MONETARY POLICY REPORT

March 2019

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*/ This Report takes into account the monetary policy decision announced on 29 March. For all other purposes, the statistical cutoff date of the Monetary Policy Report was 26 March 2019.

PREFACE

The main objective of the Central Bank of Chile's monetary policy is to keep inflation low, stable, and sustainable over time. Its explicit commitment is to keep annual CPI inflation at around 3% most of the time, within a range of plus or minus one percentage point. To meet this target, the Bank focuses its monetary policy on keeping projected inflation at 3% annually over a policy horizon of around two years. Controlling inflation is the means through which monetary policy contributes to the population's welfare. Low, stable inflation promotes economic activity and growth while preventing the erosion of personal income. Moreover, focusing monetary policy on achieving the inflation target helps to moderate fluctuations in national employment and output.

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

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

This Report was approved at the Board's meeting on 29 March 2019 for presentation to the Senate on 01 April 2019.

The Board

SUMMARY

In line with expectations, after taking a pause during the third quarter last year, domestic economic activity regained its growth pace, driven by investment. Abroad, the main economies' growth has shown a sharper than expected deceleration, which has led authorities to implement new economic stimuli. Meanwhile, the largest difference with the December baseline scenario has been in local inflation. If measured by the benchmark CPI calculated by the National Statistics Institute (INE)[1/], it is significantly below forecasts. In a context where activity and demand have matched the projections, the lower inflation figure is consistent with a smaller than expected pass-through from the peso depreciation, together with some supply-side factors that suggest that gaps are bigger than previously estimated. The effect of immigration on the labor force stands out among these factors. In this context, converge of inflation to the target is expected to take longer than assumed in December, so the withdrawal of the monetary stimulus will be slower than was previously communicated by the Board.

As from January, the INE updated the CPI basket and measurement methodology, which implied reducing the y-o-y index variation with respect to the December estimate (Box IV.1). Thus, while when using the 2013 = 100 base the CPI posted an accumulated change of 2.1% between February and December (eleven months) of 2018, with the new basket and methodology (2018 = 100) it was 1.7%. In the case of the CPIEFE—headline CPI excluding foodstuffs and energy—the corresponding numbers were 2% and 1.5%, respectively.

Beyond the methodological aspects of the change to the CPI measurement, it is important to understand the macroeconomic fundamentals behind the decline in actual inflation. In this respect, one can observe, first, differences in the goods component of the CPIEFE, which would respond to a smaller-than-estimated pass-through from the peso depreciation to local prices. This could be explained by the fact that the recent variation of the peso / dollar parity was driven by movements in the global value of the dollar, contrasting with previous parity variations (e.g., in 2017) that responded to idiosyncratic shocks to Chile, which normally show higher pass-through[2/].

[1/] For economic analysis purposes, benchmark CPI series published by the INE for 2018 are used. As pointed out by the INE, in order to take account of the inflation-adjustment of all contracts, liabilities or CPI-indexed securities, the spliced series must be used, as published on www.ine.cl.
[2/] For further detail, see box IV.1 in the Monetary Policy Report of March 2018.

INFLATION (1)

	2018	2019 (f)	2020 (f)	2021 (f)
		(annual change. percent)		
Average CPI inflation	2.4	2.0	2.9	3.0
December CPI inflation	2.6	2.6	3.0	3.0
CPI inflation in around 2 years (2)				3.0
Average CPIEFE inflation	1.9	2.1	2.8	3.0
December CPIEFE inflation	2.3	2.4	3.0	3.0
CPIEFE inflation in around 2 years (2)				3.0

(1) For 2018, it shows annual change obtained with the 2013=100 basket. As from 2019, the 2018=100 basket is used, so figures are not strictly comparable with those of earlier years.
(2) Inflation forecast for the first quarter of 2020.

(f) Forecast.

Source: Central Bank of Chile.

Second, there are also differences that could be more closely linked to supply factors. Good examples are the increased competition in the automotive industry, as well as the emergence of low cost alternatives in passenger air transport, which has been reflected in the behavior of the CPIEFE for services. The same is true of the greater competition in the sales of telecommunications packages and mobile telephony services, where data is more appropriately gathered after the aforementioned INE's methodological adjustments.

At the same time, the labor market presents a greater degree of slackness, a result of the substantial immigration of recent years. Last December, the INE published an update of its population estimates and projections that ratified the significant increase in immigration beginning in 2015 (around 865,000 persons between 2015 and 2019). As reported in December[3]/, its impact on the labor force and capacity gaps is important, and is reinforced by the fact that immigrants have a greater participation rate in the labor force than the native population. This has occurred in a context in which the interviewees for the Business Perceptions Report perceive that wage pressures are limited.

Regarding activity, the data of recent months confirmed that the economy recovered its dynamism after the break of the third quarter of 2018[4]/. Thus, last year ended with a growth of 4% for total GDP and 3.9% for non-mining GDP. On the demand side, stronger investment —especially in machinery and equipment—continues to stand out. Consumption of services and non-durable goods continues to expand in line with GDP growth, while durable consumption slowed down significantly, mainly due to the normalization of car sales. Partial activity indicators for the first quarter of 2019 show lower annual variations, affected by a higher comparison base and a poor performance of the mining sector.

As for demand fundamentals, credit costs remain favorable from a historical perspective and both lending standards and demand conditions have improved in recent quarters. In terms of expectations, there are mixed signals. Thus, while those of consumers (IPEC) show a decline with respect to the end of the year, those of companies (IMCE) point to an improvement in the same period, where the progress of the construction sector stands out. In the labor market, the national unemployment rate has remained around 7%. On the investment side, the last survey of the Capital Goods Corporation (CBC) ratified the significant increase in projects under execution that took place in late 2018. Moreover, it revised the prospects for this and the next two years upwards, with special emphasis on 2020, and with mining investments posting the greatest contribution in the survey. Inventories saw a significant increase throughout the year, with accumulated buildup going from 0.5% to 1.3% of GDP between 2017 and 2018, largely associated with the export sector and imports of machinery and equipment.

[3]/ Box III.3, Monetary Policy Report, December 2018.
[4]/ Box III.1, Monetary Policy Report, December 2018.

In the external scenario, in recent months there has been a more marked growth deceleration in the main economies, which, together with lower inflationary pressures and financial volatility, led to increases in monetary and/or fiscal stimuli in several countries. The Federal Reserve took a considerable turn in the orientation of its monetary policy, stating it would be open to maintaining its expansiveness for a longer time. This resulted in a significant decline in US long-term interest rates. In any case, the global financial markets remain susceptible to potentially negative news, as reflected in tensions seen at the end of 2018 and at the statistical close of this Report. Thus, there have been ups and downs in risk appetite, capital flows and emerging currencies. Considering the average of the ten working days prior to the statistical closing, Chile's real exchange rate (RER) is below its averages of the last fifteen and twenty years. As a working assumption, the baseline scenario assumes that the TCR will return to these levels within the projection horizon.

Regarding global growth, the baseline scenario estimates that during 2019 and 2020 the world economy will grow 3.3% and 3.2%, respectively, that is, below the 3.7% average of the two previous years and the projection included in the base scenario of the December Report (3.5% and 3.3%). Chile's business partners will also expand by 3.3% in 2019 and 3.2% in 2020 (3.6% in 2017-2018). These projections consider that the US will grow at rates closer to 2%, gradually approaching trend growth. Meanwhile China is projected to grow 6.1% this year and 6% in 2020, less than it did in previous years and consistent with the process of convergence to lower expansion rates as the economy grows in size. These projections are lower than those of the usual counterparties. In particular, in March the OECD noted that it expects global growth expansions of 3.3% and 3.4% for 2019 and 2020, mirroring those in the last publication of Consensus Forecasts.

Regarding the terms of trade, most commodities posted increases after the December Report. In the baseline scenario, prices for copper and oil are assumed to be somewhat higher than those predicted in December. For copper, a price of US$ 2.9 is projected for the 2019-2021 period (US$ 2.85 and 2.80 for 2019 and 2020 in December). In the case of oil, Brent-WTI average prices of US$ 62 per barrel for 2019 and 2020 (US $ 59 for both years, in December) are expected, and US$ 60 for 2021. With this, and the downward revisions of historical figures, this year the terms of trade should see a bigger increase than was expected in December, but will post similar levels.

All these factors considered, the impulse that the Chilean economy will receive from abroad over the next two years will continue to be positive, but lower than in the last two years, combining the downward correction of world growth and financial conditions somewhat more favorable than those foreseen in December. At home, the recent evolution of demand and the outlook for consumption and investment continue to indicate that the economy will continue to narrow its capacity gaps in the coming quarters. Nonetheless, it is important to note that the lower actual level of inflation suggests that current capacity gaps are larger in size than was previously estimated, which is consistent with the impact of the massive immigration flow on the labor force. Next June, the Board will conduct a comprehensive review of changes in potential and trend GDP.

INTERNATIONAL BASELINE SCENARIO ASSUMPTIONS

	Avg. 00 - 07	Avg. 10 - 17	2018	2019 (f)	2020 (f)	2021 (f)
	(annual change. percent)					
Terms of trade	8.2	2.0	-2.1	2.2	-0.3	-0.9
Trading partners GDP (*)	3.6	3.9	3.5	3.3	3.2	3.3
World GDP at PPP (*)	4.5	3.9	3.7	3.3	3.2	3.3
World GDP at market exchange rate (*)	3.2	3.1	3.0	2.6	2.6	2.7
Developed economies' GDP at PPP (*)	2.4	1.8	2.2	1.6	1.5	1.6
Emerging economies' GDP at PPP (*)	6.5	5.2	4.9	4.6	4.5	4.7
External prices (in US$)	4.6	0.8	2.3	-1.3	3.7	3.7
			(levels)			
LME copper price (US¢/lb)	154	312	296	290	290	290
WTI oil price (US$/barrel)	44	75	65	58	59	57
Brent oil price (US$/barrel)	42	83	71	66	65	63
Gasoline parity price (US$/m^3) (*)	366	633	544	483	480	481
Libor US$ (nominal, 90 days)	3.6	0.5	2.3	2.9	2.9	2.9

(*) For definition, see glossary.
(f) Forecast.

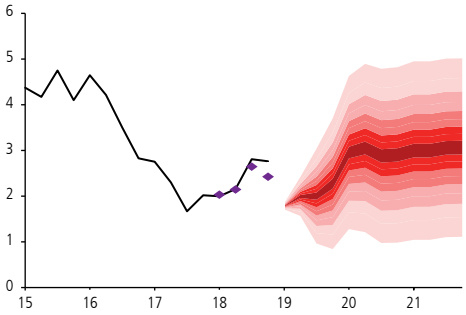
Source: Central Bank of Chile.

ECONOMIC GROWTH AND CURRENT ACCOUNT

	2018	2019 (f)	2020 (f)	2021 (f)
	(annual change. percent)			
GDP	4.0	3.0-4.0	3.0-4.0	2.75-3.75
National income	3.8	4.0	3.7	3.4
Domestic demand	4.7	3.7	3.5	3.3
Domestic demand (w/o inventory change)	3.9	3.9	3.7	3.5
Gross fixed capital formation	4.7	6.2	4.3	3.9
Total consumption	3.7	3.3	3.5	3.4
Goods and services exports	5.0	3.6	2.9	2.9
Goods and services imports	7.6	4.5	2.9	2.6
Current account (% of GDP)	-3.1	-2.9	-2.7	-2.7
Gross national saving (% of GDP)	19.6	20.1	20.3	20.4
Gross national investment (% of GDP)	22.7	23.0	23.0	23.1
GFCF (% of nominal GDP)	21.3	21.8	22.0	22.2
GFCF (% of real GDP)	21.2	21.8	21.9	22.1
		(US$ million)		
Current account	-9,157	-8,900	-8,700	-9,100
Trade balance	4,669	5,500	5,000	4,100
Exports	75,452	78,000	82,000	85,100
Imports	-70,783	-72,500	-77,000	-81,000
Services	-3,996	-4,100	-3,900	-3,700
Rent	-12,241	-12,000	-11,600	-11,500
Current transfers	2,411	1,700	1,800	2,000

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

CPI INFLATION FORECAST (*)
(annual change, percent)



(*) The figure shows the confidence interval of the baseline projection over the respective horizon (colored area). Confidence intervals of 10%, 30%, 50%, 70% and 90% around the baseline scenario are included. These intervals are calculated using the RMSE of the MAS-MEP models for the 2009-2017 average and summarize the risks on future inflation as assessed by the Board. For short-term forecasting purposes, the Report uses as a working assumption that the MPR trajectory will be as derived from the March Economic Expectations Survey, which sees no changes in the policy rate at least during the next two quarters. For the medium term, the projections are consistent with the MPR reaching its neutral level towards the end of the policy horizon. The Board has estimated that the neutral MPR is between 4% and 4.5%, a parameter that will be revised for the June Monetary Policy Report.

Source: Central Bank of Chile.

In this context, the baseline scenario assumes that this year the Chilean economy will grow between 3% and 4%. This range runs somewhat below the December forecast (3.25%–4.25%), which is explained by a weaker-than-expected performance of the mining sector. In 2020, the economy is projected to grow between 3% and 4%, slightly above the December projection. Finally, this Report presents the first projection for 2021: between 2.75% and 3.75%. Regarding expenditure, it is still anticipated that investment will be its most dynamic component, with annual growth exceeding 6% in 2019. By 2020 and 2021, its expansion will come closer to 4%. Consumption will continue to grow in line with GDP. In the fiscal area, the working assumption is used that in 2019 the economy will receive a boost consistent with the approved budget. From then onwards, the structural deficit will follow the path of gradual decline defined by the authority.

As for inflation, given its current lower level and estimated wider capacity gaps, its convergence to 3% is delayed with respect to December. Accordingly, the CPI will end 2019 with an annual increase of 2.6%, and return to 3% in the first half of next year. From then onwards, it will remain in the vicinity until the end of the policy horizon, i.e. the first quarter of 2021. For the CPIEFE, estimates are that it will end 2019 at 2.4% and will approach 3% in the second half of next year.

Regarding monetary policy, the Board continues to consider that the evolution of macroeconomic conditions makes it necessary to reduce the monetary stimulus within the policy horizon. However, the change in the initial conditions of the baseline scenario, particularly the lower inflation observed, means that its convergence to the target requires the MPR normalization to proceed more slowly than was anticipated in December.

For short-term forecasting purposes, the Report uses as a working assumption that the MPR trajectory will be as derived from the March Economic Expectations Survey, which sees no changes in the policy rate at least during the next two quarters. For the medium term, the projections are consistent with the MPR reaching its neutral level towards the end of the policy horizon. The Board has estimated that the neutral MPR is between 4% and 4.5%, a parameter that will also be revised for the June Monetary Policy Report.

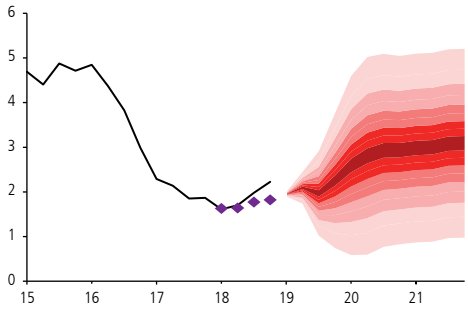
The baseline scenario reflects those events that are believed to be the most likely given the information at hand at the close of this Report. There are risks, however, which, if materialized, may reshape the macroeconomic outlook and, therefore, the course of monetary policy.

Abroad, the risk balance is still biased downwards. The main risk continues to be an abrupt turnaround of financial conditions facing emerging economies, which could be triggered by various reasons, including a more abrupt and widespread slowdown in world growth or the negative evolution of the various geopolitical tensions that have persisted in the recent past. Although in such a scenario the main central banks would probably make their monetary policies more expansionary, there could also be a lower risk appetite and declines in commodity prices that would more than offset these lower interest rates.

Internally, it is estimated that the balance of risks for both activity and inflation is unbiased. First, it is possible that the massive immigration of recent years will have a greater effect on growth and inflation. On the one hand, it can generate an increase in domestic demand given the higher consumption of immigrants and the increase in investment required to absorb the greater supply of labor. On the other hand, immigration augments the labor force, moderating wage pressures and reducing costs, which pulls inflation downward. In the medium term, it is expected that the joint effect of these supply and demand channels will expand output and will have a limited inflationary impact. However, in the adjustment process, it is not clear which one will prevail, as it depends on considerations such as the immigrants' propensity to save, their willingness to work at different wage levels and the speed of adjustment of investment consistent with the larger scale of the economy. Second, the expected evolution of inflation could also be affected if the pass-through of last year's peso depreciation returns to magnitudes closer to the average sooner than expected and pushes up inflation of goods in the CPIEFE. Finally, a somewhat faster exhaustion of the one-off effects of sectoral supply shocks cannot be ruled out, particularly the higher competition in some sectors.

Summing up, although the current level of inflation is lower than expected, several indicators suggest that the economy will continue to consolidate the process of closing capacity gaps and that inflation will converge to 3% within the policy horizon. Accordingly, the Board estimates that it will be necessary to continue with the process of normalizing the monetary stimulus, albeit at a slower pace than was considered in December. This will be done gradually and cautiously, bearing in mind that the lower level of inflation and its outlook provide more space to evaluate the appropriate velocity of such process. With this, the Board reaffirms its commitment to conduct monetary policy with flexibility, so that projected inflation stands at 3% over the two-year horizon.

CPIEFE INFLATION FORECAST (*)
(annual change, percent)



(*) The figure shows the confidence interval of the baseline projection over the respective horizon (colored area). Confidence intervals of 10%, 30%, 50%, 70% and 90% around the baseline scenario are included. These intervals are calculated using the RMSE of the MAS-MEP models for the 2009-2017 average and summarize the risks on future inflation as assessed by the Board. For short-term forecasting purposes, the Report uses as a working assumption that the MPR trajectory will be as derived from the March Economic Expectations Survey, which sees no changes in the policy rate at least during the next two quarters. For the medium term, the projections are consistent with the MPR reaching its neutral level towards the end of the policy horizon. The Board has estimated that the neutral MPR is between 4% and 4.5%, a parameter that will be revised for the June Monetary Policy Report.

Source: Central Bank of Chile.

MONETARY POLICY DECISIONS IN THE LAST THREE MONTHS

DECEMBER MEETING

The December Monetary Policy Report indicated that annual inflation had increased over the course of 2018, reaching around 3% as of the cutoff date of that Report. Although some of the increase was explained by the more volatile components of the CPI basket and the depreciation of the peso, the inflation of components that are more sensitive to the output gap—namely, services and nontradable goods—had risen steadily in the year. This was in line with the recovery of economic growth that had started over a year ago, in the context of favorable external conditions and a clearly expansionary monetary policy. Thus, the downside risks for the convergence of inflation to the target reported in early 2018 had dissipated by the end of the year. In the baseline scenario, headline and core inflation would converge to 3% toward the end of the monetary policy horizon, although more slowly than projected in September, mainly due to the significant reduction in international fuel prices.

With regard to domestic output, the annual growth rate of GDP declined in the third quarter relative to the first half of the year, as anticipated in past Reports. This was consistent with a scenario in which the economy would grow near potential—estimated at 3.0 to 3.5%—as the output gap continued to close, the one-off factors that had favored growth in the first half disappeared, and the basis for comparison became more demanding in the second half. In any case, the slowdown in the third quarter was sharper than expected due to one-off factors, such as the number and composition of business days, but better sectoral data for October confirmed the transitory nature of these factors. On the domestic spending side, investment was more dynamic—especially in machinery and equipment—which was offset by lower consumption. In this scenario, the Board estimated that GDP would grow 4% in 2018, at the bottom of the range estimated in September, mainly due to a lower performance in mining. For 2019 and 2020, the growth forecasts were held at 3.25–4.25% and 2.75–3.75%, respectively. Thus, the economy was expected to continue to grow around its potential for the next two years, approaching trend growth. Key factors in this forecast were dynamic investment and the performance of the labor market, which, once all the available information was taken into account and the impact of recent immigration flows was properly weighted, was consistent with higher output.

Internationally, as in the past several Reports, the baseline scenario considered that the external stimulus for the Chilean economy would decline over the next three years, although it would remain positive. On the one hand, the growth of Chile's trading partners was expected to slow in the 2019–2021 period, after peaking for this cycle in late 2017 and early 2018. On the other, financial conditions for emerging economies had begun to normalize, a process that would continue to unfold over the next two years. The baseline scenario projected that any new episodes of volatility in the international markets, should they occur, would not escalate into a negative shock for the emerging economies. Finally, the price of oil had fallen, which would contribute to relatively stable terms of trade in 2019 and 2020.

At the December meeting, all the Board Members agreed that the macroeconomic scenario, which provides the framework for the monetary policy decision, had not changed relative to the September Report. Specifically, the economy had recovered its growth capacity and was closing the output gap, and services and nontradables inflation had increased steadily since the start of the year. Consequently, as in September, it was less necessary to maintain the monetary stimulus established when the economy was in the lowest phase of the cycle, and thus it was time to proceed with the stimulus withdrawal so that inflation would converge to the policy target within the medium-term horizon. The monetary policy options analyzed were (i) holding the monetary policy rate (MPR) at 2.75% with an upward bias and (ii) increasing the MPR by 25 basis points (bp) with an upward bias.

As for the first option, the main reason for holding the MPR at its current level was that it was consistent with the Bank's actions and communications, especially in terms of signaling that the withdrawal of the monetary stimulus would be implemented gradually and cautiously. At the same time, the upward bias accompanying the decision would reaffirm that the process was to continue in the coming months. The option of raising the

MPR, in turn, could be justified by the argument that because the MPR was currently well below its neutral level, the risk of error was low, and a small hike now would allow a more gradual increase in the future. However, the main point against this second option was that it might be taken as a signal that there was now a sense of urgency in the withdrawal process, which was not consistent with the gradual, cautious approach undertaken by the Board. Thus, the Board voted unanimously to maintain the MPR at 2.75%.

JANUARY MEETING

For the January meeting, the risks of the external scenario had increased significantly. The known data pointed to a sharper-than-expected slowdown in world growth. This was particularly evident in Europe and China, where the latest data had again surprised to the downside, while the U.S. economy maintained a growth rate in line with the forecast, with a steady improvement in the labor market. However, concerns about the evolution of the risks in the global scenario and their impact on growth had triggered a sharp adjustment in asset prices in late 2018, which had had a very significant impact on expectations in all of these countries and had led the monetary authorities to signal a slowdown in interest rate hikes going forward. The latter, together with the Chinese and U.S. governments' apparent willingness to negotiate trade issues, had helped calm the financial markets, with some recovery in stock prices and a decline in market interest rates. For emerging economies, the situation had not changed much. After the capital outflows of late 2018, calm had returned to the markets, spreads had narrowed, and commodity prices had tended to stabilize.

At the same time, the international economic climate could not shake the persistent uncertainty regarding key economic policy decisions, evident at least since early 2017, and the market's sensitivity to negative news appeared to have risen. The conclusion was that the world economy was currently in a relatively atypical phase of the global economic cycle, which had to be analyzed more deeply to anticipate the future dynamics and possible channels of transmission to the Chilean economy.

Domestically, for the moment, the available information did not show any clear signs that the local economy was being affected by the external scenario. In particular, while inflation had closed 2018 somewhat lower than expected, it had been on the rise. Non-mining GDP similarly had no surprises on aggregate, while investment-related sectors were more dynamic than consumption sectors—which had surprised to the downside. Exports and imports were somewhat higher than expected. Local financial conditions remained stable and favorable, and the credit channel had strengthened, with increased lending and higher demand for consumer and commercial loans, according the to Bank Lending Survey. Finally, another positive trend in the domestic economy was the faster-than-expected progress toward fiscal consolidation targets.

Inflation, in turn, had been lower than expected, especially core inflation, but this did not necessarily imply a change in the economic or credit cycle, given that the uncertainty of the third quarter had given way to a recovery in the fourth. Moreover, core goods inflation could be reflecting a delay in the exchange rate pass-through to prices from the second quarter. If so, one would expect a reversal in the short term, provided that the exchange rate stayed around its current level for a while. Alternatively, the fact that inflation was low across a wide range of goods categories suggested that consumption was less dynamic than expected, in which case inflation convergence would take somewhat longer. Determining the relative weight of these alternatives would be a priority in the analysis for the next Report in March. Finally, changes in the new CPI basket would also have an effect on inflation.

All the Board Members agreed that based on the current data, the baseline scenario continued to be characterized by a narrowing output gap and the convergence of inflation to the target over the next two years. They were therefore in agreement that the general orientation of monetary policy should continue to be focused on the normalization of the MPR toward its neutral level, as communicated in the December Report. Thus, the two policy options analyzed were (i) increasing the MPR by 25 bp or holding the MPR at 2.75%.

The main argument in favor of not adjusting the MPR was that it would provide time to accumulate additional information on the evolution of the external scenario, the underlying causes, and the channels of transmission to the local economy. However, this option would not only surprise the market, but could also be taken as a sign that there had been a change in the baseline scenario or in the assessment on the need to continue normalizing the MPR, when this was clearly not the case in the data. The option of proceeding with the withdrawal of the monetary stimulus, with a 25 bp increase in the MPR, was fully consistent with the baseline scenario of the December Report, which had not changed significantly. Moreover, it was widely expected by the market. Finally, given how far the MPR was from its neutral level, there was room to raise the rate without incurring major costs from the potential risks. Therefore, The Board voted unanimously to increase the MPR to 3.0%.

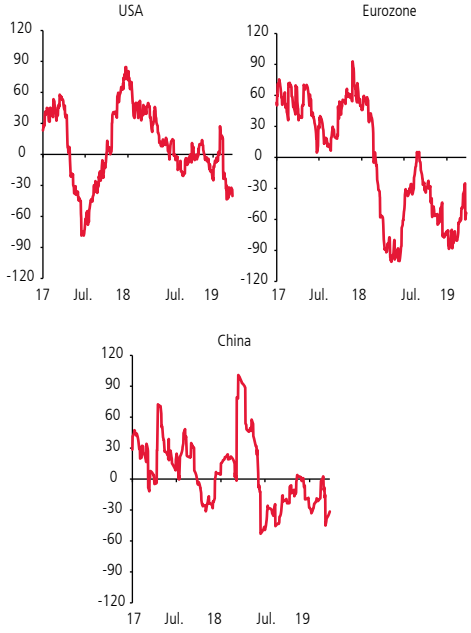
I. INTERNATIONAL SCENARIO

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

Since the last Monetary Policy Report, the international outlook has changed significantly. The sharper growth slowdown in the main economies, together with financial volatility and the reduction in real and expected inflation, led to a considerable shift in the orientation of monetary policy among the developed central banks. The change in the scenario—probably the most significant in several years—has made the authorities more open to continuing with expansionary monetary policy and quantitative easing for a longer period, and China has resumed its monetary and fiscal stimulus policies. In this context, long-term interest rates fell substantially, in particular after the communication by the U.S. Federal Reserve (Fed). However, the global financial markets remain sensitive to potentially negative news, as reflected in the tension in late 2018 and around the cutoff date of this Report. Thus, risk appetite, capital flows, and emerging currencies have all fluctuated. In the baseline scenario, the world growth forecast has been revised downward relative to December, and the world economy is expected to grow less in 2019–2020 than in the previous two-year period. At the same time, financial conditions for the emerging economies are somewhat better than projected in the December Report. As a result, the external stimulus for the Chilean economy in 2019–2021 will continue to be positive, but weaker than in the previous two years.

The main economies slowed more than expected toward the end of 2018, after peaking between late 2017 and early 2018. The growth data were especially weak for the Eurozone, which recorded a strong reduction in trade both within and outside the region. In China, growth went from 6.8% en the first quarter of last year to 6.4% in the fourth. In the most recent period, various short-term output indicators remained below the market forecast (figure I.1), which has exacerbated concerns about how far the output slump could go. These include the sharp downturn in business optimism and the outlook for manufacturing (PMI), the steep decline or even contraction of annual industrial production in several economies, and the slowdown in international trade (figures I.2 and I.3).

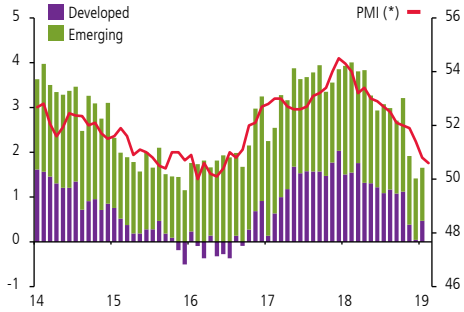
FIGURE I.1
Economic surprises (*)
(index, neutral=0)



(*) A positive (negative) value indicates better (worse) data than expected by the market.

Source: Citigroup.

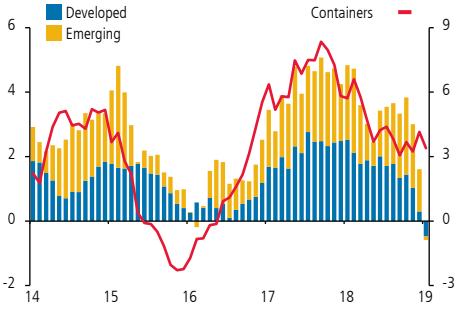
FIGURE I.2
Industrial production and the global manufacturing outlook
(contribution, percentage points; original series, pivot=50)



(*) A value over (under) 50 indicates expansion (contraction).

Sources: Netherlands Bureau for Economic Policy Analysis (CPB) and J.P. Morgan.

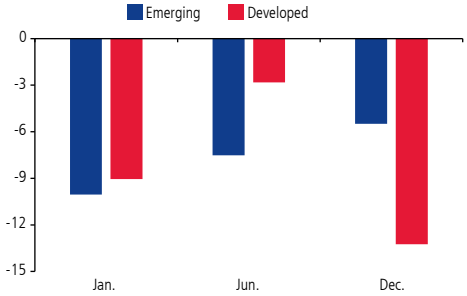
FIGURE I.3
Real exports and container traffic (*)
(annual change, percent)



(*) Three-month moving average.

Sources: Netherlands Bureau for Economic Policy Analysis (CPB) and Institute of Shipping Economics and Logistics.

FIGURE I.4
Stock market drops in financial stress episodes in 2018 (*)
(percent)



(*) For each event, the percent change is calculated between the peak before the market started to fall and the subsequent floor.

Source: MSCI.

These doubts about the extent of the global economic slowdown have unfolded in a context in which the main sources of tension in other areas have continued unabated, including questions about imbalances in some markets in China, the extension of the U.S.-China trade conflict, which continues unresolved, and doubts about the Brexit process. There was thus a new episode of financial stress in the international markets in late December. As with previous events, this implied a large stock market drop, a sharp fall-off in risk appetite, and a significant increase in volatility. The major difference, however, was that the main effects were recorded in the developed markets and not in the emerging, as had been the case during other events in 2018 (figure I.4).

Additionally, in the latter part of 2018 annual inflation and the inflation outlook started to decline in several developed economies, aided in part by the drop in the oil price late last year. Different measures put annual core inflation around 2% in the United States and near 1% in the Eurozone. The headline inflation forecast for this year has also declined, to just under 2.0% a year in the United States and 1.5% in the Eurozone (figure I.5).

Given this context of economic slowdown, financial volatility, and low inflation, the main central banks made a major shift in their monetary policy orientation and began to communicate their willingness to continue their expansionary monetary policies for a longer period. In the case of the United States, the Fed signaled that the rate hike process had reached an end and that its balance sheet adjustment would probably be more gradual. This change in orientation was reinforced at the March meeting this year, where they reduced their forecast for the median fed funds rate (FFR) by 50 basis points and announced that there would be no new increases for this year, while signaling that the sign of the next adjustment was not yet clear. The Fed further announced that the rate of its balance sheet reduction would be cut in half starting in May. Market expectations responded with a significant shift, going so far as to consider the possibility of FFR cuts sometime in the future (figure I.9). Across the Atlantic, the European Central Bank (ECB) communicated that it would delay raising its rates, which would stay at their current level through the end of 2019, rather than rising in the second half of the year as previously projected. The ECB added that it would promote a liquidity program for the banking system starting in September, with the aim of increasing credit to the private sector. China, in turn, has continued to apply monetary stimulus measures, such as the provision of liquidity, as well as fiscal stimulus measures (box I.1). This has all contributed to significant decline in long-term interest rates, especially in the United States.

Taken together, these changes have created in scenario in which, despite the downward revision in the world growth forecast, financial conditions for the emerging economies, including Chile, are somewhat better than anticipated in the December Report. The markets continue to be highly sensitive to negative news, however. This is demonstrated by the fact that while there was a reduction in spreads, a recovery of the stock markets, and a global depreciation of the dollar following the stress episode in late 2018 and the change in message by

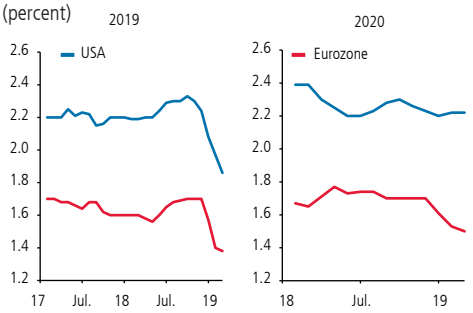
the economic authorities, these trends were largely reversed in days leading up to the cutoff of this Report, in particular after the markets reacted negatively to the Fed's announcements and the publication of economic data that again surprised to the downside in some large economies. In fact, although the decline in long-term interest rates in several developed economies is a positive development from the perspective of the emerging economies, the yield curve has recently inverted at different maturities, a trend that worries the financial markets given its correlation with a higher probability of economic recession.

With regard to growth, the baseline scenario projects that the world economy will grow 3.3% this year and 3.2% next year, down from an average of 3.7% in the 2017–2018 period (table I.1). Chile's trading partners will record growth rates of 3.3 and 3.2% in the period (versus 3.6% on average in 2017–2018). Breaking this down, the developed world will grow around 1.6% on average in 2019–2020, where the United States, in particular, is forecast at 2.1% this year and 1.7% next year (2.3 and 1.7% in December). Both rates are lower than 2018 and consistent with a gradual realignment toward trend growth. In the emerging bloc, China is projected to grow 6.1% this year and 6.0% in 2020, which is lower than the past few years due to the normal convergence to lower growth rates as the size of the economy increases. In Latin America (excluding Chile), the projected growth rates are 1.6 and 2.3% for this year and next (0.7% in 2018), provided that the cyclical recovery of output is consolidated in the region.

The world growth forecasts in the baseline scenario are lower than the usual comparators (figure I.6). Consensus Forecasts (CF) and the OECD both project world growth of 3.3% this year and 3.4% next year. For Europe, the baseline scenario forecast is down significantly relative to December, in line with corrections made by the ECB. For the United States, the growth forecast is in line with the FOMC forecast for 2019 and a bit lower for 2020. With regard to Latin America, CF projects that Brazil will grow 2.4% on average in 2019–2020, following slow growth in 2018 (1.1%) and contractions prior to that. Mexico is expected to maintain growth around 1.7% this year and next (2% in 2018), while Argentina will stay in recession this year but ramp up in the following (–1.2 and 2.4%, respectively).

With regard to the terms of trade, most commodity prices have risen since the last Report (figure I.7). In the baseline scenario, copper and oil prices are both higher than the December forecasts. Copper is projected at US$2.90, on average, for the 2019–2021 period (US$2.85 and 2.80 for 2019 and 2020 in December), mainly due to a bigger boost from China and low inventories. In the case of oil, the average of the Brent and WTI prices is forecast at US$62 per barrel in 2019 and 2020 (US$59 for both years in December) and US$60 in 2021, largely due to over-compliance with the production cuts agreed by the OPEC members—even the countries that are exempt from the deal. With these adjustments, together with the downward revision of historical data, the terms of trade will increase more this year than projected in December, but in terms of level the two forecasts are similar.

FIGURE I.5
Annual inflation expectations for the United States and the Eurozone
(percent)



Source: Bloomberg.

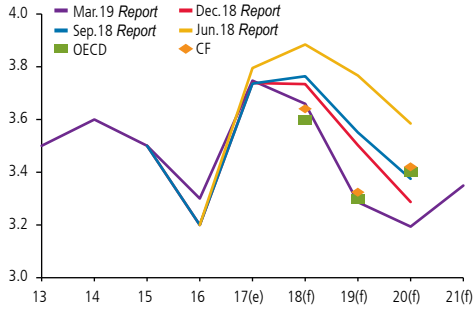
TABLE I.1
World growth (*)
(annual change, percent)

	Ave. 00-07	Ave. 10-16	2017 (e)	2018 (f)	2019 (f)	2020 (f)	2021 (f)
World at PPP	4.5	3.9	3.7	3.7	3.3	3.2	3.3
World at market FX	3.2	3.1	3.2	3.0	2.6	2.6	2.7
Trading partners	3.6	4.0	3.7	3.5	3.3	3.2	3.3
United States	2.7	2.2	2.2	2.9	2.1	1.7	1.7
Eurozone	2.2	1.1	2.4	1.8	1.1	1.5	1.6
Japan	1.5	1.4	1.9	0.8	0.8	0.5	1.0
China	10.5	8.1	6.9	6.6	6.1	6.0	5.9
India	7.1	7.4	6.7	7.3	7.5	7.4	7.4
Rest of Asia	5.2	4.6	4.4	4.2	3.9	3.9	4.0
Latin America (excl. Chile)	3.4	2.3	1.1	0.7	1.6	2.3	2.7
Commodity exporters	3.1	2.5	2.7	2.5	2.2	2.2	2.2

(*) See glossary for definitions.
(e) Estimate.
(f) Forecast.

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

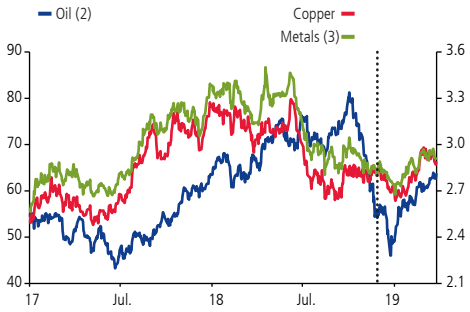
FIGURE I.6
World growth
(annual change, percent)



(e) Estimate.
(f) Forecast.

Sources: Central Bank of Chile, Consensus Forecasts, and IMF.

FIGURE I.7
Commodity prices (1)
(dollars per barrel; dollars per pound; index: 2017–19 average=3)



(1) Vertical dotted line marks the cutoff of the December Monetary Policy Report.
(2) Simple average of Brent and WTI prices per barrel.
(3) S&P GSCI Commodity Index.

Source: Bloomberg.

The balance of external risks remains skewed to the downside in terms of its impact on local output. The primary risk continues to be a sudden deterioration in financial conditions for emerging economies. This could be triggered by a number of elements, such as a sharper, more generalized slowdown in world growth—if the recent output trends deepen or if the vulnerabilities in the Chinese economy materialize—or a significant increase in tension associated with the persistent sources of economic and geopolitical uncertainty, namely, the U.S.-China trade war and Brexit. On the one hand, such a scenario could lead the main central banks to continue adding monetary stimulus; on the other, it would increase risk aversion and reduce commodity prices.

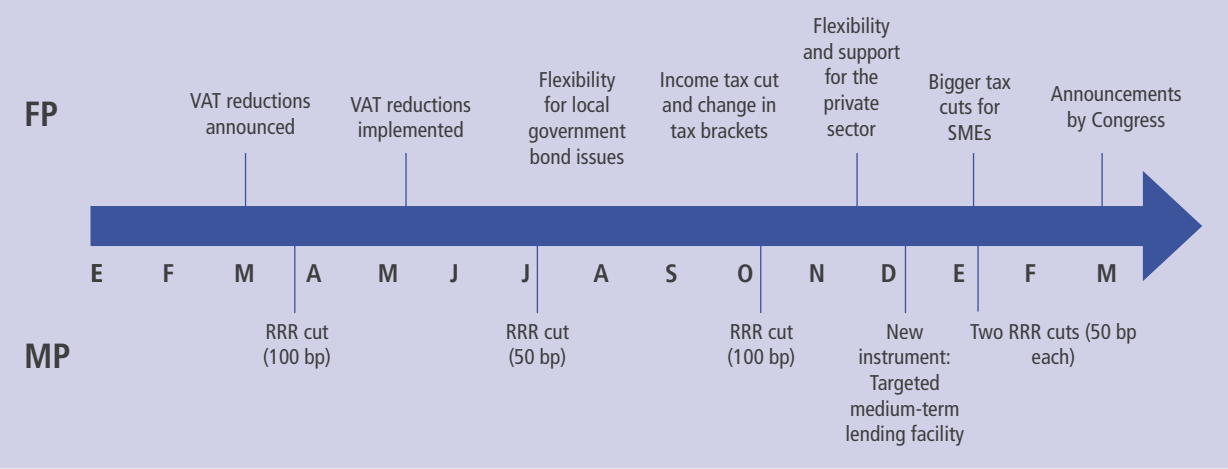
BOX I.1
GLOBAL DEMAND STIMULUS: IMPACT, LIMITS, AND RISKS

In 2018, the macroeconomic scenario reflected a progressive slowdown in world growth, especially in the manufacturing sector in a number of developed economies and China. Through late 2018, the United States had been excluded from this trend, but in the past few months doubts have arisen about the strength of the U.S. cycle. This widespread slowdown coincided with the efforts of some economies to proceed with stimulus withdrawal, including the monetary policy normalization by the U.S. Federal Reserve (Fed) and the various measures adopted by the Chinese authorities to limit the over-indebtedness of their economy. However, the reversal in the global cycle led to a new round of demand stimulus measures. This box discusses the scope of the expansionary measures adopted most recently, their impact on the cycle, the existing space and limits, and the risks associated with an excessive use of these measures over time.

Response by the authorities in China

The Chinese government reacted the fastest to the early signs of the downturn, promoting fiscal and monetary measures even before mid-2018. Since April of last year, the People's Bank of China (BPoC) has cut its reserve requirement rate (RRR) five times, loosened credit to small businesses, and created incentives for private banks to lend to small businesses. On the fiscal side, incentives have been given for infrastructure projects, facilitating the bond issue process for local governments. Additionally, the government has implemented tax cuts for both people and businesses. For the corporate sector, the export tax rebate was increased, while on the consumption side, income taxes were reduced and tax brackets modified. These measures were expanded early this year, and they could be expanded further, according to announcements made at the opening session of the National People's Congress. While the use of fiscal stimulus measures is a normal response for the Chinese government, this time the composition is more skewed to tax measures than direct infrastructure spending (see above). This change in the composition of the stimulus could add a degree of uncertainty about its effectiveness, but it would be consistent with the objective set by the authorities in 2011 to rebalance the country's economic growth sources.

CHINA: STIMULUS MEASURES



At the margin, some indicators suggest that these measures could already be having an effect. This can be seen in lending data, the PMI, investment in infrastructure, and the recovery of risky asset prices in China[1]/ (figure I.9). Some estimates suggest that the impact of some of these measures on short-term GDP growth could be at least half a percentage point, which would limit a sharper slowdown.[2]/

FIGURE I.8
Investment in fixed assets by sector (*)
(annual change, percent)

(*) Three-month moving average. Due to Chinese New Year, data are not available for January, so February is used.

Source: Bloomberg.

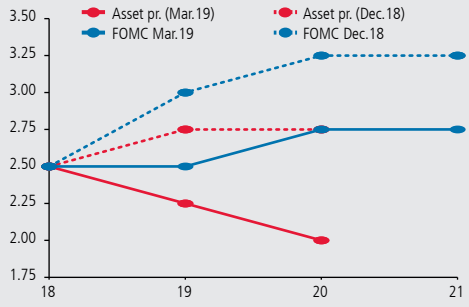
While these measures should shore up short-term growth, they could increase the risks associated with the different imbalances that have accumulated in the Chinese economy. First, total debt is more than three times the country's GDP, which is very high, especially for an emerging economy. Although this debt is primarily in local currency, a large share pertains to the shadow banking system, which is scarcely regulated. Second, while the fiscal deficit in 2018 was officially just over 4% of GDP, according to the IMF it could actually exceed 10% if local government balance sheets and other entries are included. These estimates put the augmented public debt at over 70% of GDP and suggest that it could exceed 90% by 2023. Additionally, an inadequate financial management could trigger capital outflows, which in the past have put pressure on the exchange rate and caused significant losses in international reserves. Some of these risks are less urgent than they were in early 2016.[3]/ However, an additional dose of stimulus, applied to an economy that has accumulated significant imbalances and needs high growth to contain them, could be detrimental in the medium term.

Response in the developed economies

Other central banks have also given clear signals of a change in their monetary policy bias. In particular, the Fed indicated at its March meeting that it would be patient in evaluating future rate movements and that it would suspend its balance sheet reduction in September. This represents a significant shift in the Fed's monetary policy strategy, going even further than the market expected after the January meeting. The ECB, in turn, announced a third round of direct financing for the banking system (TLTRO III) and also pushed back the start of the rate hike cycle to late 2019. Other central banks have also signaled a more dovish monetary policy, generating a context of greater global liquidity.

Asset prices have incorporated these signals. Policy rate futures in the United States point to two cuts in 2020, and long-term Treasury bonds, which had been around 3.25%, are now down to 2.4% (figure I.10). With regard to the financial stress episode in late 2018, the signals of a more dovish monetary policy favored capital inflows to the emerging economies and raised the prices of risky assets and various commodities, including copper, while the markets continue to show some signs of stress.

FIGURE I.9
Expected upper limit for the federal funds rate (*)
(as of December of each year, percent)



(*) Assumes that the value announced by the Fed is the midpoint of the FFR range.

Sources: Bloomberg and U.S. Federal Reserve.

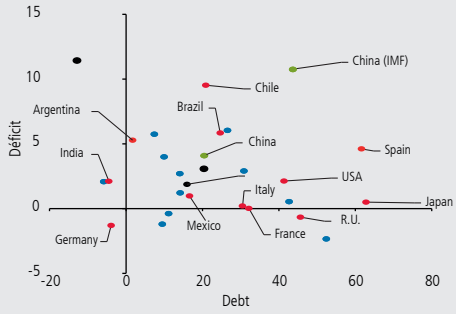
The impact of these efforts to reverse the growth slowdown by increasing the monetary stimulus is subject to limitations. In many developed economies, the reference rate is already low, in

[1]/ The increased weight in global indexes could also have contributed to the rise.
[2]/ Namely, the following investment banks: CITI, JPMorgan, and UBS.
[3]/ See Monetary Policy Report, March 2016, box I.1.

some cases near the zero lower bound. While it is possible to set negative rates, as the ECB has done, the impact is questionable since it causes complications for the normal functioning of the banking system, among other problems, and thus may not even be expansionary. Furthermore, a latent risk associated with the implementation of monetary stimulus measures is that, when applied over a long period, they could exacerbate the willingness to take risks, raising the debt level even further and excessively appreciating risky asset prices, which could then come crashing down.

With regard to fiscal measures, few economies have a cushion. During the 2008 global financial crisis and the subsequent European debt crisis, the governments in numerous developed and emerging economies applied a large stimulus. These efforts significantly increased the public debt of these economies, in some cases with an effect on their credit rating. On average, debt as a percent of GDP has grown around 24 percentage points since 2007, based on a select group of countries (figure I.11). In the case of the United States, having implemented a tax reform at the start of the current administration limits the space for an additional dose of stimulus. In the advanced economies, low interest rates—the result of the large monetary stimulus—keep the debt service under control, generating something of a fiscal cushion. This could represent a risk, however, if rates were to rise. One of the exceptions is Germany, which has maintained a fiscal surplus of 1.5% and a debt-to-GDP ratio of around 60%, which is low compared to other developed economies. A greater fiscal stimulus in Germany could restart growth in Europe and rein in the domestic imbalances within the Eurozone.

FIGURE I.10
Change in deficit and fiscal debt, 2007–2018
(percent of GDP)



Sources: Bloomberg and IMF

From the perspective of the Report's baseline scenario, the various stimulus measures should sustain the short-term output forecast and support a soft convergence of the global cycle. It is, in part, due to these measures that the growth forecast has been revised only slightly downward for the United States and not adjusted at all for China in the forecast horizon. For the Eurozone, the revision is larger in magnitude, due to the depth of the current downturn and the difficulty of a coordinated, timely application of a demand stimulus on the order of the measures announced by China and the United States. From the perspective of the emerging economies and commodity exporters, these stimulus measures could reverse the deterioration in financial conditions recorded in 2018 and support better terms of trade. The corollary of all this is medium-term risk, if the stimulus measures have to be maintained for a long time or if they are maintained longer than necessary for fear of new difficulties once the global economy picks up again.

II. FINANCIAL CONDITIONS

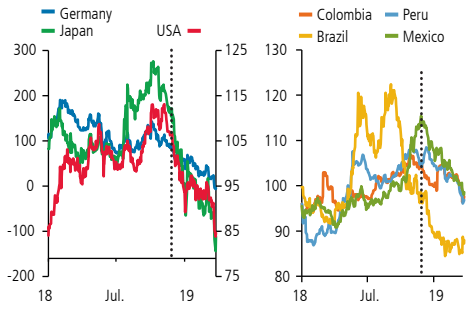
This chapter reviews the evolution of local and external financial conditions.

External financial conditions are somewhat more favorable than projected in the last Report. This is mainly due to the significant shift in monetary policy orientation in the main developed economies, in a context in which the main economies have recorded a sharper-than-expected slowdown and inflation expectations have declined. In this scenario, interest rates fell across the board, as did risk spreads at the global level. At the same time, the global financial markets remain sensitive to potentially negative news, as reflected by their behavior in the days leading up to the cutoff of this Report. Domestically, financial conditions remain favorable, with low interest rates from a historical perspective, credit growth that has generally continued to increase, and qualitative indicators that point to a strengthening of both the demand and supply of credit.

In late 2018, global uncertainty intensified, which was manifested in increased volatility and a lower appetite for risk. This was due, in part, to heightened concerns about the growth of the main economies and an intensification of political and economic risks. These trends, together with other factors such as lower inflationary pressures, triggered a considerable shift in the monetary policy orientation of the main central banks, which proved willing to keep their expansionary policies in place longer. These and other measures, such as those implemented in China to combat the slowing economy, contributed to mitigating the aforementioned uncertainty. Thus, long-term interest rates decreased significantly, sovereign spreads narrowed, and stock markets rose at the global level (figures II.1, II.2, and II.3).

Nevertheless, the markets remain sensitive to potentially negative news. For example, in the days prior to the cutoff of this Report, the latest announcements by the U.S. Federal Reserve and economic data that again surprised to the downside were met with new signs of market stress. There are also renewed concerns about emerging economies that are perceived as more vulnerable, such as Argentina and Turkey. In this context, capital inflows to the emerging world have fluctuated: as of the cutoff of this Report, capital inflows had slowed relative to the first months of 2019 and even reversed in some economies. Emerging currencies have also fluctuated significantly in recent months, with a generalized appreciation at the start of the year and a depreciation more recently. The baseline scenario used in this Report assumes that financial

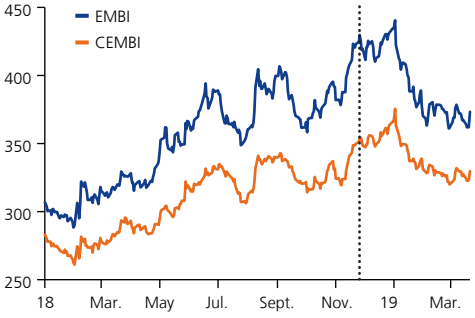
FIGURE II.1
Ten-year interest rates (*)
(index: 2018–2019 = 100)



(*) Vertical dotted line marks the cutoff date of the December 2018 Monetary Policy Report.

Source: Bloomberg.

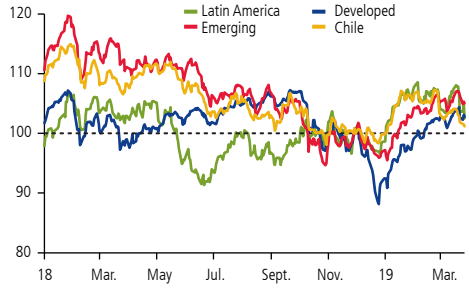
FIGURE II.2
Emerging market spreads (1)(2)
(basis points)



(1) Emerging Markets Bond Index and Corporate Emerging Markets Bond Index.
(2) Vertical dotted line marks the cutoff date of the December 2018 Monetary Policy Report.

Source: Bloomberg.

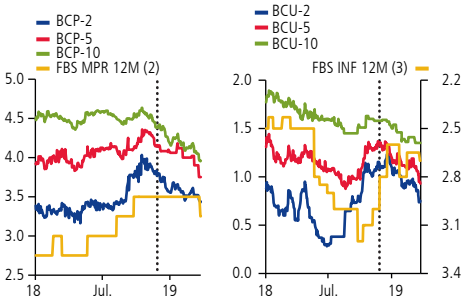
FIGURE II.3
Stock markets (*)
(index: Dec.18 cutoff = 100)



(*)Morgan Stanley Capital International stock indexes measured in local currency by region. For Chile, the IPSA is used.

Source: Bloomberg.

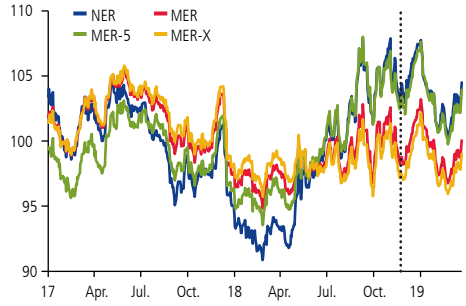
FIGURE II.4
Interest rates on Central Bank of Chile bonds (1)
(percent)



(1) Vertical dotted line marks the cutoff date of the December 2018 Monetary Policy Report.
(2) MPR expectations in the FBS.
(3) Inflation expectations in the FBS. Inverted axis.

Source: Central Bank of Chile.

FIGURE II.5
Nominal exchange rate and multilateral measures (*)
(index: 2017–2019 = 100)



(*) Vertical dotted line marks the cutoff date of the December 2018 Monetary Policy Report.

Source: Central Bank of Chile.

conditions will continue to be somewhat more favorable than projected in the December Report. While the possibility of new episodes of volatility cannot be ruled out, they would not imply a major negative shock for the emerging economies. Sensitivity scenarios for this assumption and their implications for the general orientation of monetary policy are discussed in chapter V of this Report.

In Chile, the financial markets tracked the global trends. Thus, the interest rates on local fixed-income instruments decreased, with some fluctuations, after the cutoff date of the December Report, most notably in the case of nominal rates (figure II.4). Specifically, ten-year nominal interest rates fell around 40 basis points (bp), while five- and two-year rates fell 35 and 30 bp, respectively. In the case of the nominal two-year rate, the trend was also affected by the expected path of the monetary policy rate (MPR), especially after the January Monetary Policy Meeting and inflation data that surprised to the downside, based on the new CPI basket with 2018=100. UF rates at two, five, and ten years all decreased around 25 bp. Sovereign and corporate spreads, measured by the EMBI and CEMBI, have narrowed since the last cutoff date, moving nearly –20 and –15 bp, respectively. The local stock index (IPSA) increased relative to the cutoff of the last Report, with some fluctuation. This performance reflects the global factors mentioned earlier and some idiosyncratic local and regional factors. For example, the IPSA drop in late February was related to some capital increase operations, which were unfavorable in some firms, and the resurgence of fears about the Brazilian and Argentine economies.

The exchange rate also fluctuated significantly, as did most emerging currencies (table II.1). Thus, the local currency peaked at nearly $700 to the dollar in early January—at the height of the global uncertainty—and troughed at approximately $650 to the dollar in February. On the cutoff date of this Report, the peso-dollar exchange rate was around $670, which implies a net appreciation of 0.7% since the cutoff of the last Report (figure II.5). The multilateral exchange rate measures (MER, MER-5, and MER-X) recorded similar fluctuations, finishing with a net change of 0.1, –0.6, and 0.3%, respectively. The real exchange rate (RER) has declined since late 2018, reaching 91 in February; the estimate for March is just under 92. This is below the average of the last fifteen to twenty years. As a working assumption in the baseline scenario, the RER is expected to return to its average level within the forecast horizon.

TABLA II.1
U.S. dollar exchange rates (1)
(percent)

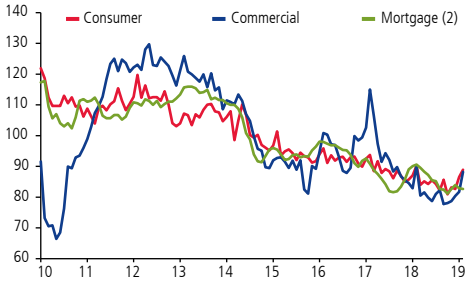
	Change in NER, March 2019 Report			
	Dec.18 Report	Sep.18 Reporr	Jun.18 Report	Mar.18 Report
Latin America (excl. Chile) (2)	**-2.6**	**-1.6**	**-0.2**	**9.8**
Brazil	0.3	-4.9	1.5	17.6
Chile	-0.7	0.8	6.3	11.4
Colombia	-2.9	4.3	8.8	9.1
Mexico	-6.2	0.7	-4.9	2.1
Peru	-2.3	-0.1	0.9	1.3
Commodity exporters (2)	**1.7**	**1.8**	**6.1**	**8.9**
Australia	2.3	3.0	6.9	10.2
Canada	0.9	2.3	3.1	3.4
New Zealand	-0.7	-3.2	1.9	6.0
South Africa	3.3	0.0	13.3	21.6
Developed economies (2)	**-2.4**	**-1.0**	**1.2**	**4.6**
Eurozone	0.3	1.8	3.2	9.0
Japan	-2.0	0.1	1.3	4.4
United Kingdom	-3.2	-3.1	0.8	5.0
Other emerging economies				
China	-3.3	-2.1	4.7	6.0
Rep. Korea	0.3	1.0	5.4	5.7
India	-3.1	-1.4	2.5	6.1
Indonesia	-2.4	-2.7	2.1	3.3
Poland	0.1	1.8	3.2	11.4

(1) The values reflect the percent change between the cutoff date of the corresponding Monetary Policy Report and the cutoff of this Report. The NER of each series is calculated as the average of the last ten business days. Positive (negative) sign indicates depreciation (appreciation) of the currency against the U.S. dollar.
(2) Includes the currencies of the economies included in this table, using the weights in the October 2018 WEO.

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

With regard to domestic credit, interest rates remain low from a historical perspective, and the annual growth rate of real loans increased in all segments (figures II.6 and II.7). Qualitative information continues to reveal a more expansionary scenario. The Bank Lending Survey (BLS) for the fourth quarter of 2018 showed a stronger demand in all portfolios, especially in the case of large firms. For this segment, some of the factors that explain the change include a greater need for working capital. On the supply side, lending conditions have loosened for large firms and tightened somewhat for mortgages (figure II.8). Similarly, the banks interviewed for the February Business Perceptions Report (BPR) signaled that lending conditions have continued to loosen at the margin, while loan interest rates remain low in historical terms. These banks also reported increases in commercial and consumer loans.

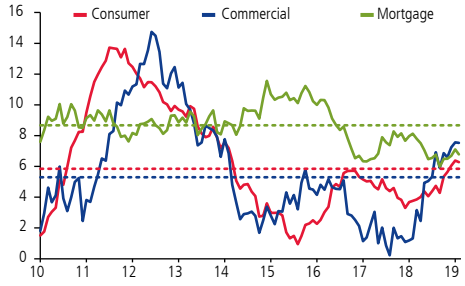
FIGURE II.6
Interest rates by type of loan (1)
(index: 2010–2019=100)



(1) Weighted average rates of all operations in each month.
(2) UF-denominated loans.

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

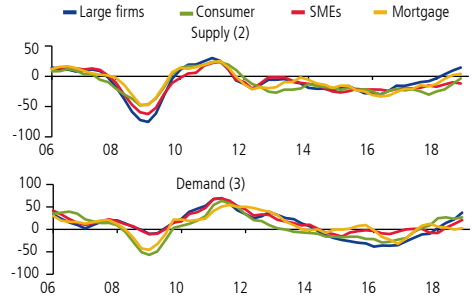
FIGURE II.7
Real loans (1) (2)
(annual change, percent)



(1) Real data constructed with the spliced CPI series.
(2) Horizontal dotted lines indicate the average of the last 10 years for each series.

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

FIGURE II.8
Bank Lending Survey (1)
(average response, percent)



(1) Annual moving average of average quarterly survey responses.
(2) Negative (positive) values indicate tighter (looser) lending conditions than in the immediately prior quarter.
(3) Negative (positive) values indicate weaker (stronger) demand than in the immediately prior quarter.

Source: Central Bank of Chile.

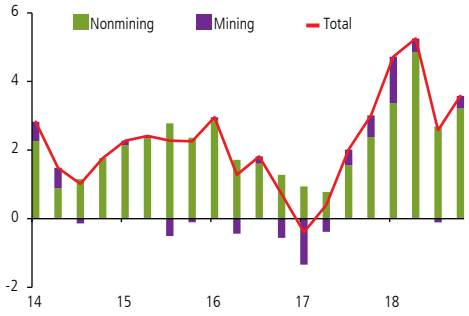
III. OUTPUT AND DEMAND

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

As projected in December, the economy picked up in the last months of 2018 and early 2019, after having slowed in the third quarter. Annual GDP growth was 4% in 2018, in line with the forecast in the last Report. Nonmining sectors, in particular, recorded a strong performance, most notably the investment-related sectors (figure III.1). Gross fixed capital formation (GFCF) was correspondingly the most dynamic component of domestic demand.

Thus, the closure of the Annual National Accounts—usually in March—did not affect the assessment of the local economic scenario. However, there were some changes in the spending components, with higher growth of consumption in the 2016–2018 period and a later acceleration of investment. In fact, GFCF was substantially more dynamic in the fourth quarter of 2018 than in the preliminary estimates. In line with the behavior of the demand component, the current account balance was more negative than previously estimated, especially in the 2017–2018 period.

FIGURE III.1
Annual GDP growth
(contribution, percentage points)

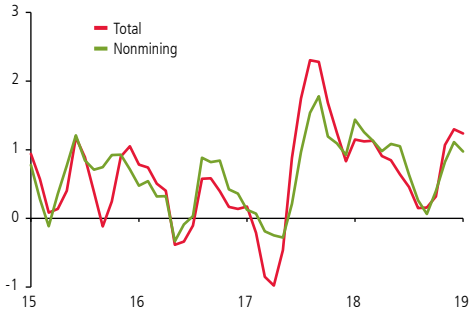


Source: Central Bank of Chile.

OUTPUT AND DOMESTIC DEMAND

As expected, the nonmining sectors have been more dynamic in the past few months (figure III.2). The biggest performance improvement was in the investment-related sectors, such as construction. The growth of trade continues to be propped up, to a large extent, by wholesale lines, which are also related to investment, although some retail trade branches have recorded a gradual increase in their growth rate in recent months. Additionally, the negative impact of the lower tourism from Argentine relative to past quarters is expected to disappear by the end of the first half of this year, after lowering trade growth by an estimated 0.3 to 0.6 percentage points (pp) in 2018 (box III.1).

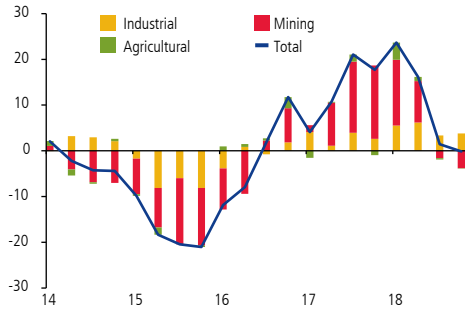
FIGURE III.2
Imacec (*)
(change over the last moving quarter, percent)



(*) Seasonally adjusted series.

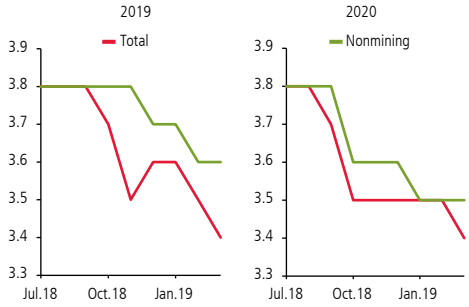
Source: Central Bank of Chile.

FIGURE III.3
Nominal annual growth of exports
(contribution, percentage points)



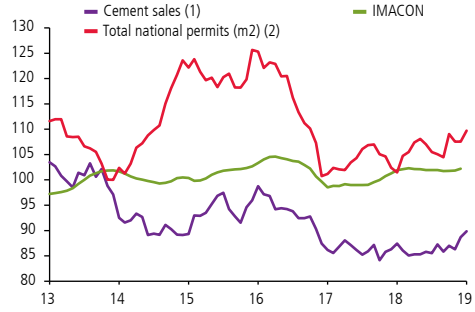
Source: Central Bank of Chile.

FIGURE III.4
GDP growth expectations (EES)
(annual change, percent)



Source: Central Bank of Chile.

FIGURE III.5
Building indicators
(index: 2013=100, quarterly moving average of seasonally adjusted series)



(1) Seasonally adjusted series with X13.
(2) Annual moving average.

Sources: Chilean Chamber of Construction (CChC) and National Statistics Institute (INE).

Manufacturing output, over and above the usual volatility, had a favorable performance following the contraction last September deriving from the shorter number of business days[1]/. Most recently, production in areas associated with the export sector have been the most dynamic, led by food and cellulose products. In fact, total exports grew above projections in the fourth quarter, and a large share of the positive surprise came from industrial shipments (figure III.3). International prices for these products also followed a favorable trend in the last part of the year. Consequently, manufacturing exports ended 2018 with nominal annual growth of 12.3%, the highest growth rate of the past several years. Preliminary data for the first quarter indicate that the growth rate remains high, despite a slowdown at the margin.

The performance of mining has been somewhat unstable recently, due to a series of one-off factors, such as adverse climatic conditions or maintenance work, which has stopped work at some of the mines held by large mining companies. In addition, some of these firms are showing the effects of lower copper ore grade. All of these factors will have an impact on the sector's GDP growth in the first half.

In the baseline scenario, the Board estimates the growth forecast range for this year at 3.0–4.0% (versus 3.25–4.25% in December). This takes into account a slowdown in GDP growth in the first half relative to late 2018, mainly due to the lower growth of mining deriving from the transitory factors mentioned above. Nonmining sectors will continue to perform well, especially the investment-related sectors. Other factors in the forecast include a positive external stimulus over the next two years, albeit lower than in the previous two-year period, and a more gradual monetary policy normalization than projected in December. For 2020 and 2021, the forecast range is 3.0–4.0% and 2.75–3.75%, respectively. With regard to private expectations, the March Economic Expectations Survey (EES) projects that total GDP will grow 3.4% this year and next, down 0.4 pp since last July. This probably reflects the recent performance of the mining sector, given that the forecast for the nonmining component incorporated a smaller revision, settling at 3.6% for 2019 and 3.5% for 2020 (figure III.4). For 2021, the EES considers a total GDP growth rate of 3.5% and the same rate for the nonmining sector.

With regard to domestic demand, GFCF recorded a higher growth rate in the last three months, holding its place as the most dynamic component. As has been the trend for several quarters, machinery and equipment grew the most, and capital goods imports remain high. Construction and works posted a better performance, as evidenced by various building indicators—both residential and nonresidential—and services such as architecture and engineering (figure III.5).

[1]/ December 2018 Monetary Policy Report, box III.1.

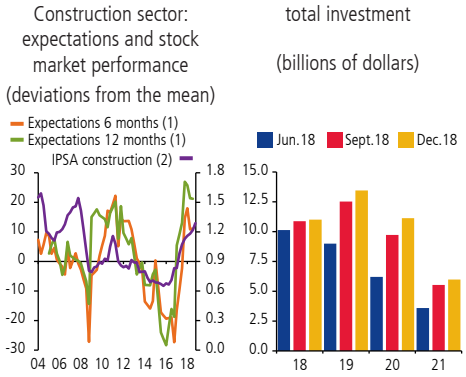
Although mining accounts for the bulk of the increased investment, different sources indicate that investment has started to recover in other sectors, as well. The Business Perceptions Report (BPR) confirms that a larger number of sectors, including forestry and agriculture, saw an uptick in investment, but then mentions that at least some of the current initiatives are not necessarily oriented toward expanding installed capacity.

Going forward, several factors point to a favorable evolution of GFCF. The survey by the Capital Goods and Technological Development Corporation (Corporación de Desarrollo Tecnológico y de Bienes de Capital, CBC) for the fourth quarter of 2018 included an upward revision in the forecast for this year and the next two years, with an emphasis on 2020. According to the CBC report, mining projects, which had no revision to the forecast, continued to lead total investment, followed by the energy sector and the real estate sector, which includes residential and commercial building. With regard to the latter, the opinions captured in the BPR were particularly optimistic. The Chilean Chamber of Construction (CChC) also reports positive expectations, consistent with the stock market performance of companies in this sector (figure III.6).

Private consumption closed 2018 with a higher annual growth rate than in the past few years (4.0% versus 2.6% on average in 2014–2017). It slowed in the second half, however, mainly due to the durable goods component. In particular, automobile sales stabilized after peaking at a historical high in 2018 (figures III.7 and III.8). Automobile imports followed a similar trend, and automobiles and other consumer goods imports remain high. Nondurable goods and services consumption recorded more stable growth rates over the course of the year. Services led, in particular health and communications expenditures, while the nondurable goods component was dominated by food, clothing and footwear, and fuels.

In terms of the determinants of consumption, the general labor market situation has not changed since the last Report. Data from the National Statistics Institute (INE) show that the unemployment rate has stayed around 7%, while job growth at the margin has not strayed far from the average of the last six months. Nominal wages continue to grow at about 4% annually. In the BPR, the bulk of the people interviewed are not considering any major personnel changes, and there is still little upward pressure on wages, with inflation mainly accounting for growth. Consumer confidence, in turn, is below neutral on aggregate, according to data from the February Consumer Confidence Index (IPEC). There is some variation by component, however: most notably, consumers expressed optimism on the purchase of durable goods, in particular household appliances and furniture.

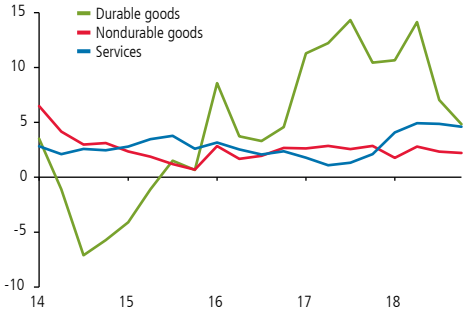
FIGURE III.6
GFCF outlook



(1) CChC expectations: deviations from the 2004-2008 mean.
(2) Ratio between the IPSA index for construction companies and the total IPSA index.

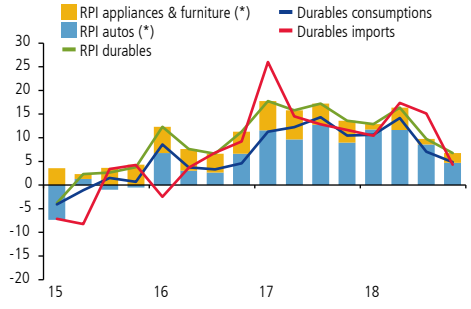
Sources: Bloomberg, CChC, and CBC.

FIGURE III.7
Private consumption
(real annual change, percent)



Source: Central Bank of Chile.

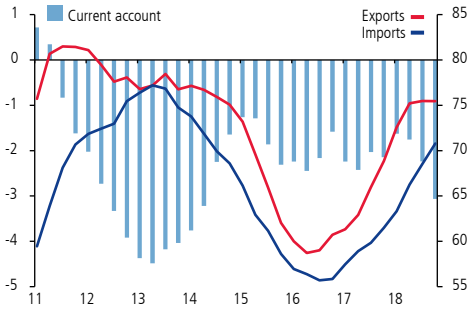
FIGURE III.8
Durable consumption indicators
(real annual change, percent)



(*) Contribution (percentage points) to the real annual change in the durable goods retail price index (RPI).

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

FIGURE III.9
Current account and trade balance (*)
(percent of GDP; billions of dollars)



(*) Accumulated in a rolling year.
Source: Central Bank of Chile.

Inventories grew in the second half of 2018, especially in the fourth quarter, reaching an annual growth rate of 1.3% of GDP in the year (0.5% in 2017). Excluding inventories, final demand grew 3.9% annually last year (4.7% annually for total domestic demand). Most of the stock was accumulated in the export sector. Qualitative information suggests that a significant share corresponds to the wine and viticulture segment, due to a large crop in the 2017–2018 growing season. Machinery and equipment inventories also contributed, albeit to a lesser extent. This is consistent with the monthly inventory data from the INE, which suggest that, to date, only some of the machinery and equipment imports have translated into actual investment. However, businesses' inventory assessment and sales projections (IMCE) point to a better performance going forward.

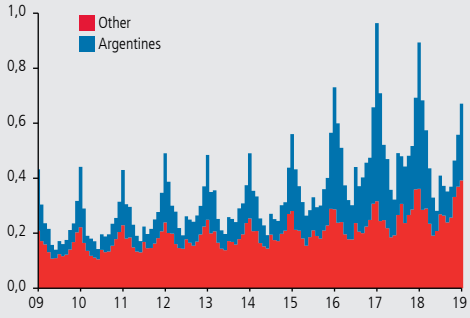
In line with the behavior of local demand, the current account deficit increased in the fourth quarter. This was largely due to very dynamic imports in the period, essentially capital goods, which contributed to a less positive trade balance. Thus, the current account deficit was 3.1% of GDP in 2018, which is higher than projected in the last Report (figure III.9). This represents the largest deficit of the last five years. In addition, the deficit level was revised for 2016 and 2017 in the Annual National Accounts, to 1.6 and 2.2% of GDP, respectively (1.4 and 1.5% in December). This revision largely reflects lower terms of trade than initially calculated, mainly due to lower export prices in the mining sector. For 2017, the correction of the net income component also had a substantial effect.

BOX III.1
IMPACT OF RECENT TRENDS IN TOURISM ON TRADE

From 2015 to 2017, the trade sector benefitted from an influx of tourists from Argentina. Since early 2018, however, tourism from that country has fallen significantly. This box describes the impact of this phenomenon on trade in Chile.

In early 2015, the number of tourists entering the country began to rise, and a large share of the increase was from Argentina. According to estimates by the National Tourism Service (SERNATUR), Chile received around 1.1 million Argentine tourists per year, on average, in 2008–2014, which increased at a rate of almost 37% annually in 2015–2017. Thus, the number of tourists from Argentina reached 3.3 million in 2017, representing 52% of total national tourism that year[1]/ (figure III.10).

FIGURE III.10
Monthly entry of tourists
(millions of personas)

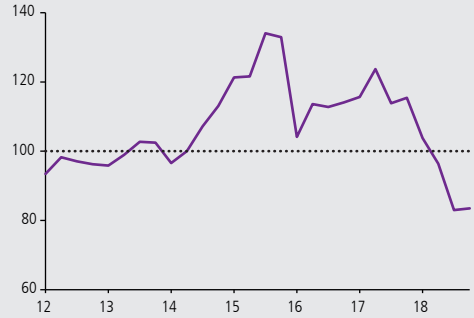


Sources: Under-Secretariat of Tourism and SERNATUR.

Not only did the number of visits increase, but Argentine tourists also spent more. The growth rate of spending was significantly higher, reflecting a trend toward "shopping tourism."[2]/ The total purchases associated with this tourism segment rose from US$150 million in 2014 to over US$1.000 billion in 2017.[3]/

The causes of the increase in 2015–2017 include a bilateral real exchange rate depreciation (figure III.11) and the existence of tariff and tax policies that made some imported products significantly more expensive in Argentina than in Chile.

FIGURE III.11
Bilateral real exchange rate: Chile and Argentina (*)
(index: 2013=100)



(*) Bilateral RER reported by the Ministry of Finance of Argentina, using inflation-adjusted data and expressed from Chile's perspective: BRER = BNER * (Argentine peso / Chilean peso), where BNER = Chilean pesos per Argentine peso. An increase indicates a relative increase in the purchasing power of Argentine pesos on a basket of Chilean goods.

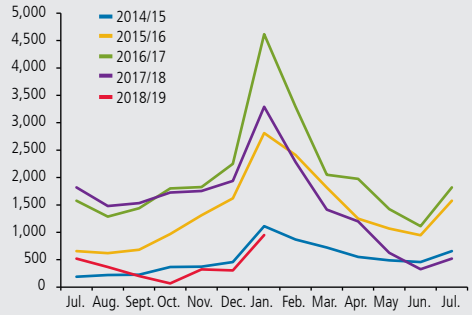
Source: Ministry of Finance of Argentina.

Starting in the fourth quarter of 2017, the number of Argentine tourists began to decline gradually, probably due to the elimination of the import tariff on some technological goods—such as notebooks and tablets—in April 2017. The reduction was exacerbated in May, after a sharp depreciation of the Argentine currency.[4]/ Additionally, the country's economic performance was weak in 2018. Thus, in the second half of that year, the number of visitors coming from Argentina fell

[1]/ The share could be larger, given that immigration from Haiti and Venezuela affects the data on total tourism.
[2]/ Average spending per visitor was UF 2.8 in 2014, versus UF 7.4 in 2017.
[3]/ This figure is based on purchases using credit and debit cards issued in Argentina, based on data from Transbank processed by the Under-Secretariat of Tourism and SERNATUR. There also would have been cash sales, which are not included here.
[4]/ Between April and September 2018, the Argentine peso depreciated 89% against the U.S. dollar.

43% relative to the same period one year previous. Since then, expenditures by Argentine tourists have returned to pre-boom levels (figure III.12).

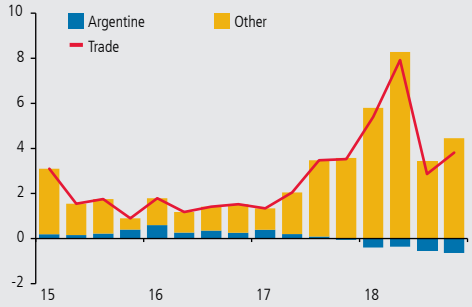
FIGURE III.12
Purchases using credit and debit cards issued in Argentina
(thousands of UF)



Sources: Under-Secretariat of Tourism and SERNATUR, based on data from Transbank.

According to estimates, this reduction in tourism from Argentina would have had a slightly negative impact on the trade sector in the fourth quarter of 2017, which intensified over the course of 2018 (figure III.13). The sector is estimated to have grown 0.3 to 0.6 percentage points less in 2018 as a result.[5]/ On the other hand, the retail spending by Chileans would have been higher.

FIGURE III.13
Share of Argentine purchases in trade growth (*)
(annual change of real series)

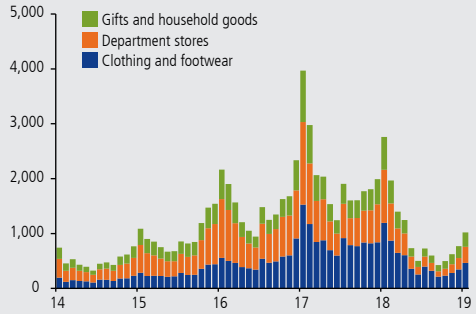


(*) Average range of the estimate.

Source: Central Bank of Chile, based on data from Transbank on purchases made using credit and debit cards issued overseas.

Given that the trade sector would not have benefitted uniformly from the increased tourism during the boom period, the sharp drop in the number and expenditures of Argentine tourists would have had a bigger impact on some specific segments of retail trade. In particular, clothing and footwear, department stores, gifts, and household goods would have been the most affected in terms of lower sales to tourists (figure III.14).

FIGURE III.14
Total spending using credit and debit cards issued overseas
(thousands of UF)



Sources: Under-Secretariat of Tourism and SERNATUR, based on data from Transbank.

As for the future implications, if the current conditions hold, the lower tourism from Argentina will have a smaller impact on the growth rate of retail trade in the first quarter of 2019 than in the fourth quarter of 2018. Furthermore, the effect of the sharp drop in tourism will disappear in the second quarter of 2019, due to the normalization of the baseline for comparison.

[5]/ Contribution of trade to real GDP, calculated approximating the value added associated with grows credit and debit card sales with the average sales margin on specific products in the Supply Table of the National Accounts and the trade deflator. The sales margin used is 30%. The following products are included in the calculation: textile products, clothing items, shoes, computers and computer components, televisions, mobile phones, and machinery and appliances for domestic use. The contribution ranges are established based on the assumption on the share of the margin that corresponds to value added. The ceiling assumes that all of the sales margin translates into value added, which assumes that the intermediate consumption of the activity is not affected by the increase in sales. The floor assumes that intermediate consumption increased in the same proportion as the retail sales, in which case 51.8% of the margin translates into value added.

IV. PRICES AND COSTS

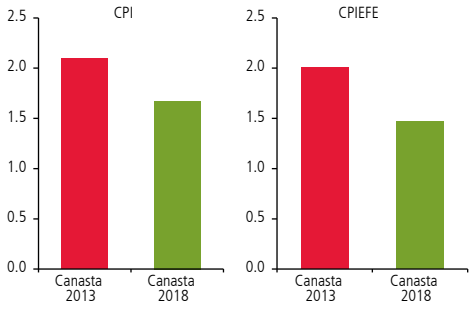
This chapter analyzes the recent evolution of the main components of inflation and costs, identifying the current sources of inflationary pressure and their likely evolution in the future.

INFLATION

Inflation—measured using the reference CPI calculated by the INE[1]/—is significantly lower than projected in the baseline scenario of the last Report, whereas output and demand data are in line with the forecast. This largely derives from surprises to the downside in the CPI excluding food and energy (CPIEFE), in both goods and some services. With regard to the goods component, the differences have been across-the-board, which could imply that the pass-through coefficient of the peso depreciation has been lower than expected. In the case of services, supply factors have increased competition in some economic sectors, while other factors point to greater excess capacity than projected. Additionally, the updating of the CPI basket and methodology had a direct effect, resulting in lower inflation than when calculated using the previous basket (box IV.1). Thus, from February to December 2018 (eleven months), the accumulated CPI inflation was 1.7%, versus 2.1% when calculated with the previous basket and methodology. For the CPIEFE, the revision is of a similar magnitude: CPIEFE inflation was 1.5% between February and December 2018, versus 2.0% with the previous basket (figure IV.1). As of February, annual CPI inflation was 1.7%; CPIEFE, 2.0% (figure IV.2). Given the significant change in inflation, private expectations have been revised downward for the short term, with a smaller adjustment to expected inflation one year ahead. Two years ahead, private expectations are still around 3.0%. The baseline scenario in this Report assumes that the convergence of inflation to the target will be slower than projected in December, which will require a more gradual monetary stimulus withdrawal than previously communicated by the Board.

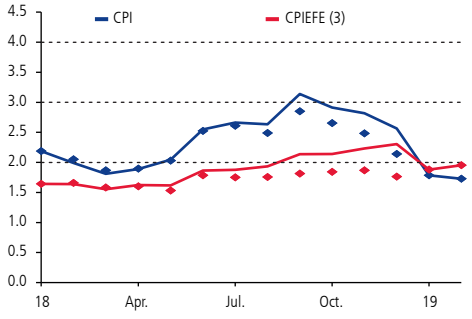
[1]/ For the purposes of economic analysis, the reference CPI series published by the INE for 2018 is used. However, the INE has stated that the spliced series (published online at www.ine.cl) must be used for all inflation-adjusted contracts, liabilities, or other values indexed to CPI inflation.

FIGURE IV.1
Accumulated inflation from February to December 2018
(percent)



Source: National Statistics Institute (INE).

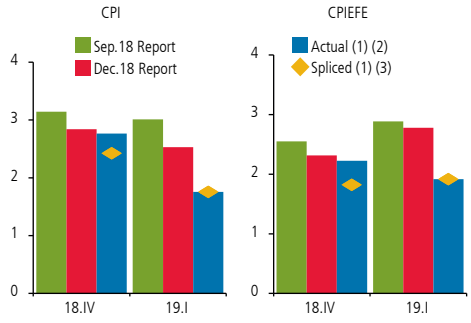
FIGURE IV.2
CPI and CPIEFE inflation (1) (2)
(annual change, percent)



(1) Starting in January 2019, the new indexes with base year 2018=100 are used, so they are not strictly comparable with the earlier data.
(2) The blue (red) diamonds indicate annual CPI (CPIEFE) inflation using the 2013=100 basket. Starting in February 2018, they show annual inflation using the spliced series, based on the 2013=100 basket with the 2018=100 monthly inflation rates.
(3) See Glossary for definitions.

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

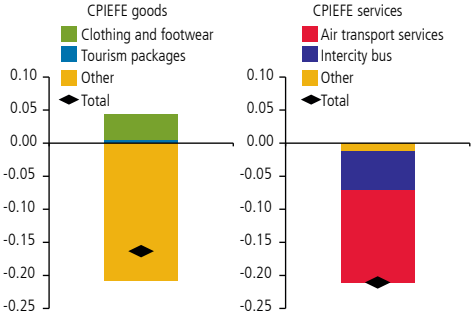
FIGURE IV.3
Actual inflation versus Monetary Policy Report forecasts
(annual change, percent)



(1) The first quarter of 2019 uses the average annual inflation rate in January and February 2019.
(2) Starting in January 2019, the new indexes with base year 2018=100 are used, so they are not strictly comparable with the earlier data.
(3) Series constructed by splicing the 2013=100 basket with the 2018=100 monthly inflation rates, starting in February 2018.

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

FIGURE IV.4
CPIEFE surprises accumulated since the December Report (*)
(contribution to total annual inflation, percentage points)



(*) CPI basket with base year 2018=100.

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

Real data released since the publication of the last Report—November 2018 to February 2019— indicate that annual CPI and CPIEFE inflation were below the December forecast. In both cases, the difference is about 0.8 percentage points (pp) when comparing the average annual inflation forecast for the first quarter of 2019 in the baseline scenario in this and the previous Reports. The difference is explained, in part, by the direct effect of updating the CPI basket and methodology, which implied a reduction in annual CPI inflation vis-à-vis the estimate in December 2018. The changes include the addition, merger, and removal of some products and services, as well as changes to the weights. There were also some methodological changes, such as the expansion of the use of hedonic models and, in the case of tourism packages, the implementation of a seasonal calendar by destination. Thus, most of the changes are concentrated in items that make up core inflation. The new basket—base year 2018=100—gives inflation a lower starting point, to the extent that CPI and CPIEFE inflation accumulated between February and December 2018 (eleven months) was 0.4 and 0.5 pp lower, respectively, than previous published based on the CPI with base year 2013=100.

In addition to the direct effect of changes in the CPI measure, inflation data for the last three months included some surprises to the downside (figure IV.3). In the case of the CPIEFE, the difference relative to the forecast in the last Report was around 0.2 pp for December 2018, which then increased after the data were published for January and February of this year. By component, there were negative surprises in some passenger transport services and most goods (figure IV.4). In the non-core components—food and energy—the surprise is explained by lower-than-expected inflation in meat prices. The data published since the publication of the last Report are also lower than expected in the Economic Expectations Survey (EES) (figure IV.5).

A number of factors explain the lower-than-expected inflation. First, the components of CPIEFE goods inflation have been affected fairly uniformly by the surprises of the last few quarters, which suggests that the pass-through of the peso depreciation to local prices has been lower than previously estimated (figure IV.6). As documented in the March 2018 Monetary Policy Report (box IV.1), in the Chilean economy, the exchange rate pass-through to inflation has an average coefficient of 0.1 to 0.2 at the end of one year, with a lot of variation among the different items that make up the CPI basket. At the same time, the inflationary effects of exchange rate movements are different depending on the cause. In particular, the pass-through to prices is lower when the exchange rate fluctuation originates in a change in the global value of the dollar versus an idiosyncratic shock to Chile. In that earlier Report, the box estimated that a 10% change in the nominal exchange rate is associated with an increase in inflation, after one year, of 0.5% when the cause is a global change in the dollar and 2.6% when the cause is an idiosyncratic shock. After two years, the differences persist, with coefficients of 0.6 and 5.4%, respectively. In both cases, exchange rate fluctuations have a bigger effect on tradable goods than on nontradables. In 2017, the peso appreciated more against the dollar than against the

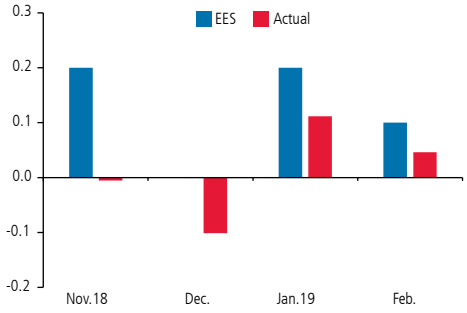
currencies of Chile's other trading partners, suggesting that the movement was driven by a more idiosyncratic shock—which put downward pressure on inflation during the last year on a larger magnitude than the average effect. In 2018, the exchange rate between the peso and all currencies other than the dollar was practically unchanged, indicating that the depreciation reflected more global factors, and therefore the pass-through to local inflation was on a lower magnitude than the average. This lower exchange rate pass-through is also in line with the Business Perceptions Report (BPR), where for several quarters the interviewees have signaled that they have been unable to reflect the peso depreciation in their prices.

Second, some of the inflation surprises could be associated with supply factors. Examples include the eruption of low-cost alternatives in passenger air transportation, which is reflected in CPIEFE services, and the increased competition in the supply of telecommunications packages and mobile phone services, which is better captured following the methodological adjustments in the INE measure. In addition to these price trends, there was a reduction in new car prices, as described in the last Report. More generally, the people interviewed for the BPR have indicated, for several quarters, that they have had to keep their margins small due to strong competition in their respective sectors, and they see little room for raising prices.

Additional supply factors are related to the labor market, which appears to have more slack than previously estimated, due to the effect of immigration on the labor supply in recent years. This was confirmed by the updated population estimates and forecast published by the INE last December. This trend has had a strong impact on the workforce and excess capacity, especially considering that the immigrant population has a higher labor force participation rate than the Chilean population (chapter V). Quantitative data published by the INE, such as the wage index (WI) and the labor cost index (LCI), show that nominal wages have grown around 4% annually, which is below the average of the last five years. Qualitative information (the BPR) indicates that cost pressures are still perceived as being low, largely because wage costs have not risen as a result of the increased labor supply.

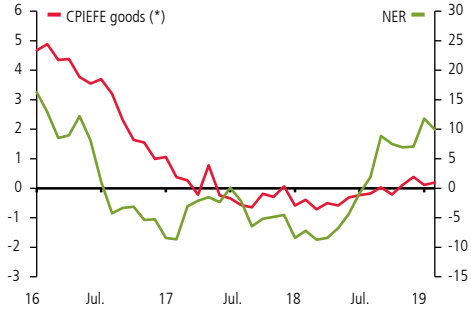
With regard to inflationary pressures from external prices, imported consumer goods inflation (IVUM) declined again in the fourth quarter of 2018 (–0.7%; –0.4% in the previous quarter). Local fuel prices remained low, in particular the gasoline price, in line with fall in the international markets during the last quarter of last year. However, the international fuel price has risen significantly since the start of this year, with gasoline increasing around 50% (figure IV.7).

FIGURE IV.5
Actual and expected inflation (EES)
(monthly change, percent)



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

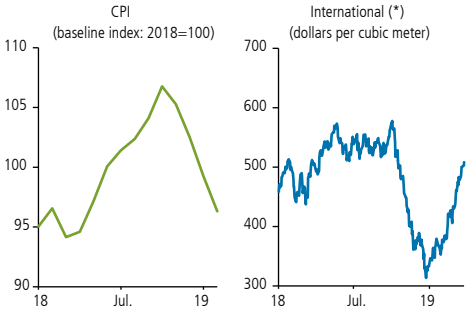
FIGURE IV.6
Exchange rate and CPIEFE goods
(annual change, percent)



(*) Starting in January 2019, the new indexes with base year 2018=100 are used, so they are not strictly comparable with the earlier data.

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

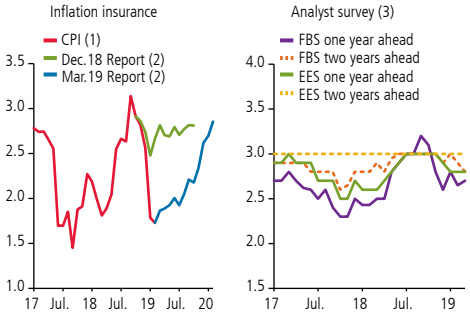
FIGURE IV.7
Gasoline price



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

Sources: Bloomberg and National Statistics Institute (INE).

FIGURE IV.8
Inflation expectations
(annual change, percent)



(1) Starting in January 2019, the new indexes with base year 2018=100 are used, so they are not strictly comparable with the earlier data

(2) Average of the last ten business days before the cutoff date of each Monetary Policy Report.

(3) The FBS is for the first half of each month through January 2018. From February 2018 on, the data are from the last survey published in the month. In months when the survey is not published, the last available survey is used.

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

INFLATION OUTLOOK

Given the lower current inflation and the higher estimate of excess capacity, in the baseline scenario in this Report, the convergence of inflation to 3% will take longer than projected in the December Report. In the short term, annual headline and core inflation are estimated at around 2%, which will increase over the course of the year to end at 2.6 and 2.4%, respectively. Headline inflation will converge to the target in the first half of next year and then fluctuate around that value through the end of the policy horizon, in the first quarter of 2021. The CPIEFE, in turn, will take longer to reach 3%, due in part to the supply shocks described earlier; it is expected to hit the target in the second half of 2020.

As a working assumption in the forecast in the baseline scenario, the real exchange rate is expected to depreciate in the forecast horizon, returning to around the average of the last fifteen or twenty years. However, in the coming quarters, the methodological changes introduced with the new basket could affect the normal seasonality of some products and/or services, which could generate atypical patterns in the monthly inflation records.

Inflation expectations have fallen at the shortest horizons in recent months. For the middle of this year, inflation insurance expects an annual inflation rate almost 1 pp lower than the estimate on the cutoff date of the last Report. Part of this revision was incorporated between December and January, in response to the inflation surprises at the end of the year and the drop in the fuel prices on the external market, and part came after the change in the CPI measure discussed above. For year-end 2019, private expectations captured in the EES incorporate minor changes relative to the cutoff date of the last Report. Thus, while the November 2018 EES projected annual CPI inflation of 3.0% for December 2019, the March 2019 EES puts the figure at 2.7%. Two years ahead, the different measures are still at 3.0% (figure IV.8).

BOX IV.1
NEW CPI BASKET

Starting in 2019, the INE began measuring the CPI using a new basket of goods and a new calculation methodology, with base year 2018=100 (INE, 2019). This change reflects a policy adopted by the INE in 2009, whereby the agency updates the CPI basket and methodology every five yeras[1]/. Prior to that, revisions were made approximately every ten years, such that there are CPI baskets and methodologies dating to 1928 (the first CPI), 1957, 1969, 1978, 1989, 1998, and 2008.

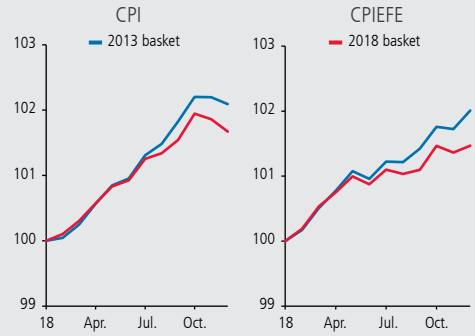
Updating the CPI measure regularly and frequently is one of the international recommendations in this area. It reduces the bias produced in the CPI measure when consumer preferences, income, and relative prices change.[2]/

Spliced CPI series, reference indexes, and indexation

Together with the publication of the first CPI indicator under the new measure—January 2019— The INE published the reference series for 2018 and the spliced series constructed using the 2009 and 2013=100 baskets. The reference series shows lower monthly CPI inflation rates for the second half of 2018 than obtained using the 2013=100 basket. This results in a lower estimate of the CPI and CPIEFE levels, for year-end 2018, than was calculated using the previous basket (figure IV.9).

It is important to clarify a few points with respect to the new series. First, the INE reference series for 2018 does not constitute an official CPI measure, but rather is intended to be used only for the purposes of economic analysis. Thus, it does not replace or call into question the measure published under the 2013=100 basket.

FIGURE IV.9
Comparison of CPI and CPIEFE in 2018
(indexes: January 2018=100)



Source: National Statistics Institute (INE).

Second, for that reason, and in accordance with the guidelines published by the INE, the inflation rate—monthly, accumulated, and/or over twelve months—derived from the spliced series, published online at www.ine.cl, must be used for the purposes of inflation-adjusted contracts, liabilities, or other values or prices that are indexed to CPI inflation.[3]/ Through December 2018, this corresponds to the monthly change in the CPI measured with the 2013=100 basket; starting in January of this year, with the 2018=100. Thus, in February, annual CPI inflation corresponding to the spliced series was 2.2%, as reported by the "CPI calculator" tool available on the INE website (www.ine.cl).

As in the case of past revisions to the CPI basket, the Central Bank uses the reference series to measure annual inflation in 2019. For 2018, the inflation rate obtained using the CPI 2013=100 is not strictly comparable with this measure. Therefore, for the purposes of economic analysis and understanding the evolution of inflation, an estimate of annual CPI inflation based on the

[1]/ Box IV.1 in the March 2014 Monetary Policy Report discusses the main changes in the CPI measure with the move from the 2009=100 basket to the 2013=100 basket.
[2]/ The current revision of the basket was based on the VIII Family Budget Survey (INE, 2018).

[3]/ Executive Decree 322 issued by the Ministry of Economy, Development, and Reconstruction on 28 December 2009 and published in the Official Gazette on 29 January 2010, established the new calculation methodology for price adjustments, indexation, and other uses of the CPI, in advance of the change to the 2009 CPI base

reference series published by the INE is used. This estimate is constructed by splicing the base year 2013=100 CPI with the monthly inflation rates from the reference series, starting in February 2018. These values are indicated using colored diamonds in the respective inflation graphs throughout this Report.

Changes in the CPI basket and subgroups

Together with the publication of the CPI, the INE also releases the core index used by the Central Bank: the CPI excluding food and energy prices (CPIEFE). The weight of this index has increased slightly relative to the 2013 basket, from 72.3 to 73.2% (table IV.1). With regard to the composition of goods and services, the weight of services increased, while that of goods declined, as was also the case in 2013. In goods, the changes include a greater relative weight for alcoholic beverages and a drop for new cars. In services, the shares of rent, healthcare, restaurants, and hotels all increased, while education fell from 8.1 to 6.6% due to effect of the free-tuition policy for higher education on family budgets. The weight of food items was essentially unchanged—with a slight decrease in the weight of fresh fruits and vegetables relative to other foods—while energy decreased slightly. The number of products included in the basket dropped to 303 (versus 321 in the previous basket), mainly due to the merger of some items.

TABLE IV.1
Old and new weights, by component
(percent)

	CPI basket	
	2013=100	2018=100
Food	19.1	19.3
Energy	8.7	7.5
CPIEFE	72.3	73.2
CPIEFE goods	28.6	27.3
CPIEFE services	43.6	45.9

Fuente: Instituto Nacional de Estadísticas.

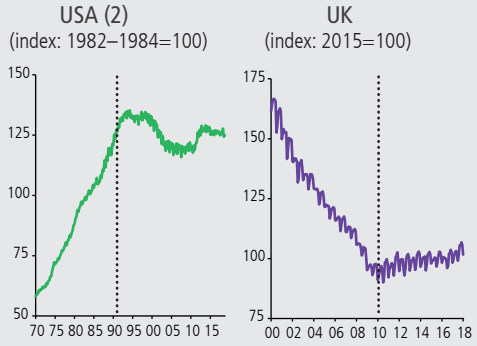
Changes in the calculation methodology

A key change is the use of hedonic price models for products in the clothing and footwear subgroup and for mobile phone services and telecommunications packages, which allow for quality adjustments in the prices in the basket. A hedonic model allows quantifying modifications in price deriving from changes in quality. The results of this methodological change indicate more stable price levels in the case of clothing and a large downward revision in telecommunications (figure IV.10). This price stability trend in clothing is in line with findings in other countries that have adopted similar changes in their price measure (figure IV.11). Taken together, the two effects cancel each other, with a null effect on accumulated inflation between February and December 2018.

FIGURE IV.10
CPI: specific prices
(indexes: January 2018=100)

Source: National Statistics Institute (INE).

FIGURE IV.11
Clothing and footwear CPI trends in the United States and the United Kingdom (1)



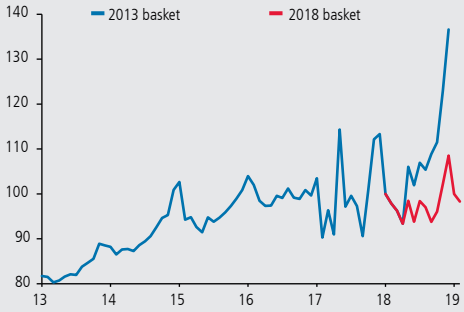
(1) Vertical dotted line marks the date of the methodological change in the item.
(2) Series takes the average for each quarter.

Source: Bloomberg.

In addition, the use of product-level weights is extended to other goods in the basket. This means that the monthly change in prices is constructed as a geometric average of the monthly changes of the different varieties considered. This change is applied, for example, to the measure of air transport and toll prices. It means that, in some cases, the number of varieties used in the construction of the price index was increased at the product level, and weights were applied to take into account the most commonly used varieties. Another important change is in the product "tourism packages," which went from being

considered a fixed set of items to surveying the price of the most important destinations depending on the season of the year. As a result of this change, the increases in this item observed in late 2018 under the previous basket disappears (figure IV.12). Finally, in the healthcare subgroup, the frequency of price collection increased from quarterly to monthly.

FIGURE IV.12
CPI: Tourism package
(index: January 2018=100)



Source: National Statistics Institute (INE).

Measuring inflation with the new basket

As indicated, when using the reference series, we find that for last year, the reference headline and core inflation indexes were lower than previously published based on the 2013=100 basket. This difference is explained by changes in both the weights and the calculation methodology, in particular tourism packages, telecommunications and mobile phone services, and clothing and footwear. The vast majority of the subgroups and products do not show any major differences when comparing the trend under one basket versus the other.

Going forward, some of the usual seasonal patterns can be expected to change. For example, changes in the prices of education and healthcare services used to have a large impact on monthly inflation in March and April. Whether due to the new weights or the more frequent price measurement, the impact on inflation should decrease in those months. In the case of the clothing and footwear subgroup, based on the international experience with these products, the category should no longer show the downward trend observed over the past several years. It is more difficult to anticipate the short-term impact of the quality adjustments in telecommunications services, given the scarce international evidence. Finally, the fact that tourism packages did not record the significant increase in late 2018, observed under the 2013 basket, probably reduces the possibility of a significant reversal in the short term.

With regard to the medium-term effects of these changes, it is important to bear in mind that inflation is a macroeconomic phenomenon, so changes in the evolution of a given relative price should not have a significant effect on inflation at that horizon. The Board's assessment of the current level of inflation, its convergence to the target, and the implications for monetary policy are discussed in detail in the Summary and Chapter V of this Report.

V. FUTURE MONETARY POLICY EVOLUTION

This chapter presents the most likely trajectory for monetary policy over the next two years, based on the Board's assessment of the dynamics projected for inflation in the policy horizon, with the information at hand at the close of this Report. It also describes sensitivity scenarios, which show how the monetary policy response could change if faced with various changes in the baseline scenario.

MONETARY POLICY STRATEGY

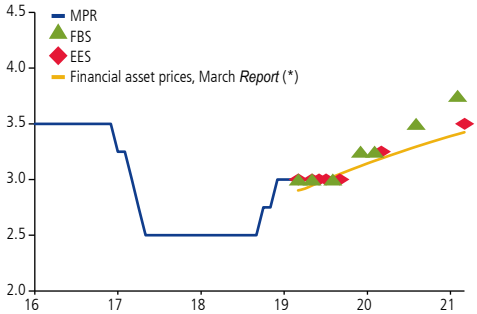
After raising the MPR twice since last October (bringing it from 2.5% to 3.0%), the Board continues to consider that the evolution of macroeconomic conditions makes it necessary to reduce the monetary stimulus within the policy horizon. However, given the changes in the initial conditions of the baseline scenario, the convergence of inflation to the target requires the process of MPR normalization to proceed more slowly than was foreseen in December.

For short-term forecasting purposes, the Report uses as a working assumption that the MPR trajectory will be as derived from the March Economic Expectations Survey, which sees no changes in the policy rate at least during the next two quarters. For the medium term, the projections are consistent with the MPR reaching its neutral level towards the end of the policy horizon. The Board has estimated that the neutral MPR is between 4% and 4.5%, a parameter that will be revised for the June Monetary Policy Report

As usual, the implementation of monetary policy will be conditional on the effects of incoming information on the projected inflation dynamics. Thus, new developments in either direction will produce the necessary adjustments to monetary policy.

Since December, the different measures of market expectations--prior to the March Monetary Policy Meeting--have adjusted the expected MPR trajectory downwards. Thus, they foresee a flat policy rate until at least the second half. Towards the end of the policy horizon, both the Financial Brokers Survey and the prices of financial assets foresee no more than two hikes. The Economic Expectations Survey, meanwhile, foresees the MPR standing at 3.75% in two years' term (figure V.1 and table V.1).

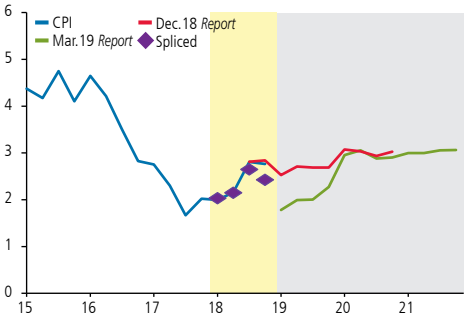
FIGURE V.1
MPR and market expectations
(percent)



(*) Constructed using interest rates on swap contracts up to 10 years.

Source: Central Bank of Chile.

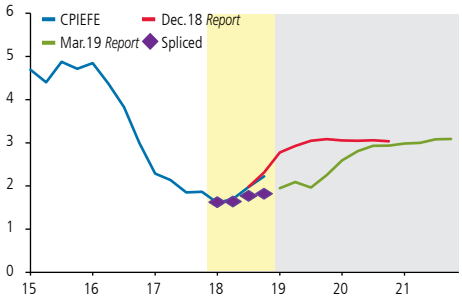
FIGURE V.2
CPI inflation forecast (1) (2) (3)
(annual change, percent)



(1) Beginning in January 2019, the new indexes with 2018=100 annual base are used, so they are not strictly comparable with earlier figures. (2) Gray area, as from the first quarter of 2019, shows forecast. (3) Yellow area shows the annual change in the CPI using the 2013=100 basket (blue line) and the annual CPI change that is obtained by splicing this series (2013=100 basket) with the monthly variations of the 2018=100 basket starting in February 2018 (purple diamonds).

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

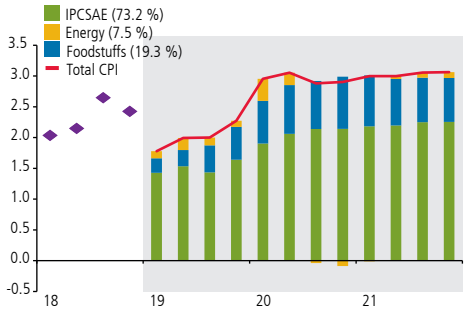
FIGURE V.3
CPIEFE inflation forecast (1) (2) (3)
(variación anual, porcentaje)



(1) Beginning in January 2019, the new indexes with 2018=100 annual base are used, so they are not strictly comparable with earlier figures. (2) Gray area, as from the first quarter of 2019, shows forecast. (3) Yellow area shows the annual change in the CPI using the 2013=100 basket (blue line) and the annual CPI change that is obtained by splicing this series (2013=100 basket) with the monthly variations of the 2018=100 basket starting in February 2018 (purple diamonds).

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

FIGURE V.4
Contributions to annual CPI inflation (*)
(percentage points)



(*) In parentheses, shares in the CPI 2018=100 annual base. Beginning in January 2019, the new indexes with 2018=100 annual base are used, so they are not strictly comparable with earlier figures. Purple diamonds show annual CPI change that is obtained by splicing those series (2013=100 basket) with the monthly variations of the 2018=100 basket starting in February 2018. Gray area, as from the first quarter of 2019, shows forecast.

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

TABLE V.1
MPR expectations

	Dec. 18 *Report*	Mar. 19 *Report*	Dec. 18 *Report*	Mar. 19 *Report*
EES (1)	3,50	3,25	4,00	3,75
FBS (2)	3,50	3,25	4,00	3,50
Financial asset prices (3)	3,45	3,19	3,86	3,42

1) Surveys of November 2018 and March 2019.
(2) For the Reports of December 2018 and March 2019, it corresponds to the pre-monetary policy meeting survey of December and March, respectively.
(3) For the Reports of December 2018 and March 2019, it considers the average of the last ten working days up to 28 November 2018 and 26 March 2019, respectively.

Source: Central Bank of Chile.

CONVERGENCE OF INFLATION

The methodological change in the measurement of the CPI and the effective figures known since the publication of the December Report, suggest that inflationary pressures are lower than expected. In fact, with the new basket of the INE, the CPI and the CPIEFE exhibit annual variations significantly lower than projected with the former basket (figures V.2 and V.3). This difference appeared across the board in the CPIEFE for goods, as well as in some transportation-related services.

The lower inflation was verified at the same time that activity and demand showed a remarkable recovery with respect to the expansion of previous years. This evolution is consistent with various explanations. On the one hand, the analysis suggests that the evolution of the exchange rate during 2018 accumulated a lower-than-average pass-through to prices[1]/. One possible reason for this is that the inflationary effects of the exchange rate movements differ according to the factor that causes its variations. Thus, the pass-through to prices is lower when the movement of the peso/dollar parity is caused by a change in the global value of the dollar versus one related to idiosyncratic shocks to Chile. In 2017, the appreciation of the peso against the dollar was higher than with the rest of the trading partners, suggesting that this forex movement was driven by a rather idiosyncratic shock. This pulled inflation down in 2018 by more than its average effect (estimated at 10%-20% after one year). In 2018, meanwhile, the depreciation of the peso practically did not alter its parity with other currencies other than the dollar, showing that this movement responded to more global factors. This has implied that the magnitude of their transmission to local inflation has been smaller than average[2]/.

[1]/ These differences were already seen with the comparison between projections in the September Report and actual data received up until last December.
[2]/ See Box IV.1, Monetary Policy Report, March 2018.

On the other hand, the evolution of prices in various markets point to favorable supply-side factors. To begin with, they reflect changes in the industrial organization of some sectors that have compressed margins, and/or technological developments that have resulted in a cost reduction passed on to consumers. This was the case of the automotive industry during an important part of 2018, where record sales were observed hand in hand with prices that adjusted less than their historical patterns. All this in a context in which various sources interviewed for the Business Perceptions Report perceive a strong increase in the sector's competition. Something analogous seems to be evident in transportation services, where the emergence of low cost alternatives in passenger air transport have reduced the cost of fares, included in the CPIEFE for services. The same is true of the greater competition in the sales of telecommunications packages and mobile telephony services, where data is more appropriately gathered with the aforesaid INE's methodological adjustments.

Meanwhile, and more generally, the labor market is estimated to have bigger gaps due to the significant immigration flow of recent years and its effects on the labor force, as will be discussed in the next section.

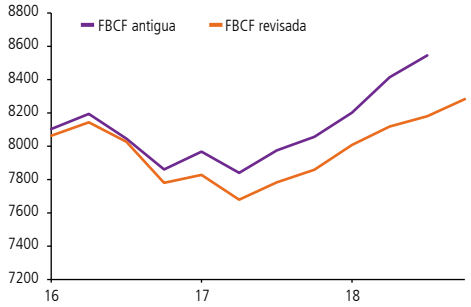
In addition to the lower starting point of inflation, the greater persistence of these supply factors means that, in the baseline scenario of this Report, the convergence of inflation to the target will take longer than expected. Thus, CPI and CPIEFE inflation will be around 2% annually at the end of the third quarter of 2019, ending the year at 2.6% for the CPI and 2.4% for the CPIEFE, both near 3% in the same period according to the December projection. Headline inflation will reach the target during the first half of 2020, and then stay around 3% until the end of the projection horizon, on the first quarter of 2021. The CPIEFE will take longer to reach 3% because of, among other factors. the persistence of the mentioned supply shocks, reaching the target during the second half of next year (figure V.4). This projection assumes that the real exchange rate, which is below its averages of the last fifteen and twenty years, will return to those levels during the projection horizon.

CAPACITY GAPS AND CURRENT ACTIVITY GAP

As has been mentioned before, measuring the activity gap (i.e. the difference between the actual level of non-mining GDP and its potential level) is subject to a high degree of uncertainty[3]/. This is due to the regular revision of effective figures, because the passage of time allows new data to be incorporated in the estimation models, and because those estimation models are subject to revisions in the quest to incorporate best practices (Box V.1, September 2018 Report). For these reasons, emphasis has been placed on the need to complement model estimates with direct information about gaps in the goods or factor markets.

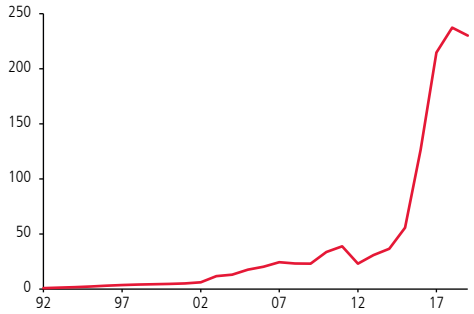
[3]/ Actually, a review to the standard deviation of the historical revisions to the gap as a measure of uncertainty, shows that the range that includes the 68.3% confidence of the estimate covers +/- 1.3 percentage points.

FIGURE V.5
Gross Fixed Capital Formation (*)
(billions of chained pesos)



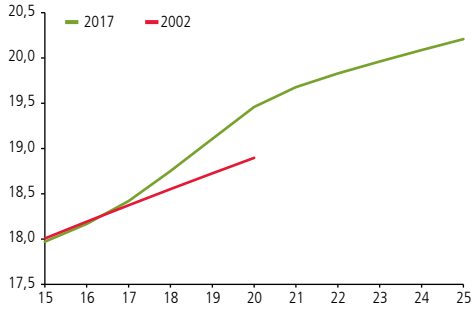
(*) Seasonally adjusted data.
Source: Central Bank of Chile.

FIGURE V.6
Annual Inmigration
(thousands of people)



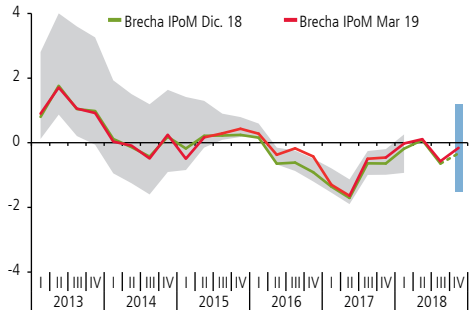
Source: National Statistics Institute (INE).

FIGURE V.7
Population in Chile (*)
(millions of people)



(*) Population estimates and forecasts based on each Census. For 2002, updated figures published in 2014 are used.
Source: National Statistics Institute (INE).

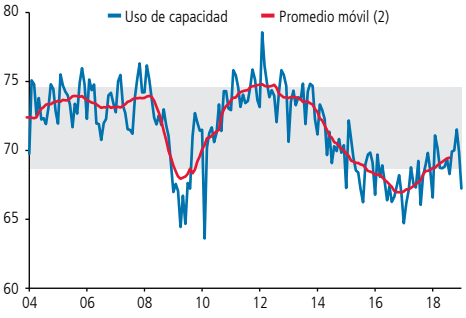
FIGURE V.8
Output gap (1) (2) (3) (4)
(percentage)



(1) The gray area indicates the minimum and maximum range of the gap estimations, using different estimation methods for potential GDP (trivariate filter, HP, SVAR, MEP, and SSA). See Fornero and Zúñiga (2017).
(2) Output gap of March calculated using the same potential GDP as in December.
(3) Dotted green line represents forecast.
(4) Bar in the fourth quarter of 2018 includes a +/- 1.3% range that corresponds to one standard deviation of historical revisions to the gap. Thus, the final state of the gap will fall within said interval with a 68.3% confidence.

Source: Central Bank of Chile.

FIGURE V.9
IMCE industry: capacity utilization (1)
(percentage share of installed capacity)



(1) Gray area shows mean (72.3) +/- one standard deviation.

(2) Moving average centered on +/- six months.

Sources: Central Bank of Chile and Icare/ Universidad Adolfo Ibáñez.

Data made available since the publication of the last Monetary Policy Report suggests that it is reasonable to reevaluate the potential and trend GDP estimates, which will be done by the Board on the occasion of the June Report. On the one hand, the usual revision to national accounts revealed that in the period 2016-2018 capital accumulation was lower than previously estimated, which has an effect on the economy's trend growth estimate (figure V.5).

On the other hand, in December 2018 the INE published its new population estimates and projections, which provided more accurate information about the impact of the immigration flow of recent years and significantly amended its population estimates[4]/. Essentially, this ratified the significant increase in immigration as from 2015 (figure V.6) and corrected the population projection for 2020 by more than half a million people (figure V.7).

In the medium term, it is estimated that immigration is manifested through supply and demand channels that together generate an expansionary effect on output and have a limited inflationary impact (Box III.3, December 2018 Report). On the one hand, the increase in population causes an increase in aggregate demand for consumer goods and services, pushing inflation upward. On the other hand, immigration augments the supply of labor, moderating wage increases and reducing the marginal costs of companies, putting downward pressure on inflation.

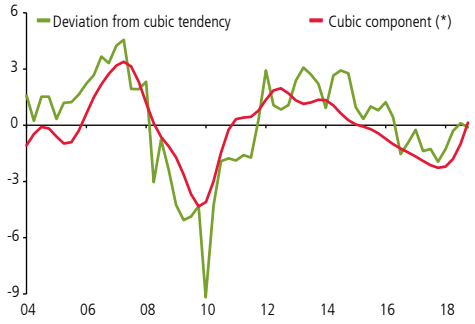
However, during the period in which the economy adjusts to absorb the population increase, it is unclear which channel will dominate, that of increased aggregate demand or of increased labor supply, as it will depend on considerations such as the immigrants' propensity to save (e.g. by sending remittances), their willingness to work at different wage levels and the speed of the capital stock's adjustment to the larger scale of the economy. The information of recent months, with activity in line with projections, inflation lower than the expected and nominal wages that continue to grow but have decelerated during 2018, seems to suggest that the channel of greater labor supply would be dominant in the process of absorbing the population increase. The section devoted to sensitivity scenarios presents an approximation to the effects that this phenomenon could have on the local economy.

Regarding the activity gap, given that both trend and potential growth will be revised in the June Monetary Policy Report, this time there is no forecast for this variable. About its current magnitude, the fact that inflation has been lower than expected and is estimated to take longer to converge to 3%, in a context of growth outperforming that of previous years, suggests that part of this greater expansion of the economy corresponds to an increase in potential GDP and, therefore, to a bigger gap (figure V.8).

[4]/ The INE's updated population estimates and projections, which include the net immigration flow for the period 2016-2018, is within the range considered for those years in Box III.3 of the December 2018 Monetary Policy Report.

In any case, beyond the absolute level of the activity gap, there is no doubt that the foregoing points to the fact that the economy has sustained a growth process that has reduced capacity gaps. In particular, during the past year, non-mining GDP grew 3.9%. Various measures of installed capacity utilization also suggest that gaps have narrowed. Beyond the usual volatility of the series, the capacity used in the industry (IMCE), has been pointing to increased use since the beginning of 2017 (figure V.9). For its part, after three years, electricity generation ceased to run below trend (figure V.10). Pointing in the same direction is the strengthened perception of credit demand by banks, evidenced in the latest Banking Credit Survey and in the interviews conducted within the framework of the Business Perceptions Report.

FIGURE V.10
Electric generation, SIC (*)
(deviation from trend)



(*) Cyclical component obtained using a band pass filter (see Christiano and Fitzgerald, 2003).

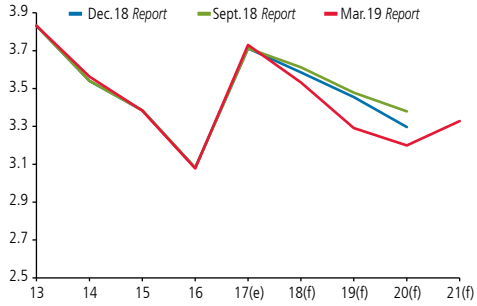
Sources: Central Bank of Chile and CDEC-SIC.

ACTIVITY IN THE BASELINE SCENARIO

The Board estimates that GDP will grow between 3% and 4% in 2019, a range that is a little lower than the one projected in December. This difference is explained almost exclusively by the worse than expected performance of the mining sector. For 2020, the economy is expected to grow between 3% and 4%, somewhat higher than the 2.75%-3.75% range estimated in December, due to the persistence of the favorable supply-side elements mentioned above. Also, this Report presents the first growth projection for 2021, which places it in the 2.75% to 3.75% range, near today's trend growth estimate.

These projections consider that the impulse that the Chilean economy will receive from abroad over the next two years will continue to be positive, albeit lower than it was in the last two years. In the current scenario, the effects of a downward correction of our trading partners' growth outlook are in contrast with external financial conditions being somewhat more favorable than expected in December. The lower growth of the trading partners is mainly due to the observed weakening of developed economies, particularly in the Eurozone. The region has shown disappointing effective activity figures in recent months, a phenomenon that is quite widespread throughout member countries. This has been echoed in the statements and actions of its monetary authority, which has announced the postponement of the moment in which interest rates will begin to be raised. In this Report's baseline scenario, the growth projections for the Eurozone are adjusted downwards by 7 tenths of a point for this year (to 1.1%) and by 2 for next year (to 1.5%). On the other hand, in recent months concerns over a sharper deceleration process, or even a recession, have increased in the United States. Although this fact is not part of the baseline scenario—where growth is expected to be close to 2%—the considerable turn of the country's monetary policy partly reflects the concern about the performance of activity. In the case of China, the growth forecast of the order of 6% is maintained, towards which those of other observers have been aligning. The projections for Latin America are also adjusted downward, mainly for Mexico and Argentina, the latter with a deeper recession than previously thought. Considering all the above, the trading partners will see growth rates of 3.3% and 3.2% in 2019 and 2020, respectively, both figures below the forecast in December (3.5 and 3.3%). For 2021 an expansion of 3.3% is expected (figure V.11).

FIGURE V.11
Trading partners' growth
(annual change, percent)

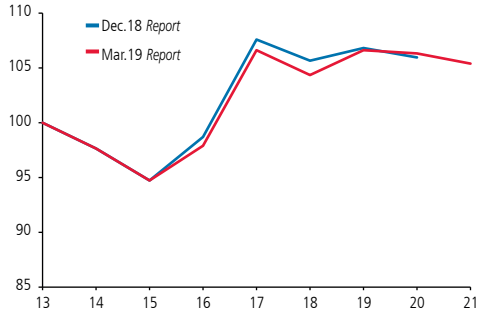


(e) Estimate.

(f) Forecast.

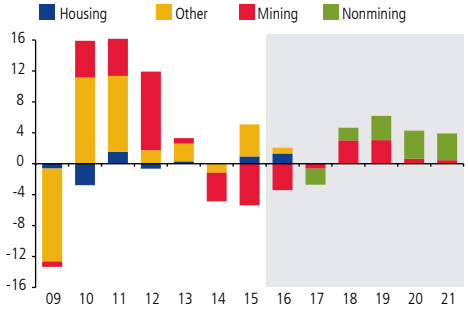
Source: Central Bank of Chile.

FIGURE V.12
Terms of trade
(index, 2013=100)



Source: Central Bank of Chile.

FIGURE V.13
Real annual contributions to GFCF (*)
(percentage points)



(*) Sectoral investment for 2016 is an estimate constructed from the revised data for aggregate investment. The sectoral figure updated to the year 2016 will be published in April 2019. For 2017 and 2018, mining investment is estimated considering the information available in the Fecus. Housing investment uses information on household investment obtained from the National Accounts by Institutional Sector. The component Other GFCF is treated as a residue. To inform the projections for the 2019-2021 period, Central Bank forecasting models and sectoral sources are used, such as CDC investment plans and Survey..

Source: Central Bank of Chile.

The baseline scenario assumes international financial conditions that are somewhat more favorable than expected in December for emerging economies, mainly due to the change in monetary policy orientation of the main central banks. In the case of the Federal Reserve, last September it announced three additional increases in the fed funds rate in 2019, while after its last meeting, in March, it stated that there would be no more hikes this year, that the sign of the next rate movement was not clear and that it would reduce the adjustment of its balance by half as from May. Added to this are the already mentioned measures of the European Central Bank and the stimulus packages announced by the Chinese authorities.

Regarding the terms of trade, the revision to the national accounts lowered the levels of 2016-2018. Thus, although the terms of trade will increase this year by more than expected in December, their levels will be similar (figure V.12). The projection for 2019 considers copper prices above those of December, since then it has risen to levels close to US$ 3 per pound. This, together with China's copper consumption indicators that remain robust by historical standards and supply estimates that will not differ much from previous estimates, leads to foresee copper prices at US$ 2.9 per pound in 2019, 2020 and 2021, surpassing December forecasts (US$ 2.85 and 2.8 in 2019 and 2020). This will be partially offset by also higher oil prices, reflecting the evolution that it has had so far in 2019 and especially the effect on prices of the over-compliance with the production cuts agreed by OPEC. With this, and as is implicit in futures contracts, the baseline scenario considers Brent-WTI average prices of US$ 62 per barrel for 2019 and 2020 and US$ 60 for 2021.

Regarding domestic demand, the baseline scenario assumes that in 2019 it will grow at a very similar pace to what was estimated in December and will pick up some in 2020. Regarding the composition of expenditure, it is estimated that gross fixed capital formation (GFCF) for 2019 and 2020 will see higher expansion rates than projected in December: they go from 6.0% and 3.9% in December, to 6.2 and 4.3% in this baseline scenario. For consumption, the same growth rates of the previous Report are foreseen. Regarding fiscal policy, the baseline scenario uses as a working assumption that in 2019 the economy will receive a boost consistent with the approved budget. From then onwards, it is assumed that the structural deficit will follow the path of gradual decline defined by the authority.

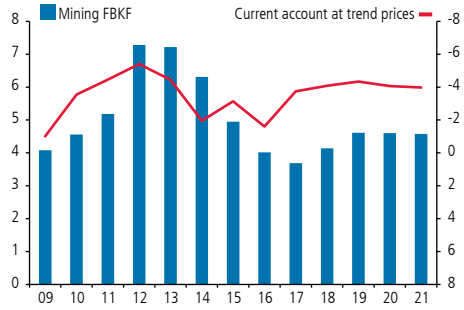
Several factors are behind the upward correction of the GFCF. On the one hand, the revision to the national accounts for 2016-2018 showed that during this period this component of expenditure would have posted lower expansion rates and that its acceleration began later than previously estimated. The smaller basis for comparison that it leaves for 2018, leads to expect GFCF to show this year a higher growth than forecast in December. On the other hand, the strong buildup of machinery and equipment inventories in 2018 anticipates greater investment in 2019. Moreover, the construction component--that has lagged behind that of machinery and equipment in recent quarters--has shown signs of greater dynamism most recently.

In particular, some sectoral indicators have shown a better performance and the sector's expectations have continued to improve. Capital Goods Corporation Survey once again revised upward its projections for 2019-2020, with special emphasis on 2020. As was the case in 2018, in 2019 the mining component is expected to continue leading investment. However, by 2020 non-mining investment will also take traction, in line with the qualitative information that has been compiled in the Business Perceptions Report and which points to a gradual increase in areas other than mining (figure V.13). With this, the GFCF as a percentage of GDP will rise, although because of the aforementioned revision to the historical figures, it will do so from a lower starting point. Thus, in real and nominal terms, it will amount, on average, to somewhat under 22% of GDP in the period 2019-2021 (22.6% in December for 2019-2020).

The consumption forecast remains the same from the December Report and is still expected to grow 3.3% and 3.5% in 2019 and 2020, respectively. For 2021, 3.4% is projected. The new national accounts showed greater dynamism of private consumption in the 2016-2018 period. Its durable component should reduce its expansion hereafter, given the predictable stabilization of car sales, after record growth in 2017-2018. On the side of its determinants, the cost of credit remains favorable from a historical perspective, credit lending and demand conditions have improved in recent quarters and the various measures of consumer expectations show progress. In the labor market, the national unemployment rate has remained around 7%.

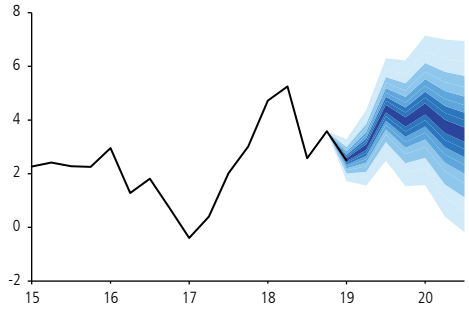
The dynamism of domestic demand is reflected in a current account deficit that is expected to increase slightly more than in December to near 3% of GDP in the projection horizon. This is a clear reflection that the economy has begun to invest more without increasing domestic savings. In fact, the national accounts revision revealed a drop in domestic savings, which is expected to continue into the projection horizon. At trend prices[5]/, the current account deficit will amount this year to 4.3% of GDP, to later come closer to 4% over the remaining projection horizon. As aforesaid, high as this figure may look, it is explained by increased investment—mostly mining—which is financed by sources directly linked to mining activity (foreign direct investment and/or associated loans). A similar situation was already seen in 2011-2013 due to the expansionary cycle of mining investment at the time (figure V.14).

FIGURE V.14
Mining FBKF and current account at trend prices
(percent of GDP)



Source: Central Bank of Chile.

FIGURE V.15
Quarterly GDP growth scenarios (*)
(annual change, percent)

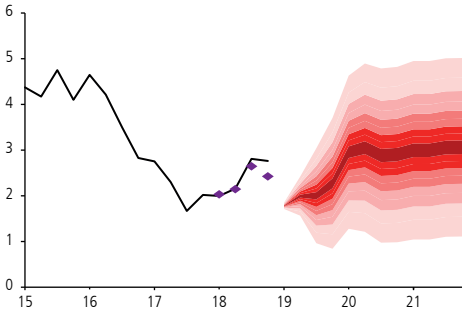


(*) The figure shows the confidence interval of the baseline projection over the respective horizon (colored area). Confidence intervals of 10%, 30%, 50%, 70% and 90% around the baseline scenario are included. These intervals are calculated using the RMSE of the MAS-MEP models for the 2009-2017 average and summarize the risks on future inflation as assessed by the Board. For short-term forecasting purposes, the Report uses as a working assumption that the MPR trajectory will be as derived from the March Economic Expectations Survey, which sees no changes in the policy rate at least during the next two quarters. For the medium term, the projections are consistent with the MPR reaching its neutral level towards the end of the policy horizon. The Board has estimated that the neutral MPR is between 4% and 4.5%, a parameter that will be revised for the June Monetary Policy Report.

Source: Central Bank of Chile.

[5]/ This measure adjusts the value of mining exports and fuel imports considering the deviations of the prices of copper and oil from their long-term values. The same for revenues and transfers associated with copper exports. Other exports and imports are valued using current prices. Furthermore, it does not correct possible changes in the quantities exported or imported due to movements in copper and oil prices. The calculation considers a long-term price of US$2.7 per pound of copper and US$70 per barrel of oil (Box V.2 in September 2012 Monetary Policy Report and box V.1 in December 2015 Monetary Policy Report).

FIGURE V.16
CPI inflation forecast (*)
(annual change, percent)



(*) The figure shows the confidence interval of the baseline projection over the respective horizon (colored area). Confidence intervals of 10%, 30%, 50%, 70% and 90% around the baseline scenario are included. These intervals are calculated using the RMSE of the MAS-MEP models for the 2009-2017 average and summarize the risks on future inflation as assessed by the Board. For short-term forecasting purposes, the Report uses as a working assumption that the MPR trajectory will be as derived from the March Economic Expectations Survey, which sees no changes in the policy rate at least during the next two quarters. For the medium term, the projections are consistent with the MPR reaching its neutral level towards the end of the policy horizon. The Board has estimated that the neutral MPR is between 4% and 4.5%, a parameter that will be revised for the June Monetary Policy Report.

Source: Central Bank of Chile.

SENSITIVITY SCENARIOS

The monetary policy strategy consistent with inflation's convergence to the target is conditional on the baseline scenario outlined here. There are risks, however, which, if materialized, may reshape the macroeconomic outlook and therefore, may alter the course of monetary policy. On this occasion, the Board estimates that the risk balance is unbiased for both activity and inflation (figures V.15, V.16 and V.17).

Although every change in the baseline scenario must be assessed fully, it is possible to quantify some potential deviations away from this scenario and its effects on the main macroeconomic variables.

The first sensitivity scenario examines what would happen if investment --especially non-mining-- turns out to be more dynamic in 2020 and grows by 1.5 percentage points more than expected in the baseline scenario. This could be the case should the recovery of capital stock accelerate, from the lower levels shown by the revised national accounts. This would translate into a GDP growth increase of up to half a percentage point between 2020 and 2021. Since this increase in investment is concentrated in non-mining sectors, its impact on inflation could be as high as half a percentage point towards the end of the policy horizon. Therefore, an MPR reaction is required for inflation to stay aligned with the target. In this scenario, its normalization process would occur earlier than assumed in the baseline scenario.

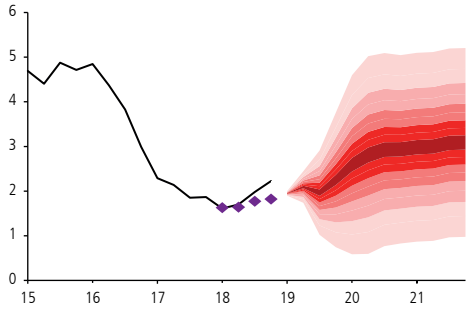
The second sensitivity scenario considers a deterioration of the external financial conditions relevant to Chile. This could occur for different reasons, such as a more marked slowdown in the growth of trading partners, an intensification of uncertainty concerning the recent political and economic conflicts, or some combination. In this scenario, the main central banks would adopt more expansionary monetary policies. Although it could be assessed that this would improve financial conditions for emerging economies, it is just as likely to be accompanied by greater disruptions in risk premiums along with lower commodity prices. In such a scenario, it could be assumed that our trading partners' growth would be reduced by half a percentage point in 2019, the Federal Reserve would react by cutting its rate by 50 bp for two years, but the Chilean EMBI would increase close to 60 bp and the price of copper would fall to US $ 2.5 per pound by the end of 2019. This would deteriorate expectations and local activity, which would accumulate a growth of around 1.5pp lower between 2019 and 2020. In this scenario, the MPR would be kept flat for a protracted period.

Normally, sensitivity scenarios describe situations that could occur in the future and that would modify the baseline scenario going forward. However, it is also possible that the phenomena that are currently affecting the economy could be interpreted differently. The immigration phenomenon of recent years

could illustrate this second case. In the last Monetary Policy Reports, the Board has been warning about the effects that this could be having on the economy[6]/. Since December, new population figures have been published and the projections of the INE show greater persistence of the immigration phenomenon than was assumed in the last Report. Its effect on the economy can be characterized assuming that the increased labor supply reduces inflation by a little less than half a percentage point compared to its projection of the baseline scenario throughout 2020, because the effect of lower cost pressures more than offsets its expansionary effect on GDP. In this scenario, to ensure the convergence of inflation to the target, it is necessary for the MPR normalization to be even slower than considered in the baseline scenario.

The simulations just analyzed are scenarios that, without causing a total change of the baseline scenario, show the monetary policy adjustments that certain deviations from the baseline scenario may require. As always, the Board reiterates that it will review possible deviations from the baseline scenario that could jeopardize the convergence of inflation to the target in the policy horizon and that therefore require adjusting the MPR trajectory. Accordingly, it reaffirms that it will conduct monetary policy with flexibility, so that projected inflation stands at 3% in the two-year horizon.

FIGURE V.17
CPIEFE inflation forecast (*)
(annual change, percent)



(*) The figure shows the confidence interval of the baseline projection over the respective horizon (colored area). Confidence intervals of 10%, 30%, 50%, 70% and 90% around the baseline scenario are included. These intervals are calculated using the RMSE of the MAS-MEP models for the 2009-2017 average and summarize the risks on future inflation as assessed by the Board. For short-term forecasting purposes, the Report uses as a working assumption that the MPR trajectory will be as derived from the March Economic Expectations Survey, which sees no changes in the policy rate at least during the next two quarters. For the medium term, the projections are consistent with the MPR reaching its neutral level towards the end of the policy horizon. The Board has estimated that the neutral MPR is between 4% and 4.5%, a parameter that will be revised for the June Monetary Policy Report.

Source: Central Bank of Chile.

[6]/ See, for example, Box II.1, September 2018 Monetary Policy Report; Box III.3, December 2018 Monetary Policy Report; Labor market stylized facts and macroeconomic implications.

GLOSSARY

CDS: Credit default swap. A derivative instrument that provides insurance against the credit risk of the issuer of a given underlying sovereign or corporate bond. The premium implicit in the cost of this coverage (the CDS spread) is commonly used as an indicator of sovereign or corporate risk.

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

Commodity exporters: Australia, Canada, and New Zealand, weighted at PPP (using data from the October 2018 WEO).

CPIEFE: CPI excluding food and energy prices, leaving 73% of the total CPI basket.

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

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

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

Growth of trading partners: The growth of Chile's main trading partners, weighted by their share in total exports over two rolling years. The countries included are the destination for about 94% of total exports, on average, for the 1990–2017 period.

IVUM: Import Price index.

Latin America: Argentina, Bolivia, Brazil, Colombia, Ecuador, Mexico, Paraguay, Peru, Uruguay, and Venezuela, weighted at PPP (using data from the October 2018 WEO).

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

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

MER: Multilateral exchange rate. A measure of the nominal value of the peso against a broad basket of currencies, weighted as for the RER. For 2018, the following countries are included: Argentina, Bolivia, Brazil, Canada, China, Colombia, France, Germany, India, Italy, Japan, Mexico, Netherlands, Paraguay, Peru, Republic of Korea, Spain, Thailand, United Kingdom, United States, and Vietnam.

NER: Nominal exchange rate.

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

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

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

Rest of Asia: Hong Kong, Indonesia, Rep. Korea, Malaysia, Philippines, Singapore, Taiwan, and Thailand, weighted at PPP (using data from the October 2018 WEO).

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

World growth at market exchange rate: Each country is weighted according to its GDP in dollars, published in the IMF World Economic Outlook (WEO, October 2018). The sample of countries used in the calculation represent around 90% of world growth. For the remaining 10%, an average growth rate of 1.8% is used for the 2018–2020 period.

World growth: Regional growth weighted by share in world GDP at PPP, published in the IMF World Economic Outlook (WEO, October 2018). World growth forecasts for the period 2018–2020 are calculated from a sample of countries that represent about 86% of world GDP. For the remaining 14%, an average growth rate of 3.4% is used for the period.

ABBREVIATIONS

BCP: Central Bank bonds denominated in pesos

BCU: Indexed Central Bank bonds denominated in UFs

BLS: Bank Lending Survey

SNA: System of National Accounts

CBC: Corporación de Desarrollo Tecnológico de Bienes de Capital

EES: Economic Expectations Survey

FBS: Financial Brokers Survey

FFR: Federal funds rate

IMF: International Monetary Fund

LCI: Labor Cost Index

IIF: Institute of International Finance

IMCE: Monthly Business Confidence Index

INE: National Statistics Institute.

CPI: Consumer Price Index

CPIEFE: Consumer Price Index Excluding food and Fuels

IPEC: Consumer Confidence Index

BPR: Business Perceptions Report

IPSA: Selective Stock Price Index

WI: Wage Index

MSCI: Morgan Stanley Capital International

OECD: Organization for Economic Cooperation and Development

OPEC: Organization of the Petroleum Exporting Countries

PDBC: Central Bank discount promissory notes

SBIF: Superintendence of Banks and Financial Institutions

MPR: Monetary policy rate

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Alejandro Zurbuchen S.
REPRESENTANTE LEGAL

LEGAL REPRESENTATIVE

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Santiago, Chile
Agustinas 1180, Santiago, Chile
Casilla Postal 967, Santiago, Chile
Tel.: 56-22670 2000
www.bcentral.cl
bcch@bcentral.cl

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