

MONETARY POLICY REPORT PRESENTATION BEFORE THE FINANCE COMMISSION OF THE HONORABLE SENATE OF THE REPUBLIC*

Mario Marcel Governor Central Bank of Chile 5 December 2018

^{*} The December 2018 *Monetary Policy Report* can be found at http://www.bcentral.cl.

Introduction

Mr President of the Senate's Finance Commission, Senator Juan Pablo Letelier, senators members of this Commission, ladies, gentlemen,

I am grateful for your invitation to present the vision of the Board of the Central Bank of Chile (BCCh) on the recent macroeconomic developments, prospects, and implications for monetary policy. This vision is contained in detail in our December 2018 *Monetary Policy Report* published this morning. Its contents provide the background for the decision adopted by the Board at yesterday's Monetary Policy Meeting, and consider the October Imacec¹ that was released today.

At yesterday's meeting, the Board decided unanimously to keep the Monetary Policy Rate (MPR) unchanged at 2.75 percent. At the same time, we reiterated that the evolution of macroeconomic conditions make it possible and necessary to gradually reduce the monetary stimulus.

This decision is consistent with the analysis and baseline projection scenario I will be sharing with you now. This analysis begins noting that annual inflation has risen throughout the year. After being under 2% almost the entire second half of 2017, today annual inflation is around 3%. Although this increase owes partly to the more volatile components of the Consumer Price Index (CPI) and the depreciation of the peso, inflation of the items in the basket that are most sensitive to the activity gap—*ie.* services and nontradables—has risen gradually, but steadily, over the course of 2018. This is in line with the growth recovery that began more than a year ago, in a context of favorable external conditions and a clearly expansionary monetary impulse.

This process took a pause in the third quarter due to specific factors affecting mining and manufacturing, but it is estimated to resume in the fourth quarter. The October Imacec released this morning is an indication, as it shows activity growing 4.2% annually, with the non-mining component growing 5.1%. With this, the economy will grow 4% this year and between 3.25% and 4.25% in 2019. Inflation will follow a similar path, slowing down for some months as a result of the fall in international fuel prices, to then begin rising and converging to 3% towards the end of 2019.

Key factors in this outlook are the observed dynamism of investment and a vision of the labor market that, once all the available information has been analyzed, and factoring in the impact of the significant immigrant flow of recent years, shows that its dynamism is in line with the better performance of the economy. Accordingly, the evolution of macroeconomic conditions makes it necessary to reduce the monetary stimulus, a process that will continue to be implemented gradually and cautiously, in a context where there is still high uncertainty coming from the external scenario.

Recent economic developments

As had been anticipated in a number of *Monetary Policy Reports*, in the third quarter GDP slowed down its annual growth rate with respect to the first half of the year. This is consistent with a scenario

¹ The Imacec (Índice Mensual de Actividad Económica) literally corresponds to the "Economic Activity Monthly Indicator".

in which economic growth is closer to potential—estimated to lie in the 3% to 3.5% range—given the progress made in the process of closing capacity gaps, the end of specific factors that had favored growth in the first half and a more challenging comparison base in the second (Figure 1). In any case, the deceleration of the last quarter was sharper than expected, highlighting the worsened performance of mining and manufacturing. In the former, there were operational difficulties in some mines; in the latter a significant and greater than expected effect from a string of holidays in September.

All of us who devote ourselves to analyzing the economy and its evolution should bear in mind how difficult it is to draw medium-term conclusions from the observation of high frequency data. Time and again, we have seen public discussions about the state of the economy that are based on a particular observation, which shortly down the line has a significant reversal that renders lots of pages of study useless. The case of last September offers a good example. The Imacec of that month was strongly influenced by the so-called calendar effect, which is given by the number of working days in a month and its composition (how many Mondays, Tuesdays, and so on). In Box III.1 of this Report we note that in 2018 the month of September had two peculiarities that extended the calendar effect beyond the estimate: two less working days than September of last year and a distribution in national holidays that led many people to take the full week off. This produced a significant drop in manufacturing activity, which also reflected in energy consumption and the hours worked in the month (Figure 2). After some people attributed it to a more permanent economic phenomenon, the October Imacec data, released this morning, shows the transient nature of the September calendar effect on manufacturing. Actually, measured in twelve months, non-mining activity grew 5.1%, where the higher growth is explained by the performance of manufacturing and trade, the two sectors that appeared to have retreated in September.

In this way, the strong fluctuations that the calendar effect may cause in particular months underscore the need to carefully analyze the evolution of high-frequency activity indicators. It is possible for a month's activity data to show a steep drop that does not necessarily respond to economic factors and that are later offset in subsequent months, without either being construed as a change in the medium-term trajectory of the economy.

On the domestic expenditure side, a development of the third quarter most worth noting was the strengthening of investment which made up for a mild slowdown in consumption. By investment components, special mention deserves gross formation of fixed capital in machinery and equipment, as its rates of change in annual terms have remained high throughout the year (Figure 3).

Our 2018-2020 growth forecast

Turning to our projections, after growing 2.8% in the third quarter, we estimate growth for the full year at 4%. This projection—which considers October data up to the statistical closing of the *Monteray Policy Report*—is in the lower bound of the range estimated in September (4%-4.5%), mainly due to the deterioration of mining activity. However, compared with what we foresaw before September, the growth in 2018 is in the upper bound of the range (Figure 4). For the next two years, we still estimate that the economy will grow around potential, gradually approaching trend growth.

Thus, the projection ranges considered in September are maintained: 3.25% to 4.25% in 2019; 2.75% to 3.75% in 2020.

For spending, we anticipate a change in composition, to higher growth in investment and some slowdown in consumption. Several antecedents point to investment significantly outperforming our September estimate, including important upward revisions in the Corporation of Capital Goods' (CBC) Project Survey, the behavior of capital goods imports, the evolution of more expansionary conditions of credit supply and demand (*Bank Credit Survey*) and qualitative information from our *Business Perceptions Report* (IPN). Thus, for 2019, our gross fixed capital formation (GFCF) growth forecast rises to 6% (4.5% in September), and for 2020 the near 4% figures are maintained.

The case of mining investment is analyzed in detail in Box III.2 of the *Report*. According to the latest survey of the CBC—released in mid-October—for the period 2018-2021 investment expenditure of the mining projects it covers went from about 5.40 billion dollars to 10.60 billion. The greatest differences are concentrated in the years 2019 and 2020, when the surveyed investment is about 3.5 billion dollars higher than previously expected. This leap is the result of including a small number of projects that have advanced in their realization, but whose scope causes ripple effects in the baseline scenario. For 2018, where the incremental effect of the new survey is more limited, it is expected that Mining GFCF will increase 18% annually (just over 3 percentage points more than projected in September). For 2019, its annual expansion rate is revised from 7% in the September *Report* to 16% in our current estimate. By 2020, although the increase in level is notorious compared to the previous projection, its rate of annual variation compared to 2019 is not so different, as it remains a little over 3% (Figure 5).

Regarding consumption, it has lost some dynamism most recently, but is forecast to resume growth at a pace aligned with GDP. This is based on the growth shown by the wage bill, when considering the National Statistics Institute's (INE) revised salary information, the evolution of the hours habitually worked and the employment growth obtained by inputting the effects of the immigration flow of recent years. Plus, imports of consumer goods are still high. In the fiscal area, we use as a working assumption that in 2019 the economy will receive a boost consistent with the approved budget. From then onwards, we assume that the structural deficit will follow the path of gradual descent defined by the authority (Table 1).

External scenario

On the external front, the baseline scenario expects a reduction in the next two years of the momentum that the Chilean economy will receive from abroad, although it will remain positive. On the one hand, after reaching the peak of this growth cycle in 2017 and 2018, in 2019-2020 the expansion rate of our trading partners' activity will be reduced. On the other hand, in the last few quarters the relevant financial conditions for the emerging economies began to normalize, a process that will continue in the next two years. The baseline scenario admits new episodes of volatility in the international financial markets, insofar as they do not escalate to a widespread negative shock on emerging economies. Finally, the recent drop in the oil price means relatively stable terms of trade in 2019 and

2020. This considers an average copper price similar to September's: USD 2.85 in 2019 and 2.80 in 2020; and a Brent-WTI average oil price around USD 60 dollars in the period (Table 2).

Domestic financial conditions

At home, financial conditions are still favorable. On one hand, domestic long-term interest rates and risk indicators have remained relatively isolated from external events, while shorter interest rates have risen in line with monetary policy developments. In turn, the cost of credit has remained low and loans—mainly the commercial and consumer segments—show somewhat higher growth in a context where lending standards have relaxed somewhat (Figure 6). The stability of the local financial markets contrasts with those of other emerging countries in recent months. This is based to a large extent on the cushioning role of our exchange rate float and the substantial availability of domestic financing. Thus, the exchange rate has shown major ups and downs in the past few months, fluctuating between CLP 660 and 690 most of the time. Compared to November last year, the peso has depreciated close to 7% against the dollar, consistently with the global strengthening of the US currency. The real exchange rate level is near its averages of the last 15 to 20 years. As a working assumption, we estimate that it will oscillate around these values throughout the projection horizon.

Inflation

As I mentioned at the beginning, after being under 2% annually almost the entire second half of 2017, headline inflation has been rising this year, to approach 3% in recent months. Although part of this rise is explained by the more volatile CPI items and the peso depreciation, inflation of the basket components that are more sensitive to the activity gap (*ie.* services and non-tradables) has increased gradually but steadily over the course of 2018 (Figure 7).

In terms of projections, the drastic fall in fuel prices results in a downward revision to CPI inflation this year and next, ending 2018 and 2019 barely below 3%. Towards 2020, once these effects fade out, the CPI inflation will be around 3%. The CPIEFE—total CPI excluding food and energy componentes—inflation, in turn, will approach 3% in the first half of 2019, to later stay in the neighborhood until the end of the projection horizon (Figure 8).

Monetary policy

About monetary policy, the same as in September, the Board considers that the evolution of macroeconomic conditions makes it necessary to gradually withdraw the current monetary stimulus. Key in this judgment is our assessment of the size of the capacity gaps compared with the magnitude of the monetary stimulus: while the former has decreased, monetary policy is still very expansionary.

The baseline scenario uses as a working assumption that the monetary policy rate will continue to rise in the coming months to approach its neutral level of 4% to 4.5% in the first half of 2020. The Board has stated that it expects to adjust the MPR in a gradual and prudent manner. In particular, the implementation of monetary policy will be conditional on the effects of incoming information on the

projected inflation dynamics, making the necessary adjustments to policy measures if faced with significant deviations in either direction.

Risk scenarios

As usual, there are internal and external elements that may alter the projections I just presented you. Like in the past several quarters, the risk balance of the external scenario relevant to Chile remains biased downward.

The main risk continues to be a drastic deterioration of financial conditions facing emerging economies, which could result from some of many elements. On one hand, whatever happens in the US is important to us, because of its effects on inflation as well as its monetary policy and economic outlook. On the other hand, major geopolitical risks persist. The trade conflict has tended to refocus on the US versus China, in a context where the Chinese economies have activated several stimulus measures, but financial risks remain while the economy rebalances. In any case, the meetings held by the two nations during the G-20 convention seems to indicate that this conflict will not escalate any further, at least for some time. In Europe, the uncertainty surrounding Brexit and the complex situation in Italy has taken on greater force. Finally, although we believe that the drop in the oil price responds primarily to supply-side factors—which reduces short-term inflationary pressures—it remains to be established to what extent this could be reflecting more permanent demand-side factors. Recent months have seen a substantial adjustment in financial asset prices in the developed world that could be signaling a change in risk premiums, consistent with a scenario of uncertainty that has prevailed for quite some time.

On the domestic front, we estimate that risks for activity are unbiased. The economy has decelerated with respect to early in the year, which had been long expected. However, this deceleration could be more persistent if consumption fails to recover its expected dynamism. Meanwhile, the rebound of investment could be stronger as other large-scale projects progress.

As for inflation, we estimate that risks are unbiased. Various indicators suggest that the economy will further consolidate the process of closing the capacity gaps, while others show the reaction of the more sensitive CPI components. Thus, expectations two years out are aligned with the policy target.

It should be noted that this new *Monetary Policy Report* features greater insight of the implications of risk scenarios for monetary policy. This will allow having a better appreciation of the Central Bank's reaction to deviations from the baseline scenario. This reflects the Board's purpose of enhancing transparency in the conduct of monetary policy and provide guidance to the markets and the community on its possible future evolution.

Summing up, we continue to assume that capacity gaps have been decreasing in recent quarters and will continue to do so in the next two years. In these circumstances, for inflation to converge to the target in the policy horizon, it is necessary that the monetary stimulus continue to be gradually withdrawn in the coming months. With this, we reaffirm our commitment to conduct monetary policy with flexibility, so that projected inflation stands at 3% over the two-year horizon.

A new supplement to the *Monetary Policy Report*: The labor market

The labor market plays a central role in the functioning of the economy, and is particularly important for monetary policy. In the short term, the way this market responds to shocks and adjusts employment and wages, is key in the behavior of variables such as activity, consumption and prices. In the long term, the labor market plays a crucial role in trend growth, because of both the evolution of the labor factor and its contribution to productivity growth.

Accordingly, the analytical framework of monetary policy has always paid special attention to the twists and turns of the labor market. In fact, this is a central axis in the conceptual framework modern monetary policy is based on, from the different notions of the Phillips curve to the Neo Keynesian models of general equilibrium that today sustain our forecasting and analysis. With this in mind, we have attached to our December *Monetary Policy Report* a special study on the functioning of the labor market. It is based on the analysis of new databases that allow us to understand some of the clues to how this market operates, that were beyond our reach in the recent past.

The analysis of the labor market, even if done with the intention of drawing macroeconomic implications, must pay attention to its structure and to the way in which the individual decisions of millions of workers and employers—that differ from each other in more ways than one—determine how the aggregates behave. However, studying this diversity empirically is no easy task, and is often absent from the macroeconomic debate. Most labor market indicators that are regularly reported and discussed in the public scene, including wage indexes, unemployment rates or job creation, are not only highly aggregated, but also represent net movements. This implies that much relevant information, such as differences in the behavior of different groups or changes in the composition of the flows, is not present in the analysis or public debate. The omission of this information has more weight in economies such as Chile, where the composition of the labor force and employment is very heterogeneous and can change in quite short periods as part of its very process of economic development.

Fortunately, advances in data processing capacity have greatly increased the possibilities of going beyond the aggregate indicators, complementing them with the use of microdata associated with the behavior and characteristics of individual workers and employers. In the case of Chile, access to new databases from administrative records, together with the ability to process that volume of information in an analytical manner, is especially valuable. The use of disaggregated information is necessary to better characterize and understand these developments, as well as to make sense of apparent puzzles and paradoxes in the labor market in recent years.

The labor supply movements of recent years provides a good example of how important it is to have alternative sources of information. While several indicators suggest that during the last year the Chilean economy has been closing its capacity gaps, traditional labor market statistics taken from different surveys rather show a weakening in the creation of employment, stirring reasonable doubts about how much of the recovery of growth has been transmitted to employment and what explains the apparent lag between both variables. This, in a context in which sources of administrative

information—such as the number of pension fund affiliates or of contributors to unemployment insurance—tend to show an improved performance of the labor market (Figure 9).

In the case of employment, the statistics traditionally used in Chile are built by extrapolating the results of surveys to the population, using expansion factors, which in turn are based on population projections that are updated at every Census. Thus, between one update and the next, the surveys do not have the capacity to reflect exogenous changes in demographics. Therefore, a phenomenon of immigration of the magnitude that our country has experienced in recent years cannot be represented correctly until the expansion factors are updated.

So, information about levels in the labor force such as employment and other aggregates delivered by the different surveys do not necessarily provide a faithful representation of the reality whenever substantive changes occur in population aggregates. As you can see in Box III.3 of the *Report*, using different sources of information a revision can be made of the evolution of employment, factoring in the impact of the migrant inflows we have seen recently in Chile. In particular, this exercise shows that between 2016 and 2018 employment would have grown between one and two percentage points annually more than shown by the surveys, that is, between double and triple the data obtained from the surveys over the last few years. The difference in growth originates in the assumptions made regarding the new immigrants that entered the country in the last year, which are not available as yet. Given that the relative magnitudes and rates obtained from the surveys, including the unemployment rate, should not change much, this means that in the last three years the Chilean labor market has been able to accommodate between 120 and 190 thousand migrants per year more than what the surveys indicate, without a significant increase in unemployment.

Both the revised remunerations figures and the estimated revisions for employment are in line with recent administrative files and clearly above what would be obtained if adjustments to employment growth, remunerations and hours actually worked were not considered.

This does not mean that labor market gaps are closed or nonexistent. Full absorption of the increase in labor supply can take longer, so this increase in employment growth does not imply that more unemployment does not exist. In fact, wage indicators—both the revised INE figures and administrative records—show low growth rates, consistent with a labor supply increase, a vision that coincides with the contents of our IPN.

This special study on the labor market, however, goes beyond the review of current indicators, as it seeks to understand the characteristics that shape its behavior over the course of the business cycle and at longer terms. In particular, it presents a characterization of the labor market in Chile from an empirical perspective, using diverse sources of information to provide the broadest view possible.

The main stylized facts revealed by this analysis (Table 3) of Chile's labor force show an increase in the participation of women and a reduction in that of the youth, which is consistent with the increased coverage of college education for the new generations. Also, human capital has grown significantly, but lags behind developed countries in terms of coverage and especially quality. The return on the

working experience of Chilean workers is low by international standards, with marked differences across individuals with different levels of education.

About the characteristics of the labor market, we observe that although informal work has decreased in Chile it is still high (around 30% of total employment), well above the standards of developed countries. At the same time, our labor market is very dynamic, with a high turnover relative to other countries and with a significant incidence of fixed-term jobs. Meanwhile, salaried employment is increasingly concentrated in big companies. Real wages have grown strongly for all income levels, but high dispersion persists. The wage differences are correlated with differences in the duration of employment (turnover). Finally, the aggregate unemployment rate shows a downward trend, partly due to the fall in the relative participation of younger workers, and the hours worked have fallen systematically during the last twenty years.

Regarding female employment, the data confirm that women receive a lower pay for the work than men, even controlling for such characteristics like education, specific occupation and expertise. Furthermore, women's income growth profile over the life cycle is significantly lower than that of men, women are less likely to keep their jobs and are more likely to go from unemployment to inactivity. Still, the increasing weight of services in overall economic activity, in line with the country's development, has helped in the insersion of women in the labor market.

The study also examines how diverse features of the labor market influence the evolution of the economy's aggregate productivity (Table 4). On one hand, the human capital that is accumulated via experience and seniority at the job allows to boost total factor productivity. On the other hand, the labor market allows to relocate workers to jobs where they can be more productive and obtain a better pay. In that sense, transitions between jobs contribute to aggregate productivity, to the extent that those flows go generally in the direction from the less productive to the more productive companies.

However, for a large group of workers the greater mobility does not necessarily mean better pay or enhanced productivity. In particular, in 46% of cases, turnover does not come with wage improvements. This phenomenon is more present amont high-turnover, low-income workers. Those staying in their jobs longer have significantly greater wage gains over time. In the long term, this phenomenon links wider wage inequalities with slower productivity growth, a topic that merits a more in-depth examination.

The study goes on to review how the Chilean labor market responds to economic fluctuations (Table 5). The analysis reveals that, in general, there are multiple margins for adjustment that allow to cushion macroeconomic shocks and moderate the effect on employment that would exist absent those margins. These include changes in the composition betwee salaried and self employment, changes in participation rates, high turnover and rapid transitions between salaried jobs, the creation of jobs in new firms, and wage flexibility in hired work.

At the same time, evidence has it that the costs associated to such adjustment, both for the workers and for the economy's aggregate productivity, can be significant. The results presented also have implications on how the shocks hitting the economy can affect the evolution of wages and inflationary

pressures, information that is of particular importance for monetary policy. Thus, despite the labor market's capacity for adjustment, the weak periods entail important costs. In particular, the process of realocation to quality jobs and more productive enterprises, with the consequent impact on aggregate productivity and the workers' purchasing power, is diminished in the lower phase of the cycle. For some workers, especially those in the early stages of their working lives, the effects can be very persistent.

These situations explain the need to have a wider toolkit with indicators to monitor the behavior or the labor market over the short term. In particular, it is useful to complement survey data with information from administrative data bases and traditional aggregates on occupation and unemployment with statistics on resignations, firings and hirings.

Anyway, the BCCh has made progress on these matters. The evidence presented is largely based on ongoing research within the Bank and it naturally supplements some of the main topics discussed in our 2017 Trend Growth Report. It also attests to the generosity of multiple institutions that, through covenants, have cooperated by sharing this information, including the INE, the Internal Revenue Service, the Civil Registry, the Labor Directorate and the Ministry of Education.

Final remarks

Before I conclude this presentation, I would like to mention the materialization of an initiative that we anticipated when we presented the September *Monetary Policy Report* before the Senate's plenary. On that occasion we announced that the Bank will seek an external evaluation of its performance in complying with its Organic Law's double mandate, that is, to safeguard price stability and financial stability. For this purpose, a panel of renowned world experts in central banking will be convened.

I want to take this opportunity to inform you that we have appointed the five foreign economists that will make up the aforesaid panel of experts: Dr Karnit Flug (Chair), former governor of the Central Bank of Israel, and professors Dr Petra Geraats, from the University of Cambridge, UK; Guillermo Calvo, from Columbia University, US; Enrique Mendoza, from the University of Pennsylvania, US; and Donald Kohn, Senior Researcher at the Brookings Institution and who formerly served as Vice-Governor of the US Federal Reserve Board.

We selected the panel on the basis of these experts' vast professional experience and knowledge of central banking, all renowned economists at the world level. The group will act with complete independence to gather information and interview local and foreign experts. The topics that the panel will be evaluating include the analytical framework and the powers available to the BCCh, its policy formulation process, communication and results, with special emphasis on the entity's most recent years of operation.

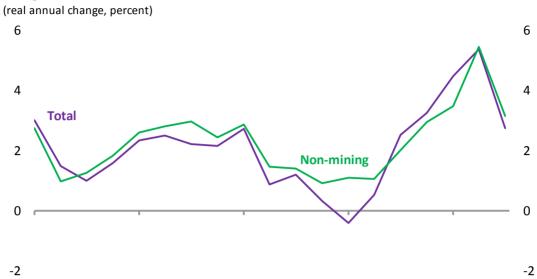
The final evaluation report will be presented in the institutional account the BCCh is due to submit to the Senate plenary in September 2019, which acquires a special connotation as the year marks the 30th anniversary of its granted autonomy. We hope that the panel will not only contribute a technical,

independent and well informed opinion of the Bank's performance in the areas entrusted it by law, but also generate concrete proposals for improvement that we can include in our institution's agenda.

With this, I believe that we demonstrate our commitment to fulfill our responsibilities before the country on three levels. First, conducting an analysis as objective as possible of the prospects of the economy and their implications for monetary policy. Second, applying our resources to deepen the analysis in an area of crucial importance for the economy, while at the same time producing information that may be of deeper interest to public opinion, the academic world and public policies. Third, by generating mechanisms to strengthen our accountability before the citizens, through this Senate, and identify new possibilities for improvement in our work.

Thank you.

Figure 1 **GDP growth**



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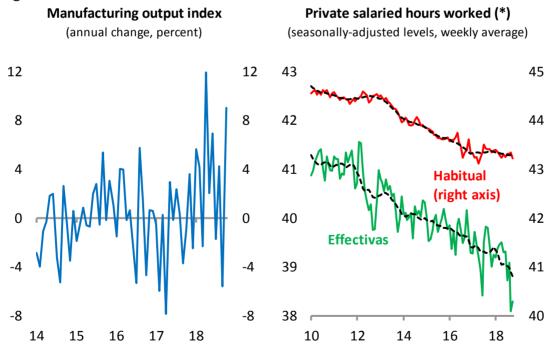
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Source: Central Bank of Chile.

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Figure 2

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(*) Black dashed lines show annual centered moving average of respective series. Sources: Central Bank of Chile and National Statistics Institute (INE).

Figure 3

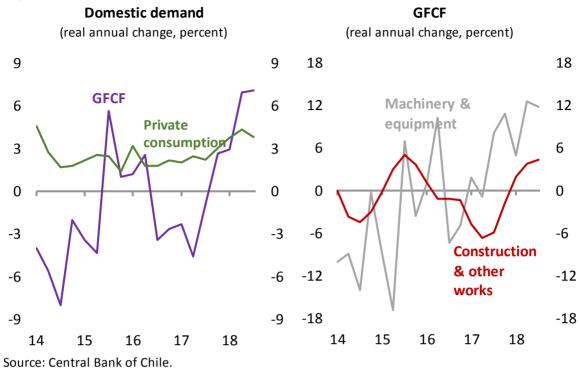
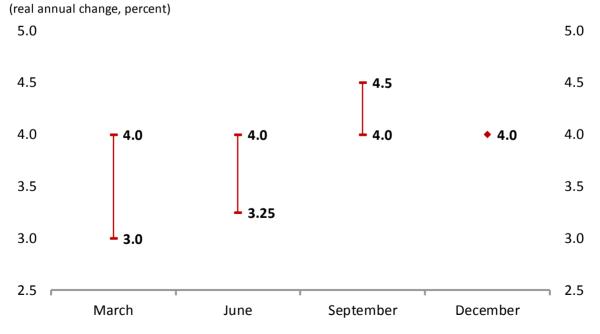
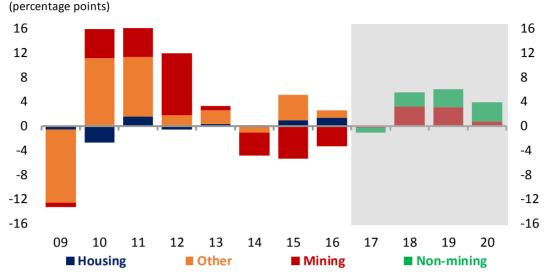


Figure 4
2018 growth forecasts (MP Report)



Source: Central Bank of Chile.

Figure 5 Real annual contributions to gross fixed capital formation GFCF (*)



(*) For 2017 mining investment is estimated using information available from companies' uniform coded statistical report FECU. Housing investment uses household investment figures in the National Accounts by institutional sector. The GFCF component "Other" is treated as a residue. To report forecasts for 2018, 2019 and 2020, Central Bank forecasting models and sectoral sources are used, including the Corporation of Capital Goods' investment plans and survey. Source: Central Bank of Chile.

Real loans (1) (2) Interest rates by type of loan (3) (annual change, percent) (index, 2002-2018=100) 25 25 200 200 Consumer **Commercial** 20 175 20 175 Housing 15 **Commercial** 15 150 150 Consumer 10 10 125 125 5 100 100

(1) Real data built with CPI splicing of 2013 annual base (2)
Dashed horizontal lines show each series' average for the last 10 month. (4) Loans denominated in UFs. years.

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Vivienda

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Source: Central Bank of Chile using SBIF data.

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Figure 6

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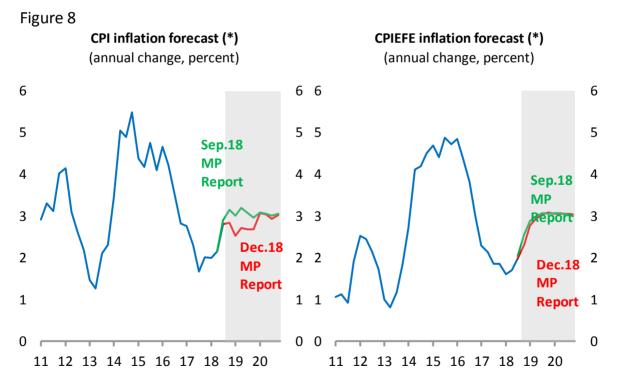
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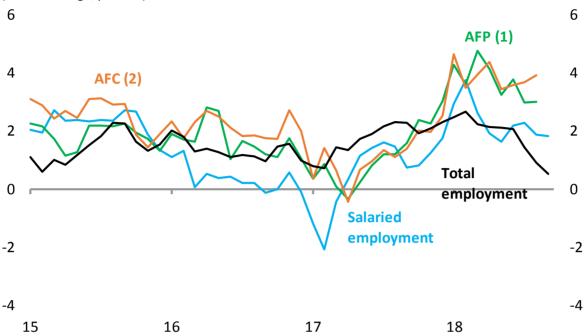
Figure 7 **Inflation indicators CPIEFE** for services and disaggregation (1) (2) (annual change, percent) (annual change, percent) 6 6 6.0 6.0 5 5 5.5 5.5 Indexed and/or 4 5.0 5.0 Services regulated 3 4.5 4.5 2 4.0 4.0 **Other** 3.5 3.5 1 1 **Services** Goods excluding 3.0 0 0 3.0 foodstuffs and energy 2.5 -1 2.5 -1 16 17 18 14 15 16 17 18



(*) Gray area, as from fourth quarter 2018, shows forecast. Sources: Central Bank of Chile and National Statistics Institute (INE).

Figure 9 **Employment**

(annual change, percent)



- (1) Number of employed pension fund (AFP) contributors,
- (2) Number of unemployment insurance (AFC) contributors.

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

Table 1

Domestic scenario

(annual change, percent)

	2017	2018 (f)		2019 (f)		2020 (f)	
		Sep.18 MP Report	Dec.18 MP Report	Sep.18 MP Report			Dec.18 MP Report
GDP	1.5	4.0-4.5	4.0	3.25-4.25	3.25-4.25	2.75-3.75	2.75-3.75
Mining GDP	-2.0						
Non-mining GDP	1.8						
Domestic demand	3.1	4.6	4.7	3.7	3.8	3.3	3.3
Domestic demand (w/o inventory change)	1.8	4.1	4.0	3.7	3.9	3.7	3.6
Gross fixed capital formation	-1.1	5.0	5.5	4.5	6.0	3.9	3.9
Total consumption	2.7	3.8	3.6	3.4	3.3	3.6	3.5
Goods and services exports	-0.9	4.9	4.8	4.2	4.1	2.8	2.8
Goods and services imports	4.7	6.2	7.3	4.4	5.0	2.8	3.0
Current account (% of GDP)	-1.5	-2.2	-2.8	-2.6	-2.7	-2.7	-2.8
Gross national savings (% of GDP)	20.6	20.3	20.2	20.5	20.9	20.5	20.8
Nominal gross fixed capital formation (% of GDP)	21.6	21.7	22.0	22.1	22.6	22.4	22.8

(f) Forecast.

Source: Central Bank of Chile.

Table 2
World growth
(annual change, percent)

	2017	2018 (f)		2019 (f)		2020 (f)	
		Sep.18	Dec.18	Sep.18	Dec.18	Sep.18	Dec.18
		MP Report					
World at PPP	3.7	3.8	3.7	3.6	3.5	3.4	3.3
World at market exchange rates	3.2	3.1	3.1	2.9	2.8	2.8	2.7
Trading partners	3.7	3.6	3.6	3.5	3.5	3.4	3.3
United States	2.2	2.9	2.9	2.3	2.3	1.9	1.7
Eurozone	2.4	2.1	2.0	1.9	1.8	1.7	1.7
Japan	1.7	1.0	0.9	0.8	0.8	0.5	0.5
China	6.9	6.6	6.6	6.2	6.1	6.1	6.0
India	6.7	7.3	7.3	7.6	7.6	7.6	7.5
Rest of Asia	4.4	4.2	4.2	4.1	4.0	4.2	4.1
Latin America (excl. Chile)	1.1	1.3	0.9	2.1	1.8	2.6	2.5
Commodity exporters	2.7	2.3	2.5	2.2	2.3	2.2	2.2

(f) Forecast.

Source: Central Bank of Chile.

Table 3

Stylized facts of the Chilean labor market

- 1. Female participation has rise while youth participation has diminished, in line with increased coverage of college education.
- 2. Human capital has grown importantly, but lags remain with respect to developed countries in terms of coverage and especially quality.
- 3. The return on working expertise of Chilean workers is low from an international perspective, with wide differences among persons with different educational levels.
- 4. Informal work has decreased in Chile, but is still way above the standards of developed countries.
- 5. Salaried employment is growingly concentrated in bigger companies (more than 50% of total).
- 6. Chile's real wages have increased significantly for all income brackets but high dispersion remains associated with employment duration.
- 7. Women's incomes are smaller and grow more slowly, even after controlling for features such as education, occupation and expertise.
- 8. Women have a lower probability of holding their jobs, and a greater propensity to go from unemployed to inactive.

Table 4

Mobility, income profiles and aggregate productivity

1. A labor mobility paradox is that, although more often than not a job change is associated with a wage gain (54%) many (46%) are not.
2. This paradox is more prevalent among workers that exhibit high turnover and low income.
3. Those lower-turnover workers have significantly larger wage gains over time, reflecting the value of developing employer-specific human capital as well as higher gains from direct transitions between jobs.
4. High turnover workers obtain smaller gains from staying in the job and from direct transitions, and exhibit slower growth in income throughout their working lives.
Tabla 5
Cyclical adjustment of the labor market
1. The Chilean labor market has multiple adjustment margins to respond to cyclical shocks, reducing the impact or employment: the composition between salaried work and self-employment, changes in participation rates, high turnover rates and rapid transitions between salaried jobs, job creation in new firms and the wage flexibility of hirec work.
The wage flexibility of hired work is present mainly in transitions to new jobs. The salaries of these workers are especially sensitive to the cycle. Along with the high turnover rates, this facilitates cost adjustment in companies and cushions the impact of negative shocks on hiring. The results indicate that individual salaries are more flexible than what appears in aggregate statistics, emphasizing the importance of having real-time microdata to detect the evolution of inflationary pressures and thus help in monetary policy decision making.
3. Despite the adjustment capacity of the labor market, periods of weakness have significant associated costs. In particular, the process of reallocation to better quality jobs and more productive firms is diminished in the lower part of the cycle. For some workers, especially those in the early years of their working life, its effects can be very persistent.