MONETARY POLICY REPORT

September 2015

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CONTENTS*/

*/ The statistical cutoff date of the *Monetary Policy Report* was 24 August 2015.

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 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, the outlook for aggregate demand, output, and employment, and recent price and cost developments. The last chapter summarizes the results of this analysis in terms of the prospects and risks affecting inflation and economic growth over the next eight quarters. 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 session on 26 August 2015 for presentation to the Senate on 1 September 2015.

The Board

SUMMARY

In recent months, inflation has been higher than expected: in July headline CPI reached 4.6% annually while core CPIEFE rose 4.9% annually. The sharp depreciation of the peso (16% in nominal terms in the year to date) has been the main cause behind it and is expected to continue to drive the inflation dynamic in the coming months, delaying its convergence to 3%. The risks coming from abroad have increased, because of uncertainties about China and the deteriorating outlook for emerging economies, especially commodity exporters. The baseline scenario uses as a working assumption that the real exchange rate (RER) will appreciate slightly with respect to its average for the ten days prior to the statistical closing of this *Report*. This, coupled with an expected slowdown in activity, should allow inflation to converge. In the short term, however, inflationary risks are biased upward because of the exchange rate trajectory. The persistence of high inflation for a long time could have an impact on inflation expectations, with implications for monetary policy.

Second-quarter National Accounts showed weaker domestic output and demand figures, while business and consumer expectations deteriorated further. This, combined with a worsened external scenario, deteriorating mining activity, and no signs of improvement in private investment and consumption, lead to believe that in the second half growth will fall short of the June forecast. In this context, the Board has held the monetary policy rate (MPR) at 3%, keeping monetary policy as expansionary as is possible under the present circumstances.

The external scenario relevant for emerging economies, and Chile in particular, has become more complex, partly because the process of rebalancing global growth in favor of the developed economies —especially the United States— and the upcoming start of monetary normalization by the Federal Reserve, has resulted in a significant strengthening of the dollar. This is coupled with doubts about the Chinese economy, not only due to its weak activity, but also due to the continuing and substantial adjustments in China's financial markets. These developments have led to a depreciation of emerging currencies, worsening global financial conditions and falling commodity prices. Conditions in Latin America have complicated because of the further slowdown in output, high inflation rates and, in several cases (most importantly in Brazil), external and fiscal imbalances.

In the baseline scenario, trading partners' growth is revised downward by 2 and 3 tenths of a point to 3.1% in 2015 and 3.4% in 2016. This reflects a deterioration in growth of emerging economies and, particularly, China, the biggest buyer of commodities. Therefore, the baseline scenario, considers a

INTERNATIONAL BASELINE SCENARIO ASSUMPTIONS

	Avg. 00-07	Avg. 10-12	2014	2015 (f)	2016 (f)	2017 (f)
	(annual change, percent)					
Terms of trade	8.2	4.2	-1.4	-3.0	-1.0	-0.4
Trading partners GDP (*)	3.6	4.6	3.4	3.1	3.4	3.4
World GDP at PPP (*)	4.2	4.0	3.4	3.2	3.5	3.5
World GDP at market exchange rate (*)	3.2	3.2	2.7	2.5	3.0	2.9
Developed economies' GDP at PPP (*)	2.6	1.7	1.7	1.9	2.3	2.2
Emerging economies ' GDP at PPP (*)	7.4	5.9	4.8	4.1	4.6	4.6
External prices (in US)	4.6	5.2	-0.9	-9.0	-0.4	3.2
	(levels)					
LME copper price (US¢/lb)	154	368	311	255	245	250
WTI oil price (US$/barrel)	44	89	93	49	50	55
Brent oil price (US$/barrel)	42	101	99	54	55	60
Gasoline parity price (US$/m³) (*)	366	742	731	497	461	483
Libor US$ (nominal, 90 days)	3.6	0.4	0.2	0.4	1.2	2.2

(*) For definition, see glossary,
(f) Forecast.
Source: Central Bank of Chile.

significant correction to the copper price, which is now estimated to average US$2.55 and 2.45 per pound in 2015 and 2016, after hitting its six-year low and trading at US$2.3 per pound at the statistical closing of this *Report*. The average price of a barrel of Brent and WTI is also revised down, to an average of around US$52 in 2015 and 2016. This considering that, at the statistical closing of this *Report,* WTI and Brent oil traded near US$40. In emerging economies, stock markets have fallen, spreads have increased, there have been capital outflows, and currencies have depreciated. Despite the recent downturn, the baseline scenario assumes that external financial conditions will remain favorable by historical standards.

On the domestic front, the baseline scenario assumes that output and demand will run below June's forecast. Consumption and investment in machinery and equipment showed poor performance in the second quarter, partly offset by increased dynamism in investment in construction and other works. Weak exports and imports of goods and services also deserve mentioning, with negative variation rates in annual terms. The June *Report's* baseline scenario assumed an improvement in expectations that not only did not happen, but the opposite did and they continued to worsen. It should be noted that the loss of confidence permeates every sector in the IMCE and every factor analyzed by the IPEC. Moreover, most respondents to August's *Business Perceptions Report* perceived a stagnation or drop in their businesses, and a worsened outlook for the rest of the year. As already mentioned, this is compounded by a reduced external impulse over the projection horizon.

In any case, the labor market continues to show positive numbers, particularly because annual growth in private salaried employment remains strong: about 2% in June. In turn, the unemployment rate remains low, unchanged from a year ago. Still, it is worth noting the slowdown in annual growth in nominal wages to a range between 6.3% and 6.7%, depending on the measure, after being somewhat above 7.0% for several months.

On this occasion, the Board revised its GDP growth estimate for the medium term, also known as trend GDP, which is now thought to be at around 3.5%. This value is lower than the year-ago estimate, mainly due to a slower growth outlook for investment and a reassessment of the expected dynamics for effective labor (box V.1). The Board considers it important to explicitly introduce the distinction between this concept and the so-called GDP consistent with stable inflation, known in the literature as potential short-term GDP or simply potential GDP. By nature, potential GDP is an input in the calculation of the output gap associated with inflationary pressures. The difference between the two is that potential GDP, in contrast to medium-term or trend GDP may be affected by temporary fluctuations of productivity and temporary constraints to factor availability. Thus, it follows that as of the second quarter of 2015, the output gap that is relevant for inflation is smaller than the one that would result if trend GDP is used as the benchmark.

Most recently, the output gap has widened, although not as much as it did in earlier low-growth cycles (box V.2). This is consistent with other measures of excess capacity, such as the unemployment rate, surveys on installed capacity utilization and electric power consumption (box V.3). In the baseline scenario,

it is expected that the output gap will increase further at least until the first part of 2016, helping inflation to converge to the target. For this year it is estimated that GDP will stand between 2.0% and 2.5%, less than foreseen in June. In 2016, the economy should grow between 2.5% and 3.5%. These projections still assume that private expectations will improve gradually and monetary policy will remain very expansionary. On the fiscal side, it is envisaged that in 2016 the increase in spending will be lower than this year, in line with a moderate reduction in the structural deficit.

As already mentioned, the new and significant depreciation of the peso of recent months is the key factor behind the recent rise in headline and projected inflation. The peso/dollar parity increased 14% from June and about 50% from its lowest record of 2013, reaching around $700 per dollar at the close of this *Report*. The increase in the nominal exchange rate is the economy's natural and desirable response to changes in domestic and international macroeconomic conditions. The global appreciation of the dollar, the evolution of commodity prices and the further weakness of the emerging world in general and Latin America in particular, have significantly affected the parity in recent months. The currency depreciation is not exclusive to Chile, as it is shared by most of our trading partners, and many of them suffer it much more intensely. In multilateral terms, the peso depreciation has been smaller: 10% compared to the close of the last *Report;* 29% from its trough in 2013. This explains partly why the RER increased less than the nominal rate. In August, the RER would have been somewhat above 100 in its usual measure, equivalent to an increase of 8% from last May and 17% from its lowest level of 2013. At the close of this *Report,* the RER was above the values considered to be its long-term equilibrium, but consistent with the current evolution of its fundamentals. Thus, as a working assumption, this *Report* assumes that, by the end of the projection horizon, the RER will show a slight appreciation from its average for the ten days prior to the close of this *Report.*

A new depreciation of the peso is one event that could trigger major changes in the trajectory and persistence of short-term inflation. As in previous quarters, it is possible for a scenario like this to respond again to movements in global conditions. The events that could drive a further depreciation of the peso are of varied nature, and its effects on inflation could have implications on the conduct of monetary policy. The extended period in which annual inflation has been above 4% could increase its persistence and have an impact on inflation expectations. This poses significant challenges in the inflation targeting scheme, which aims at having it stand at 3% by the end of the policy horizon.

The credibility of monetary policy succeeding in ensuring the convergence of inflation to the target is a key asset of the Central Bank. Thus, it is important to emphasize that, although private inflation expectations at shorter terms have risen, surveys and financial asset prices continue to point at inflation meeting the target in two years' time. In the baseline scenario, by year-end inflation will be at 4.6% and will stay above the tolerance range at least throughout the first half of 2016, completing almost two years above 4%. Then, annual CPI and CPIEFE inflation will return to 3% over the course of 2017, hovering around this level until the end of the projection horizon, this time the third quarter of 2017.

ECONOMIC GROWTH AND CURRENT ACCOUNT

	2014	2015 (f)	2016 (f)
	(annual change. percent)		
GDP	1.9	2.0-2.5	2.5-3.5
National income	1.9	2.2	2.4
Domestic demand	-0.6	2.0	3.1
Domestic demand (w/o inventory change)	0.5	1.4	3.0
Gross fixed capital formation	-6.1	-1.2	1.9
Total consumption	2.5	2.1	3.3
Goods and services exports	0.7	-1.7	1.2
Goods and services imports	-7.0	-2.3	2.2
Current account (% of GDP)	-1.2	-0.7	-1.5
Gross national saving (% of GDP)	20.3	20.8	20.0
Gross national investment (% of GDP)	21.4	21.5	21.5
GFCF (% of nominal GDP)	22.0	21.5	21.5
GFCF (% of real GDP)	24,0	23,3	23,1
	(US$ million)		
Current account	-2,995	-1,750	-3,700
Trade balance	7,767	5,950	3,900
Exports	75,675	64,750	64,500
Imports	-67,908	-58,800	-60,600
Services	-3,757	-4,200	-4,150
Rent	-8,857	-5,050	-4,950
Current transfers	1,851	1,550	1,500

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

INFLATION

|	2014	2015 (f)	2016 (f)	2017 (f)
	(annual change, percent)			
Average CPI inflation	4.4	4.4	4.4	
December CPI inflation	4.6	4.6	3.7	
CPI inflation in around 2 years (*)				3.0
Average CPIEFE inflation	3.6	4.6	4.3	
December CPIEFE inflation	4.3	4.5	3.5	
CPIEFE inflation in around 2 years (*)				2.9

(f) Forecast.
(*) Corresponds to the projected inflation for the third quarter of 2017.
Source: Central Bank of Chile.
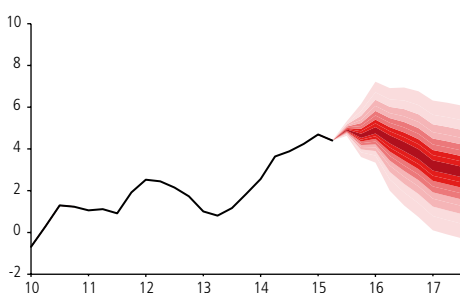
CPI INFLATION FORECAST (*)
(annual change, percent)
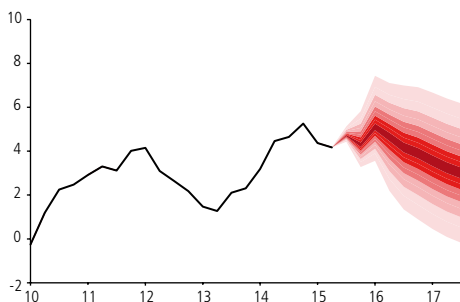
(*) The figure shows the confidence interval of the baseline projection over the respective horizon (colored area). Confidence intervals of 10%, 30%, 50%, 70% and 90% around the baseline scenario are included. These intervals summarize the risks on inflation as assessed by the Board. The baseline scenario uses as a methodological assumption that the MPR trajectory will be similar to the one that can be inferred from the prices of financial assets at the statistical closing of this *Report*.

Source: Central Bank of Chile.

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 summarize the risks on core inflation as assessed by the Board. The baseline scenario uses as a methodological assumption that the MPR trajectory will be similar to the one that can be inferred from the prices of financial assets at the statistical closing of this *Report*.

Source: Central Bank of Chile.

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

As aforesaid, abroad the possibility of new volatility episodes taking place in the financial markets that could affect the short-term inflation outlook persists. On the one hand, developments in China have deepened the concerns about the economy. But it is also possible that the measures adopted translate into an orderly rebalancing of the Chinese economy that will avoid surprises later on. On the other, there is still uncertainty about how the normalization of the policy rate in the United States will affect asset prices. Anyway, the agreements reached in Europe have moderated to some extent the concerns about Greece. Negative risk scenarios could further complicate the already difficult outlook for emerging economies, especially in Latin America, where several countries continue to deal with high fiscal and current account deficits, making the necessary adjustments difficult and costly. Although Chile is not isolated from these risks, the economy has no external or fiscal imbalances.

Domestically, the baseline scenario continues to expect a gradual fade-out of the autonomous shock to confidence that has negatively affected the expectations of consumers and businesses in the last few quarters. Otherwise, it will affect the pace of recovery of domestic output and spending. By contrast, a greater effect on the national income of the decline in fuel prices, could give a bigger boost to the economy.

Regarding inflation, short-term risks are high. Inflation has remained high for a long time, which in itself is a risk for expectations. Moreover, external risk scenarios may trigger an additional depreciation of the peso. Overall, the slowdown in nominal wage growth mitigates a previously detected risk. Meanwhile, a scenario where capacity gaps increase more than expected and reduce inflationary pressures should not be ruled out.

After evaluating these risks, the Board estimates that the risk balance for output is biased downward, while for inflation it is biased upward in the short term and unbiased in the projection horizon.

The baseline scenario uses as a methodological assumption that the MPR trajectory will be similar to the one that can be inferred from the prices of financial assets at the statistical closing of this *Report.*

Annual inflation rose again, remaining above 4% and it is anticipated that it will remain at those levels for longer than forecast. Domestic output and expenditure weakened in the second quarter and growth prospects for 2015 have been cut further. The Board has kept an expansionary monetary stance, holding the MPR at 3%. As usual, any future changes in the MPR will depend on the evolution of domestic and external macroeconomic conditions and their implications for the inflation outlook. The Board reaffirms its commitment to conduct monetary policy with flexibility so that projected inflation stands at 3% over the policy horizon.

MONETARY POLICY DECISIONS IN THE LAST THREE MONTHS

BACKGROUND: JUNE 2015 MONETARY POLICY REPORT

On the cutoff date of the June *Monetary Policy Report,* the macroeconomic scenario was essentially in line with the March forecast. Annual inflation had decreased, but it was still above 4%, due to the effect of the peso depreciation and the usual indexation. Output and demand had grown at a moderate rate. The third quarter was better than expected, but short-term indicators pointed to a somewhat slower recovery. World growth was mostly in line with the forecast, but the United States had a weaker start to the year than expected, whereas Europe recorded a better performance. Financial conditions for emerging economies remained favorable from a historical perspective. The market had pushed back the expected timing of the first increase in the federal funds rate, and the dollar had eased somewhat after strengthening steadily since the start of the year. The Chilean peso, which rose above $640 in March, dropped close to $600 in May before settling at around $615. Since April, long-term rates had risen in most of the developed economies, as had commodity prices. In this context, the Board had kept the monetary policy rate (MPR) at 3% since March, thereby maintaining its important expansionary monetary policy stance.

The forecasts had not changed substantially. Inflation was expected to converge a bit more quickly to 3%, due to the appreciation of the peso since March and the slightly less dynamic output. The GDP growth range for 2015 had been trimmed slightly to 2.25–3.25% to incorporate the effect of the floods in the north, some one-off factors in the mining sector and the mild slowdown in the recent data. Among other factors, it was foreseen that private expectations were expected to improve significantly in the second half of the year. The external impulse was similar to March.

The balance of risks was broadly unbiased for both inflation and output. Internationally, it was thought that one-off events could generate sharp volatility in the global financial market, with effects on the cost of financing, the exchange rate and the short-term inflation outlook. For example, one potential trigger was a surprise in the timing or speed with which the U.S. Federal Reserve would start raising its policy rate. Another possibility was that a cessation of payments by Greece would affect the global financial markets and growth in the Eurozone, although the ability of the larger central banks to handle these situations had improved, which, to some extent, reduced the possible negative impact. Another positive note was the more consolidated growth in the Eurozone, which had contributed to a more balanced world growth outlook. The emerging world still faced significant risks, despite the recovery of commodity prices. China was another important source of risk, especially given its implications for the copper price.

Local risks were related, on the one hand, with the continued lack of confidence and, on the other, with inflation. Although inflationary pressures were lower than in March, the risks were still significant due to prolonged high inflation, tight margins, high wage growth, rising fuel prices and the possibility that the external risks could trigger a significant additional depreciation of the peso.

MEETINGS IN JUNE, JULY, AND AUGUST

In June, the most recent data confirmed the diagnosis in the last *Monetary Policy Report.* The international financial markets had been highly volatile and had generated an additional depreciation of the peso. In Chile, the economy was showing signs of a slower recovery. Inflation had returned to the tolerance range, but the forecast indicated that it would fluctuate above 4% in the coming months. The additional exchange rate depreciation would postpone the convergence to 3%, but it was very possible that the peso would continue to fluctuate widely and inflation would be somewhat more volatile.

The Research Division proposed one option: holding the MPR at its current level. The possibility of a cut was discarded, since inflation had been at or above 4% for over a year and was probably going to stay there for several more months. Raising the rate was also rejected, despite the risk that the prolonged high inflation could de-anchor expectations. In addition to the

arguments put forth in May—namely, the lower inflationary pressure in the output data and the lack of surprises in core inflation—there had been a reduction in the annual growth rate of wages. The Board therefore decided to hold the MPR at 3%.

In July, the most recent data had significantly changed the baseline scenario. Inflation continued to be the focus of concern, and the timing of convergence with the target was pushed back again. The size and persistence of the nominal depreciation had come as a surprise in the past year, and this trend was the main cause of the repeated upward corrections to the inflation forecast and the estimated. Nevertheless, the baseline scenario continued to include the convergence of inflation with the target, because the inflationary effects of the exchange rate were transitory and the economy continued to accumulate excess capacity. The risk of a faster convergence, due to the less dynamic economy, was considered at a significantly lower incidence than the upside risks due to the behavior of the exchange rate. As mentioned, the high inflation itself was considered a risk in terms of de-anchoring expectations, especially considering that the external risk scenarios had a high probability and that sharp exchange rate movements could increase inflation in the short term. The situation in China was a particular concern, since the tumult in the Chinese financial markets had increased doubts about the economy's growth capacity. The outlook for world growth had not changed significantly, but the drop in commodity prices increased uncertainty for commodity exporters.

The domestic data remained weak, and private expectations had declined again. The unemployment rate had risen, while wages continued to ease, in line with the normalization of labor market conditions. In addition, market surveys had reduced their GDP outlook not only for the year, but also for 2016 and 2017.

The Research Division again proposed just one option: holding the MPR at its current level. The option of a decrease was discarded, given the risk involved in starting a downward rate cycle in this context. Financing conditions were relatively tight for both firms and households, monetary policy was considered sufficiently expansionary, and additional loosening was not expected to have much of an impact on output. At the same time, raising the MPR did not seem advisable, since the market largely shared the opinion that inflation was mainly associated with the exchange rate. Moreover, there were no apparent inflationary pressures on the output side, so the risk of inflation expectations becoming de-anchored—while still present—had lessened, especially considering the systematic decline in the output forecasts. This was evident in the substantial swings in inflation expectations one year out, but not two years out. The Board decided to keep the MPR at 3%.

In August, the data revealed stronger inflation dynamics than expected just a couple of months earlier. The high inflation, its strong persistence and the repeated upward revision of domestic forecasts represented a substantial risk for the medium-term inflation dynamics, given the implications for expectations. In the opinion of the Research Division, the recent trend in inflation and, especially, in the forecast had heightened this risk. Consequently, the possibility of increasing the MPR by 25 basis points—aimed at preventing a possible de-anchoring of inflation expectations—was an option worth discussing. It could be best to anticipate a de-anchoring of expectations: history showed that such a situation, should it occur, was best met with the implementation of stronger measures.

Despite the arguments in favor of an increase, the Research Division was of the opinion that the data supported the option of staying the current course of monetary policy. First, there was no evidence to suggest that medium-term inflationary pressures would increase, as long as medium-term inflation expectations remained well anchored. In fact, the weaker output performance both locally and internationally, together with the decrease in commodity prices, indicated that these pressures had eased somewhat. Again, this was consistent with the fact that revisions to the inflation forecast were primarily at horizons of less than one year and were related to changes in perspective on the exchange rate. In this context, the strong monetary stimulus that had been in place for some time was not likely to be understood as choice to promote growth over controlling inflation, but rather would be seen as a necessary measure to ensure the convergence of inflation in the medium term, in a context of weak output. Moreover, the higher short-term inflation was the temporary cost of the adjustment, which had undoubtedly been larger and lasted longer than expected, as indicated by the successive reductions in the growth forecast.

Second, another argument for not raising the MPR was that the vast majority of the market shared the Bank's vision on the macroeconomic adjustment currently underway in the economy, which was helping to contain the risk of inflation expectations de-anchoring. In particular, the surveys carried out by the Bank and financial asset prices both indicated that, although the market had increased its inflation forecast at horizons of less than one year, expectations for longer horizons remained at 3%. Nevertheless, the evolution of expectations and the way the market was interpreting the inflation process should be a focal point in the coming months, given that some surveys were beginning to show increased dispersion in the two-year-ahead forecast. The Board decided to keep the MPR at 3%.

I. INTERNATIONAL SCENARIO

This chapter analyzes the recent evolution of the world economy and the outlook for the external scenario relevant for the Chilean economy. It also describes the main risks.

The international scenario has become more complex, increasing the risks for commodity exporters, including Chile. On the one hand, the rebalancing of world growth in favor of the developed economies, especially the United States, together with the imminent monetary normalization by the U.S. Federal Reserve (the Fed), has resulted in a significant strengthening of the dollar at the international level. On the other hand, the doubts about China's economy have grown, as the news of weakening activity was exacerbated by strong turbulence in the country's financial markets, which was passed through to global markets. These trends have accentuated the portfolio reallocation described in the last *Monetary Policy Report.* The emerging economies have been most affected: not only has the depreciation of their currencies increased the cost of external financing, but they have also faced sharp drops in commodity prices. The situation is especially delicate for Latin America due to a stronger deterioration of output, high inflation and, in several cases, significant external and fiscal imbalances, most notably in Brazil. Thus, the external stimulus received by the Chilean economy has dropped off considerably, especially given the deterioration in the terms of trade.

FINANCIAL MARKETS

The international financial markets have experienced new episodes of distress, with a sharp increase in volatility in both equity and fixed-income markets, especially after the events in China (figure I.1). The Chinese stock exchange, after hitting new historical peaks in June, recorded very sharp corrections toward the cutoff date of this *Report* (figure I.2). There was strong contagion to other world markets, with large falls in the main stock indexes. For the emerging economies, the effect was even sharper, generating substantial capital outflows, significant currency depreciation against the dollar and a rise in the cost of external financing due to an increase in credit spreads, which reached or even exceeded mid-2013 levels (figures I.3, I.4 and II.8).

The financial volatility in China was accompanied by growing concern for the country's economic performance. In recent weeks, the Chinese authorities have taken a range of measures to mitigate the drop in the stock markets and boost output, including the depreciation of the yuan, a cut in interest rates and a

FIGURE I.1
Volatility of the stock markets and of the euro/dollar exchange rate (1)
(percent)
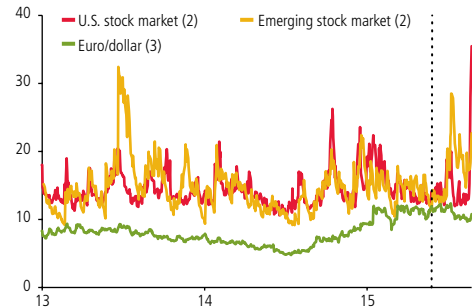
(1) The vertical dotted line indicates the cutoff date of the June 2015 *Monetary Policy Report.*
(2) United States: the VIX; emerging economies: an estimate of the historical volatility of the MSCI index denominated in dollars.
(3) Implicit volatility in three-month options.

Source: Bloomberg.

FIGURE I.2
Stock markets (1) (2)
(fixed-base index: 2013–2015 = 100)
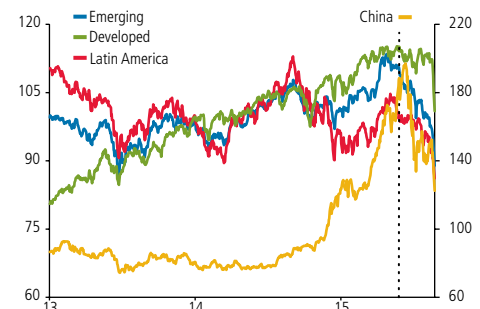
(1) Data measured in local currency. The vertical dotted line indicates the cutoff date of the June 2015 *Monetary Policy Report.*
(2) China: Shanghai Stock Exchange Composite Index (SHCOMP); for regions: Morgan Stanley Capital International (MSCI) stock indexes.
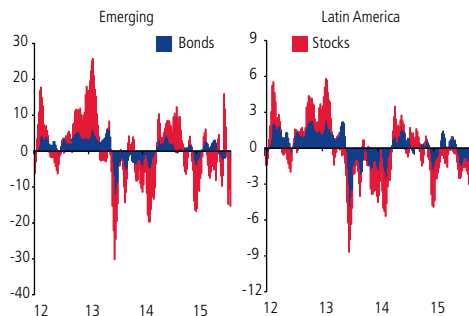
Source: Bloomberg.

FIGURE I.3
Sovereign spreads in emerging economies (1) (2)
(basis points)
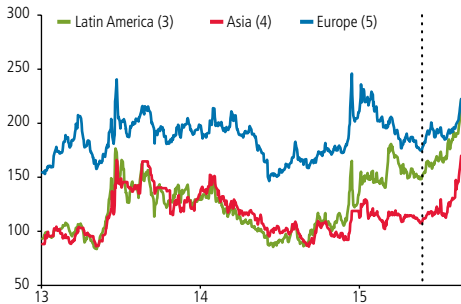
(1) Measured by five-year CDS spreads. Simple average of the countries in each region.
(2) The vertical dotted line indicates the cutoff date of the June 2015 *Monetary Policy Report*.
(3) Includes Brazil, Colombia, Mexico, Panama and Peru.
(4) Includes China, Indonesia, Malaysia, Philippines and Thailand.
(5) Includes Bulgaria, Croatia, Czech Rep., Hungary, Rumania, Russia and Turkey.

Source: Bloomberg.

FIGURE I.4
Net capital flows to emerging economies
(billions of dollars, moving month)

Source: Emerging Portfolio Fund Research.

FIGURE I.5
U.S. multilateral real exchange rate
(fixed-base index: March 1973 = 100)
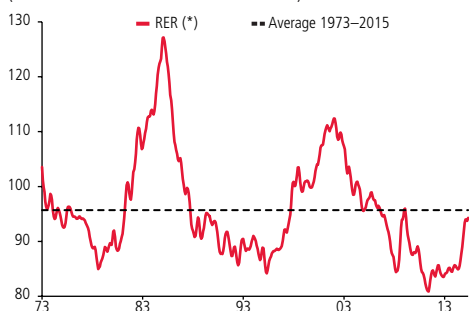
(*) Quarterly moving average. An increase indicates appreciation.
Source: Bloomberg.

reduction in bank reserve requirements. As of the cutoff date of this report, the stock exchange had fallen 40% from its peak in mid-2015, though it was still higher than a year ago. However, in contrast with other economies, where consumer wealth is accumulated in stocks, the Chinese stock market only accounts for a small share.

The steady appreciation of the dollar, deriving from the strong economic performance of the United States relative to other major economies, and the imminent rate increase by the Fed have generated additional pressure on emerging currencies. The U.S. real exchange rate is only recently approaching its historical average, so in principle the appreciative trend of the dollar could continue (figure I.5). After the Fed's last meeting and the release of more robust U.S. output data, the market is betting that the normalization of monetary policy will begin toward the end of the year. The Fed has signaled that the implementation will be gradual and cautious—taking into account the inflation level and subject to the continuation of the positive output trend. This signal has been interpreted as being in line with the market's perception.

Long-term interest rates on developed-country sovereign bonds increased after the cutoff date of the June *Report*, but they have come back down in recent weeks in response to the deterioration in China and the shift toward a riskier, more adverse world economic scenario (figure I.6). Furthermore, the changes in market bets on the exact timing of the initiation of the normalization of the U.S. monetary policy rate generated additional volatility. This was reflected in an increase in long-term rates for some emerging economies. The baseline scenario used for this Monetary Policy Report assumes that external financial conditions will continue to be favorable from a historical perspective.

The worsening of the situation in Greece generated a limited short-term contagion, mainly in the European periphery, with a temporary increase in long-term bond spreads. After arduous negotiations, Greece reached an agreement with its creditors, which eased concerns, at least for now. Uncertainty remains, however, regarding the implementation of the negotiated measures, especially after the resignation of the Greek prime minister and the call for early elections.

This *Report* considers that one of the main risks in the baseline scenario is the possibility of new episodes of volatility in the financial markets, in response to either new developments in China that heighten the doubts about its economy and/or the rate normalization process in the United States.

COMMODITIES

The global appreciation of the dollar, the doubts about China's performance and the increased volatility in the international financial markets have resulted in a large drop in commodity prices. Copper and oil, in particular, have recorded steep price declines (figure I.7), trends that also reflect specific market factors behind.

Copper fell 19% after the cutoff date of the June *Report* and was under US$2.30 a pound as of the close of this *Report*—the lowest level recorded since 2009. This occurred amid projections of a looser copper market. Thus, the price forecast in the baseline scenario was revised downward to US$2.55 a pound in 2015 and US$2.45 in 2016.

Both WTI and Brent oil prices decreased 30% since the last *Report,* closing the period at around US$40 a barrel, the lowest rate since late 2008. Gasoline fell 15%. In addition to the global effects on commodity prices, there were also relevant supply factors, such as increased inventories, an estable OPEC production quota and expectations of an increase in exports from Iran to Iraq. In the baseline scenario, the forecast WTI and Brent oil price has been adjusted downward relative to the last *Report*, to an average of US$52 a barrel for 2015 and 2016.

Food prices, although with some mixed movements, declined on aggregate. However, the decline was of a much lower magnitude than other commodity prices.

WORLD GROWTH AND INFLATION

Given the turbulent financial markets, low commodity prices and the deterioration of China's economic performance, the growth scenario for the emerging economies has become more complex, especially in Latin America. In the developed world, in contrast, the outlook continues to point to an ongoing recovery. The expected growth rate of Chile's trading partners has been lowered by two tenths to 3.1% for 2015 and by three tenths to 3.4% for 2016 (table I.1).

China grew at an annual rate of 7% in the second quarter of the year, but several indicators point to a weaker performance in the third (figure I.8). Manufacturing expectations have been negative for six months and in August recorded the lowest rate of the last two years. Both exports and imports have slowed considerably. Consequently, both the market and the baseline scenario in this Report project that this economy will grow below 7%. There are definitely risks in this scenario. Consensus Forecasts recently asked analysts to estimate the "true" growth rate of China, and several responses were under 5%. On the other hand, the set of measures adopted could translate into an orderly rebalancing of this economy, thereby avoiding future turmoil. In other emerging Asian economies, exports have also slowed, weakening an already fragile domestic demand and contributing to the poor performance of China.

In Latin America, the growth rate continued to slow, and the outlook was lowered again (figure I.9). In addition to the weak scenario in China and the low commodity prices, local factors contributed to these corrections. For example, Brazil is facing not only a complex political situation, but also a worsening of the labor market[1]. On the positive side, there have been significant advances in the approval process for the fiscal adjustment proposed by the Brazilian government. Nevertheless, the international context of increased risk, higher

[1] Data published after the cutoff date of this *Monetary Policy Report* show that the annual growth rate fell 2.6% in Brazil in the second quarter of 2015.
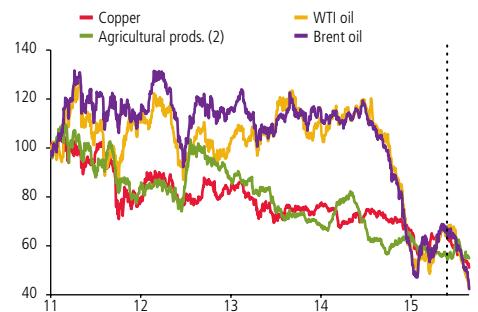
FIGURE I.6
Interest rates on 10-year government bonds (*)
(percent)
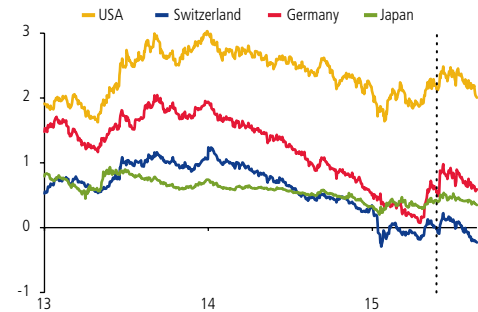
(*) The vertical dotted line indicates the cutoff date of the June 2015 *Monetary Policy Report.*

Source: Bloomberg.

FIGURE I.7
Commodity prices (1)
(fixed-base index: January 2011=100)

(1) The vertical dotted line indicates the cutoff date of the June 2015 *Monetary Policy Report.*
(2) Goldman Sachs aggregate index.

Source: Bloomberg.

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

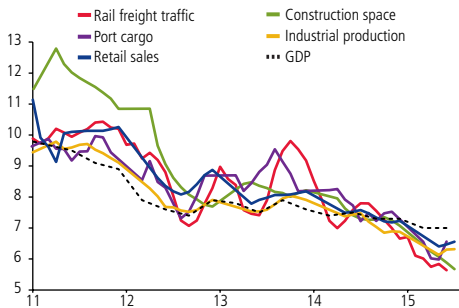|	Avg. 00-07	Avg. 10-12	2013	2014 (e)	2015 (f)	2016 (f)	2017 (f)
World at PPP	4.2	4.0	3.1	3.4	3.2	3.5	3.5
World at market FX rate	3.2	3.2	2.4	2.7	2.5	3.0	2.9
Trading partners	3.6	4.6	3.5	3.4	3.1	3.4	3.4
United States	2.6	2.1	1.5	2.4	2.4	2.8	2.8
Eurozone	2.2	1.0	-0.4	0.9	1.5	1.9	1.9
Japan	1.7	2.0	1.5	-0.1	1.0	1.4	0.5
China	10.5	9.1	7.7	7.4	6.7	6.4	6.1
India	7.1	7.3	4.7	7.2	7.5	7.8	7.5
Rest of Asia	5.1	5.3	3.9	3.9	3.7	4.0	4.2
Latin America (excl. Chile)	3.5	4.5	2.3	1.0	-0.1	1.0	1.4
Commodity exporters	3.1	2.6	2.2	2.6	1.7	2.4	2.1

(*) 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.8

China: Economic indicators and GDP (*)
(annual change, percent)

Legend:
- Rail freight traffic
- Port cargo
- Retail sales
- Construction space
- Industrial production
- GDP

(*) Quarterly moving average for economic indicators, which were standardized and normalized to reflect the mean and variance of GDP growth.

Sources: Bloomberg and National Bureau of Statistics of China.

FIGURE I.9

Growth forecast, 2015 and 2016 (*)
(annual change, percent)

(*) Solid bars: 2015 forecasts from January 2014 to August 2015; unfilled bars: 2016 forecasts from January to August 2015.

Source: Consensus Forecasts.

external financing costs and capital outflows from the region could compound the already complex situation of economies such as Colombia and Brazil, which have a high current account deficit. Moreover, several of the economies in the region have drawn down their international reserves, implementing foreign exchange interventions to address the currency depreciation. Fiscal account imbalances limit the space for stimulating these economies, while the use of monetary policy measures becomes more difficult in the presence of growing inflation. While Chile is not immune to these risks, the economy does not present either fiscal or external imbalances.

In contrast, the developed economies continue to consolidate their recovery. The United States regained a higher growth rate in the second quarter of the year, recording an annualized quarter-on-quarter rate of 3.7%[2]/, thereby confirming the transitory nature of the meager first-quarter performance (+0.6%). Private consumption, mainly durable goods, continued to prop up growth, and labor market indicators suggest that this trend will continue. Unemployment continued to decline, and monthly job creation remains dynamic.

The Eurozone maintained its trend of gradual recovery. In the second quarter, the region grew 1.3% (annualized quarter-on-quarter). Spain, in particular, had a strong performance, while Italy and the Netherlands slowed slightly, and France recorded zero growth. Other output indicators point to a mixed performance in the region. Unemployment continued to fall, especially in Spain and Portugal, while the expansionary monetary policies and low fuel prices supported a steady recovery of consumption. Industrial production and investment remain weak. The intensification of the Greek situation had only a limited impact on the financial markets, and it did not affect economic performance nor expectations in the rest of Europe. In the United Kingdom, output shows signs of a more solid recovery, driven mainly by consumption. Finally, Japan contracted in the second quarter of 2015, as a result of sluggish consumption and a downturn in the export sector.

Output slowed in the developed commodity exporters, such as Australia, Norway, New Zealand and Canada, mainly due to a weakening of investment plans in commodity-related sectors, as well as lower exports.

Given this context of limited world growth, dollar appreciation, low oil prices and a generalized drop in prices in dollars, world inflation has remained low. The one exception is Latin America, which continues to post high inflation rates. Currency depreciation has been a major factor in this trend, although idiosyncratic factors have also played a role in countries such as Brazil and, outside the region, Russia.

This low inflation scenario has given rise to expansionary monetary policies. Since the last *Report*, Sweden, New Zealand, Norway and Canada, among other countries, have all raised their policy rates. In the United States, the Fed is expected to start raising its rate toward the end of the year; the United Kingdom could follow.
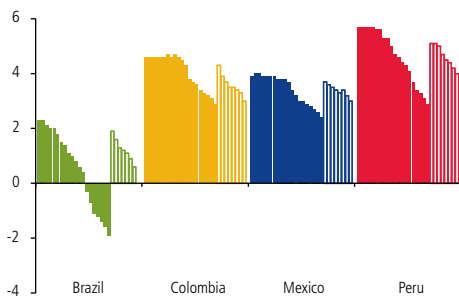
[2]/ Data published after the cutoff date of this *Report*.

II. FINANCIAL MARKETS

This chapter reviews the evolution of local financial markets in connection with the transmission of monetary policy.

MONETARY POLICY

In recent months, inflation has been higher than forecast, with annual CPI inflation reaching 4.6% in July and core inflation (CPIEFE) 4.9%. The strong peso depreciation (16% nominal in the year) has been the main cause of the higher inflation, and it is expected to continue affecting inflation dynamics in the coming months, pushing back convergence to 3%. The external risks have increased due to the uncertainty surrounding China and the deterioration in the outlook for emerging economies, especially commodity exporters. In contrast, the recovery continues in the developed economies. Domestic output and demand weakened again in the second in the second quarter, and consumer and business expectations continued to decline, against projections. Additionally, the most recent indicators show no sign of an improvement in consumption and private investment, so growth in the second half of the year will probably be lower than forecast in June. In this context, the Board has held the monetary policy rate (MPR) at 3%, so as to keep monetary policy as expansionary as possible under the current circumstances.

Expectations for the MPR, derived from financial asset prices on the cutoff date for this Report, suggest that the first increase in the policy rate will occur toward the end of this year or the beginning of the next. The Economic Expectations Survey (EES) and the Financial Brokers Survey (FBS) place the first increase in the second half of next year. These different expectations measures predict that, in one year, the MPR should be between 3.25 and 3.7% (versus 3.25 to 3.5% in the June Report) and, in two years, between 3.5 and 4.2% (versus 3.75 to 4,0% in June) (figure II.1 and table II.1). The working assumption used in the baseline scenario is that the MPR trend will be in line with expectations deduced from financial asset prices at the cutoff date for this *Report*.

FIGURE II.1
MPR and expectations
(percent)
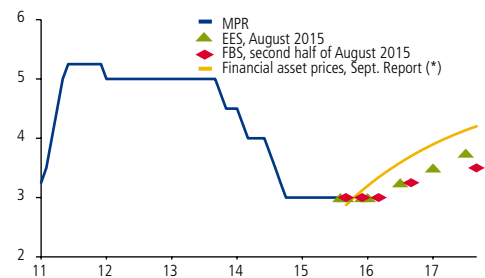
MPR
EES, August 2015
FBS, second half of August 2015
Financial asset prices, Sept. Report (*)

(*) Calculated using swap interest rates of up to 10 years.
Source: Central Bank of Chile.

FIGURE II.2
MPR and interest rates on Central Bank of Chile bonds
(percent)

MPR   BCP-2   BCU-2   BCU-5   BCU-10
BCP-5   BCP-10
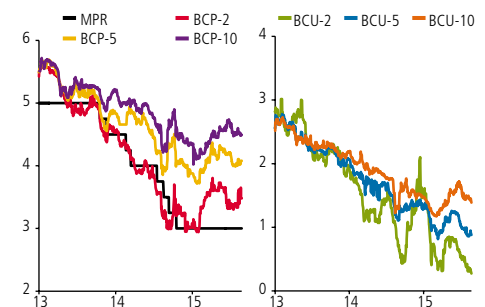
Source: Central Bank of Chile.

FIGURE II.3

Lending rates (1) (2)

(fixed-base index: 2002–2015=100)
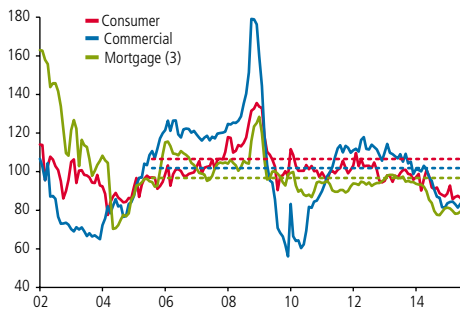
(1) Weighted average rates of all operations in the month.
(2) The dotted lines indicate the average of the last ten years for each series.
(3) Mortgage interest rates are in UF.

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

FIGURE II.4

Real annual growth rate of loans (1) (2) (3)

(percent)
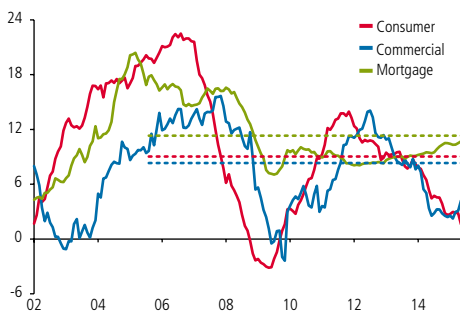
(1) Data for July 2015 are preliminary.
(2) The dotted lines indicate the average of the last ten years for each series.
(3) The increase in the annual growth rate of commercial loans and the decrease in the rate of consumer loans derive from sales transactions in the banking system.

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

TABLE II.1

MPR expectations

(percent)

	December 2015		One year ahead		Two years ahead	
	June Report	Sept. Report	June Report	Sept. Report	June Report	Sept. Report
EES (1)	3.00	3.00	3.25	3.25	3.75	3.75
FBS (2)	3.00	3.00	3.25	3.25	3.75	3.50
Financial asset prices (3)	3.22	3.12	3.52	3.70	4.01	4.20

(1) May and August 2015 surveys.
(2) Survey for the second half of May and August 2015.
(3) Constructed using interest rates on swap contracts up to 10 years. The September *Monetary Policy Report* includes data at the cutoff date.

Source: Central Bank of Chile.

Since early 2015, the interest rates on peso-denominated Central Bank and Treasury instruments have risen at all maturities, while UF rates fell, especially at shorter terms. The increase in nominal rates is in line with expectations, which have eliminated the possibility of an MPR cut, while the drop in indexed rates is consistent with the higher short-term inflation expectations (figure II.2). Since the June *Report*, the biggest adjustments were recorded in UF-denominated instruments, which fell around 40 basis points (bp) on average at two and five years, more than reversing the increase since March. As has been the case throughout the year, domestic interest rates on long-term bonds could rise in the response to global financial volatility. There is also a risk that the timing or speed of the monetary normalization in the United States could diverge from consensus expectations, although this risk has eased in the most recent period.

FINANCIAL CONDITIONS

The cost of credit in the local market continues to be low from a historical perspective, which reflects the expansionary monetary policy. However, the Bank Lending Survey (BLS) and the *Business Perceptions Report* (BPR) suggest that economic agents are relatively unwilling to take on debt, which limits the growth of consumer and commercial loans. The BLS also indicates that lending requirements have continued to tighten, although not as much as in previous quarters. International financial conditions have worsened, primarily due to the higher volatility in the most recent period, but they are still favorable from a long-term perspective.

The cost of credit in the local market remains low, discounting some movements at the margin (figure II.3). Commercial lending rates are near the low of the past five years, while consumer and mortgage rates are around the lows of the last ten years.

Although the cost of credit is down, provisional data for July show that the real annual growth rate of consumer and commercial loans is not very different

from previous quarters and much lower than the average of the past ten years[1]/ (figure II.4). The exception is mortgage loans, where the real growth rate has expanded since 2013, consistent with activity in the residential construction and real estate sectors.

The trend in consumer and commercial loans is consistent with more cautious behavior on the part of the users of these funding sources. The BLS for the second quarter of 2015 indicates that demand has continued to contract, except in the personal mortgage segment and in loans to real estate companies. The lower demand is especially noteworthy among large firms, which, according to the BLS, reflects a decline in investment projects. Similarly, the BPR for August signals that neither firms nor banks are bullish on increasing the debt stock, mainly due to a perceived uncertainty surrounding the future performance of their businesses (firms) or their job security (consumers). Among consumers, the surveys reveal a greater preference for paying in cash or with debit cards. The exception, according to the majority of interviewees, is the trend for mortgage loans, which, as mentioned, is consistent with activity in the sector.

Internationally, volatility has increased in the international financial markets, and financial conditions have worsened, but the baseline scenario projects that financial conditions will remain favorable from a historical perspective. Volatility was quite sharp at times, mainly in response to the drastic corrections of the Chinese stock exchange. Since the June *Report*, interest rates fell on long-term government bonds in the developed economies, while sovereign spreads increased in emerging economies (figure II.5). Moreover, the emerging economies continued to experience capital outflows, currency depreciation and a negative stock market performance. The IPSA, measured in local currency, has dropped 7.4% since June, falling below the level at the start of the year (figure II.6).

Given this scenario, bond placements by private Chilean firms, accumulated through August, are lower than in 2014, mainly due to lower overseas issues by nonfinancial firms. They are still high, however, from a historical perspective (figure II.7).

With regard to the monetary aggregates, the available data for July indicate that the nominal annual growth rate of M1, which comprises the most liquid assets, increased the most since April: from 13 to 15%. M2 and M3 also recorded higher annual growth rates, at around 11%.

EXCHANGE RATE

The nominal exchange rate has increased significantly since the June *Monetary Policy Report*. In that period, the Chilean peso depreciated nearly 14% against the U.S. dollar, approaching $700 to the dollar as of the cutoff date of this *Report*. This trend is driven by a number of factors: the doubts about the

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[1]/ Within total loans, the annual growth rate of commercial loans increased, while consumer loans decreased, due to sales transactions in the banking system. See http://www.bcentral.cl/publicaciones/estadisticas/dinero-banca/pdf/im2015/emf_June.pdf.

FIGURE II.5
Sovereign spreads in emerging economies (1) (2)
(basis points)
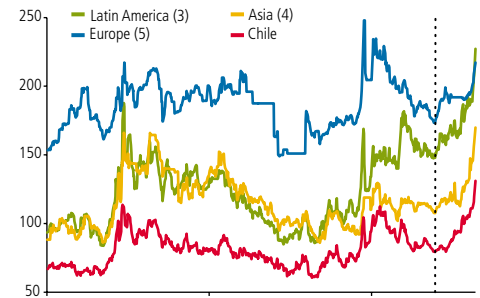
(1) Measured by five-year CDS spreads. Simple average of the countries in each region.
(2) The vertical dotted line indicates the cutoff date of the June 2015 *Monetary Policy Report*.
(3) Includes Brazil, Colombia, Mexico, Panama and Peru.
(4) Includes China, Indonesia, Malaysia, Philippines and Thailand.
(5) Includes Bulgaria, Croatia, Czech Rep., Hungary and Turkey.

Source: Bloomberg.

FIGURE II.6
Stock markets (1)
(fixed-base index: 1 January 2015=100
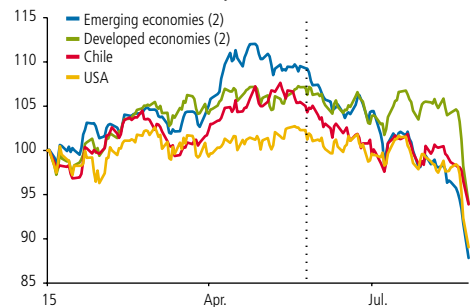
(1) The vertical dotted line indicates the cutoff date of the June 2015 *Monetary Policy Report*.
(2) MSCI regional stock indexes, in local currency.

Source: Bloomberg.

FIGURE II.7
Corporate and bank bond issues (*)
(billions of US$)
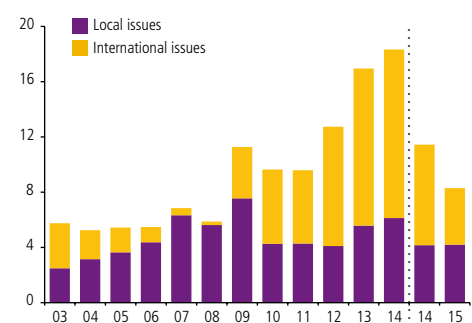
(*) Includes financial and nonfinancial firms. Bars to the right of the dotted line include total issues through August of each year.

Source: Central Bank of Chile, based on data from Bloomberg and BCS.

FIGURE II.8

Nominal exchange rate (1)
(accumulated change since the minimum in May 2013, percent)

(1) The vertical dotted line indicates the cutoff date of the June 2015 *Monetary Policy Report.* (2) Includes Brazil, Colombia, Mexico and Peru. (3) Includ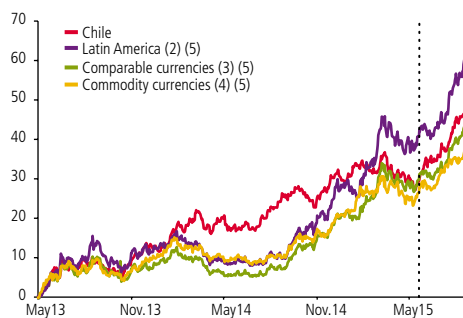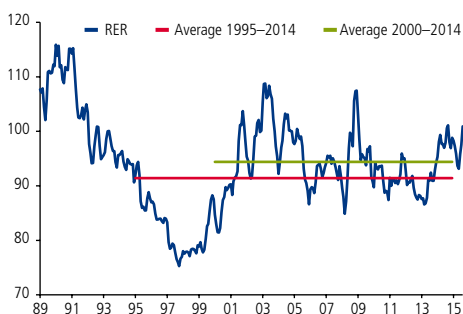es Brazil, Colombia, Czech Rep., Israel, Mexico, Philippines, Poland, Rep. Korea and Turkey. (4) Includes Australia, Canada, New Zealand and South Africa. (5) Constructed using the weights in the WEO, April 2015.

Sources: Central Bank of Chile and Bloomberg.

FIGURE II.9

Real exchange rate (*)
(fixed-base index: 1986=100)

(*) Data for August 2015 are through the 24th.
Source: Central Bank of Chile.

FIGURE II.10

Chile's bilateral RER: Selected economies
(fixed-base index: January 2013=100)
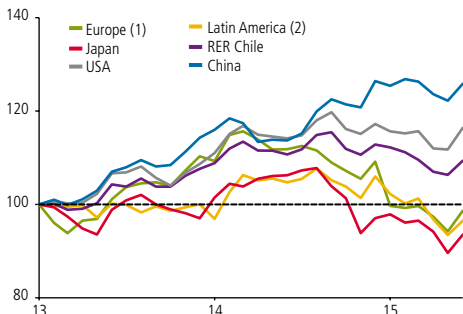
(1) Includes Germany, Belgium, France, Italy, Netherlands and Spain.
(2) Includes Argentina, Brazil, Colombia, Mexico and Peru.
Source: Central Bank of Chile.

performance of the Chinese economy and the volatility of its financial markets; the drop in most commodity prices, including copper; and the continued strengthening of the dollar at the world level.

Although the peso-dollar exchange rate has spiked to levels not seen for several years, the size of the multilateral depreciation has been smaller. Relative to its lowest level recorded in 2013—at the start of the peso depreciation process—the peso-dollar exchange rate has increased around 50%, whereas the multilateral exchange rate (MER) has increased 29%. Furthermore, the multilateral index excluding the dollar (TCM-X) has depreciated just 24%. In this sense, the loss in value of the Chilean peso, while above the average for comparable economies and commodity exporters, is clearly below the average for Latin America, particularly Brazil and Colombia (figure II.8 and table II.2).

TABLE II.2

Exchange rates against the U.S. dollar (1)
(percent)

	Change in NER		
	Sept.15/ Jun.15 *Reports*	Spot/2.Jan.15	Spot/minimum. May 2013
Russia	33.3	22.6	137.4
Colombia	23.0	36.2	84.0
Brazil	14.6	33.7	82.7
Turkey	10.3	26.2	68.2
Latin America (2) (5)	11.0	26.5	63.1
South Africa	8.6	14.6	56.5
Norway	9.4	10.2	50.5
Chile	**14.5**	**16.3**	**51.3**
Australia	8.2	14.4	48.1
Indonesia	5.3	13.4	46.1
Comparable currencies (3) (5)	8.1	19.5	44.6
Mexico	9.1	16.6	43.6
Commodity currencies (4) (5)	6.0	14.7	42.3
Canada	7.6	14.4	35.1
New Zealand	11.9	20.3	33.2
Peru	3.1	10.0	29.2
India	2.5	5.2	25.4
Czech Rep.	-1.6	1.6	24.9
Thailand	5.8	8.2	24.4
Rep. Korea	8.5	9.6	14.2

(1) A positive (negative) sign indicates a depreciation (appreciation) of the currency against the U.S. dollar. Calculated based on the average of the ten days prior to the cutoff for each indicated date/report.
(2) Includes Brazil, Colombia, Mexico and Peru.
(3) Includes Brazil, Colombia, Czech Rep., Israel, Mexico, Philippines, Poland, Rep. Korea and Turkey.
(4) Includes Australia, Canada, New Zealand and South Africa.
(5) Constructed using the weights in the WEO, April 2015.

Sources: Central Bank of Chile and Bloomberg.

In line with the lower depreciation of the multilateral exchange rate, the real exchange rate (RER) has increased less than the peso-dollar parity: 17% since its low in 2013 (8% since the last Report). In levels, and based on the available data as of the cutoff date of this Report, the RER is estimated to be just over 100 in August, where 1986=100; this is higher than what is considered its long-term equilibrium, but consistent with the current evolution of its fundamentals (figure II.9). However, Chile has appreciated in real terms relative to a group of economies (figure II.10). The working assumption in this Report is that, toward the end of the forecast horizon, the RER will have appreciated slightly relative to the average of the last ten business days prior to the cutoff for this *Report*.

III. OUTPUT AND DEMAND

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

OUTPUT

In the second quarter of 2015, the growth rate of output and domestic demand, excluding inventories, was lower than in the previous quarter and also lower than the forecast in the June *Monetary Policy Report*. Consumption and investment underperform, while confidence indexes deteriorated significantly again, contrary to expectations. This led to the accumulation of higher inventories relative to previous quarters, generating somewhat higher growth in total domestic demand (figure III.1).

By sector, the annual growth rate of natural resources fell from 2.8% in the first quarter to 0.4% in the second. Mining recorded very low growth, accounting for nearly two percentage points of the total sector's decline. The non-natural-resource sectors (other GDP) grew an annual 2.2% (versus 2.5% in the first quarter), although performance varied within the different sectors. Construction, trade and manufacturing saw an increase in annual growth rates relative to the first quarter. In contrast, performance has declined since the beginning of the year in services such as transport, communications, restaurants and hotels (table III.1).

GDP growth in the second quarter was lower than the forecast in the June *Report* and also below private expectations. In April—the first month in which the Economic Expectations Survey (EES) captures an estimate for the second quarter—GDP was expected to increase 2.5%; this projection was cut to 2.3% in May and to 2.0% in June, whereas the actual growth rate was 1.9%. For the rest of the year, the baseline scenario in this *Report* assumes that output will grow at a lower rate than in the past few months, resulting in GDP growth rate for the year in the range of 2.0 to 2.5%.

FIGURE III.1

Growth of other GDP and domestic demand
(annual change, percent)
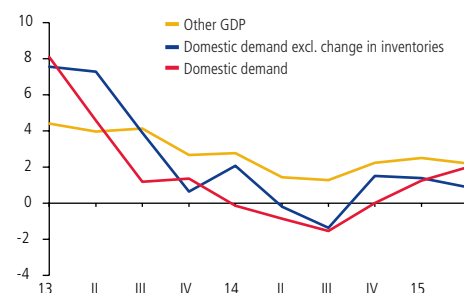
Source: Central Bank of Chile.

TABLE III.1

Gross domestic product
(share of GDP; real annual change, percent)

	Share	2014				2015	
	2014	I	II	III	IV	I	II
Agriculture, livestock and forestry	2.7	2.9	-5.6	-3.4	4.9	7.5	3.7
Fishing	0.3	21.8	34.0	10.7	3.4	-14.3	-8.5
Mining	11.2	1.2	4.8	0.0	-0.4	3.3	0.9
Manufacturing	11.3	0.2	-0.7	-0.7	-0.1	-0.2	0.2
EGW	2.3	1.3	9.4	3.4	5.7	2.1	0.2
Construction	7.3	3.1	1.1	-1.4	3.2	1.0	3.6
Trade	8.0	2.2	-0.4	-0.2	0.7	0.3	1.0
Restaurants and hotels	1.8	1.0	0.3	0.9	0.9	2.5	-0.9
Transportation	4.2	3.4	1.5	1.3	3.1	2.4	0.7
Communications	1.8	7.6	7.5	5.7	5.8	8.1	7.9
Financial services	5.1	3.9	2.2	2.2	3.6	2.9	4.6
Business services	13.9	3.4	2.1	1.2	0.9	1.7	1.8
Residential property	5.2	1.6	1.7	1.8	1.8	1.8	1.6
Personal services (1)	11.7	3.4	3.7	4.6	3.9	4.8	3.1
Public administration	4.6	3.3	3.0	2.7	5.4	3.8	4.3
Total GDP	**100.0**	**2.7**	**2.1**	**1.0**	**1.8**	**2.5**	**1.9**
Other GDP (2)	**77.5**	**2.8**	**1.4**	**1.3**	**2.2**	**2.5**	**2.2**
Natural resource GDP (2)	**13.9**	**1.6**	**6.4**	**0.9**	**0.7**	**2.8**	**0.4**

(1) Includes education, health and other services.
(2) See glossary for definitions.
Source: Central Bank of Chile.

TABLE III.2
Domestic demand
(share of GDP; real annual change, percent)

	Share	2014				2015	
	2014	I	II	III	IV	I	II
Domestic demand	**98.5**	**-0.1**	**-0.9**	**-1.5**	**0.0**	**1.3**	**2.0**
Domestic demand (excl. change in inventories)	99.1	2.1	-0.2	-1.4	1.5	1.4	0.9
Gross fixed capital formation	22.0	-4.9	-7.8	-12.1	0.5	-1.9	-3.0
Construction and works	14.9	3.0	0.1	-1.6	2.2	0.4	3.3
Machinery and equipment	7.2	-19.3	-21.4	-29.6	-3.1	-6.6	-15.9
Total consumption	77.1	4.4	2.3	2.0	1.8	2.4	2.0
Private consumption	64.2	3.9	2.2	1.9	1.0	1.9	1.6
Durable goods	6.2	3.6	-1.5	-3.9	-4.6	-5.1	-0.9
Nondurable goods	26.4	4.1	1.2	1.6	0.6	1.9	1.4
Services	31.6	3.7	3.6	3.3	2.7	3.2	2.4
Government consumption	12.9	8.2	2.6	2.3	5.5	5.7	3.6
Change in inventories (*)	-0.6	0.0	-0.2	-0.3	-0.6	-0.7	-0.3
Goods and services exports	33.8	4.1	-0.4	-2.6	1.7	1.5	-4.9
Goods and services imports	32.3	-4.7	-9.4	-9.8	-3.9	-2.3	-5.1
GDP Total	**100.0**	**2.7**	**2.1**	**1.0**	**1.8**	**2.5**	**1.9**

(*)Ratio of inventory change to GDP, at average prices of previous year, accumulated in the last 12 months.
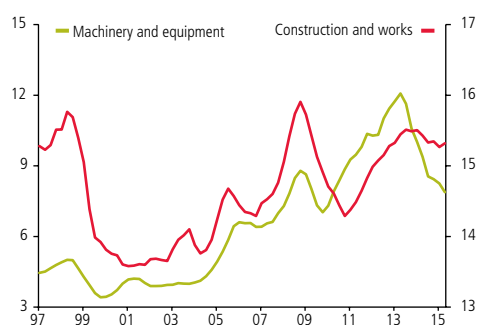
Source: Central Bank of Chile.

FIGURE III.2
Capital goods imports
(millions of US$, quarterly moving average)
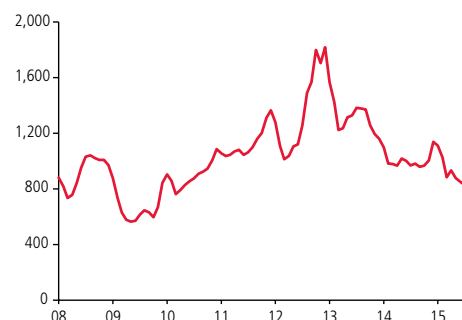
Source: Central Bank of Chile.

FIGURE III.3
Real gross fixed capital formation
(percent of GDP, accumulated in a moving year)

Source: Central Bank of Chile.

Private expectations have also been revised downward for total 2015 growth. Between May and August, based on the available surveys as of the cutoff date for each *Report*, the EES lowered the 2015 growth forecast from 2.7 to 2.2%. Although output grew above market expectations in June, expectations for the year still dropped in the last measure. For 2016, private expectations fell from 3.5 to 2.8% between May and August.

DOMESTIC DEMAND

The annual growth rate of domestic demand excluding inventories fell in the second quarter to 0.9% (down from around 1.5% in late 2014 and early 2015). By component, gross fixed capital formation was especially weak, posting a more negative annualized rate than in the previous quarter, mainly due to a drop of nearly 16% in the machinery and equipment component in annual terms (table III.2). Data on the margin of capital goods imports (June and July) were also in line with these trends (figure III.2). In contrast, the annual growth rate of the construction and works component increased relative to the first quarter, which was largely due to a boost from public investment, together with increased activity in real estate and residential construction. These two components have contributed to the much more stable performance of this investment segment relative to other cycles of low economic growth (figure III.3). The baseline scenario in this *Report* estimates that these factors will become less dynamic in the future. The growth outlook for construction and works is also lower in the coming quarters. In June, the Capital Goods and Technological Development Corporation (Corporación de Desarrollo Tecnológico y de Bienes de Capital, CBC) indicated that the value of projects in the energy sector has decreased for the three-year period 2016–2018, and there is no sign of a recovery in mining projects due to the lower copper price.

In terms of consumption, the annual growth rate also fell in the second quarter, which was evident in both public and private spending. Private consumption grew 1.6% in the second quarter (1.9% in the first). By component, durable goods consumption contracted less in the first quarter, in part thanks to the low basis for comparison in the same quarter of the previous year. Usual consumption was marked by a slowdown in services (2.4% in the second; 3.2% in the first), which grew below the rates recorded throughout 2014.

As for the determinants of consumption, the labor market remains resilient. The unemployment rate is at the same level as last year 6.5% in the moving quarter ending in June, and private job creation has increased thus far in 2015. The growth of nominal wages eased, from nearly 7.0% annual in March to 6.5% in June, taking the average of the different measures. In real terms, annual wage growth fell from 2.9% to around 2.0% in the same period, due to both the lower nominal growth and the higher inflation. As a result of these employment and wage trends, the growth of the real labor income has been practically

stable in the past few months (figure III.4). Data collected for the August *Business Perceptions Report* (BPR) indicate that the employment gap will begin to widen, to the extent that firms are displaying a reluctance to hire additional personnel and foresee possible workforce adjustments in the coming months.

With regard to other determinants of private spending, the business and consumer confidence indicators (the IMCE and the IPEC, respectively) again recorded a large decline, which, in addition, now reflects both idiosyncratic and general economic factors (figures III.5 and III.6). In the IMCE, the declining expectations in trade and manufacturing have been accompanied by a more negative perception in construction, despite a dynamic second quarter. This, in part, reflects the fact that a large share of the surveys is concentrated in the construction of engineering works, which has been quite sluggish. At the margin, the data suggest that after a strong push, residential activity could also begin to slow in the coming quarters.

The gloomy picture drawn by the expectations indicators is reinforced by the August BPR. The majority of the firms surveyed saw their business performance weaken or stagnate in the second quarter relative to earlier in the year, and they estimate an even more negative performance for the current period. This assessment cuts across all sectors—including both the domestic market and exports—with the exception of construction and real estate. These firms have also scaled back their investment projects and plans for the coming quarters, focusing on expenditures that are strictly necessary to keep the business operating and postponing expansions of production capacity. In addition, there is widespread concern about the economy's performance in the second quarter of 2015, with no expectations of a significant recovery from current levels.

The increased reluctance to spend on the part of households and firms has been reflected in a slowdown in bank lending, despite the fact that interest rates are at or near their historical lows. The August BPR suggests that the low interest rates have instead contributed to restructuring loan terms. The national accounts by institutional sector for the first quarter indicate that households debt (as a percent of gross disposable income) and nonfinancial firms has declined since late 2014. This has been accompanied by a higher private savings rate. Between the last quarter of 2014 and the first quarter of this year, the household savings rate as a percent of gross disposable income rose from 9.4 to 9.6%, while the savings rate of nonfinancial firms increased from 7.5 to 8.9% of GDP.

As mentioned, the accumulation of inventories increased in the second quarter relative to previous quarters. In the moving year ending in the second quarter of 2015, the change in inventories was equivalent to −0.3% of GDP, versus −0.7% in the first quarter. According to the July IMCE, this inventory accumulation may be undesirable. At the same time, these inventory trends could be reflecting other events that occurred in the quarter, such as the customs strike and the temporary port closures due to high tides.

FIGURE III.4
Annual contribution to the real labor income
(percentage points)
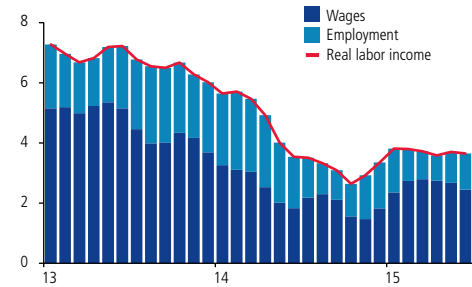
Sources: National Statistics Institute (INE) and Central Bank of Chile.

FIGURE III.5
IPEC: Consumer Economic expectations (*)
(index)
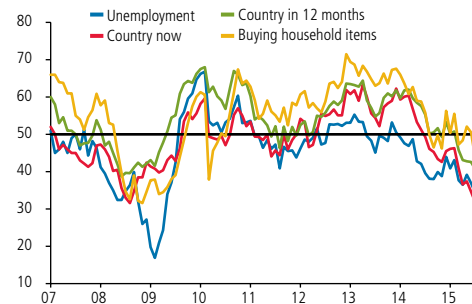
(*) A value over (under) 50 indicates optimism (pessimism).
Source: Adimark.

FIGURE III.6
IMCE: Business perceptions (*)
(index)
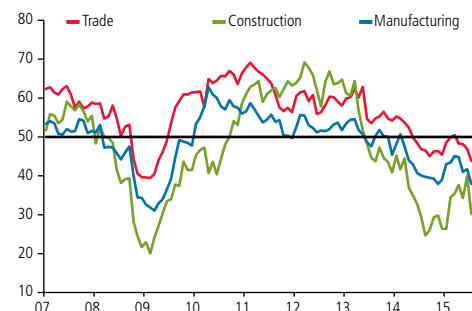
(*) A value over (under) 50 indicates optimism (pessimism).
Source: Icare/Universidad Adolfo Ibáñez.

FIGURE III.7
Manufacturing exports
(fixed-base index: 2003-2015=100)
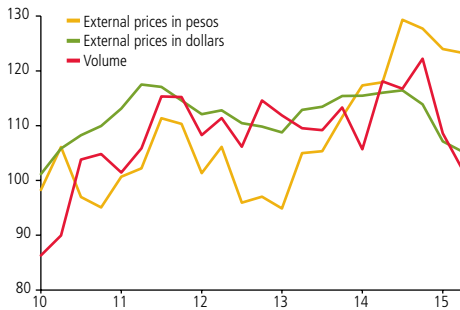
Source: Central Bank of Chile.

FIGURE III.8
Current account, national savings and investment
(percent of GDP, accumulated in a moving year)

Source: Central Bank of Chile.

CURRENT ACCOUNT

In the second quarter, the value of goods exports fell 15% in annual terms, due to both a reduction in the volume of exports (−3.9%) and lower prices (−11.5%). By sector, prices fell across the board, but especially in mining and manufacturing exports. In terms of volume, mining exports grew in annual terms (3.9%), while agricultural and manufacturing exports contracted (11.0% and 13.7% annual, respectively.
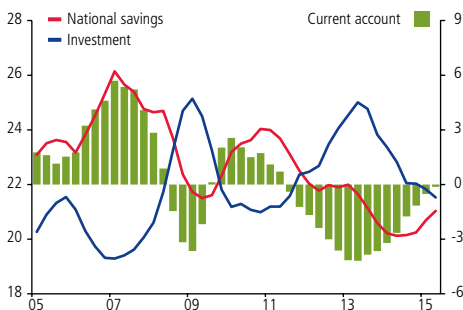
From a broader perspective, the performance of the manufacturing sector has been weaker than what might be expected a priori given the boost from the exchange rate depreciation of the last two years. Several factors play a role in this trend. First, the peso depreciation is largely the result of a generalized appreciation of the dollar that has affected all currencies. Although the peso depreciated much more than other emerging and, especially, Latin American currencies in 2014, since the end of the year the trend has changed, and the peso is now in line with the average global and regional depreciation (table II.8)[1]/. In addition, more than a small share of Chilean manufacturing shipments go to Latin American markets, in particular to Brazil, which have recorded larger depreciations than Chile. Second, external demand has weakened in recent quarters, especially in Latin America, which has more than offset the expansionary effect of the peso depreciation. Finally, the global appreciation of the dollar has contributed to a drop in the price of exports in dollars, thereby eroding the income of national firms (figure III.7).

On the import side, in the second quarter the value of imported goods fell 17.3% in annual terms, which was greater than the decline in goods exports. This was mainly due to a drop in the volume of capital and consumer goods imports (nearly 11% on average in annual terms) and, to a lesser extent, to lower prices (around 5.0% on average in annual terms).

The significant adjustment in domestic spending contributed to reducing the current account deficit. As of the second quarter, the current account balance was −0.1% of GDP for the last moving year (versus −0.5% in the previous quarter) (figure III.8). In the baseline scenario, the current account deficit is expected to increase in 2015 to −0.7% of GDP.

[1]/ For more details, see box III.2 in the June 2014 *Monetary Policy Report*.

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.

RECENT EVOLUTION OF INFLATION

In July, annual CPI inflation and core inflation (CPIEFE) were 4.6 and 4.9%, respectively, an increase relative to the cutoff date of the last Report (4.1 and 4.3% in April) (figure and table IV.1). This trend was primarily driven by the sharp increase in the exchange rate (16% in nominal terms during the year), which is expected to continue affecting the inflation dynamics for some months, thereby pushing back convergence to 3%. The peso depreciation has also driven short-term private expectations, especially for year-end 2015 and one year ahead. Two years ahead, private expectations remain anchored at 3%.

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

	CPI	Food	Energy	CPIEFE	CPIEFE goods	CPIEFE services
2013 average	1.8	4.4	0.4	1.2	-1.9	3.3
2014 Jan.	2.8	4.4	3.2	2.4	-0.2	4.1
Feb.	3.2	5.6	3.8	2.5	0.0	4.3
Mar.	3.5	5.7	5.1	2.7	0.4	4.3
Apr.	4.3	6.4	6.6	3.5	1.2	5.1
May.	4.7	6.6	8.8	3.8	1.8	5.1
Jun.	4.3	5.7	7.1	3.6	1.7	4.9
Jul.	4.5	6.2	7.4	3.7	1.8	4.9
Aug.	4.5	6.7	4.1	4.0	2.3	5.2
Sep.	4.9	8.3	5.3	3.9	2.3	5.0
Oct.	5.7	10.2	8.8	4.1	2.7	5.0
Nov.	5.5	8.7	7.7	4.3	2.7	5.3
Dec.	4.6	8.9	-2.0	4.3	2.7	5.3
2015 Jan.	4.5	9.5	-8.1	4.8	3.8	5.4
Feb.	4.4	8.8	-7.3	4.7	4.0	5.1
Mar.	4.2	8.0	-7.6	4.6	3.9	5.1
Apr.	4.1	8.0	-5.5	4.3	3.6	4.7
May.	4.0	7.7	-6.2	4.2	3.6	4.7
Jun.	4.4	7.5	-4.5	4.7	4.3	5.0
Jul.	4.6	7.5	-3.8	4.9	4.8	4.9

(1) See glossary for definitions.
(2) Starting in January 2014, calculations are based on the new indexes with base year 2013=100, so they may not be strictly comparable with earlier figures.

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

FIGURE IV.1
Inflation indicators (1) (2)
(annual change, percent)
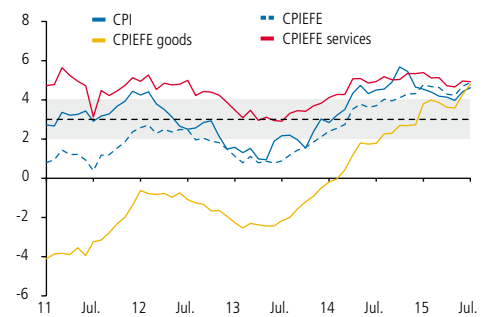
(1) See glossary for definitions.
(2) Starting in January 2014, calculations are based on the new indexes with base year 2013=100, so they may not be strictly comparable with earlier figures.

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

FIGURE IV.2
Contribution to annual CPI inflation (*)
(percentage points)

(*) Starting in January 2014, calculations are based on the new indexes with base year 2013=100, so they may not be strictly comparable with earlier figures.

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

FIGURE IV.3

IVUM consumer goods and the EPI (*)

(fixed-base index: 2011–2015=100)

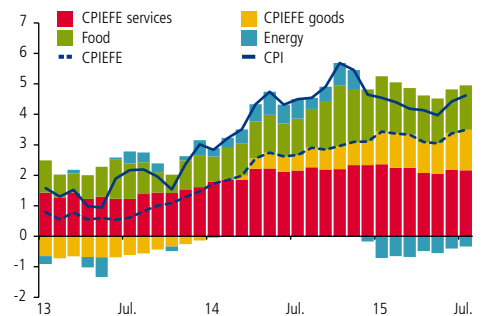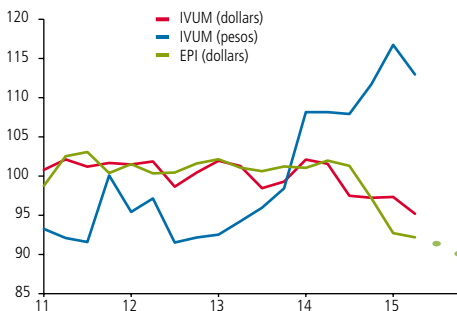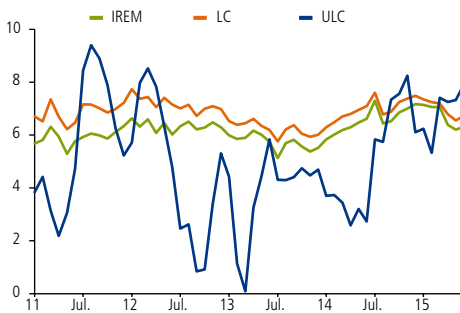(*) Quarterly data for the second quarter of 2015, except the two dots in the figure, which are the estimated monthly forecasts for the EPI in July and August, respectively.

Source: Central Bank of Chile.

FIGURE IV.4

Nominal wages and unit labor costs

(annual change, percent)

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

FIGURE IV.5

Margins (*)

(fixed-base index: 2003–2015=100)

(*) Approximation measures as the ratio of CPI goods inflation to the IVUM in pesos.

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

The recent increase in annual CPI inflation was greater than projected in the June *Report*. This sharper rise and the surprise are largely explained by the increase in CPIEFE goods inflation. Since the last cutoff date, this component had the greatest expansion in its contribution to annual CPI inflation, of 0.3 percentage points (pp) (figure IV.2). The upward trend of the exchange rate starting in mid-2013 has been the biggest driver of inflation in this component, which rose from around −2.5% in that period to just under 5.0% currently. This has more than offset the marked reduction in imported consumer goods prices (IVUM) in dollars in the last year, which fell just over 6% between the second quarter of 2014 and the second quarter of 2015, relatively in line with the trend in the external price index in dollars (EPI) (figure IV.3).

Since the last cutoff date, the contribution of CPIEFE services to annual CPI inflation also increased, although to a lesser extent than goods. As described in previous *Monetary Policy Reports*, exchange rate effects are also a factor for this component, mainly through indexation. Although still high at nearly 5%, the annual inflation of these prices has eased somewhat since late 2014 and early 2015 (figure IV.1). This is consistent with the local scenario of sluggish activity.

Inflationary pressures deriving from labor costs have eased in recent months. The annual growth rate of nominal wages fell 7% after several months, while real wages fell to rates on the order of 2%, on average, in line with the smaller nominal increase and the higher CPI inflation. This is consistent with the data collected for the August *Business Perceptions Report* (BPR), where a large share of the interviewees stated that wage pressure had diminished. Unit labor costs (ULC) recorded a higher annual growth rate than wages, following an upward trend during the year (figure IV.4). In any case, various measures reflect a recent increase in capacity gaps, which would contribute to the convergence of inflation to the target (box V.3).

Trade margins are tight, largely due to the cost effects of the peso depreciation and indexation to past inflation, combined with the difficulty of passing through higher costs to final prices in a weak economic cycle. Using the ratio between CPIEFE goods inflation and the IVUM in pesos to approximate a measure of margins, we find that margins have compressed substantially since mid-2013 (figure IV.5). In the last BPR, the majority of the interviewees indicated that, in order to improve performance, they are having to adopt cost control strategies, to the extent that they do not foresee demand providing the space to raise prices.

Energy continued to make a negative contribution to annual inflation, although on a smaller magnitude than in the last *Report*. This latter trend mainly reflects the upward impact of the peso depreciation on electricity rates (figure IV.6). Fuels have recorded negative annual inflation since late 2014, as crude oil prices in international markets have remained low after falling

sharply in the last quarter of the year. The contribution of this subgroup to annual CPI inflation has not changed much since the last *Report*, in a context that includes in the international oil price in recent weeks—around 30% since the last *Report*—and the peso depreciation (figure IV.7). The combination of these factors suggests that the fuel price trend in the coming months will be similar to the June projection. Finally, electricity bills will move in step with the higher exchange rate, although this effect acts with something of a lag.

The contribution of food to annual CPI inflation decreased marginally, in line with different fresh fruit and vegetable products (figure IV.6). Among other factors, the annual price inflation of meat declined to around 6% in July, after recording its highest value of several years in late 2014. The significant drop in meat prices in dollars in recent months (just under 20% since September 2014, according to the FAO index) has contributed to the lower inflation at the national level. The external prices of other foods also fell, but the effect on the local market was smaller than in the case of meat, because the imported component of domestic meat consumption is larger than in the case of other products (figure IV.8).

INFLATION OUTLOOK

As mentioned, the pass-through of the significant new depreciation of the peso in recent months is the main factor underlying the higher inflation trend in the coming months and the later convergence with the target in the new baseline scenario. This is also the most important factor behind the repeated upward corrections in the inflation forecast over the course of the past year (figure IV.9).

Private inflation forecasts for the shortest terms also continued to rise. In August, the expected inflation for December 2015 increased to 4.2% (3.5% in May), according to the Economic Expectations Survey (EES). This implies an increase of 1.5 percentage points relative to the forecast in January of this year (figure IV.10). Inflation insurance has risen even further since that date, averaging 4.4% in the ten days prior to the cutoff date for this Report.

One year ahead, both the EES and the Financial Brokers Survey (FBS) rose to 3.5% (versus 3.1 and 3.0%, respectively, on the last cutoff date). Inflation insurance recorded practically the same increase in the period and at times was even higher. Two years ahead, the different surveys continue to show expectations of 3.0%.

In the baseline scenario, the Board estimates that annual CPI inflation will be over 4% at least through the first half of 2016, although it could temporarily drop below that level in the fourth quarter of this year due to the high basis of comparison. If this scenario materializes, inflation will have been over the target range for two years. Annual CPI inflation could reach

FIGURE IV.6

Contribution of food and energy to annual CPI inflation (*)
(percentage points)
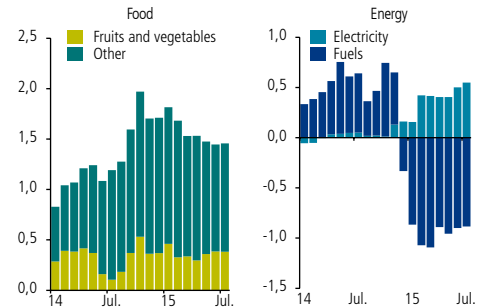
(*) Starting in January 2014, calculations are based on the new indexes with base year 2013=100, so they may not be strictly comparable with earlier figures.

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

FIGURE IV.7

Weekly gasoline prices (1) (2)
(fixed-base index: 2013–2015=100)
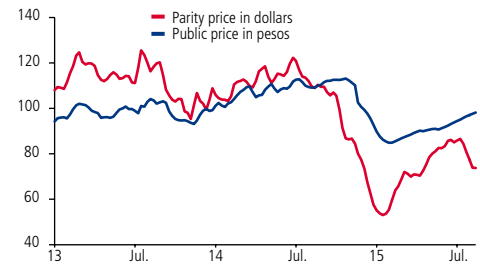
(1) Starting in August 2014, the CNE publishes the parity price in pesos. After that date, the parity price is converted to dollars using the average observed exchange rate in the last two weeks prior to the date.
(2) Real data through the week of 3 August 2015; preliminary estimates for the weeks thereafter.

Sources: Central Bank of Chile and National Energy Commission (CNE).

FIGURE IV.8

Meat prices
(annual change, percent)

(*) Starting in January 2014, calculations are based on the new indexes with base year 2013=100, so they may not be strictly comparable with earlier figures.

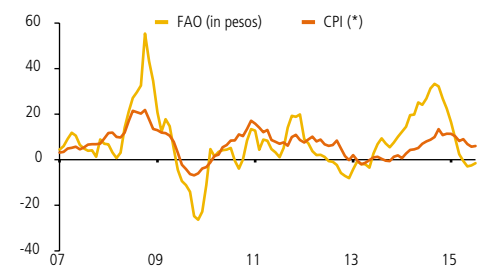Sources: Central Bank of Chile, National Statistics Institute (INE) and United Nations Food and Agriculture Organization (FAO).

FIGURE IV.9

Exchange rate and adjustment to the inflation forecast (1) (2)

(annual change, percent)
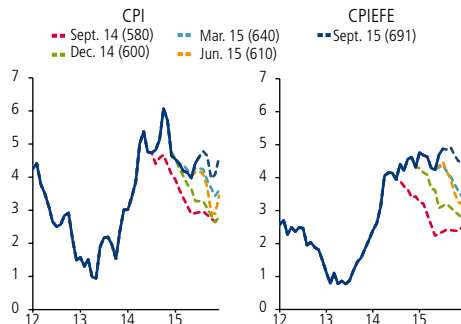
(1) For inflation, starting in January 2014, calculations are based on the new indexes with base year 2013=100, so they may not be strictly comparable with earlier figures.

(2) Dashed lines graph the inflation forecast in the *Monetary Policy Reports* identified in the legend. Numbers in parentheses are the exchange rate (pesos/dollar) at the time of the forecast.

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

FIGURE IV.10

Exchange rate and inflation expectations in December 2015

(pesos per dollar; annual change, percent)
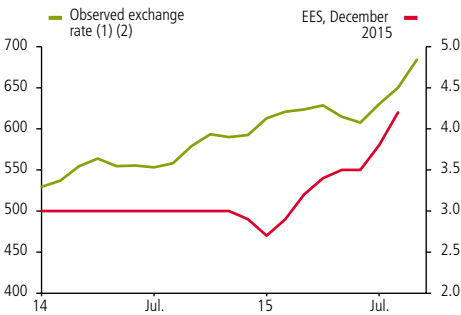
(1) One month ahead, since the inflation expectations contained in the EES take into account the exchange rate trend of the previous month.

(2) Figure for August is the average of the daily data available as of the cutoff date of this *Report*.

Source: Central Bank of Chile.

4.6% in December of this year and then rise again in early 2016 due to the application of the new legislation on stamp duties. Annual CPIEFE inflation, in turn, is forecast at 4.5% in December. The baseline scenario in this *Report* projects a slower convergence to the target, with inflation returning to 3% over the course of 2017 and then fluctuating around that value through the end of the forecast horizon (the third quarter of 2017).

In the short term, the inflation risks are high. Inflation has remained high for a long time, which in itself is a risk for expectations. Moreover, external risk scenarios may trigger an additional depreciation of the peso. Overall, the slowdown in nominal wage growth mitigates a previously detected risk. Meanwhile, a scenario where capacity gaps increase more than expected and reduce inflationary pressures should not be ruled out.

V. INFLATION SCENARIOS

This chapter presents the Board's assessment on the Chilean economic outlook over the next two years. Projections are presented of the most likely inflation and growth trajectories. These are conditional on the assumptions in the baseline scenario, thus the Board's assessment of the risk balance for output and inflation is also provided.

BASELINE PROJECTION SCENARIO

The baseline scenario of this *Report* adjusts the inflation forecast upwards. In particular, inflation is expected to remain above 4% at least throughout the first half of 2016, thus completing almost two years above the tolerance range (figures V.1 and V. 2). As has been the norm in the last *Reports*, the erosion of peso value has been the main cause behind the change in the projections and the persistence of high inflation. Since the closing of June's *Report*, the peso posted a new and significant depreciation that took it from $615 per dollar to around $700 at the closing of this *Report*, completing 26 months of positive annual variations. It is also worth noting that early next year, modifications to the stamp tax will push inflation further up. Overall, the drop in fuel prices will help reduce inflation, especially in 2016. Regarding the trajectory of the real exchange rate (RER) it is assumed that, by the end of the projection horizon, the RER will show a slight appreciation from its average for the ten days prior to the close of this *Report*.

Also favoring the convergence of inflation is the assumption that the output gap will continue to widen at least until the first part of 2016. On this occasion, the Board considered it important to explicitly introduce the distinction between trend GDP and the so-called GDP consistent with stable inflation, known in the literature as potential short-term GDP or simply potential GDP. By its nature, potential GDP is the relevant input for calculating the output gap associated with inflationary pressures. The difference between the two concepts is that potential GDP, unlike medium-term or trend GDP, may be affected by temporary fluctuations of productivity and temporary constraints to factor availability. Most recently, the output gap has widened, although not as much as it did in earlier low-growth cycles. This is consistent with other measures, such as surveys on installed capacity utilization and electric power consumption which also point at less capacity utilization.

FIGURE V.1
CPI inflation forecast (*)
(annual change, percent)
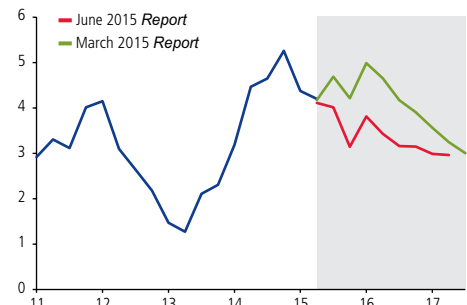
(*) Gray area, as from the third quarter of 2015, shows forecast.
Sources: Central Bank of Chile and National Statistics Institute (INE)

FIGURE V.2
Contribution to annual CPI inflation (1) (2)
(percentage points)
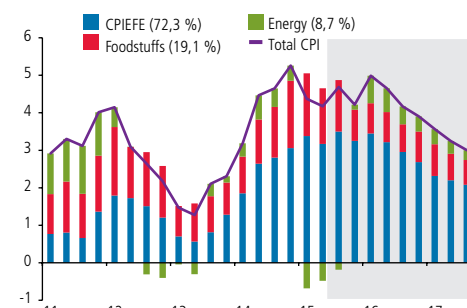
(1) Gray area, as from the third quarter of 2015, shows forecast.
(2) In parentheses, share in CPI basket.
Sources: Central Bank of Chile and National Statistics Institute (INE).

TABLE V.1
Inflation

	2014	2015 (f)	2016 (f)	2017 (f)
		(annual change, percent)		
Average CPI inflation	4.4	4.4	4.4	
December CPI inflation	4.6	4.6	3.7	
CPI inflation in around 2 years (*)				3.0
Average CPIEFE inflation	3.6	4.6	4.3	
December CPIEFE inflation	4.3	4.5	3.5	
CPIEFE inflation in around 2 years (*)				2.9

(f) Forecast.
(*) Corresponds to the projected inflation for the third quarter of 2017.

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

TABLE V.2
Economic growth and current account

	2014	2015 (f)	2016 (f)
		(annual change. percent)	
GDP	1.9	2.0-2.5	2.5-3.5
National income	1.9	2.2	2.4
Domestic demand	-0.6	2.0	3.1
Domestic demand (w/o inventory change)	0.5	1.4	3.0
Gross fixed capital formation	-6.1	-1.2	1.9
Total consumption	2.5	2.1	3.3
Goods and services exports	0.7	-1.7	1.2
Goods and services imports	-7.0	-2.3	2.2
Current account (% of GDP)	-1.2	-0.7	-1.5
Gross national saving (% of GDP)	20.3	20.8	20.0
Gross national investment (% of GDP)	21.4	21.5	21.5
GFCF (% of nominal GDP)	22.0	21.5	21.5
GFCF (% of real GDP)	24,0	23,3	23,1
		(US$ million)	
Current account	-2,995	-1,750	-3,700
Trade balance	7,767	5,950	3,900
Exports	75,675	64,750	64,500
Imports	-67,908	-58,800	-60,600
Services	-3,757	-4,200	-4,150
Rent	-8,857	-5,050	-4,950
Current transfers	1,851	1,550	1,500

(f) Forecast.

Source: Central Bank of Chile.

TABLE V.3
International baseline scenario assumptions

	Avg. 00-07	Avg. 10-12	2014	2015 (f)	2016 (f)	2017 (f)
			(annual change, percent)			
Terms of trade	8.2	4.2	-1.4	-3.0	-1.0	-0.4
Trading partners GDP (*)	3.6	4.6	3.4	3.1	3.4	3.4
World GDP at PPP (*)	4.2	4.0	3.4	3.2	3.5	3.5
World GDP at market exchange rate (*)	3.2	3.2	2.7	2.5	3.0	2.9
Developed economies' GDP at PPP (*)	2.6	1.7	1.7	1.9	2.3	2.2
Emerging economies ' GDP at PPP (*)	7.4	5.9	4.8	4.1	4.6	4.6
External prices (in US)	4.6	5.2	-0.9	-9.0	-0.4	3.2
			(levels)			
LME copper price (US¢/lb)	154	368	311	255	245	250
WTI oil price (US$/barrel)	44	89	93	49	50	55
Brent oil price (US$/barrel)	42	101	99	54	55	60
Gasoline parity price (US$/m³) (*)	366	742	731	497	461	483
Libor US$ (nominal, 90 days)	3.6	0.4	0.2	0.4	1.2	2.2

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

Source: Central Bank of Chile.

Thus, annual CPI and CPIEFE inflation will return to 3% over the course of 2017, hovering around this level until the end of the projection horizon, this time the third quarter of 2017 (table V.1). Inflation expectations derived from the Economic Expectations Survey (EES) and the Financial Brokers Survey (FBS) have also been adjusting them upward these months, especially at shorter terms, while they remain at 3% at a two year horizon. However, the baseline scenario of this *Report* assumes that inflation will converge to 3% a slower pace than surveys suggest. Actually, for December 2015, the EES foresees annual CPI variation at 4.2%, while this *Report* places it at 4.6%. At longer terms, the difference between the two projections is bigger, as at December 2016 it becomes 6 tenths of one point: the EES places it at 3.1% and this *Report* at 3.7%. Still, inflation insurances use an implied convergence that resembles more that in the baseline scenario of this *Report*.

As aforesaid, in the baseline scenario the output gap will continue to widen at least until the first part of 2016. In 2015 GDP will expand between 2.0% and 2.5%, a lower range than assumed in June. In 2016, the economy will grow between 2.5% and 3.5% (table V.2). The revision to the 2015 forecast is explained by the fact that actual second-quarter figures for domestic output and demand were weaker than expected; business and consumer expectations not only did not recover but have deteriorated again since June; the outlook for the mining industry has worsened; there are still no signs of improvement in private investment and consumption; and, most importantly, the external scenario facing the Chilean economy worsened significantly in the last month. Overall, these projections continue to assume that private expectations will improve gradually and monetary policy will remain very expansionary. On the fiscal side, the *Report* assumes that in 2016 expenditure will increase by less than it did this year, consistently with a moderate reduction in the structural deficit.

On the expenditure side, in 2015 consumption will grow 2.1%, that is, less than last year and less than forecast in June. The reduction in the wage bill results in a slowdown in private consumption this year. Towards 2016, total consumption will grow 3.3%, considering that, as aforementioned, this baseline scenario assumes a recovery of expectations going forward.

Gross fixed capital formation (GFCF), which already contracted in 2014, will shrink further this year (by 1.2%). This revision to the June forecast is largely related to the machinery and equipment component, which dropped substantially during the first half and shows no signs of recovering any time soon, since the most recent indicators of capital goods imports show no major variations from first-half figures. In construction and other works, the revision is smaller, explained by the boost to home building associated to advanced purchases because of the value added tax that is scheduled to become effective next year. This partly offsets the downward correction of the CBC's survey, which again reduced the value of projects in the pipeline. Along the same line, respondents to the Business Perception *Report* said to have no major investment plans or projects for the coming quarters. With this, GFCF will go from 24% of GDP in 2014 in real terms to 23.3% in 2015 (21.5% in nominal terms). In 2016 it will see a further reduction to 23.1% of GDP.

Although the currency depreciation should have a positive effect on tradable sectors' activity, in recent months other factors have counteracted its impact. Our trading partners' currencies have also depreciated, there have been reductions in the dollar prices of some exports and demand has dwindled, especially in Latin America, which has been particularly severe on manufacturing shipments. Going forward, the significant drop in production announced by the Escondida mine for the year spanning from July 2015 to June 2016, will take its toll on mining shipments during this period[1].

The current account of the balance of payments will post a small deficit this year, -0.7% of GDP, slightly more negative than was expected in June. The deficit will increase in 2016 to -1.5% of GDP, in line with the lower copper price and the moderate recovery foreseen for domestic demand. Measured at trend prices[2] it will be between 2% and 3% in 2015-2016, a little above its 2014 figure, but well below its magnitude of previous years.

This *Report* contemplates a significant reduction in the impulse coming from abroad. The main adjustments come from the sharp drop in commodity prices of recent months, in response to doubts about the performance of the Chinese economy, the dollar's appreciation, the volatility of financial markets and excess supply in some markets. The copper price has fallen 19% since June, which motivates a downward revision of the price for both 2015 and 2016, to US$2.55 and US$2.45 per pound, respectively (table V.3). Oil has seen significant declines during this period and projections are that WTI and Brent oil will average about US$52 in 2015 and 2016. As a result, the terms of trade, contradicting June's projections, will deteriorate further in 2015 and 2016.

The projection for world growth is also revised with respect to the last *Report*. Now it is foreseen that in 2015 and 2016 trading partners will expand by 2 and 3 tenths of a point less, respectively. The main adjustments are driven by the slowdown in China, which will go from growing 7.4% in 2014 to 6.7% in 2015 and 6.4% in 2016. Also remarkable are revisions in Latin America, which will feel the impact of lower commodity prices, a weaker external demand and capital outflows from the region, which, considering the needs for external and fiscal financing of some countries, could motivate costly adjustments. Worth noting is the case of Brazil, which this year will suffer a contraction with no precedent in the last 25 years.

The baseline scenario uses as a methodological assumption that the MPR trajectory will be similar to the one that can be inferred from the prices of financial assets at the statistical closing of this *Report* (figure V.3).

FIGURE V.3
MPR and expectations
(percent)
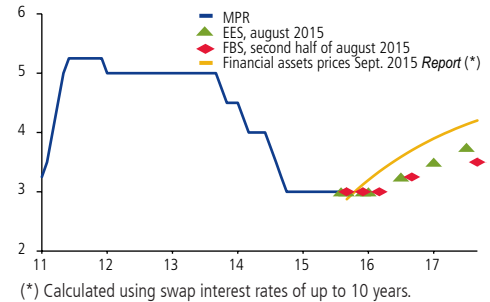
(*) Calculated using swap interest rates of up to 10 years.
Source: Central Bank of Chile.

FIGURE V.4
GDP growth (*)
(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 summarize the risks on growth as assessed by the Board. The baseline scenario uses as a methodological assumption that the MPR trajectory will be similar to the one that can be inferred from the prices of financial assets at the statistical closing of this *Report*.

Source: Central Bank of Chile.

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[1] For further details, see the BHP Billiton operating report for the year ending on 30 June 2015.
[2] This calculation incorporates adjustments in prices, but not volumes, assuming long-term prices of US$2.85 per pound of copper and US$85 per barrel of Brent oil.

FIGURE V.5
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 summarize the risks on inflation as assessed by the Board. The baseline scenario uses as a methodological assumption that the MPR trajectory will be similar to the one that can be inferred from the prices of financial assets at the statistical closing of this *Report*.

Source: Central Bank of Chile.

FIGURE V.6
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 summarize the risks on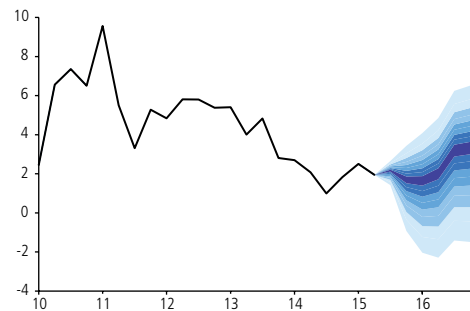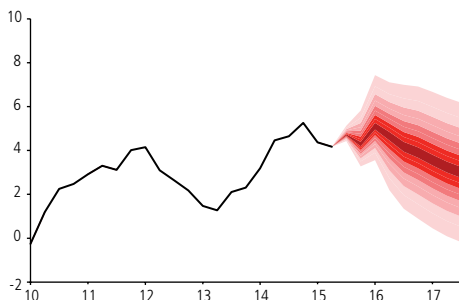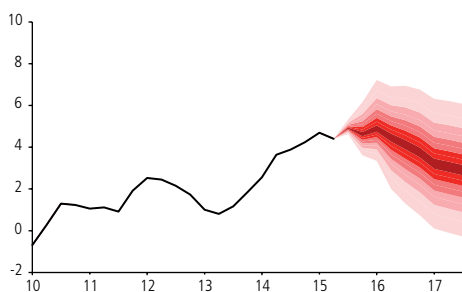 core inflation as assessed by the Board. The baseline scenario uses as a methodological assumption that the MPR trajectory will be similar to the one that can be inferred from the prices of financial assets at the statistical closing of this *Report*.

Source: Central Bank of Chile.

RISK SCENARIOS

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

As aforesaid, abroad the possibility persists of new volatility episodes taking place in the financial markets that could affect the short-term inflation outlook. On the one hand, developments in China have deepened the concerns about the economy. But it is also possible that the measures adopted translate into an orderly rebalancing of the Chinese economy that will avoid surprises later on. On the other, there is still uncertainty about how the normalization of the policy rate in the United States will affect asset prices. Anyway, the agreements reached in Europe have moderated to some extent the concerns about Greece. Negative risk scenarios could further complicate the already difficult outlook for emerging economies, especially in Latin America, where several countries continue to deal with high fiscal and current account deficits, making the necessary adjustments difficult and costly. Although Chile is not isolated from these risks, the economy has no external or fiscal imbalances.

Domestically, the baseline scenario continues to expect a gradual fade-out of the autonomous shock to confidence that has negatively affected the expectations of consumers and businesses in the last few quarters. Otherwise, it will affect the pace of recovery of domestic output and spending. By contrast, a greater effect on the national income of the decline in fuel prices, could give a bigger boost to the economy.

Regarding inflation, short-term risks are high. Inflation has remained high for a long time, which in itself is a risk on expectations. Moreover, external risk scenarios may trigger an additional depreciation of the peso. Overall, the slowdown in nominal wage growth mitigates a previously detected risk. Meanwhile, a scenario where capacity gaps increase more than expected and reduce inflationary pressures should not be ruled out.

After evaluating these risks, the Board estimates that the risk balance for output is biased downward, while for inflation it is biased upward in the short term and unbiased in the projection horizon (figures V.4, V.5 and V.6).

Annual inflation rose again, remaining above 4% and it is anticipated that it will remain at those levels for longer than forecast. Domestic output and expenditure weakened in the second quarter and growth prospects for 2015 have been cut further. The Board has kept an expansionary monetary stance, holding the MPR at 3%. As usual, any future changes in the MPR will depend on the evolution of domestic and external macroeconomic conditions and their implications for the inflation outlook. The Board reaffirms its commitment to conduct monetary policy with flexibility so that projected inflation stands at 3% over the policy horizon.

BOX V.1
TREND GDP GROWTH

This box reviews the medium-term growth potential of the Chilean economy, a concept known as trend GDP growth. The analysis updates the estimates presented in the September 2014 *Monetary Policy Report*, in the box "Medium-term growth." It is very similar to the assessment carried out by the Trend GDP Advisory Committee, convened by the Ministry of Finance.

By focusing on the medium-term growth potential, this exercise analyzes a scenario in which the effects 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 also determine the growth of productive factors. As usual in the literature, the model assumes a Cobb-Douglas production function.

This exercise does not aim to calculate the output gap that is used for measuring inflationary pressures, as they are related to the difference between the economy's current output level and its current production capacity. The latter is simply called potential GDP or—to emphasize the focus on the economy's current production capacity—short-term potential GDP, which can differ from trend GDP (box V.2).

This certainly does not imply that trend GDP growth is irrelevant for the conduct of monetary policy. On the contrary, it is an important element in the calibration of the forecasting models used by the Central Bank and, therefore, serves as a benchmark for the growth projections contained in the *Monetary Policy Reports*. For a more detailed discussion of the differences between trend GDP and potential GDP, see Albagli and Naudon (2015).

As usual, for the purposes of the calculation, total GDP is disaggregated into natural resources GDP and other GDP. In the case of natural resources, the medium-term growth estimate is based on a forecast of the future production of the main firms in the sector. For other GDP, the estimate is based on the analysis of the medium-term growth of capital, labor and productivity.

Given that it is based on a medium-term measure that assumes that the effect of shocks has dissipated, this exercise is applied to

fairly long periods of at least five or ten years. For comparability with the September 2014 analysis and the findings of the Trend GDP Advisory Committee, this box presents the results for the period 2016–2020. The estimates for longer periods can be found in Albagli et al. (2015a).

In the exercise, trend GDP growth is around 3.5%, which represents a downward correction of the estimate reported in September of last year. The difference is mainly due to the lower growth forecast for the capital stock, the incorporation of a downward trend in hours worked and a somewhat lower forecast of the job quality wage premium growth.

Calculation of trend GDP growth

Trend GDP growth in other sectors

Capital is projected to grow at 3.6% over the next 15 years. This estimate is based on the recent trend and the forecast of gross fixed capital formation in non-natural-resource sectors. Specifically, the ratio of investment to GDP in other sectors is expected to stay around 20.5%, which is the average for the period from 2008 to date and slightly higher than the past few years (figure V.7). This estimate is lower than the assumption a year ago, when the growth rate of capital was projected at around 4.5% in these sectors.

FIGURE V.7
Gross fixed capital formation/GDP in other sectors
(percent)

Source: Central Bank of Chile.

The employment estimate incorporates not only the projected evolution of the labor force, but also an adjustment for job quality and hours worked. Unless otherwise indicated, the working assumption is that the characteristics that describe the labor market (participation, education level, hours worked, etc.) will gradually converge to OECD levels in around 2050[1]. Population growth and age composition are based on estimates by the National Statistics (INE). Based on these assumptions, the labor force is expected to have an annual growth rate of 1.3% in the next five years, a job quality adjustment of 0.7% annually, and a reduction in hours worked of 0.4% annual. Thus, the real growth rate of labor, adjusted for hours worked and job quality, is estimated at 1.6% in the coming years. This figure is lower than the assumption used last September. The correction mainly reflects the incorporation of a downward trend in hours worked, in line with the observed data for this variable and international trends.

More specifically, the job quality indicator was adjusted in this estimation. The forecast is based on the assumption that new entrants to the labor market will be converging to the average of the median years of education of the OECD countries in 2014 and that the associated wage premiums will be similar to the last few years. As mentioned above, the job quality index is expected to grow 0.7% on average in the period; this is 0.3 percentage points lower than the previous estimate.

The assumption on the growth of labor force has not changed since last September. This calculation is based on INE forecasts of population growth in different age groups, weighted by their labor force participation rate. It is further assumed that women's labor force participation will continue to increase gradually over the coming years, approaching the levels recorded in the OECD countries.

Finally, the growth rate of total factor productivity (TFP) in non-natural-resource sectors is estimated at 1%, on average, for the five-year period 2016–2020. This is the same as the assumption used last September.

Medium-term growth in natural resource sectors

In the mining and electricity, gas and water (EGW) sectors, the growth forecast for the next five years is based on data from the Capital Goods and Technological Development Corporation (CBC), the Chilean Copper Commission (COCHILCO), the National Energy Commission (CNE) and the Load Dispatch Center of the Central Interconnected System (CDEC), together with an analysis of the historical evolution of the copper ore grade. For fishing, the forecast uses the historical evolution of average production in the sector. Based on these projections, the natural resources sector is expected to post an annual growth rate of 2.9% in the next five years.

Trend GDP growth

Trend GDP growth is calculated by adding together the assumptions on the natural resource sectors, other sectors and indirect taxes (VAT and import duties). The weights used are the same as the relative weight of each sector in 2013 GDP: 14% for natural resources, 77% for other sectors and 9% for VAT and import duties. This yields a trend GDP growth rate of 3.5% between 2016 and 2020 (table V.4). This is similar to the projection made by the Finance Ministry's Trend GDP Advisory Committee, which estimated that Chile's trend GDP growth rate would average 3.7% in 2016–2020.

TABLE V.4
Trend GDP growth, 2016–2020
(annual change, percent)

Period	Total GDP (1)	Other GDP (2)				Nat. res. GDP
		Total	TFP	Capital	Labor	
16-20	3.5	3.6	1.0	3.6	1.6	2.9

(1) For the medium-term forecast, the shares of other GDP and natural resources GDP are assumed to be the same as in nominal GDP in 2013. To arrive at total GDP, the VAT and import duties are assumed to grow at the same rate as other GDP.
(2) The shares of capital and labor in other GDP are 48 and 52%, respectively.
Source: Central Bank of Chile.

It should be noted that these exercises are always subject to a substantial degree of uncertainty regarding the assumptions underlying the estimates, so they need to be complemented by sensitivity analysis. A number of sensitivity exercises were performed by Albagli et al. (2015a), who present their findings in the paper.

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[1]/ Albagli et al. (2015a) provide more detail on the calculation of the assumptions mentioned here.

BOX V.2
## POTENTIAL GDP, THE OUTPUT GAP AND INFLATION

Inflation dynamics are determined by various factors, including some unobservable variables that can only be characterized through indirect measurement methods. One example is the so-called output gap, which measures the difference between current and potential GDP[1]/, where potential GDP is understood as the output level consistent with stable inflation.

As mentioned in box V.1, potential GDP differs from trend GDP, in that it measures the economy's production capacity today and thus can be affected by short-lived shocks to production and temporary limitations on factor utilization in the short term[2]/. In contrast, trend GDP is a medium-term measure of output that is not affected by these short-term events (figure V.8). Examples of events that could affect potential GDP but not necessarily trend GDP include a climatic event that reduces production in the affected zone without altering the existing amount of capital or labor (causing a temporary drop in productivity); or a shock that requires a substantial sectoral reallocation of factors, which can temporarily reduce their availability since the process of reallocating factors between markets is not instantaneous. The mining investment boom is a good example of the latter case, when a significant number of workers moved out of sectors such as agriculture and into mining, which implied a change not only in sectors, but often in geographical location, as well.

As usual, for the analysis of the economic cycle and inflation, the Central Bank differentiates between natural resources GDP and other GDP. In sectors tied to natural resources, the production level has less to do with aggregate macroeconomic conditions and more with sector-specific factors such as hydrological conditions, ore grade or the availability of pelagic fish. Consequently, the most adequate measure of potential GDP is restricted to the so-called other GDP. The methods described in this box thus calculate potential GDP and the output gap for the other (non-natural-resource) sectors.

The difficulty of measuring the level of potential GDP has led the majority of central banks to consider a wide range of methods for estimating the output gap. This box describes three different methods and discusses how they are used in the assessment of the output gap relevant for inflation[3]/. Box V.3 compares the output gap with other variables that the Board considers important for obtaining a better understanding of the extent of excess capacity in the economy.

FIGURE V.8
Trend GDP and potential GDP
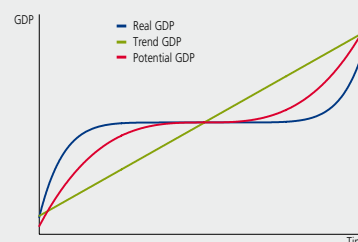
Source: Central Bank of Chile.

Measuring the output gap[4]/

There are different ways to compute the output gap, but they all have the same objective: to disaggregate the current GDP level into two components, a more persistent component called the trend and a less persistent component called the cycle (or the output gap). In addition to some technical differences, the different methods presented below use different macroeconomic relationships—and thus also information deriving from different variables—to identify the two components.

1/ Although the idea of potential GDP has been used in other contexts, multilateral institutions such as the IMF, the OECD and the majority of central banks use the term "potential GDP" to refer to the output level that is compatible with stable inflation(OCDE, 2015; IMF, 2015a).
2/ The importance of short-lived shocks to productivity is recognized in the literature on economic cycles. See King and Rebelo (1999) and Rebelo (2005) for a discussion of the literature on real cycles and the role of productivity shocks.

3/ For more detail on the different methodologies, see Albagli et al. (2015b).
4/ Methods A and C have previously been used by the Central Bank, as described in Fuentes et al. (2008).

Method A: Hodrick–Prescott filter, Phillips curve and IS curve

This method assumes that the relationship between the trend and cyclical components of GDP (output gap) are best described by a Hodrick–Prescott (HP) filter. The size of the two components is identified using a Phillips curve, which relates inflation with the output gap and the RER, and an IS curve, which relates the output gap with the difference between the real and natural interest rates, which in turn is related to potencial GDP growth.

Method B: Multivariate filter

This is an adaptation of the methodology used recently by the IMF to calculate potential output (IMF, 2015a) and is based on the work of Blagrave et al. (2015). The estimation uses data on GDP, inflation, the RER and the unemployment rate. The model is similar to Model A, but with some key methodological differences such as the use of expectations for growth and inflation (to reduce the usual bias toward the end of the sample in simple statistical filters) and a more flexible shock structure than the implicit structure in the HP filter. To identify the shocks, this model uses a Phillips curve with expectations and indexation and, in contrast to the previous model, Okun's Law is used instead of the IS curve, thus relating the output gap with the unemployment rate.

Method C: Structural VAR

The structural vector autoregression (SVAR) method extends the work of Blanchard and Quah (1989), who propose a method for distinguishing between two types of shocks: those that have only temporary effects on the output and unemployment levels and those that have permanent effects on output. The former are called demand shocks and the latter, supply shocks. In this method, the notion of potential GDP is the accumulated effect of all the supply shocks, while the gap is the accumulated demand shocks.

Recent evolution of the gap

The all three methods indicate that the output gap is currently one to two percentage points lower than in 2012–2013, and two of the methods place the gap in negative territory. The output gap is clearly smaller today than in 2002–2003 or in the years following the 2008 global financial crisis (figure V.9, box V.3).

Evaluation of the out-of-sample predictive capacity of the gap for inflation

One of the main objectives of having a good measure of the output gap is to better understand the evolution of inflation and, in particular, to improve the predictive capacity for that variable. This section analyzes the performance of each method's gap in terms of predicting inflation, using the following equation:

$$(1)\ \pi_{(t+h)} = c + \sum_{(p=1)}^{4} \alpha^{\pi}_{p} \pi_{t-p} + \beta y_{t-1} + \gamma \Delta RER_{t-1} + e_{t}$$

where y_{t-1} is the output gap and ΔRER_{t-1} is the annual change in the real exchange rate (both lagged one quarter).

These equations are estimated for the CPIEFE and the CPIEFE services. An AR(4) process for inflation without either the gap or the real exchange rate (β, γ=0) is used as a benchmark model.

To compare the performance of the different methods, the root-mean-square error (RMSE) of the forecast in real time is calculated for each equation. For the CPIEFE forecast, the results are mixed depending on the horizon. For CPIEFE services, method B has the best performance at most horizons[5]/ (table V.5, upper panel).

One way to improve the inflation forecasts is to use an optimal average of the individual forecasts[6]/, where each method is assigned a weight according to its absolute performance and the covariance structure of its predictive errors vis-à-vis the other methods. In this exercise, method B stands out for its assigned weight under different inflation measures and horizons (table V.5, lower panel). In most cases, the prediction using the optimal average is better than using the individual methods (table V.5, upper panel).

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[5]/ The table shows the results of the exercise for total CPIEFE and CPIEFE services, since the relationship between the output gap and inflation is expected to be stronger in these components. Albagli et al (2015b) report the results of exercises using the CPI, together with robustness tests.
[6]/ See Granger and Ramanathan (1984).

TABLE V.5
Root-mean-square error at different horizons
(sample: 2007.Q1 − 2015.Q2)

RMSE (*)	CPIEFE				CPIEFE services			
	h=1	h=2	h=4	h=8	h=1	h=2	h=4	h=8
AR(4)	0.80	1.37	2.02	2.03	0.98	1.34	1.83	1.74
Method A	0.78	1.15	1.62	2.12	1.01	1.29	1.76	1.92
Method B	0.74	1.20	2.00	2.08	0.91	1.13	1.86	1.80
Method C	0.78	1.25	1.90	2.06	0.96	1.26	1.79	1.92
Weighted average	**0.74**	**1.13**	**1.61**	**1.82**	**0.91**	**1.13**	**1.62**	**1.54**
Optimal weight	CPIEFE				CPIEFE services			
	h=1	h=2	h=4	h=8	h=1	h=2	h=4	h=8
Method A	0.13	0.76	0.83	0.00	0.00	0.20	0.56	0.00
Method B	0.87	0.24	0.04	0.43	1.00	0.80	0.28	0.55
Method C	0.00	0.00	0.14	0.57	0.00	0.00	0.16	0.45
Total	**1.00**	**1.00**	**1.00**	**1.00**	**1.00**	**1.00**	**1.00**	**1.00**

(*) RMSE: Root-mean-square error of the inflation forecast in the horizon t+h. Regressors include four lags of inflation (t−1; t−4), the lagged output gap (t−1) and the lagged RER (t−1).
Source: Albagli et al. (2015b).

Finally, the inflationary pressures implicit in the different output gap measures are assessed by calculating the effect of the current gap (and lags) on inflation at different horizons, using equation (1) (table V.6). For the CPIEFE two years ahead, the individual methods predict an impact between −0.45% and 0.03% (annualized rates), while the optimal average (with the weights in table V.5) projects an impact on inflation of −0.26% (annualized) in the target horizon, based on a reading of the current output gap under the different methodologies.

TABLE V.6
Ouput gap contribution to the inflation forecast
(percentage points)

	Contribution one year ahead		Contribution two years ahead	
	CPIEFE	CPIEFE services	CPIEFE	CPIEFE services
Method A	-0.65	-0.36	-0.45	-0.22
Method B	-0.12	-0.09	-0.07	-0.05
Method C	0.03	0.03	0.03	0.02
Weighted average	-0.54	-0.22	-0.26	-0.12

Source: Albagli et al. (2015b).

Limitations on the calculation of the output gap

The calculation of the output gap is subject to a large degree of uncertainty. On the one hand, there is no way to tell which method is best for describing the economy and inferring the gap at any given moment. This is why several methods are used, and their explanation is the objective of this box. On the other hand, the output gap estimates from each methodology have a degree of statistical uncertainty involving inferences about unobservable variables. In practice, this leads to ex-post revisions of the estimated gap that can involve significant magnitudes. The size of this uncertainty has been the subject of numerous studies[7], and it is discussed in more detail in Albagli et al. (2015b).

Such uncertainty implies that, while these methodologies are informative, they should be supported with alternative measures, such as survey-based installed capacity utilization, indicators of real electricity consumption and the analysis of labor market variables (box V.3).

Conclusions

The analysis presented in this box explores three methods for computing the output gap relevant for inflation. These measures are used by the Board to reveal the extent of excess capacity in the economy, in combination with alternative measures.

The results indicate that the current output gap is significantly smaller than one year ago, but it is not as negative as during other periods of low growth, such as the early 2000s and the years following the 2008 global financial crisis.

The analysis also shows that all three methods are useful for analyzing inflation, although method B has some advantages. All in all, given the unobservable nature of this variable, it is useful to have more than one alternative for calculating the output gap.

[7] Orphanides and van Norden (2002).

BOX V.3
RECENT EVOLUTION OF EXCESS CAPACITY

The weak performance of the economy in recent quarters, combined with the more resilient behavior of the labor market, has generated doubts about the extent of excess capacity. This box describes the different factors that the Central Bank takes into account in its analysis of production capacity, including the output gap obtained from different estimates of potential GDP[1]/ (box V.2), survey-based measures and the evolution of electricity consumption and unemployment.

The analysis of the set of measures presented in this box indicates that spare capacity has increased in the most recent period. On the one hand, the current output gap is clearly smaller than a few years ago, and it is above the level of other periods of low growth, such as the early 2000s and the years following the global financial crisis of 2008. On the other hand, indicators such as installed capacity utilization (reported in surveys) and power consumption point to a rate of resource utilization below potential. In contrast, the unemployment rate is solidly below its historical average. However, when demographic changes affecting the long-term unemployment rate are taken into account, the unemployment trend is more consistent with the aforementioned measures.

The forecasts used in the baseline scenario in this *Report* assume that the output gap will continue to widen at least through the first half of 2016, which will contribute to the convergence of inflation with the target within the forecast horizon.
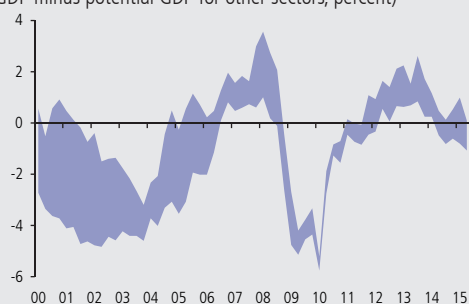
Output gap

The output gap is an unobservable variable, but it can be estimated using different methods. The estimates reported in box V.2 all indicate that the output gap is currently one to two percentage points smaller than in 2012–2013, and two of the three methodologies find that it is negative (table V.7). Relative to 2002–2003 or the period following the 2008 global financial crisis, the output gap is clearly less negative today[2]/ (figure V.9). Two factors explain this trend. First, potential GDP is currently lower than in those earlier episodes, which implies a smaller output gap for the same growth rate. Second, the economy is coming out of a period in which GDP growth was above potential.

[1]/ See boxes V.1 and V.2 for a discussion of the difference between potential GDP potential (the output level consistent with stable inflation) and trend GDP (which measures the medium-term growth potential of an economy).
[2]/ Potential GDP can differ from trend GDP, as explained in box V.2.

FIGURE V.9
Output gap relevant for inflation (*)
(real GDP minus potential GDP for other sectors, percent)

(*) The gray area represents the minimum and maximum output gap obtained from the estimation methods presented in box V.2, *Monetary Policy Report*, September 2015.
Source: Albagli et al. (2015b).

TABLE V.7
Output gap relevant for inflation in 2015.II (*)
(real GDP minus potential GDP for other sectors, percent)

Method	Gap	Gap, 2012–13 avg.	Potential GDP growth
Method A	-1.1	1.1	3.2
Method B	-0.2	0.9	2.9
Method C	0.1	1.8	3.0

(*) The estimation methods are described in box V.2, *Monetary Policy Report*, September 2015.
Source: Albagli et al. (2015b).

Survey estimates

The monthly survey carried out by ICARE and the Adolfo Ibáñez University to measure the level of business confidence (IMCE) asks about capacity utilization in the manufacturing sector. Between November 2003 and August 2015, the survey indicates an average capacity utilization of 72.5%, with a standard deviation of 2.5%. In the most recent period, this indicator has dropped to around 68.5% (figure V.10).

Evolution of electricity generation

Another variable that can shed light on the degree of excess capacity in the economy is the cyclical variation in electricity generation, which is thus usually analyzed in conjunction with the measures presented above. While this variable does not provide direct information on the output gap, it is positively correlated

with the intensity of capital utilization in sectors that use electric power, and it thus makes a good proxy for spare capacity in those sectors. In particular, data from the Load Dispatch Center (CDEC) on electricity generation in the Central Interconnected System (SIC) reveal a reduction in generation relative to trend in the last few quarters. Compared with other episodes, the current level is somewhat higher than in 2009 and similar to 2002–2003 (figure V.11). This suggests that the utilization of the capital stock in industrial sectors is below potential.

FIGURE V.10
IMCE: installed capacity utilization in manufacturing (1)
(percent)
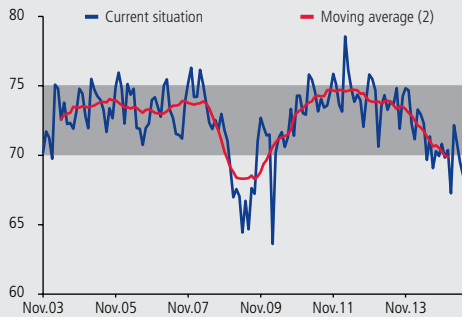
(1) Gray area is the mean (72.5) ± one standard deviation.
(2) Moving average centered in ± six months.

Source: Icare/Adolfo Ibáñez University.

FIGURE V.11
SIC power generation
(deviation from trend)
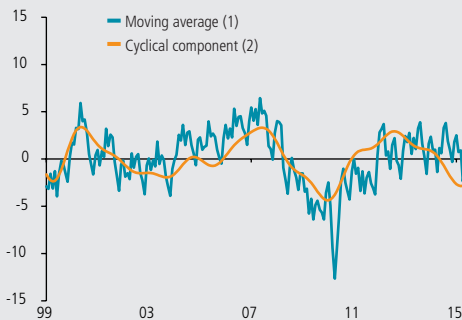
(1) Deviation from a cubic trend; three-month moving average.
(2) Cyclical component obtained using a band-pass filter (Christiano and Fritzgerald, 2003).

Sources: Load Dispatch Center of the Central Interconnected System (CDEC).

Evolution of the labor market

Finally, the unemployment rate is another important factor in the discussion of excess capacity. In the current business cycle, the labor market has been remarkably resilient, with the unemployment rate remaining low in historical terms. As indicated in the March 2015 *Report*[3]/, the low unemployment rate can, in part, be explained by structural factors, namely, a low participation rate among youth and a high participation rate among older workers. It is still true, however, that the unemployment rate is particularly low compared to the average of 1992–2015 and the average adjusted for demographic factors[4]/. Alternatively, as described in March 2015, if the age composition is set at the 1990s weights and then the current unemployment rates are applied to the different demographic groups, then the unemployment rate today would be 1.4 percentage points higher, that is, close to 8%, which is close to the 1992–2015 average.

FIGURE V.12
National unemployment rate
(percent)
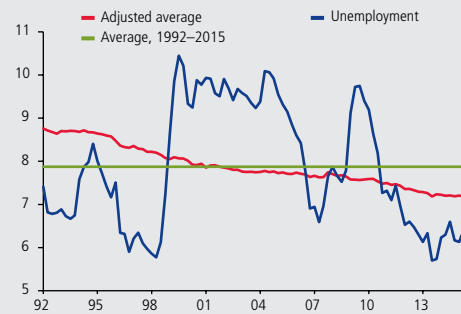
Sources: Central Bank of Chile and National Statistics Institute (INE).

Conclusion

Several measures indicate that the excess capacity in the economy has risen. In the case of the output gap, two of the three estimates show that the economy is growing below its potential GDP, although this negative gap is smaller than in other periods of low growth, such as the early 2000s and the years following the 2008 global financial crisis. In the baseline scenario in this *Report,* the working assumption is that the gap will become more negative in the coming months, thereby contributing to the convergence of inflation to the 3% target within the forecast horizon. Other measures, most notably installed capacity utilization and electricity consumption, also point to the existence of increased excess capacity in the most recent period.

[3]/ Box III.1.
[4]/ Obtained using the average unemployment rates of different age and gender groups and then weighting them using the weights prevailing in the early 1990s.

BOX V.4
CHANGES IN THE BASELINE SCENARIO DURING THE LAST YEAR

The macroeconomic scenario facing the Chilean economy has deteriorated in the past year. Domestically, inflation forecasts have repeatedly been revised upward, mainly due the continuous and significant depreciation of the peso. As a result, annual CPI inflation will stay at or over 4% for close to two years running. At the same time, the GDP growth range projected for 2015 has been adjusted downward, amid weakening domestic demand projections that reflect both sluggish consumption and another contraction in investment. The external stimulus has also been gradually slowing, due to the strong drop in the terms of trade and a reduction in the gro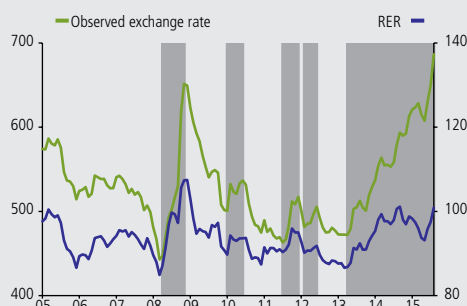wth forecast of trading partners—triggered mainly by the downturn in China and the practically zero growth that is now projected for Latin America in 2015–2016.

FIGURE V.13
Exchange rate (1) (2)
(pesos to the dollar; fixed-base index: 1986=100)

(1) The shaded areas represent periods of nominal depreciation of the peso.
(2) Data for August 2015 are based on the data available through the 24th.
Source: Central Bank of Chile.

The biggest change in the baseline scenario since September 2014 is in inflation. A year ago, annual CPI inflation was already over 4%, but it was expected to quickly return to 3% in the first half of 2015. However, the relentless strengthening of the dollar in international markets has led to a significant depreciation of the peso, which has kept inflation high for a longer period than expected due to both direct effects and indexation (figure V.13). Of the 1.8 percentage point (pp) increase in the inflation forecast for December 2015 in the last year, 1.4 pp are from adjustments in the CPIEFE forecast. The remaining 0.4 pp is

related to food excluding fruits and vegetables and electricity rates (table V.8). The short-term inflation forecasts found in market surveys have also increased in response to these factors, although these projections consider a faster convergence than the baseline scenario in this *Report* (figure IV.10). For December of this year, the forecast in the Economic Expectations Survey (EES) rose from 3.0 to 4.2% in the last year. However, two years ahead, expectations remain anchored to the 3% target.

TABLE V.8
Changes in the CPI inflation forecast for December 2015 (*)

	Dec.14	Mar.15	Jun.15	Sept.15
Forecast, previous *Report*	2.8	2.8	3.6	3.4
Fuels	-0.1	-0.1	0.0	0.1
Food excluding fresh fruit and vegetables	0.0	0.4	-0.1	0.0
Fresh fruit and vegetables	0.1	-0.1	0.0	0.0
Electricity rates	0.0	0.1	0.1	0.1
CPIEFE	0.2	0.5	-0.2	0.9
Forecast, current *Report*	2.8	3.6	3.4	4.6

(*) Rounded figures.
Source: Central Bank of Chile.

In addition to the later convergence to the inflation target, the data indicate that output and domestic demand have been weaker than expected. Whereas a year ago GDP was expected to grow between 3 and 4% in 2015, growth is now projected to be between 2.0 and 2.5% (table V.9). On the spending side, the biggest adjustment has been in gross fixed capital formation, in particular the machinery and equipment component, given that the most active segment of construction and works has been public investment and residential construction. In the baseline scenario in this *Report*, gross fixed capital formation is expected to contract again in 2015. Consumption should grow less than in 2014—in contrast to the projection a year ago. The forecast scenarios in the *Monetary Policy Reports* over the past year have assumed that business and consumer expectations would gradually recover, something that has not happened. Rather, these variables continue to deteriorate. The spending adjustment has also been reflected in a reduction of the current account deficit projected for 2015 relative to the estimate a year ago, even taking into account the recent increase (September relative to June) due to the deterioration in the terms of trade.

TABLE V.9
Economic growth and current account in 2015

	Sept. 14	Dec. 14	Mar. 15	Jun. 15	Sept. 15
	(annual change, percent)				
GDP	3.0-4.0	2.5-3.5	2.5-3.5	2.25-3.25	2.0-2.5
Balance of risk to output	biased downward	biased downward	biased downward	balanced	biased downward
Domestic demand	3.4	3.0	2.5	2.6	2.0
Domestic demand (excl. inventories)	3.2	2.6	2.2	2.2	1.4
Total consumption	3.6	2.8	2.5	2.7	2.1
Gross fixed capital formation	1.8	1.9	1.2	0.7	-1.2
	(percent of GDP)				
Current account	-2.2	-1.1	-0.3	-0.4	-0.7

Source: Central Bank of Chile.

The international scenario has also deteriorated over the course of the year. The slump intensified in the most recent period, mainly due to the lower growth outlook of trading partners and the sharp reduction in commodity prices. Apart from some mild fluctuations, international financial conditions have remained favorable from a historical perspective (table V.10).

TABLE V.10
Main assumptions of the international scenario

	Sept.14	Dec.14	Mar.15	Jun.15	Sept.15
World GDP at PPP (annual change, percent)					
2015	3.7	3.5	3.5	3.4	3.2
2016	4.1	3.9	3.8	3.7	3.5
GDP of trading partners (annual change, percent)					
2015	3.8	3.5	3.4	3.3	3.1
2016	3.9	3.9	3.8	3.7	3.4
Brent oil price (US$/barrel)					
2015	104	70	58	63	54
2016	101	75	65	70	55
WTI oil price (US$/barrel)					
2015	92	64	51	57	49
2016	89	68	58	63	50
LME copper price (US$cents/pound)					
2015	305	295	275	280	255
2016	300	285	285	290	245
Terms of trade (annual change, percent)					
2015	-0.8	1.7	1.4	1.3	-3.0
2016	-0.5	-2.1	-0.2	-0.2	-1.0
External prices, in US$ (annual change, percent)					
2015	1.2	-0.7	-6.0	-8.5	-9.0
2016	1.3	0.6	1.6	1.0	-0.4

Source: Central Bank of Chile.

The steep drop in commodity prices is related to the continuous appreciation of the dollar in international financial markets, as well as doubts about the performance of China and, in some cases, excess supply. These factors have been exacerbated by the recent financial volatility. Thus, WTI oil went from around US$100 a barrel in mid-2014 to almost US$40 a barrel most recently. Copper fell from US$3.20 a pound to under US$2.30 in the same period. The price forecast for these commodities has been corrected to incorporate these trends, and the terms of trade are now expected to decline 3% this year.

The appreciation of the dollar is also the main factor behind the correction of the forecast for the external prices relevant to the Chilean economy (the external price index, or EPI): whereas a year ago the EPI was expected to increase slightly in 2015, it is now expected to decrease by 9%.

With regard to world growth, the most notable trend has been the slowdown in the emerging economies. China, in particular, has seen its 2015 growth forecast fall from 7.2% a year ago to 6.7% in this *Report,* to the extent that the real data and the most recent indicators point to a less dynamic economy. Latin America has also witnessed a downturn in its economies in the last year. The low commodity prices, combined with sluggish external demand, rising inflation and, in some cases, significant fiscal and external imbalances, have generated a deterioration in the outlook for these economies, at a time when monetary and fiscal policy have little room for maneuver. The developed economies, in turn, have continued along the road to recovery, led by the United States. In that economy, the recovery is being driven by expectations that the normalization of the monetary policy rate will begin soon and the dollar will continue to appreciate.

With regard to the monetary policy rate (MPR), the Board had reduced the rate by 25 basis points in September and October 2014, bringing it to 3%, and has since then maintained it at this highly expansionary level. This has been passed through to interest rates in the local financial system, such that rates are currently at or near their historical lows. As always, future adjustments to the MPR will depend on the evolution of internal and external macroeconomic conditions and their implications for the inflation outlook.

Appendix A: The Central Bank of Chile's Balance Sheet

This appendix presents and analyzes the position and projections of the main items on the Central Bank of Chile's financial statements. It starts with a brief review of the evolution of the balance sheet in the first half of 2015 and then presents asset and liability forecasts for year-end 2015 and 2016.

The movements in any balance sheet account can be explained by (a) flows, which are related to settled liabilities and new transactions; (b) profits, which correspond to interest earned; and (c) adjustments, earnings and losses associated with accounts indexed to movements in the exchange rate or inflation. Because around 96% of its assets are international reserves and 58% of its liabilities are policy instruments and promissory notes (debt), the Central Bank is a net debtor in domestic currency and a net creditor in foreign currency. Therefore, the bottom line of the balance sheet is determined by the evolution of the differential between international interest rates (profitability of reserves) and domestic interest rates (the cost of debt). Earnings and losses also depend on changes in the exchange rate of the peso against the currencies that make up the international reserves. Currently, the currency benchmark primarily comprises U.S. dollars (63.6%) euros (16.8%) and other currencies such as the pound sterling, yen, Swiss franc, Chinese renminbi, South Korean won, Australian dollar, New Zealand dollar and Canadian dollar.

EVOLUTION OF THE BALANCE SHEET IN THE FIRST HALF OF 2015

In the first half of 2015, the size of the Central Bank's assets and liabilities decreased, while the equity deficit as a percent of GDP was similar to year-end 2014 (−2.4% of GDP) (table A.1).

Between 31 December 2014 and 30 June 2015, the size of the balance sheet decreased by Ch$461 billion, from 17.4% to 16.4% of GDP.

TABLE A.1

Central Bank of Chile's balance sheet: summary of balances and earnings
(percent of GDP)

	2012	2013	2014	Jun.15	2015 (f)	2016 (f)
ASSETS	**17.7**	**17.2**	**17.4**	**16.4**	**17.4**	**16.7**
International reserves	15.3	15.7	16.7	15.8	16.8	16.3
Fiscal promissory notes and other gov. credit	0.8	0.8	0.1	0.1	0.1	0.1
Monetary policy instruments	0.9	0.1	0.1	0.0	0.0	0.0
Other assets	0.7	0.6	0.5	0.4	0.3	0.2
LIABILITIES	**21.1**	**20.0**	**19.8**	**18.8**	**18.8**	**18.1**
Promissory notes with secondary market	9.9	9.5	8.8	9.5	9.2	8.6
Bank policy instruments	3.7	2.6	3.5	2.2	2.2	2.1
Other bank liabilities	0.4	0.6	0.5	0.5	0.6	0.5
Other liabilities excl. monetary base	1.1	0.8	1.5	1.0	1.0	1.0
Monetary base	6.0	6.4	5.6	5.5	5.7	5.8
EQUITY (A+B+C)	**-3.4**	**-2.8**	**-2.4**	**-2.4**	**-1.4**	**-1.4**
A. Initial equity	-1.8	-3.3	-2.6	-2.3	-2.4	-1.3
B. Net income (loss)	-1.6	0.5	0.2	-0.1	0.9	-0.1
Nonfinancial	-0.1	-0.1	-0.1	0.0	-0.1	-0.1
Net interest	-0.3	-0.2	-0.2	-0.2	-0.2	-0.2
From changes in exchange rates and UF	-1.3	0.8	1.1	0.1	1.2	0.2
C. Capital contributions	0.0	0.0	0.0	0.0	0.0	0.0
Position payable in foreign currency (*)	13.5	13.6	14.2	13.9	14.8	14.3

(*) Foreign currency assets minus foreign currency liabilities.
(f) Forecast.
Source: Central Bank of Chile.

On the asset side, as of 30 June, international reserves had declined by Ch$339 billion, mainly due to lower deposits by national banks and the Treasury on the order of Ch$606 billion and interest and adjustments on reserve investments of Ch$386 billion. In the other asset accounts, there was a reduction in subordinated debt of Ch$123 billion.

On the liability side, PDBC debt increased by Ch$1,437 billion and long-term debt by Ch$327 billion. The use of the standing deposit facility decreased by Ch$906 billion and commercial bank deposits by Ch$841 billion.

In terms of flows, the balance sheet changes described above explained the increase in the monetary base of Ch$294 billion in the first half (table A.2).

TABLE A.2
Balance sheet flows Central Bank of Chile (1)
(billions of pesos)

	2012	2013	2014	Jun.15	2015 (f)	2016 (f)
1. Net international reserves	-539	-127	354	-561	-602	-72
2. Policy instruments in domestic currency	1,133	997	401	-427	202	799
3. Central Bank promissory notes in dollars	0	0	0	0	0	0
4. Other domestic currency operations, excl. monetary base (2)	-100	-136	-979	709	599	-70
5. other foreign currency operations (3)	546	130	-347	573	614	72
Monetary base (change = 1+2+3+4+5)	1,039	864	-571	294	813	729
Position payable in foreign currency (forex operations=1+3+5) (4)	6	3	6	12	12	0

(1) Exchange flows. The corresponding balances are also affected by interest, indexation and price adjustments, where applicable.
(2) Service on Treasury promissory notes in UF, subordinated debt service and other operations in domestic currency.
(3) Treasury and bank deposits and other operations in foreign currency.
(4) Includes forex market operations deriving from policy decisions and forex operations for operational purposes of the Central Bank.
(f) Forecast.

Source: Central Bank of Chile.

The Bank's equity position declined relative to the end of last year. Based on the usual accounting procedures, the equity deficit increased from –Ch$3,544.4 billion on 31 December 2014 to –Ch$3,689.9 billion on 30 June 2015. This was mainly due to losses from the interest rate differential between the interest paid on debt and the interest earned on international reserves (Ch$251 billion), administrative expenses plus the costs of issuing and distributing banknotes and currencies (Ch$50 billion) and exchange rate gains associated with the depreciation of the peso against the reserve currencies (Ch$194 billion).

BALANCE SHEET PROJECTIONS FOR 2015 AND 2016

The main working assumptions underlying the forecast are the following: (i) there will be no foreign exchange operations during the forecast period; (ii) the standing deposit facility will remain around the levels recorded at the close of the first half of 2015; (iii) the balance of monetary policy instruments, mainly repos and the liquidity line, will remain unused; (iv) Treasury deposits will remain at the level recorded on 30 June 2015; (v) the evolution of the monetary base will be consistent with the growth of the economy and inflation; and (vi) in the remainder of 2015, there will be no issues of long-term debt (BCUs, BCPs), in accordance with the debt plan published in January 2015. For 2016, the assumptions include maturity rollovers and coupons paid in the period, with the expected growth of the monetary base. PDBC operations are expected to be used to adjust for a deficit or surplus of funds.

The baseline forecast scenario assumes that over the remainder of 2015 and into 2016, the differential between domestic and international interest rates will decrease slightly relative to the close of the first half of the year. Based on these assumptions, equity losses are expected from net interest, with projections of approximately 0.2% of GDP in each year.

The balance sheet projections assume that parities will move in accordance with forward values at the close of this *Monetary Policy Report*. The inflation forecast in the baseline scenario is 4.6% in December 2015 and 3.7% in December 2016. Based on these assumptions, projected earnings from valuation changes are equivalent to 1.2% of GDP in 2015 and 0.2% of GDP in 2016.

Given the assumptions described in this appendix, the size of the balance sheet is projected to be 17.4% of GDP at year-end 2015. In 2016, the size of the balance sheet is expected to decrease to 16.7% of GDP. The equity deficit will reach 1.4% of GDP in 2015 and 2016.

Appendix B: International reserves management

International reserves are liquid assets in foreign currency that are held by the Central Bank of Chile to support its monetary and foreign exchange policies. Reserves are managed so as to provide efficient and secure access to international liquidity and to safeguard the financial equity of the Bank. Reserves management is based on the legal framework defined in Article 38, Title III, of the Basic Constitutional Act of the Central Bank.

The management objectives for the international reserves are as follows: (i) to hold foreign exchange reserves in highly liquid instruments, which can be called in the briefest period possible without incurring significant transaction costs, so as to be able to cover residual short-term external debt if necessary (the liquidity objective); (ii) to invest in instruments that present limited financial risks, in order to limit the risk of generating capital losses (the capital preservation objective); (iii) to minimize the volatility of the value of the Bank's equity as a result of changes in the exchange rates of the investment currencies vis-à-vis the peso (the balance sheet coverage objective); and (iv) to reduce the cost of holding reserves at the margin so as to maximize long-term absolute returns (the return-on-investment objective).

In carrying out its international reserves management, the Central Bank maintains a clear separation of responsibilities at the hierarchical level, in line with international recommendations in this area and in accordance with external evaluations by the IMF. The Bank also undergoes periodic internal and external audits of its international reserve management, including a review of the different processes in the investment cycle. This ensures that the decision-making process and management assessment within the Bank remain clearly defined and that the risks are mitigated.

The principle of separation of functions is applied to international reserves management. The International Markets Area participates in the definition of the investment policy, which is approved by the Board, and is responsible for implementing the policy in terms of defining, executing and monitoring investment strategies. The Financial Services Area is responsible for improving investment operations, including the maintenance of the registry, the accounting and the generation of all payment instructions and/or fund movements to ensure compliance with all contractual liabilities. Both areas answer to the Financial Operations Division.

The daily monitoring of compliance with the investment guidelines and parameters defined by the Board is carried out by the Financial Risk Assessment and Management Area. In contrast to the above departments, this area reports directly to the Central Bank's General Manager.

The credit risk associated with the investment of international reserves is managed through the definition of eligibility criteria and maximum exposure to countries, supranational entities, commercial banks and agencies. The variables used to monitor this risk include credit rating, institutional equity, market size, debt ratios and explicit guarantees.

To achieve the management objectives, the benchmark structure defines three investment portfolios: (a) the short-term liquidity portfolio (24% of the total reserve investment portfolio); (b) the medium-term liquidity portfolio (61%); and (c) the diversification portfolio (15%). Together, these three funds make up the foreign exchange investment portfolio (table B.1). The international reserves portfolio further comprises the cash portfolio (transaction account balances held by the Treasury, public companies and banks) and the other assets portfolio (IMF special drawing rights, certified gold and other assets).

TABLE B.2

Benchmark currency, maturity and duration structure of the internally managed portfolio

Structure	Credit risk	Share	Benchmark
Short-term liquidity portfolio	Sovereign		Merrill Lynch: Treasury Bills Index (unhedged) 0–1 year duration (USD)
Medium-term liquidity portfolio	Sovereign		Barclays Capital Global Aggregate: Treasury Bond Index (unhedged) 1–3 year duration (90%) 3–5 year duration (10%) (USD, EUR, CAD, AUD)
Diversification portfolio	Sovereign and bank	15%	Barclays Capital Global Aggregate: Treasury Bond Index (unhedged) 5–7 year duration (70.6%) 7–10 year duration (9.4%) (USD, EUR, JPY, KRW,CHF, NZD, GBP) Bloomberg CGDRC: Customized index for CNH deposits (20%)
Total portfolio		100%	

Source: Central Bank of Chile.

The benchmark structure of the investment portfolio includes a total of ten currencies: U.S. dollars (63.60%), euros (16.75%), Canadian dollars (4.57%), Australian dollars (4.57%), Japanese yen (0.45%), Swiss francs (0.75%), pounds sterling (1.50%), South Korean won (3.00%), New Zealand dollars (1.80%) and Chinese renminbi (3.00%).

With regard to credit risk, the benchmark considers 97% in sovereign risk and 3% in bank risk, with the latter limited exclusively to deposits denominated in Chinese renminbi. The total interest rate risk of the investment portfolio, measured through modified duration, is approximately 23 months (table B.2).

To complement internal international reserves management, the Bank has had external management programs for a share of the reserves since 1995. The objectives of these programs are to provide an active benchmark for evaluating internal management, to add economic value and to facilitate the transfer of knowledge and technology.

At the end of the first half of 2015, a share of the investment portfolio (1.45%) was under the management of an independent external company (Pacific Investment Management Company).

In the first half of 2015, the annualized return from the internal international reserves management program was 0.90% measured in currency of origin, which does not take into account the appreciation or depreciation of the currencies in the portfolio. Expressed in pesos, the annualized return was 5.13%; the difference is mainly explained by the depreciation of the local currency against the currencies in which the reserves are invested. Expressed in dollars, the annualized return was −5.24% (table B.3), which represents the sum of the yield on assets in local currency and the exchange rate effect on those assets. In this case, the positive return from interest rates was more than offset by the negative return from exchange rate movements, given that the basket of currencies in which the reserves are invested depreciated significantly against the U.S. dollar (figure B.1). The annualized differential return attributable to reserves management was 32 basis points below the benchmark.

TABLE B.3

Absolute and differential returns, internally managed international reserve portfolio (1) (2) (3)
(percent)

| Period	In currency of origin		In dollars		Difference
	Int. Res.	BMK	Int. Res.	BMK	
2015	0.90	1.20	-5.24	-4.93	-0.32
2014	1.65	1.52	-2.94	-3.14	0.21
2013	0.26	0.21	-0.71	-0.77	0.05
2012	0.66	1.01	1.43	1.77	-0.35
2011	2.43	2.41	1.22	1.20	0.02
2010	2.10	2.19	-0.15	-0.06	-0.09
2009	2.15	1.65	3.34	2.85	0.50
2008	5.70	5.37	4.14	3.81	0.33
2007	4.81	4.78	8.86	8.83	0.03
2006	2.45	2.39	6.84	6.78	0.06
2005	2.90	2.85	-1.72	-1.77	0.05

(1) 2015 data are annualized returns for the first half of the year.
(2) Excluding monetary gold, special drawing rights, IMF reserve position, reciprocal credit agreements and other reserve assets.
(3) Starting in 2014, the Bank reports the return measured in currency of origin, which does not incorporate the appreciation or depreciation of the currencies in the portfolio. From 2005 to 2013, an approximation of the return in currency of origin was used (called the foreign currency return), where the return was expressed in the benchmark currency basket and thus was equivalent to the return in currency of origin to the extent that the investments tracked the benchmark allocation.

Source: Central Bank of Chile.

FIGURE B.1

Changes in U.S. dollar exchange rates (1) (2)
(percent)
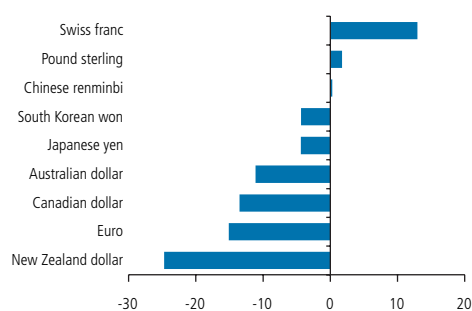
(1) Annualized change of currencies in the first half of 2015.
(2) A negative (positive) sign is an appreciation (depreciation) of the U.S. dollar against a given currency.
Source: Bloomberg.

On 30 June 2015, international reserves totaled US$38,179.3 millon (figure B.2). Of the total, US$33,530.4 million were allocated to the investment portfolio, US$3,209.3 million to the cash portfolio and US$1,439.7 million to other assets. With regard to the currency composition, 64.7% of the total is invested in U.S. dollars, 14.5% in euros and 20.8% in other currencies.

TABLE B.2

Benchmark currency, maturity and duration structure of the internally managed portfolio

		USD		EUR		AUD		CAD		CHF		GBP	
		Share	Duration (months)	Share	Duration (months)	Share	Duration (months)	Share	Duration (months)	Share	Duration (months)	Share	Duration (months)
Short-term liquidity portfolio (slp)	Sovereign 0-1 year	24.7%	4.1										
	Subtotal SLP	**24.7%**	**4.1**										
Medium-term liquidity portfolio (MLP)	Sovereign Duration:												
	1–3 years	33.9%	21.7	14.1%	21.0	4.2%	20.2	4.2%	19.5				
	3–5 years	3.8%	46.8	1.6%	44.5	0.5%	44.7	0.5%	43.3				
	Subtotal MLP	**37.6%**	**24.2**	**15.7%**	**23.4**	**4.7%**	**22.6**	**4.7%**	**21.9**				
Diversification portfolio (DP)	Sovereign Duration:												
	5–7 years	2.22%	67.6	1.1%	64.3					0.6%	66.9	1.1%	63.5
	7–10 years	0.30%	94.0	0.2%	93.4					0.1%	90.8	0.2%	92.2
	Bank 0–1 years												
	Subtotal PD	**2.51%**	**70.7**	**1.3%**	**67.7**					**0.6%**	**69.7**	**1.3%**	**66.9**
Total portfolio		**64.8%**	**18.4**	**17.0%**	**26.7**	**4.7%**	**22.6**	**4.7%**	**21.9**	**0.6%**	**69.7**	**1.3%**	**66.9**

		JPY		KRW		NZD		CNY		Total	
		Share	Duration (months)	Share	Duration (months)	Share	Duration (months)	Share	Duration (months)	Share	Duration (months)
Short-term liquidity portfolio (SLP)	Sovereign 0-1 año										
	Subtotal SLP									**24.7%**	**4.1**
Medium-term liquidity portfolio (MLP)	Soberano Tramos de madurez 1-3 años 3-5 años										
	Subtotal LMP									**62.8%**	**23.7**
Diversification portfolio (DP)	Sovereign Duration:										
	5–7 years	0.3%	68.0	2.2%	58.5	1.3%	60.2				
	7–10 years	0.0%	97.7	0.3%	85.3	0.2%	77.2				
	Bank 0–1 years							2.5%	1.5		
	Subtotal PD	**0.4%**	**71.5**	**2.5%**	**61.6**	**1.5%**	**62.2**	**2.5%**	**1.5**	**12.6%**	**53.3**
Total portfolio		**0.4%**	**71.5**	**2.5%**	**61.6**	**1.5%**	**62.2**	**2.5%**	**1.5**	**100.0%**	**22.6**

Sources: Central Bank of Chile, Merrill Lynch and Barclays, on 30 June 2015.

FIGURE B.2
International reserves (*)
(stock, US$ billions)
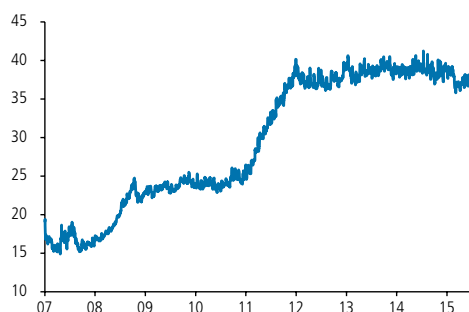
(*) Includes the investment and cash portfolios, but excludes the other assets portfolio.
Source: Central Bank of Chile.

On 30 June 2015, the total value of international reserves was US$2,267.6 million less than at year-end 2014. This reflects a reduction in other assets (–US$259.3 million) and the cash portfolio (–US$1,141.5 million), due to changes in the stock of deposits and account balances held at the Central Bank by the financial system, together with a decrease in the investment portfolio (–US$866.8 million), explained mainly by the appreciation of the U.S. dollar (table B.4).

With regard to the exposure of the internally managed investment portfolio by type of risk and country, at the close of this *Report*, there was an appropriate degree of diversification of the different types of risk in which the international reserves are invested. At the end of June 2015, investment in sovereign risk represented 89.3% of the internally managed investment portfolio, and it was concentrated in the United States (54.7%) and Germany (20.2%). At the close of the period, investment in supranational risk represented 5.1% and agency risk 0.8%. Bank risk, which represented 4.9% of the total internally managed portfolio, included banks in Australia, France, the United Kingdom, Japan, the Netherlands, Switzerland, Singapore, Denmark and China (table B.5). The portfolio was also exposed to a BIS Investment Pool (BISIP) denominated in renminbi (equivalent to US$106.3 million), which is managed directly by the Bank for International Settlements (BIS). This instrument provides exposure to the Chinese onshore fixed-income market.

TABLE B.4
Composition of international reserves
(US$ millions)

Portfolio	Currency	2014		2015	
		Dec.	%	Jun.	%
Investment portfolio		34,397.2	85.0	33,530.4	87.8
Currencies and deposits	U.S. dollar	712.0	1.8	748.6	2.0
	Euro	1.4	0.0	0.3	0.0
	Canadian dollar	0.1	0.0	0.2	0.0
	Australian dollar	0.2	0.0	0.1	0.0
	Other currencies	733.7	1.8	893.3	2.3
Securities	U.S. dollar	16,421.6	40.6	20,715.0	54.3
	Euro	7,886.7	19.5	5,533.9	14.5
	Canadian dollar	3,093.1	7.6	1,506.1	3.9
	Australian dollar	2,014.4	5.0	1,484.0	3.9
	Other currencies	3,534.0	8.7	2,648.8	6.9
Total	U.S. dollar	17,133.6	42.4	21,463.7	56.2
	Euro	7,888.1	19.5	5,534.2	14.5
	Canadian dollar	3,093.2	7.6	1,506.3	3.9
	Australian dollar	2,014.6	5.0	1,484.0	3.9
	Other currencies	4,267.6	10.6	3,542.2	9.3
Cash portfolio		4,350.8	10.8	3,209.3	8.4
Currencies and deposits	U.S. dollar	4,350.8	10.8	3,209.3	8.4
Other assets		1,698.9	4.2	1,439.7	3.8
Monetary gold	Other currencies	9.4	0.0	9.3	0.0
IMF SDRs	Other currencies	1,079.1	2.7	1,047.8	2.7
IMF reserve position	Other currencies	489.7	1.2	366.0	1.0
Reciprocal credit agreements	U.S. dollar	119.4	0.3	15.5	0.0
Currencies and deposits	U.S. dollar	1.3	0.0	1.1	0.0
Total international reserves		40,446.9	100.0	38,179.3	100.0
	U.S. dollar	21,605.2	53.4	24,689.5	64.7
	Euro	7,888.1	19.5	5,534.2	14.5
	Canadian dollar	3,093.2	7.6	1,506.3	3.9
	Australian dollar	2,014.6	5.0	1,484.0	3.9
	Other currencies	5,845.9	14.5	4,965.3	13.0

Source: Central Bank of Chile.

On 30 June 2015, the currency allocation of the internally managed investment portfolio was as follows: 64.3% in U.S. dollars, 16.4% in euros, 4.7% in Canadian dollars and 4.6% in Australian dollars. The remainder was invested in pounds sterling, Swiss francs, New Zealand dollars, Chinese renminbi, South Korean won and Japanese yen (table B.6).

At the end of June, the Bank was in the process of selecting and contracting an external portfolio manager. As of the cutoff date for this *Report*, the current external manager is responsible for a diversification portfolio of US$487.3 million, where 78.4% of the investment is concentrated in sovereign risk (table B.7).

TABLE B.5

Internally managed portfolio: Investments by country and type of risk
(US$ millions)

Country	Sovereign (1)	Bank	Agency (2)	Supranational (3)	Total
United States	16,139		165		16,304
Germany	5,963		85		6,048
Canada	1,755				1,755
Supranational				1,682	1,682
Australia	1,298	365			1,663
France	1,020	17			1,037
South Korea	907				907
United Kingdom	456	294			751
New Zealand	423				423
Austria	366				366
Netherlands		328			328
Spain	277				277
Switzerland	176	99			275
Japan	138	124			262
Denmark		210			210
Italy	208				208
Ireland	203				203
Singapore		156			156
China	136	21			157
Belgium	28				28
Miscellaneous (cash)		2			2
TOTAL	**29,494**	**1,617**	**250**	**1,682**	**33,043**

(1) Sovereign exposure includes the following institutions with an explicit guarantee: Kreditanstalt für Wiederaufbau (KFW / Germany, 2,207.7 million), Export Development Canada (EDC / Canada, 350.3 million) and Oesterreichische Kontrollbank (OKB / Austria, 366.1 million). Sovereign exposure in the United States en EE.UU. includes a total of USD 2.1 million held at the New York Federal Reserve (USD 0.5 million in overnight deposits and USD 1.6 million in transaction accounts). Sovereign risk also includes China (US$106.3 million in the BISIP-CNY), which is directly managed by the BIS.
(2) Exposure to U.S. agency risk corresponds to the Federal Home Loan Mortgage Corporation (Freddie Mac, USD 165.3 million). Exposure to German agency risk corresponds to the Landwirtschaftliche Rentenbank (USD 84.9 million).
(3) Exposure to supranational risk includes the following eligible issuers: European Investment Bank (EIB, USD 571.8 million), Eurofima (USD 4,3 million), Nordic Investment Bank (USD 29.5 million), International Finance Corporation (IFC, USD 57.5 million) and Bank for International Settlements (USD 1,018.5 million).

Source: Central Bank of Chile.

TABLE B.6

Internally managed portfolio: Investments by currency
(percent)

Currency	Share
U.S. dollar	64.3
Euro	16.4
Canadian dollar	4.7
Australian dollar	4.6
Pound sterling	1.4
South Korean won	2.8
Japanese yen	0.3
Chinese renminbi	3.1
New Zealand dollar	1.5
Swiss franc	0.7
TOTAL	**100.0**

Source: Central Bank of Chile.

TABLE B.7

Externally managed portfolio: Investments by country and type of risk
(US$ millions)

Country	Sovereign (1)	Bank	Agency (2)	Supranational (3)	Total
United States	47	10	64		121
Germany	14		4		17
Supranational				13	13
France	12				12
South Korea	96				96
United Kingdom	12				12
New Zealand	51				51
Austria	25				25
Spain	14				14
Switzerland	11				11
Japan	39				39
Italy	15				15
Singapore		14			14
China	21				21
Sweden	5				5
Belgium	21				21
Miscellaneous (cash)		1			1
TOTAL	**382**	**24**	**68**	**13**	**487**

(1) Sovereign exposure includes the following institutions with an explicit guarantee: Kreditanstalt für Wiederaufbau (KFW / Germany,US$13.8 million), Oesterreichische Kontrollbank (OKB / Austria, US$24.6 million) and Japan Bank for International Cooperation (JBIC, US$18.4 million).

(2) Exposure to U.S. agency risk corresponds to the following issuers: Federal National Mortgage Association (Fannie Mae, US$30.3 million) and Federal Home Loan Mortgage Corporation (Freddie Mac, US$33.8 million). Exposure to German agency risk corresponds to the Landwirtschaftliche Rentenbank (US$3.5 million).

(3) Exposure to supranational risk includes the following eligible issuers: European Investment Bank (EIB, US$9.0 million) and Nordic Investment Bank (NIB, US$4.3 million).

Source: Central Bank of Chile.

Appendix C: Main measures taken by the Central Bank of Chile in 2015

JANUARY

5   The Central Bank of Chile reported that in the Board Meeting held on 18 December 2014, the Board approved the annual debt issue program for 2015 (the Debt Plan), which considers the issue of up to Ch$1.35 trillion en peso-denominated bonds with a five-year maturity (BCP-5).

The bonds will be issued in accordance with the stipulations of Article 104 of the Income Tax Law.

The bond auction schedule could be subject to modifications in the event of significant changes in market conditions.

15 At its monthly monetary policy meeting, the Board decided to hold the monetary policy interest rate at 3% in annual terms.

22 Through Resolution N° 1879-03-150122, the Board modified the regulations on bank asset-liability ratios, contained in Chapter III.B.2 of the Compendium of Financial Regulations, inserting a new Chapter III.B.2.1 on "Regulations on the management and measurement of the liquidity position of banks," which will enter into force on 1 August 2015.

Chapter III.B.2.1 introduces a new regulation on bank liquidity management, which aims to incorporate new developments and international consensus on the regulation of liquidity risk, arising from the lessons of the international financial crisis.

The new regulation has four objectives: (i) to strengthen liquidity risk management policies in the banking system, in line with the most recent recommendations from the Basel Committee on Banking Supervision; (ii) to enhance the current regulatory requirements on maturity mismatches; (iii) to increase the quantity and quality of the information available to both the supervisor and the market, through more detailed reporting requirements on liquid assets and liabilities; and (iv) to incorporate the Basel III quantitative measures for the purpose of informing and complementing the supervision process, without establishing a specific regulatory limit, so as to move forward on the calibration of these indicators while the international discussion and implementation of these measures are still underway.

29 Through Board Resolution N°1881-08-150129, and in accordance with Article 76 of the General Banking Law, the Central Bank authorized Corpbanca to increase investment in its foreign broker-dealer affiliate, Corpbanca Securities LLC, established in the United States of America, whose initial investment was authorized in Resolution N°1752-03-130509.

FEBRUARY

12 At its monthly monetary policy meeting, the Board decided to hold the monetary policy interest rate at 3% in annual terms.

23 The Governor of the Central Bank of Chile, in his role as Representative of Chile to the International Monetary Fund (IMF), appointed Mr. Ricardo Vicuña Poblete to the position of Principal Advisor for the Southern Cone at the IMF, effective 1 June 2015 through the remainder of the two-year term, 2014–2016.

26 Through Resolution N°1887-01-150226, the Board renewed the appointment of Mr. Gustavo Favre Domínguez as member of the Central Bank of Chile's Audit and Compliance Committee, for a period of three years starting on 2 March 2015.

MARCH

10 The Central Bank of Chile reported the auction schedule for five-year peso-denominated bonds (BCP-5), which will be issued in accordance with the 2015 Debt Plan.

19 Through Resolution N° 1890-02-150319, the Board accepted the fiscal agent role designated to Central Bank of Chile via Executive Decree N° 26, issued by the Ministry of Finance on 22 January 2015, to represent and act in the name and on the account of the Treasurer in the placement and administration of the bonds specified in the decree, to be issued by the Treasury in the local capital market.

19 Through Resolution N° 1890-03-150319, the Board issued its prior favorable opinion on the operating regulations for ComDer, Contraparte Central S.A., in accordance with the current legal framework for the clearing and settlement of financial instruments (Law N° 20.345), which were subsequently approved by the Superintendence of Securities and Insurance (SVS) via Exempt Resolution N°181 dated 8 June 2015. This new infrastructure will act as central counterparty for operations carried out in the OTC derivatives markets by banks and other participants. ComDer will begin operating on 30 de July de 2015.

19 At its monthly monetary policy meeting, the Board decided to hold the monetary policy interest rate at 3% in annual terms.

26 Through Resolution 1893-01-150326, the Board of the Central Bank of Chile appointed Mr. Francisco Ruiz Aburto to replace Mr. Ricardo Vicuña Poblete as the Board's representative on the Chilean Copper Commission.

26 Through Resolution N° 1893-02-150326, the Board modified Chapter 1.2 of Part One of the Compendium of Monetary and Financial Regulations, broadening the payment date alternatives on debt securities issued by the Bank that are auctioned or sold to the different institutions and agents that participate in the primary market, through auctions or OTC window sales of these securities in the open market.

30 Through Resolution N° 1894E-01-150330, the Board of the Central Bank of Chile mandated that the total amount of profits or surpluses recorded by the Banco de Chile in 2014 which are due to the Central Bank as holder of subordinated debt shall be paid in cash. This decision was adopted in accordance with the provisions of paragraph (b) of Article 31 of Law N° 19.396, on the new payment method for subordinated debt.

APRIL

16 At its monthly monetary policy meeting, the Board decided to hold the monetary policy interest rate at 3% in annual terms.

MAY

14 At its monthly monetary policy meeting, the Board decided to hold the monetary policy interest rate at 3% in annual terms.

25 The Central Bank of Chile and the People's Bank of China (PBC) signed the following financial cooperation agreements: (i) Bilateral Agreement on Renminbi-Peso (RMB/CLP) Currency Swaps, effective 25 May 2015, which includes opening a credit line or facility with a maximum of up to RMB 22 billion or CLP 2.2 trillion; the agreement will be valid for three years and will be renewable with the mutual consent of both central banks; and (ii) Memorandum of Understanding (MoU) to establish conditions to facilitate the use of the renminbi in Chile.

JUNE

11 At its monthly monetary policy meeting, the Board decided to hold the monetary policy interest rate at 3% in annual terms.

18 Through Board Resolution N° 1909-02-150618, the Central Bank accepted the new management guidelines for the Pension Reserve Fund and the Economic and Social Stabilization Fund, issued by the Ministry of Finance in Official Letters N° 1566 and 1567, both dated 17 June 2015.

The new guidelines do not require adjustments to the reimbursement for fiscal agency services for the Pension Reserve Fund or the Economic and Social Stabilization Fund, accepted through Resolution N° 1861E-01-141022.

25 Through Resolution N° 1910-04-150625, the Board of the Central Bank of Chile updated its communications policy to incorporate the adjustment, made on 5 June, to the silent period applicable to the Board's monetary policy meetings and the *Monetary Policy Report.* In the case of the former, the silent period will begin five days before the meeting, inclusive of that day, and will end at noon on the day after the meeting. With regard to the *Monetary Policy Report,* the silent period will begin one week before the release of the report, until the day it is presented to the Senate.

The silent periods are intended to reduce market volatility and speculation surrounding monetary policy decisions or the publication of reports containing forecasts, which are announced in the Calendar of Events on the Central Bank's website.

JULY

2   Through Resolution N° 1911-02-150702, the Board decided to rescind the authorization granted to Cruz del Sur Corredora de Bolsa S.A. to operate in the Formal Exchange Market.

6   In the framework of the Bank's institutional policy on transparency, the Board decided to publicly announce the calendar of meetings and public activities scheduled for the Central Bank Governor and Board Members, which will be published on the Bank's website in the Active Transparency section as of that day. The Bank will also continue to keep its Public Agenda Record, in compliance with the provisions of the law regulating lobbying and the representation of special interests to public authorities and functionaries.

9 Through Resolution N° 1913-02-150709, the Board appointed Mr. José Alberto Pino Urbina as member of the Central Bank's Information Technology Advisory Committee, for a period of three years starting on 1 August 2015. At the same time, Mr. Ignacio Casas Raposo was named President of the Committee for a period of one year, effective 1 August 2015.

14 At its monthly monetary policy meeting, the Board decided to hold the monetary policy interest rate at 3% in annual terms.

15 Through Resolution N° 1914-01-150715, the Board determined to supplement the general conditions applicable to bank transaction accounts opened at the Central Bank of Chile by administrators subject to Law N°20,345 and to introduce the corresponding modifications to Chapters III.H.4 and III.H.4.1 of the Compendium of Financial Regulations.

It was decided that administrators in the clearing and settlement systems (CSSs) for financial instruments, governed by Law N°20,345, will be able to open additional transaction accounts, or auxiliary accounts, that are destined to operate as additional settlement accounts in the RTGS system. These accounts are opened with the specific objective of using the accounts to hold funds for cash collateral required under the aforementioned law, in order to guarantee the clearing of the net cash balance deriving from settlement orders accepted by the respective CSS, on the condition that the clearing and settlement takes place in the RTGS system.

Opening these auxiliary accounts will be optional and subject to express authorization in the operating regulations of the administrator's respective CSS. The accounts can be requested either simultaneously or subsequently to the opening of the primary transaction accounted maintained at the Central Bank.

30 Through Resolution N° 1918E-01-150730, the Board modified Chapter III.B.2 of the Compendium of Financial Regulations, in order to extend and stagger the deadlines for the entry into force of the new regulations on the management and measurement of banks' liquidity position, contained in Chapter III.B.2.1 of the Compendium. The objective of this modification is to allow a gradual implementation and adoption of the regulations and reporting requirements issued by the Superintendence of Banks and Financial Institutions (SBIF). The modification encompasses the following regulations and deadlines: (a) liquidity risk management rules, which include requirements on the role of the board of directors and management, the liquidity management policy (LMP), stress tests and contingency plans, entered into effect on 1 August 2015; (b) guidelines on the measurement and control of maturity mismatches subject to regulatory limits will be implemented no later than 1 December 2015; (c) the application of new indicators for monitoring the liquidity position, including a system for monitoring liquid assets and liabilities, the liquidity coverage ratio, the net stable funding ratio and reporting requirements for the SBIF and the public, will enter into effect no later than 1 March 2016.

In the event that the above regulations are not implemented on or before the indicated dates, the financial institution will be subject to the application of the provisions of Paragraph 1 of Chapter III.B.2, which was replaced by Resolution N° 1879-03-150122.

AUGUST

13 At its monthly monetary policy meeting, the Board decided to hold the monetary policy interest rate at 3% in annual terms.

13 Through Resolution 1920-02-150813, the Board mandated that the following executive positions of the Central Bank of Chile are subject to Law N°20,730 regulating lobbying and the representation of special interests to public authorities and functionaries: General Manager, General Counsel, General Auditor and Division Managers. This ruling applies regardless of whether the position is held on an incumbent, acting or interim basis.

GLOSSARY

Commodity exporters: Australia, Canada and New Zealand.

CPIEFE (CPI excluding food and energy): CPI excluding food (food products and beverages in the CPIX1, fresh fruits and vegetables, meats and fish) and energy prices, leaving 72% of the total CPI basket.

EPI: External price index, 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.

GDP, natural resources: Includes the following sectors: electricity, gas and water (EGW); mining; and fishing.

GDP, other: Includes the following sectors: agriculture, livestock and forestry; manufacturing; construction; retail trade; transport and communications; financial and business services; residential property; personal services; and public administration.

Growth of trading partners: The growth of Chile's main trading partners, weighted by their share in total exports over two moving years. The countries included are the destination for 93% of total exports, on average, for the 1990–2014 period.

Latin America: Argentina, Bolivia, Brazil, Colombia, Ecuador, Mexico, Paraguay, Peru, Uruguay and Venezuela.

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 2015, the following countries are included: Argentina, Belgium, Bolivia, Brazil, Canada, China, Colombia, France, Germany, India, Italy, Japan, Mexico, Netherlands, Paraguay, Peru, Republic of Korea, Spain, Switzerland, Thailand, United Kingdom and United States.

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 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, Malaysia, Philippines, Republic of Korea, Singapore, Taiwan and Thailand.

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.

VIX: Stock volatility index calculated by the Chicago Board of Trade, and the most commonly used measure of general market volatility at the international level. Measures the implicit volatility in S&P 500 options contracts.

World growth at market exchange rate: Each country is weighted according to its GDP in dollars, published in the IMF World Economic Outlook (WEO, April 2015). The sample of countries used in the calculation represent around 90% of world growth. For the remaining 10% average growth is estimated at 1.8% for the period 2015–2017.

World growth: Regional growth weighted by its share in world GDP at PPP, published in the IMF World Economic Outlook (WEO, April 2015). World growth projections for the period 2015–2017 are calculated from a sample of countries that represent about 86% of world GDP. For the remaining 14%, average growth is estimated at 3.5% for 2015–2017.

ABBREVIATIONS

BCP: Central Bank bonds denominated in pesos.

BCU: Central Bank indexed bonds denominated in UFs.

BLS: Bank Lending Survey.

CPIEFE: Consumer price index excluding food and energy.

EES: Economic Expectations Survey

FBS: Financial Brokers Survey.

IMCE: Monthly Business Confidence Index

IPEC: Consumer Confidence Index

MPR: Monetary policy interest rate.

UF: Unidad de Fomento, a CPI-indexed unit of account.

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