key input to evaluate the continuity of credit provision programs, helping to reduce the probability of business closures. Thus, in the September 2020 *Report* we were able to estimate how the variation in sales and access to credit could affect the probability of a firm's shutdown. In the fourth quarter of 2020, these data allowed us to estimate how consumption began to react to the increase in household disposable income. Finally, in this *Report*, the microdata shows a recovery in the number of businesses that have resumed operations a little over a year after the onset of the pandemic.

In the near future, microdata appears as a key source of information to guide the CBC's decision making. If we continue to make progress in this area, we can become a world reference in the use of this information to support policies, thereby ensuring that such policies contribute to the country's well-being and development.

Business perceptions. Also, with the purpose of better understanding the situation of companies in different parts of the country, in 2019 the CBC began to conduct the *Business Perceptions Survey* as an instrument to complement the qualitative information extracted from the interviews in the IPN, which has been prepared since 2013. Despite being conceived as a quarterly product, during 2020 we conducted and published six versions of this survey, thus allowing us to take the pulse of the national economic situation in a continuous, timely and first-source manner on the difficult situation faced by companies all throughout the country.

Moreover, the IPN interviews allowed us to inquire qualitatively about the challenges faced by businesses during the pandemic and to complement official and quantitative statistics, alerting us to issues that are more difficult to observe using traditional sources of information, including the differences in the realities of different regions.

This confirmed how important it is to have sources of information based on the economic agents' perceptions, feelings, and expectations.

During this year we expect to continue improving the *Business Perceptions Survey* in methodological terms, consolidating a sample of 500 to 600 interviewees representative nationwide with a sampling error of less than 5%, as well as working on a new format for the IPN that allows integrating the qualitative information with that obtained through the *Business Perceptions Survey*.

Advances in regional statistics. Within the framework of the *Benchmark Compilation of National Accounts*, the CBC is working on a substantial expansion of its regional statistics, in order to improve the timeliness of the information presented and to have a greater number of relevant regionalized variables available. This is an important advance with respect to the current status, in which the aggregate *Annual Regional Accounts* are published eight months behind the *National Accounts*, while, at a disaggregate level and only on the value-added side (activity sectors), this delay is as much as 15 months. This has been aggravated following the suspension of the publication of the *Regional Activity Indicator* by the *National Statistics Institute* (INE).

In particular, three action lines are considered: (a) reducing the delay of *Annual Regional Accounts* to no more than one quarter with respect to the *National Accounts*; (b) publishing quarterly regional figures for the main activity sectors; (c) publishing regional figures on the expenditure side for consumption and investment.

For a better allocation of transactions across regions, we are exploiting the *Electronic Tax Documents* (DTE), provided by the *Internal Revenue Service*. The set of new series will be published in 2022, in the first months of the term of office of the Regional Governors, who are about to be elected.

Digital means of payment. Electronic billing has grown steadily and are very relevant to the current functioning of the economy. In many countries, this information has been used to monitor the pulse of consumption with fewer lags, in a context in which having timely information available has been extremely important. In the past two years, the CBC has had access to some partial sources of data, such as the movements of the ID-based sight accounts "*Cuenta RUT*" and bank card transactions, which have made it possible to enrich the monitoring of the economy. However, given the fragmented nature of retail payment systems in Chile, it has been difficult to obtain a sufficiently consolidated picture.

This reality has implications beyond the access to information and is linked to the CBC's mandate to ensure the continuity of internal and external payments, which gives it responsibility for the operation of the infrastructures on which retail means of payment operate. As a result, almost four years ago, the CBC issued a new regulation aimed at allowing the operation of a *Four-Party Model* in card payments and equivalent electronic means, in response to the problems for competition in the provision of these services revealed by the *Free Competition Tribunal*. Since then, together with the financial regulator and the Ministry of Finance, the CBC has promoted the adoption of this model and contributed to facilitating competition in this sector.

Along these lines, and without prejudice to the development of the retail payments market resulting from the emergence of new participants, the CBC seeks to go further by promoting the implementation of adequate regulation for instant payments in the country. To this end, on March 8, it published a new rule to regulate the creation and operation of *Clearing Houses for Low Value Payments* (CPBV). These chambers, besides enhancing the security of the clearing and settlement process of these payments, will allow to expand and diversify the means of payment available in the financial system, promoting interoperability between the different means and platforms, so that people have alternatives that suit their needs when making their payments.

Its objective is to enable individuals to make payments using the digital means or platform of their choice to any counterparty connected in any way to the system, without being limited by the operators' acquiring networks. This will not only increase financial inclusion for individuals, businesses, and service providers, but will also boost competition and innovation in the industry.

Calculating carbon emissions. Come this April, we will publish a document on the calculation of the carbon footprint of economic activities in the country for the year 2017 using an input-output approach, which allows us to measure the totality of emissions generated by a given economic activity, taking into account the inputs it uses, including especially energy. The results reveal that coal-based electricity generation and the manufacturing industry are the largest direct emitters of CO_2, while the manufacturing industry and mining show the highest levels of CO_2 incorporated by inputs used in the productive process.

This project, developed in collaboration with the *Ministry of the Environment*, is not intended to paint a static picture of the emissions situation, but rather to establish a methodology that, with regular updating of the figures, will make it possible to evaluate the efforts made by various industries to reduce their carbon footprint, including those that spread along the production chain, contributing to the achievement of the goals assumed by the country. At the microeconomic level, this methodology will also serve to evaluate the carbon footprint of future projects and measure the impact of carbon taxes, thus better guiding the policies and decisions of agents on green finance.

Households' satellite accounts. A study conducted by "*Comunidad Mujer*" has estimated the economic value of unpaid household and caregiving work at more than a quarter of GDP, which is not included in the latter measurement. Given the importance of this issue, intensified during the current juncture, the CBC is working to generate the first household satellite accounts in Chile, in conformity with international standards and methodologies. To this end, the CBC is coordinating with INE the incorporation of a special module on time utilization in the *National Employment Survey* in the year 2022. Additionally, INE is negotiating resources to carry out the *National Time Utilization Survey*, whose first version was carried out in 2015, in order to better complement the context of the CBC's household satellite accounts.

In addition, these accounts will make it possible to measure the contribution of men and women to household work, which will certainly help strengthen the country's gender equality policies.

From the above review it can be concluded that access to more granular and qualitative information that allows a better understanding of economic developments is not only a necessity, but a possibility, and that the CBC is working hard to obtain, process, disseminate, and use such information. Sometimes —as in the case of digital means of payment—this relates to specific regulatory competencies of the CBC; in others —as in the case of firm microdata—it is about improving the microeconomic underpinnings of macroeconomic or financial policies; in general, it is about recognizing diversity and interrelationships within the economy as a public good that can be used by academics, analysts, the media, leaders of opinion and anyone interested in implementing evidence-based policy.

VII. Final thoughts

Dear Senators, on several occasions we have stressed in this Committee that the main wealth of a Central Bank is not its assets, the authority conferred on it by law or its history, but the confidence it is able to inspire in citizens and economic agents. We have also claimed that this confidence must be nurtured every day, from the different

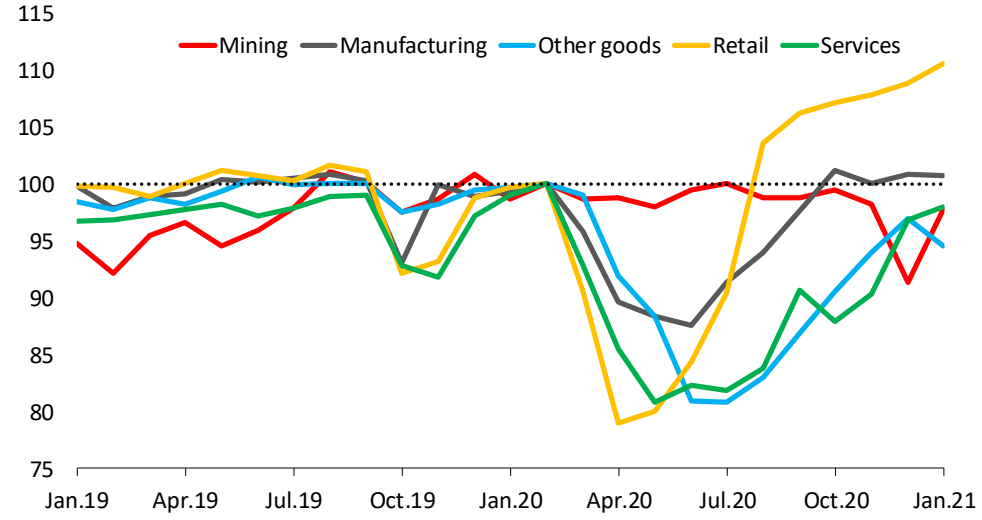
functions performed by this institution. In this presentation, I believe it has been illustrated how we are cultivating this trust in two dimensions: **our ability to respond in a timely manner to dynamic and changing scenarios, and to recognize and integrate diversity into our work**.

We have tested the first of these dimensions in one of the most difficult economic situations our country and the world have ever faced. The second, by demonstrating that even in an emergency context, we have been able to continue advancing in our longer-term projects and find important synergies with our immediate challenges.

Thank you very much for your attention. I will now be glad to hear your comments and answer your questions.

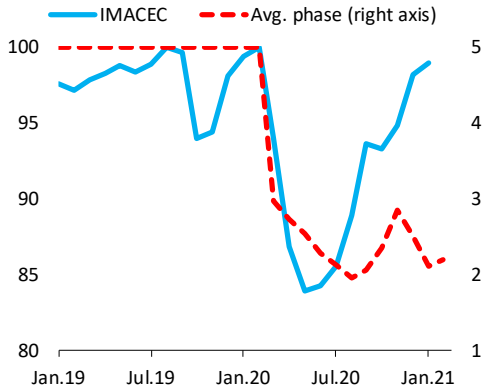
***

Figure 1
IMACEC by sector
(seasonally-adjusted series; index, Feb-2020=100)

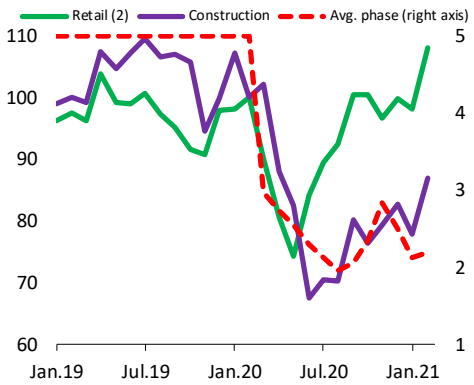


Source: Central Bank of Chile.

Figure 2
Confinement measures and IMACEC
(seasonally-adjusted level; index, Feb-20=100; phase)



Confinement measures and digitally-invoiced sales by economic sector (1)
(seasonally-adjusted level; index, Feb-20=100; phase)

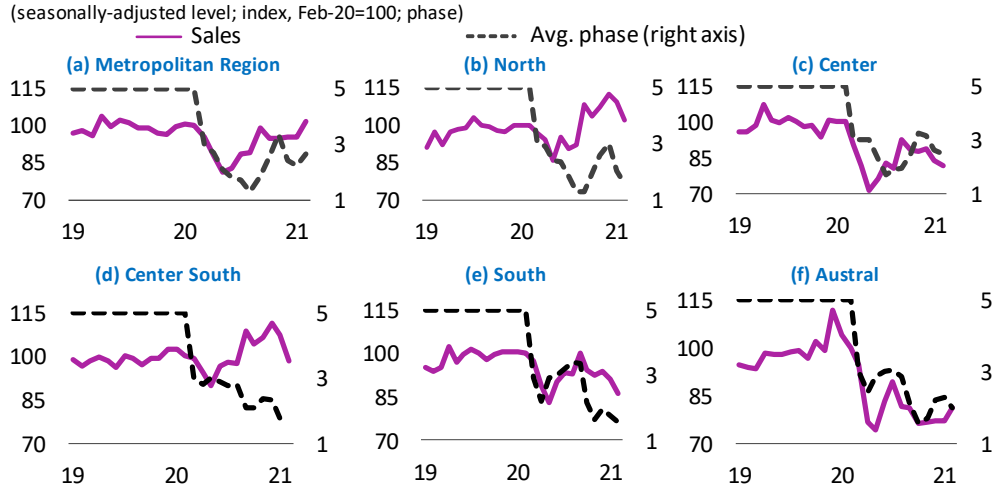


(1) CPI-deflated sales. (2) Includes restaurants and hotels.
Sources: Central Bank of Chile, Chile's Health Ministry, National Statistics Institute (INE), and Internal Revenue Servi

Figure 3

Population by stage of *Step-by-Step Plan* and real digital invoices, by macro-zone (*)

(seasonally-adjusted level; index, Feb-20=100; phase)



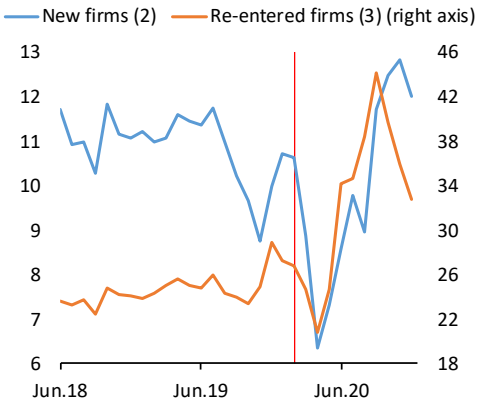
(*) CPI-deflated sales. North macro-zone: Arica-Parinacota, Antofagasta, Tarapacá, and Atacama; Center: Coquimbo and Valparaíso; Center South: O'Higgins, Maule, Ñuble, and Bíobio; South: La Araucanía, Los Ríos, and Los Lagos; Austral: Aysén, Magallanes, and Chilean Antarctic.

Sources: Central Bank of Chile, Chile's Health Ministry, National Statistics Institute (INE), and Internal Revenue Service (SII).

Figure 4

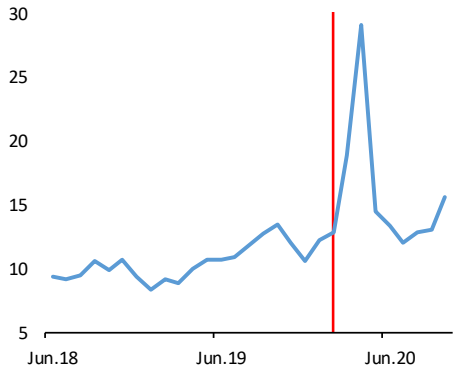
Firms entered and re-entered (1)

(thousands)



Firms exited (4)

(thousands)



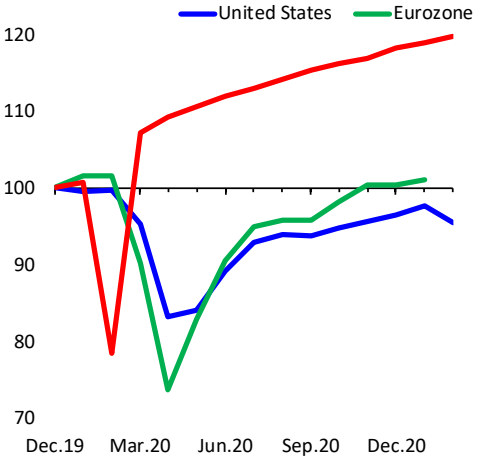
(1) Vertical line indicates February 2020. Latest data corresponds to December 2020. (2) Shows the monthly flow of firms reporting sales for the first time. (3) Includes firms that reappear after not reporting for three or more consecutive months. (4) Vertical line indicates February 2020. Last observation corresponds to October 2020.

Sources: Central Bank of Chile and Internal Revenue System.

Figure 5

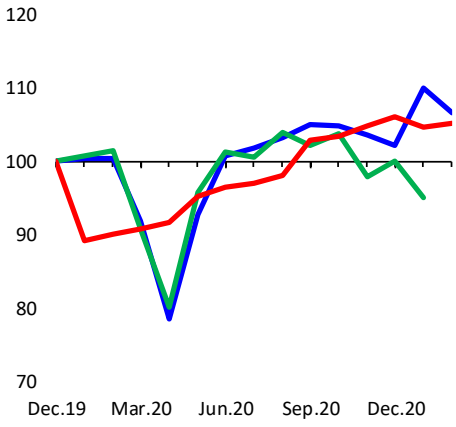
Manufacturing production (1)

(index, Dec-19=100)



Retail sales (2)

(index, Dec-19=100)

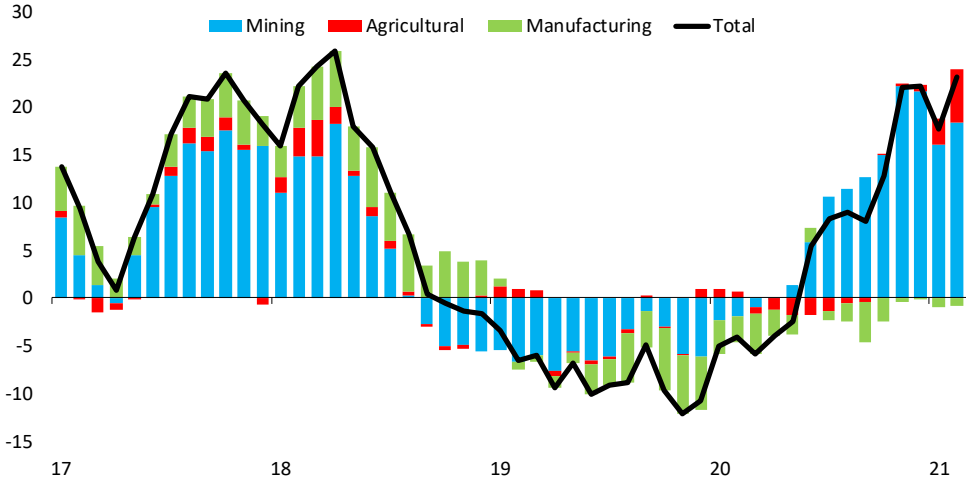


(1) Seasonally-adjusted real series. (2) Seasonally-adjusted nominal series.
Sources: Bloomberg and Eurostat.

Figure 6

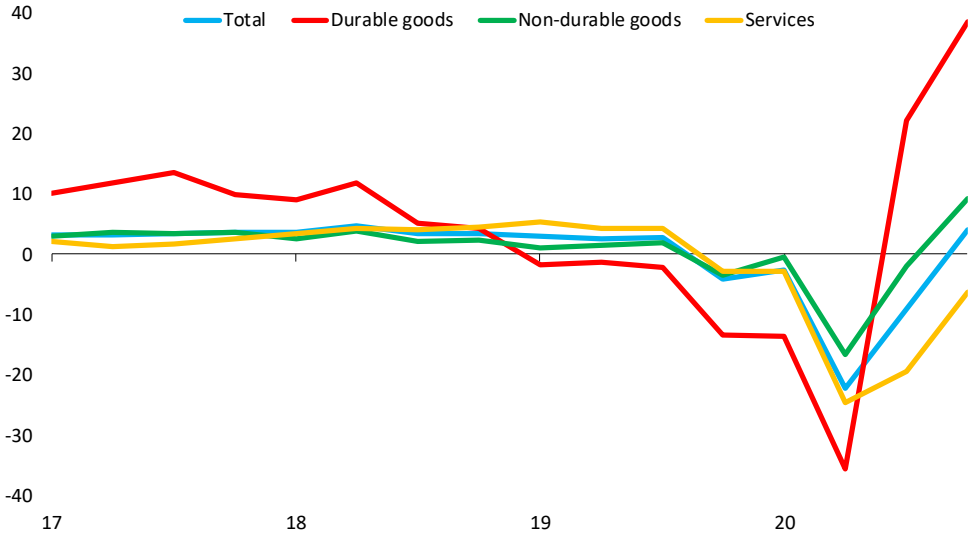
Nominal goods exports

(contribution to annual change, moving 3-month average, percent)



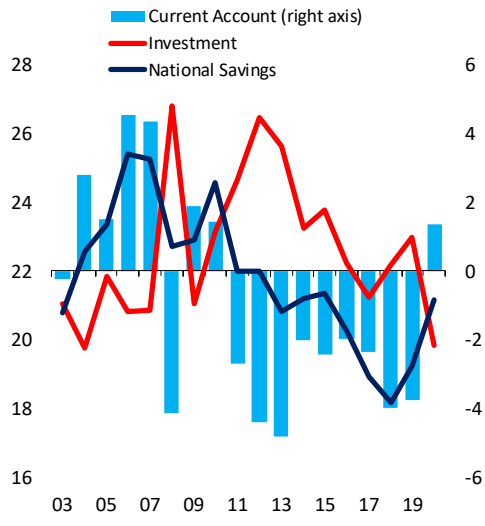
Source: Central Bank of Chile.

Figure 7
Private consumption
(annual change, percent)

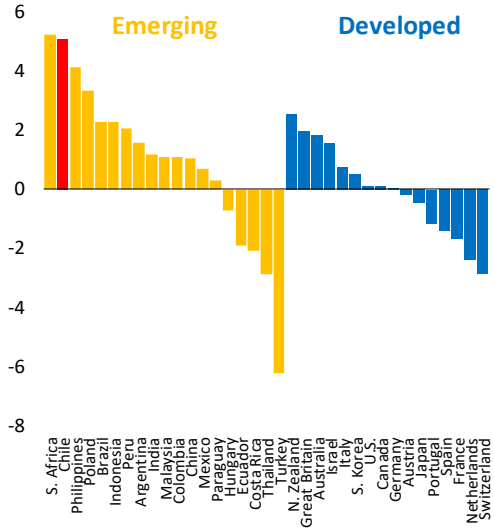


Source: Central Bank of Chile.

Figure 8
Current Account, investment, and National Savings
(percent of GDP)



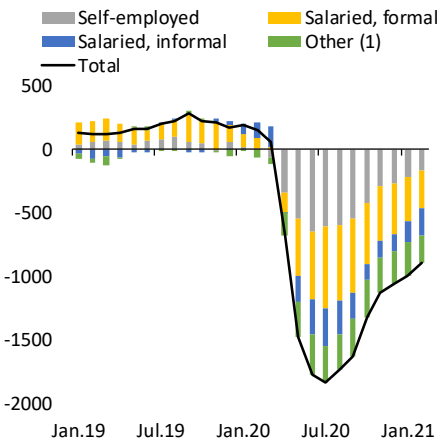
Change in Current Account 2019-2020
(percent of GDP)



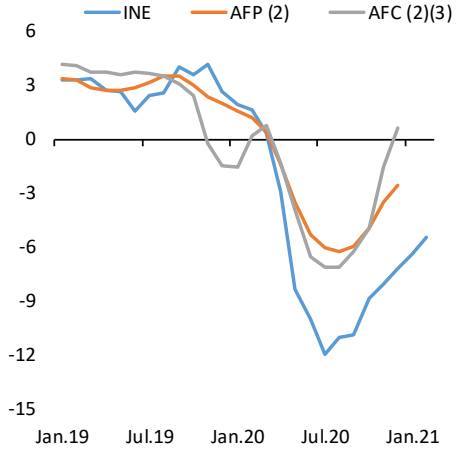
Sources: Central Bank of Chile, IMF WEO October 2020, Bloomberg, statistics bureaus and central banks.

Figure 9

Employment by occupational category
(annual difference, thoussands of persons)



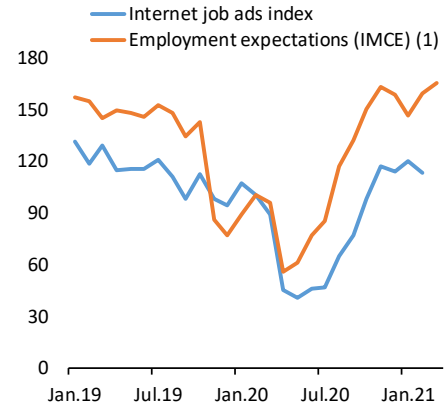
Formal salaried employment
(annual change, percent)



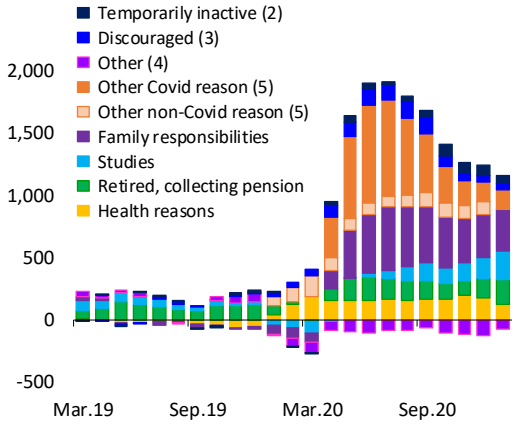
(1) Employers, household help, and non-remunerated family. (2) Aproximated by number of contributors. Moving quarterly average. (3) Excludes household help.
Sources: National Statistics Institute (INE), Pension Funds (AFP), and Unemployment Funds (AFC).

Figure 10

Internet job ads index and employment expectations
(index, Feb-20=100)



Reasons behind inactivity
(annual difference, thoussands of persons)

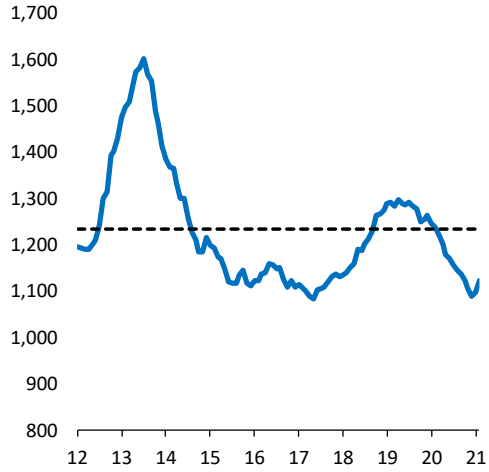


(1) Simple average between the trade, manufacturing, and construction indicators. Seasonally-adjusted series. (2) Soon to start a self-employed activity,or begin working in new job. (3) Believes will not find job on age reasons and gave up looking. (4) Has rents, is pregmant, family member will not allow, does not want to, does not need to work. (5) As of April 2020, the survey incorporates a new line for inactivity: "Other reason", and includes a new variable that identifies whether the response can be linked to COVID-19 pandemic.
Sources: Central Bank of Chile, ICARE/Universidad Adolfo Ibáñez, and National Statistics Institute (INE).

Figure 11

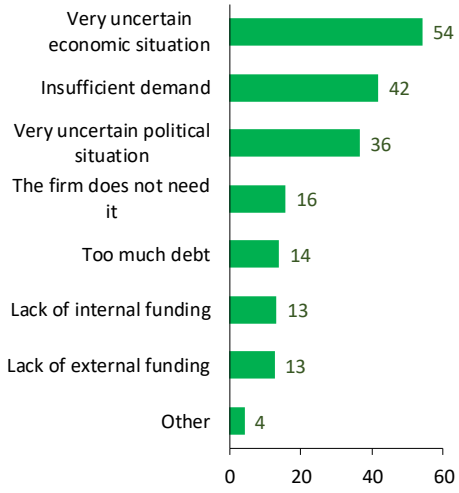
Capital goods imports (*)

(millions of dollars CIF, 12-month moving average)



IPN: Reasons not to invest in 2021

(percent)



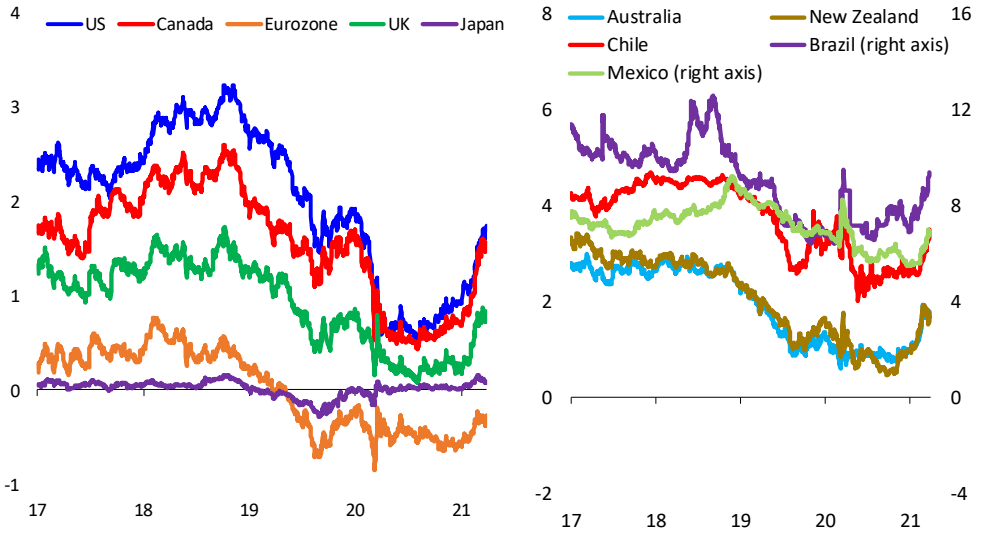
(*) Horizontal line indicates last 10-year average.

Source: Central Bank of Chile and February 2021 *Business Perceptions Survey* (IPN).

Figure 12

Interest rates on 10-year sovereign bonds

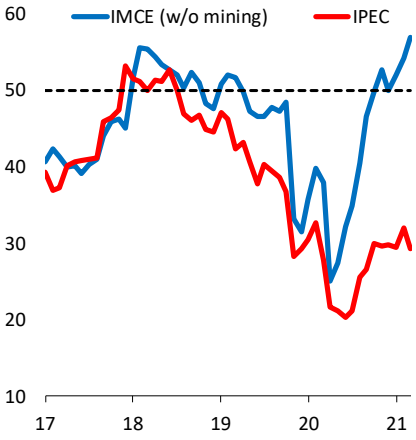
(percent)



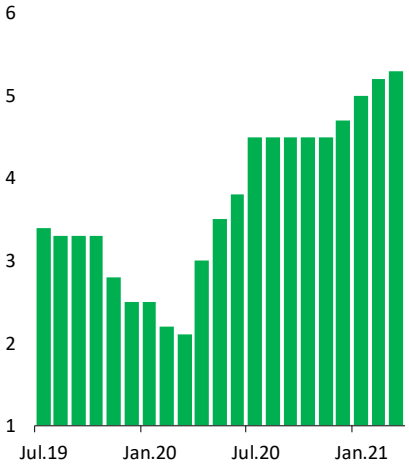
Source: Bloomberg.

Figure 13

Expectations of firms and households (*)
(diffusion index)



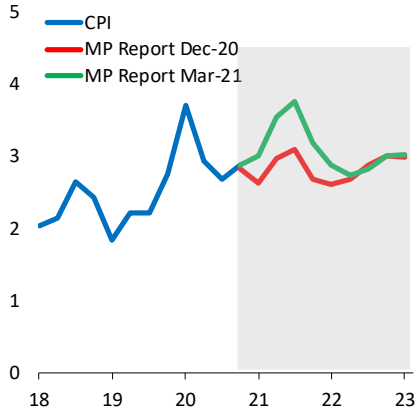
EES: Expected 2021 growth
(annual change, percent)



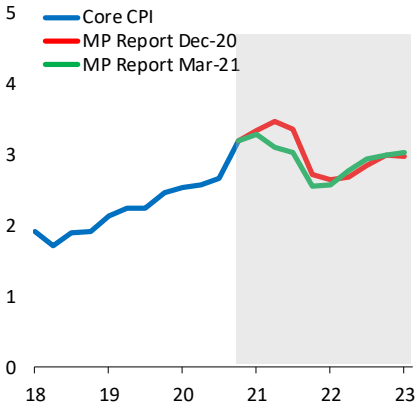
(*) Value above (below) 50 indicates optimism (pessimism).
Sources: Adimark, Central Bank of Chile, and ICARE/Universidad Adolfo Ibáñez.

Figure 14

CPI inflation forecast (1)(2)
(annual change, percent)



Core inflation forecast (1)(2)(3)
(annual change, percent)



(1) For 2018, the annual change in the CPI and CPI minus volatiles is plotted, as obtained by splicing the series with the 2013=100 base with the monthly changes in the 2018=100 basket as from February 2018. See Box IV.1 in March 2019 *Monetary Policy Report*. (2) Gray area, as from first quarter 2021, shows forecast. (3) Corresponds to CPI minus volatiles.
Sources: Central Bank of Chile and National Statistics Institute (INE).

Table 1
Measures adopted by the Central Bank of Chile

Conventional monetary policy	• Reduction of the MPR to its technical minimum (0.5%)
Unconventional measures	• Low-cost lines of financing for firms and households, with focus on SMEs (LCL, FCIC1, FCIC2, FCIC3) • Extension of eligible collateral • Programs to purchase bank bonds and repurchase CBC bonds
Liquidity injection and FX market	• Program REPO and Swap to provide liquidity in both CLP and USD • Sale of foreign currency/Change in reserve requirement regulations and flexibilization of liquidity norms • Cash purchase and term sale (CC-VP) and purchase of term deposits (DAP), due to withdrawal of pension savings
Recovery of policy space	• Flexible credit line with the IMF, swap and REPO lines with central banks • International reserves replenishment program • Internationalization of the CLP • Constitutional reform on the purchase of Treasury bonds in the secondary market.

Table 2
FCIC and FOGAPE-Reactiva

FCIC	FOGAPE-Reactiva
FCIC1 + FCIC2 = USD 30.0 billion **FCIC3** • Extends eligible collateral in previous stages • Total available USD 10.0 billions (remnant FCIC2 + FCIC3) • Currently used: approximately 15% **FCIC1 + FCIC2 + FCIC3** → Increase of nearly 15% of GDP of the economy's liquidity	• Extends uses of FOGAPE-Covid to adapt to new business needs • Makes available funds for refinancing—including Covid lines—and investment, aside from working capital. • Special benefits for hardest-hit businesses (e.g. hotels and tourism). • Currently used: approx. USD 2.0 billion

Table 3
Domestic scenario
(annual change, percent)

	2020 (e)	2021 (f)		2022 (f)		2023 (f)
		MP Report Dec-20	MP Report Mar-21	MP Report Dec-20	MP Report Mar-21	MP Report Mar-21
GDP	-5.8	5.5-6.5	6.0- 7.0	3.0-4.0	3.0-4.0	2.5-3.5
Domestic demand	-9.1	9.4	11.7	2.9	3.1	2.7
Domestic demand (w/o inventory change)	-7.9	9.6	11	2.5	2.8	2.8
Gross fixed capital formation	-11.5	7.3	9.2	5.1	4.9	3.3
Total consumption	-6.8	10.3	11.5	1.8	2.2	2.7
Goods and services exports	-1	4.3	3.5	4.8	4.3	3.7
Goods and services imports	-12.7	16	21.4	3.4	3.6	2.9
Current account (% of GDP)	1.4	-1.5	-0.9	-1.8	-1.6	-2.4
Gross national savings (% of GDP)	21.2	17	19.1	17.6	19.3	18.9
Nominal gross fixed capital formation (% of GDP)	20.9	20.6	20.5	21.2	21.2	21.6

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

Table 4

Estimated allocation of withdrawn pension savings (*)

	Billions of CLP	Percent of total	Percent of GDP
Withdrawals paid at January	24,500	100	12.2
Assets	15,233	62.2	7.6
Sight and checking accounts	8,984	36.7	4.5
Traditional savings	4,092	16.7	2
Pension savings	910	3.7	0.5
Housing savings	449	1.8	0.2
Reduction in delinquency, and re-negotiation	798	3.3	0.4
Consumption of goods	3,734	15.2	1.9
Unknown	5,532	22.6	2.8

(*) Increase in assets estimated by comparing changes in the balances of specific aggregate accounts with respect to July 2020. The accounts are: sight and checking accounts of individuals, savings accounts of individuals (Term Savings Accounts and Account 2), pension savings (APV, Agreed Deposit and similar in Pension Funds (AFP) and entities regulated by the CMF), housing savings and delinquency (portfolio with 90 days or more of delinquency in the banking system). Consumption of goods calculated as the difference between the estimated effective expenditure based on information from Transbank and an estimated counterfactual consumption considering the evolution of household income in the absence of withdrawals calculated based on Barrero et al. (2020). Unknown could include cash, savings in unregulated instruments, payment of non-bank debts, prepayment of loans, or other.

Sources: Central Bank of Chile, Barrero et al. (2020), Financial Markets Commission, National Statistics Institute (INE), Superintendence of Pensions, and Transbank.

Table 5

Granular projects in progress

Project	Content	Application	Ongoing activities
Household Financial Survey (EFH)	Household survey, with broad sample, applied every 2-3 years. Inquiries on household savings, credit, other assets, and liabilities.	Analysis of evolution of household wealth, financial inclusion, dynamics and sustainability of debt considering all lending sources.	Next EFH to be applied in second half of 2021.
Businesses microdata	Access to and analysis of databases with economic information on businesses, including sales, purchases of inputs, employment, and indebtedness.	Input for national accounts; juncture follow-up, chain identification, policy simulation.	Big Data project will enhance capacity to accumulate, process and analyze information.
Business perceptions	Survey applied to business executives throughout the country, who participate in the Business Perceptions Report.	Obtaining qualitative information that allows systematizing attitudes, expectations, and risks; anticipating decisions and identifying their determinants.	Consolidation of expanded sample base and integration into Business Perception Report (IPN).
Advances in regional statistics	Region-level National Accounts, including aggregates and main components of supply (VA) and demand (expenditure).	Knowledge of regional economic reality, on methodological basis and quality of national-accounts equivalent data.	Reduction in publication delay, quarterly accounts, main sectors of activity and expenditure (consumption and investment).
Digital means of payment	Transactions using digital payment means (e.g., credit and debit cards, pre-paid purchase, electronic transfers).	Measuring consumption, its composition by origin, destination, and goods and services. Clearing for interoperability of various means of payment within a fast- payments system.	Regulation for operation of clearing houses in consultation and subsequent application with experimental alternatives for innovations.
Calculating carbon emissions	Use of input-output methodology to measure total emissions associated with some activity or demand component.	Identification of main sources of emissions and their evolution over time, for compliance with national reduction goals. Methodology applicable to project evaluation.	Report with estimates up to 2017, forthcoming.
Households' satellite accounts	Application of international national accounts standards for the construction of a satellite account of non-remunerated activities in households.	Quantification of non-remunerated activity that takes up a significant fraction of people's time. Gender distribution of responsibilities within the household.	Time-use survey being prepared in order to apply methodology.

***