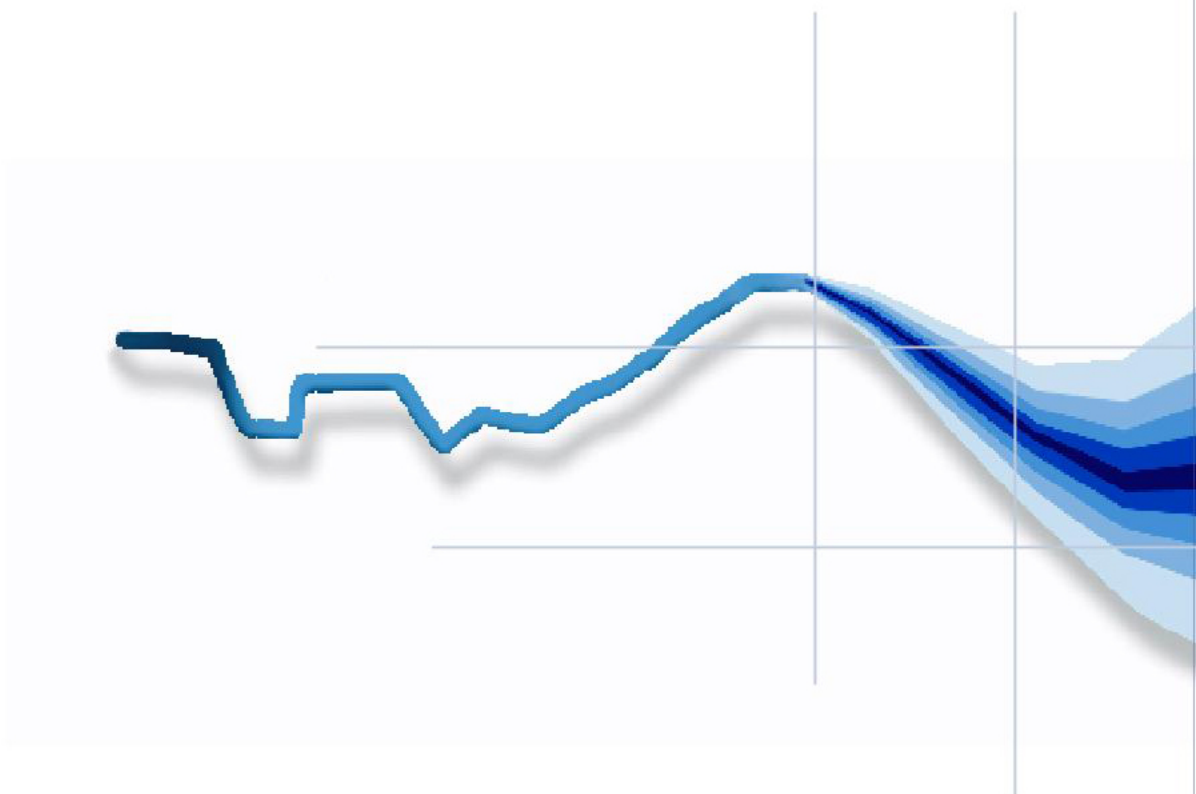
IPoM 2010

2010
SEPTEMBER

# Monetary Policy Report



BANCO CENTRAL DE CHILE

# Monetary Policy Report*

SEPTEMBER 2010

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DE CHILE

*/ This is a translation of a document originally written in Spanish. In case of discrepancy or difference in interpretation the Spanish original prevails. Both versions are available at www.bcentral.cl.

# Contents*/



*/ The statistical closing date of the *Monetary Policy Report* was 3 September 2010.

# 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 Basic 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 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. A number of 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 6 September 2010 for presentation to the Senate on 8 September 2010.

**The Board**

# Summary

Within a context of increasing uncertainty about global economic performance, Chile has continued to post significant growth rates, has narrowed output gaps faster than predicted in the latest *Monetary Policy Report*, and has advanced in repairing damages caused by the earthquake and tsunami of last 27 February (27-F). Meanwhile, inflation has returned to the defined tolerance range and is headed toward reaching 3% in the coming months. Internationally, the latest developments have increased uncertainty about the true pace of global growth. Financial markets' volatility, although milder than in the second quarter, is still high. In this context, the Board has gradually adjusted monetary policy to ensure that inflation will stand around 3% in the policy horizon. The process of normalizing the monetary policy interest rate (MPR) began in June and continued through the meetings of July and August—with an increase of 50 basis points each time—taking the MPR to 2%.

The first closing of second-quarter national accounts showed GDP growing at 6.5% y-o-y. In terms of velocity, the second quarter closed with an annualized quarterly change of around 20%. Domestic demand also grew more than forecast, driven by increased private consumption and a strong rebound of investment, thanks to both gross fixed capital formation and inventory accumulation. The dynamism of domestic demand and output has responded not only to temporary factors but also to more persistent ones. Among the temporary factors, what obviously stands out is the immediate repair of the damages caused by 27-F, which combines with the reversal of the dramatic contraction of domestic demand during 2009, associated to the then high levels of uncertainty. These elements resulted in a swelling of inventories, durable goods purchases and investments in machinery and equipment during the second quarter.

Among the more persistent phenomena that are driving demand and output are the still strong stimulative effect of monetary policy, in an environment where the agents' balance sheets suffered no permanent damages from either the crisis or 27-F. Internal financial conditions have continued to normalize, as can be seen in increased lending, still low interest rates and credit access conditions that, according to various sources of information, have been flexibilized even further. This combines with the favorable performance of the labor market and optimistic or near-neutral expectations of both consumers and firms.

CPI and CPIX inflation have generally evolved as foreseen in June. However, the core measure of CPIX1 continued to post low month-on-month changes, running below the foreseen trajectories. The CPI has followed an upward

International baseline scenario assumptions

| | 2009 | 2010 (f) | 2011 (f) | 2012 (f) |
|---|---|---|---|---|
| | (annual change, percent) | | | |
| Terms of trade | 4.1 | 15.0 | -4.3 | 0.5 |
| Trading partners' GDP (*) | -0.2 | 4.4 | 3.5 | 4.6 |
| World GDP at PPP (*) | -0.6 | 4.3 | 3.8 | 4.7 |
| World GDP at market exchange rate (*) | -2.0 | 3.3 | 2.9 | 3.9 |
| External prices (in US$) | -6.2 | 4.6 | 2.3 | 4.7 |
| | (levels) | | | |
| LME copper price (US¢/lb) | 234 | 320 | 290 | 290 |
| WTI oil price (US$/barrel) | 62 | 77 | 79 | 82 |
| Gasoline parity price (US$/m$^3$) (*) | 474 | 580 | 595 | 616 |
| Libor US$ (nominal, 90 days, %) | 0.7 | 0.4 | 0.5 | 1.5 |

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

Source: Central Bank of Chile.

Economic growth and current account

| | 2008 | 2009 | 2010 (f) | 2011 (f) |
|---|---|---|---|---|
| | (annual change, percent) | | | |
| GDP | 3.7 | -1.5 | 5.0 - 5.5 | 5.5 - 6.5 |
| National income | 4.1 | -1.2 | 11.7 | 5.2 |
| Domestic demand | 7.6 | -5.9 | 16.1 | 6.2 |
| Domestic demand (w/o inventory change) | 7.5 | -2.8 | 11.3 | 7.4 |
| Gross fixed capital formation | 18.6 | -15.3 | 21.2 | 13.6 |
| Total consumption | 4.0 | 1.8 | 8.3 | 5.3 |
| Goods and services export | 3.1 | -5.6 | -0.3 | 6.1 |
| Goods and services import | 12.2 | -14.3 | 26.3 | 6.4 |
| Current account (% of GDP) | -1.5 | 2.6 | -1.1 | -2.5 |
| | (US$ million) | | | |
| Current account | -2,513 | 4,217 | -2,200 | -5,700 |
| Trade balance | 8,848 | 13,982 | 10,400 | 7,600 |
| Exports | 66,464 | 53,735 | 64,300 | 66,400 |
| Imports | -57,617 | -39,754 | -53,900 | -58,800 |
| Services | -871 | -1,074 | -1,300 | -1,400 |
| Rent | -13,423 | -10,306 | -14,900 | -14,900 |
| Current transfers | 2,934 | 1,616 | 3,600 | 3,000 |

(f) Forecast

Source: Central Bank of Chile.

trend, where increases have been primarily linked to increased foodstuff prices, public transport fares and financial expenses, while the declines in the CPIX1 are closely related to the prices of clothing.

Internationally, the weak output and labor indicators recently published in the United States have heightened concerns over a possibly slow recovery of its economy. World growth projections are unchanged for 2010, basically due to actual figures that exceeded first-half expectations, as the latest information points at a weaker second half. The breakdown across regions has changed with increased participation of emerging economies. In the main developed economies, manufacturing activity has slowed. To date, consensus forecasts do not fully include this scenario, although financial asset prices contain an implicit lower growth for the United States and foresee a lagging process of monetary policy normalization. Accordingly, the Board has assumed for the baseline scenario in 2010 and 2011, world growth rates again below the market consensus.

World inflation also reflects the prevailing uncertainty regarding the pace of global growth. Inflation figures continue to fall short of the defined targets, and with downward revisions in the projections.

In international financial markets, risks associating to the fiscal and financial situation in Europe are less imminent, as is apparent in the banking industry's risk premiums and some monetary market liquidity indicators. Nevertheless, uncertainty remains, relating with the risks of a further debilitation of output in the developed world, which since June has led long-term interest rates in the United States, the Euro area and Japan to decline to levels similar or even lower than the troughs of late 2008.

Taking into consideration all the aforesaid factors combined, the Board estimates that this year the GDP will grow between 5.0% and 5.5%, and between 5.5% and 6.5% in 2011. The range is higher than forecast in June, due to both higher actual data for the first half and stronger demand and output observed in available figures for the third quarter. It is expected that, in the second half of the year, GDP will post lower annualized quarterly growth rates than those of recent quarters, but still above trend growth. This will continue during the first half of 2011, causing output gaps to close during the same period, that is, sooner than foreseen in June's *Report*. From a fiscal policy standpoint, the baseline scenario of this *Report* considers the announcements made by the Administration, with no major modifications to the fiscal stimulus in the coming years from June's assumptions.

The behavior of output and demand will lead the current account balance to stand at -1.1% of GDP this year. This deficit will widen in 2011. Measured at trend prices, these figures are high by historical standards, reflecting the temporary effects of post 27-F reconstruction works on investment and saving.

After analyzing different estimates and information available so far, the Board estimates that, during 2011, thanks to the significant upturn of investment, trend growth will approach 5.0%. Beyond the projection horizon, the Board continues to assume that trend economic growth will hover around 5.0%.

Inflation

| | 2009 | 2010 | 2011 (f) | 2012 (f) |
|---|---|---|---|---|
| | (annual change, percent) | | | |
| Average CPI inflation | 1.6 | 1.7 | 3.3 | 3.1 |
| December CPI inflation | -1.4 | 3.9 | 3.2 | 3.0 |
| CPI inflation in two years (*) | | | | 3.0 |
| Average CPIX inflation | 2.8 | 0.8 | 3.6 | 3.2 |
| December CPIX inflation | -1.8 | 3.5 | 3.5 | 3.0 |
| CPIX inflation in two years (*) | | | | 3.1 |
| Average CPIX1 inflation | 2.8 | -0.3 | 3.0 | 3.1 |
| December CPIX1 inflation | -1.1 | 1.5 | 3.2 | 3.0 |
| CPIX1 inflation in two years (*) | | | | 3.0 |

(f) Forecast.
(*) Inflation forecast at the third quarter of 2012.

Source: Central Bank of Chile.

This *Report's* baseline scenario, despite the faster closing of gaps, shows headline inflation on a similar trend to the one predicted earlier, but with core inflation within tighter bounds. This difference responds mainly to specific factors in certain prices and to the incidence of reduced imported inflationary pressures (excluding foodstuffs). These pressures are expected to remain well contained, within a context where commodity prices will stay fairly constant or decline somewhat. World inflation in 2011 is being revised down from June and will be lower than inflation expected for 2010.

In addition, the recent dynamic and the baseline trajectory of the real exchange rate (RER) play a role in the inflation trajectory. The peso has appreciated in nominal terms by around 7% since the last *Report*, partly as a reaction to the behavior of the U.S. dollar in international markets. The projections are made under the working assumption that the RER will be similar to its present level in the long term, which is consistent with its fundamentals for the long-term horizon. Lower inflationary pressures associated to the stronger peso certainly help shape this *Report's* inflation forecast, partially offsetting the effects of the closing of gaps on prices.

Furthermore, inflationary pressures coming from the labor market are projected to post no significant changes from their present figures.

Accordingly, projections for the remaining of this year are that CPI variation will return to numbers in the order of 3% to then stand in the upper part of the tolerance range for some months. This short-term trajectory is influenced by one-time effects, which will eventually be reverted allowing inflation to oscillate around 3% over all of 2011 and until the end of the relevant projection horizon, this time the third quarter of 2012. CPIX1 inflation will post a more gradual convergence to 3%, largely because the shorter-term effects on inflation are concentrated in items outside the CPIX1.

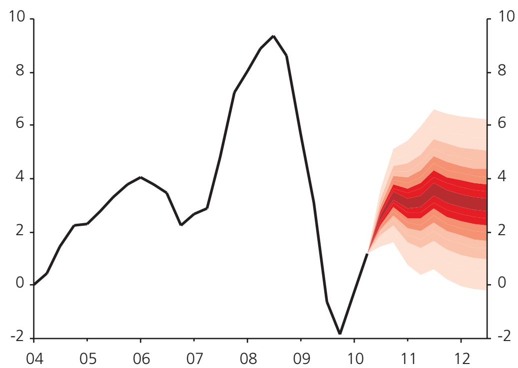
Market expectations of the MPR foresee that the monetary stimulus will continue over the coming months. For this *Report's* baseline scenario, the Board estimates that it will continue withdrawing the monetary stimulus at a pace that will depend on how domestic and external macroeconomic conditions unfold. The risks around this baseline scenario are still high and may call for alternative courses of monetary policy.

Indeed, the scenario outlined here is subject to several risks. Considering that by June domestic demand and output already showed faster than expected velocity, it cannot be ruled out that the gaps will close faster than assumed in the baseline scenario. Neither can it be ruled out that a big part of such dynamism is the response to merely transitory effects, for example relating to 27-F, and that output will slow down sooner than projected.

Various risks remain latent in the global context. Economic growth in the Unites States could weaken further, with effects on financial markets—in particular reversals in stock indices— and with new postponements in the monetary stimulus withdrawals. The fiscal accounts of developed economies—especially in some countries in Europe—is still cause for concern, particularly because of their effects on perceived risks and the impact it might provoke on world economic recovery. Moreover, measures

CPI inflation forecast (*)

(annual change, percent)

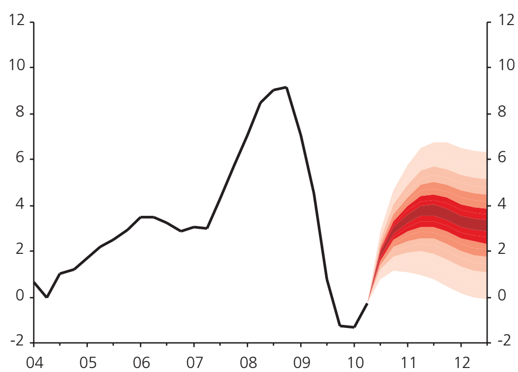



(*) The figure shows the confidence interval of the baseline projection over the respective horizon (colored area). Confidence intervals of 10%, 30%, 50%, 70% and 90% around the baseline scenario are included. These intervals summarize the risks on future inflation as assessed by the Board. The baseline scenario uses as a methodological assumption that the pace of MPR normalization will be similar to the one that can be deduced from various expectations surveys.

Source: Central Bank of Chile.

CPIX 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 future inflation as assessed by the Board. The baseline scenario uses as a methodological assumption that the pace of MPR normalization will be similar to the one that can be deduced from various expectations surveys.

Source: Central Bank of Chile.

taken by China to hold back credit growth and avert an overheating may result in a less dynamic world economy and lower commodity prices. As usual, the persistence of global imbalances induces risks on both capital flows across economic areas and in the evolution of parities between different currencies.

The hikes seen in the prices of some foodstuffs around the world, especially wheat, puts forward the risk of increased domestic prices, considering the high pass-through of prices that the Chilean economy has shown.

In case some of these risk scenarios materializes, there will be direct effects on the scenario for growth and inflation foreseen by the Board. After considering all the elements described, the Board estimates that the risk balance for inflation and output is unbiased.

It is worth noting that these projections use as a working assumption that the pace of MPR normalization will be similar to the one that can be deduced from various expectations surveys.

The Board reiterates that it will continue to use its policies with flexibility so that projected inflation stands at 3% over the policy horizon.

# Monetary policy decisions in the last three months

## Background: June meeting and Monetary Policy Report

At the June meeting, after several quarters of gradual normalization, the international financial environment again showed significant tension in the second quarter of 2010. The weakened fiscal positions in some European countries affected other economies and banking systems, which prompted a substantial increase in volatility, especially in May. The indicators available as of the statistical closing date of the June *Report* suggested some degree of stabilization, following the announcement of fiscal adjustment plans and liquidity support measures. Nevertheless, more stressful scenarios could not be discarded. However, in contrast to usual practice, the baseline scenario in the June report considered a world growth rate for 2011 that was around one half a percentage point below the updated consensus vision. This responded to the sum of the effects of the recent turbulence, their persistence for several more quarters, and the effect of the fiscal adjustments underway in various economies.

Locally, domestic demand continued to grow vigorously, driven by both gross fixed capital formation, but also by very dynamic consumption. The earthquake's effects on output had been greater than expected in the very short term, but they had been reversed quickly. Therefore, the baseline scenario in the June *Report* projected that GDP would grow at an annual rate of 4.0 to 5.0% in 2010. This range was slightly lower than the one considered in March, due to lower effective growth in the first quarter. Although the economy was operating below full capacity, the growth forecast pointed to a closing of the output gap through part of 2011.

The inflation news contained no great surprises: inflation had fluctuated, but was in the process of converging toward the target. While core inflation measures were lower than forecast, they were expected to continue rising over the course of the year, in line with private forecasts. In the baseline scenario, inflation would stand in the upper part of the tolerance range at the end of 2010. Toward 2011 and 2012, y-o-y headline inflation would hover around 3%, standing there at the end of the relevant projection horizon. Core inflation would converge to 3% more slowly, reaching that level over the course of 2011.

Given this scenario, the Board estimated that to achieve the inflation target within the forecast horizon, progressive normalization of the present monetary stimulus was needed. It was therefore considered that over the course of the coming year, the monetary policy rate (MPR) would be brought to around the level implicit in private expectations and in the long term, it would converge to its neutral level.

The baseline scenario of the June *Report* was subject to a number of risks. Nationally, the biggest source of risk was domestic spending, in particular the possibility its dynamism was mainly the response to the stimulative macroeconomic conditions and not the result of transitory effects, as assumed in the *Report's* baseline scenario. In that case, the output gap would close faster than projected. Externally, the risk was associated with the development of a less favorable environment, considering that the weakened fiscal and/or banking situation in Europe could deepen or spread to other regions. The magnitude and effects of such a development were highly uncertain, but potentially significant. Moreover, a relevant deceleration of economic activity in the United States could not be ruled out.

Thus, the most plausible options for June, therefore, were to increase the MPR by 25 or 50 basis points (bp). In contrast to previous meetings, private expectations were almost unanimous in forecasting that the MPR would be raised in June. The pace of the normalization process was not at all clear, however. There was a tradeoff between starting the process more gradually (and then possibly having to speed up the normalization if the inflationary environment became more challenging in the future) versus moving more aggressively (and possibly having to slow things down, depending on how the environment developed). This led to an assessment of the risk of policy reversal, which was mainly related to the rate and degree of normalization in the short term and not to its materialization per se. It was not clear whether the costs of policy reversals would be greater or lower if the process was launched with a hike of 25 versus 50bp, and nor did the data on the coming months point clearly in one direction or the other. Furthermore, in the face of complex financial scenarios causing stress in the money markets, the main instrument was not policy actions, but rather measures that directly addressed illiquidity and market turbulence. Finally, monetary policy was highly expansive, and achieving the inflation target would require reducing that expansiveness in the short term. In this context, the Board decided to increase the MPR by 50bp, to 1%.

## July and August meetings

At the July meeting, the current data and their implications for the most immediate outlook for output and demand were not materially different from the last *Report*. The international scenario relevant for Chile had not changed substantially. Concerns were growing with regard to the risk scenarios, in particular the fiscal position of some European economies and the fragility of their banking systems. Domestically, the Imacec had posted a surprisingly high growth rate in May, reflecting strongly dynamic activity driven primarily by domestic demand. However, the most recent data also showed signs of a slowdown in line with projections, as evidenced in consumer and capital goods imports, some business indicators, and measures of expectations. Employment continued to post strong twelve-month growth rates, although it tended to stabilize at the margin. June inflation records had been somewhat lower than forecast, although not in the case of the core measures. Annual inflation could be expected to rise gently in the coming months, reaching the upper end of the target range. In the local financial system, lending had increased after stagnating for a considerable period. In terms of options, the main consideration was the monetary policy strategy contained in the June *Report* and its consistence with the current situation. This supported the assessment that the most plausible option was to increase the MPR by 50 basis points. There was still a risk that the external scenario would weaken, so it was inadvisable to speed up the process of normalizing monetary policy. At the same time, the news on domestic inflation and output, together with the risks identified in the June *Report*, outweighed the possibility of slowing down the normalization process. Consequently, the Board decided to increase the MPR by 50 basis points, to 1.5%.

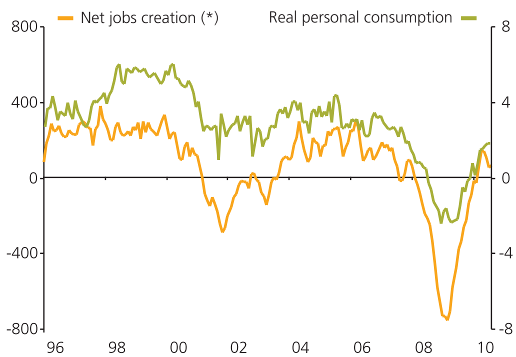
For the August meeting, the international economic environment continued to be uncertain, with doubts about the economic recovery in the United States, the decisions adopted by the Federal Reserve, and the effect of this set of factors on the global financial markets. There was a higher probability that the global scenario would be more negative than forecast; this was consistent with the outlook for limited inflation, which had been revised downward. World economic activity would probably be driven by the emerging economies, while the recovery in the developed economies would be slow, especially in 2011. Commodity prices had begun to rise again, particularly in the case of food goods, and the results of the stress tests on the European banking system had managed to calm the financial markets to some extent. Nationally, domestic demand and output dynamism continued to surprise, and employment levels had increased significantly relative to one year ago. This suggested that the output gap was closing faster than projected in the June *Report*. The year would probably close with a higher growth rate than forecast, which was supported by the expectations surveys. Inflation records were within the forecast ranges, individual data were strongly affected by specific factors, and the core inflation trend was limited. The real exchange rate remained at levels consistent with its long-term fundamentals, but if the appreciation of the peso continued at its current rate or intensified, it could mitigate price pressures in the coming quarters.

Thus, in terms of options, the main consideration continued to be the monetary policy strategy contained in the June *Report* and its consistence with the current environment. As at the previous meeting, the most plausible option was to increase the MPR by 50 basis points. The current data and their implications for the medium-term inflation outlook varied considerably, but there was not enough evidence to unequivocally support changing the pace of monetary policy normalization at this time. The most reasonable choice, therefore, was to continue the process, given that the MPR was still expansive. Consequently, the Board decided to increase the MPR by 50 bp, to 2.0%.

# I. International scenario

**Figure I.1**

U.S. labor market and personal consumption
(moving quarter; in thousands; annual change, percent)

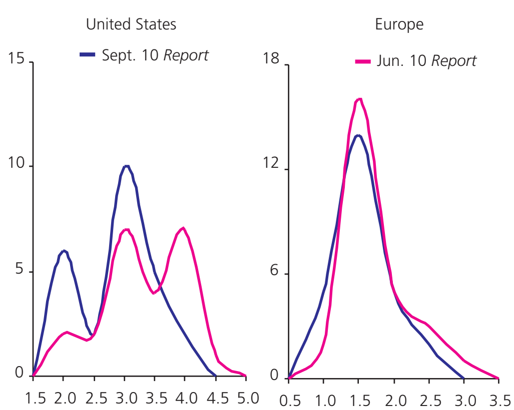



(*) Excluding seasonal workers, as in the 2010 Census.

Source: Bloomberg.

**Figure I.2**

Distribution of market consensus growth forecasts for 2011
(frequency of response; annual change)




Source: Central Bank of Chile based on Consensus Forecasts.

This chapter analyzes the recent evolution of the world economy and the outlook for the next two years. It also describes the most likely external scenario relevant to the Chilean economy, as well as the main risks.

## World growth

Doubts have recently been raised about the strength of the recovery in the United States. GDP growth was lower than forecast by market agents in the second quarter of 2010, and the most recent data point to a weaker third quarter, as well. This weak growth is mainly related to the poor performance of private consumption due to the slow recovery of the labor market and uncertainty about the employment outlook (figure I.1). In fact, jobs creation in this economy has been much slower in this recovery period than in previous cycles. Furthermore, the situation has been exacerbated by the deleveraging process underway in households and businesses and expectations that the fiscal stimulus packages will be brought to a close. Although financial conditions have improved since the bleakest point of the financial crisis, commercial banks continue to be focused on cleaning up their balance sheets, and the demand for credit remains low. These factors are reflected in a weak credit market. In response to these conditions, the U.S. Federal Reserve has expanded its unconventional measures to stimulate the economy.

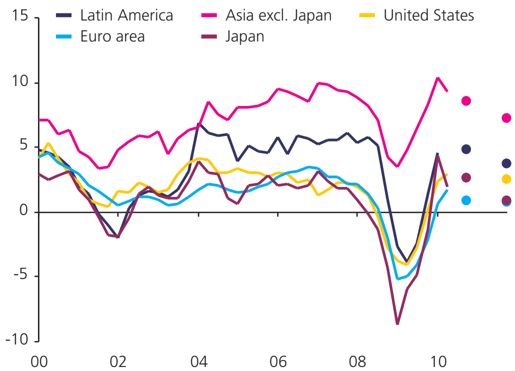
In the euro area, second quarter GDP was better than market forecasts, with differences in performance among the region's economies. However, estimates show that the effects on output of the turbulence in the financial markets in the first half of the year and the fiscal adjustment plans in place in several economies will have a negative impact on growth in the region. One indicator along these lines is the worsening in lending survey results. Therefore, the baseline scenario projects that the better figures recorded to date will be reversed over the rest of the year, such that the forecasts for this economic zone are practically unchanged since the June *Report*.

Among the emerging economies, Asia and Latin America continue to stand out for their dynamic performances. In China, annual GDP growth exceeded 11% in the first half. In other economies in the region, such as Singapore, Malaysia, and Thailand, second-quarter output was even higher than the market's high expectations. The region's dynamic performance has been

**Figure I.3**

World growth (1) (2)

(annual change, percent)



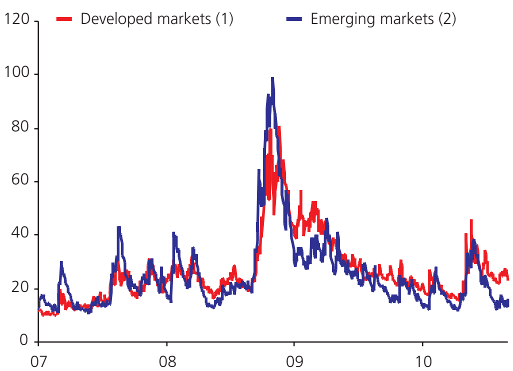

(1) PPP-weighted regions from WEO, April 2010.
(2) Dots represent the growth forecast for 2010 and 2011, respectively.

Source: Central Bank of Chile, based on the statistics offices of each country and IMF.

**Figure I.4**

Stock market volatility

(percent)



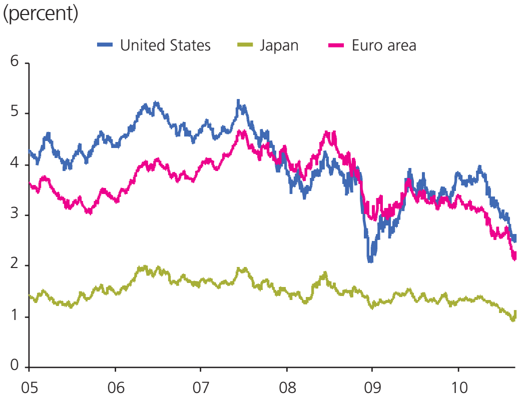

(1) VIX volatility index. See glossary for definition.
(2) Estimated volatility of the MSCI index in U.S. dollars.

Sources: Bloomberg and Morgan Stanley Capital International.

**Figure I.5**

Long-term interest rates in developed economies (*)

(percent)




(*) Interest rates on ten-year government bonds.

Source: Bloomberg.

underpinned by strong exports and private domestic demand, but it will tend to ease up in the second half of the year. In Latin America, Brazil has maintained a solid output performance based not only on improvements among its trading partners, but also on the strong dynamism of domestic demand. Mexico, in turn, has been affected by the weak performance of the United States.

The heightened uncertainty about the strength of the recovery of the U.S. economy is reflected in the wide range of market consensus forecasts for U.S. growth in 2010 and 2011 (figure I.2). In addition, these forecasts have been revised downward. A scenario of lower growth in the United States would undoubtedly have effects on global output through the trade and financial channels. Thus, market consensus forecasts for world growth have also been revised downward since June, reflecting the effects of the financial turbulence of the past few months on global output. Nevertheless, it is estimated that the signs of fragility seen in the last few weeks have probably not yet been fully incorporated, most notably the Federal Reserve's assessment that the recovery in the United States will be slower than anticipated and inflation will be lower. In contrast, financial asset prices have absorbed these effects, at least in part. The forward curve adjustment in the last few weeks is considered consistent with a downward revision in the growth forecasts for the U.S. economy and with expectations that the normalization of the monetary stimulus will be a long process. Therefore, the baseline scenario used for this *Report* revises the U.S. growth forecast downward, with the resulting effects on the performance of the rest of the world. This trend is especially pronounced in 2011. Thus, the *Report's* world growth forecasts continue to be below market consensus forecasts.

**Table I.1**

World growth (*)

(annual change, percent)

| | Ave. 90–99 | Ave. 00-07 | 2009 (e) | 2010 (f) | 2011 (f) | 2012 (f) |
|---|---|---|---|---|---|---|
| World at PPP | 2.9 | 4.2 | -0.6 | 4.3 | 3.8 | 4.7 |
| World at market exchange rate | 2.4 | 3.2 | -2.0 | 3.3 | 2.9 | 3.9 |
| United States | 3.2 | 2.6 | -2.6 | 2.7 | 2.5 | 2.7 |
| Euro area | 2.2 | 2.1 | -4.1 | 0.9 | 0.8 | 2.2 |
| Japan | 1.5 | 1.7 | -5.3 | 2.6 | 0.9 | 2.3 |
| China | 10.0 | 10.1 | 9.1 | 9.5 | 8.4 | 10.1 |
| Rest of Asia | 5.6 | 5.1 | 0.1 | 6.1 | 4.2 | 5.3 |
| Latin America (w/o Chile) | 2.7 | 3.6 | -2.4 | 4.9 | 3.6 | 4.4 |
| Commodity exporters | 2.7 | 3.1 | -1.1 | 2.9 | 2.7 | 3.4 |
| Trading partners | 3.1 | 3.6 | -0.2 | 4.4 | 3.5 | 4.6 |

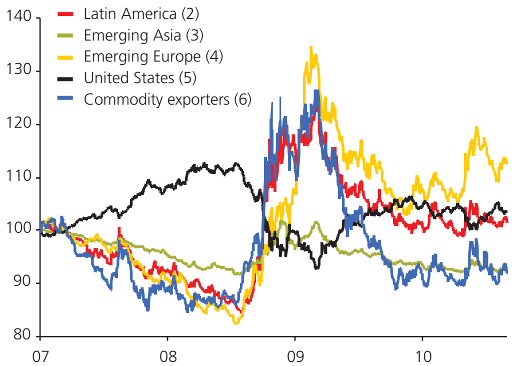
(e) Estimate.
(f) Forecast.
(*) See glossary for definitions.

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

**Figure I.6**

Currency parities (1)

(index: 01.Jan.2007 = 100, local currency to the U.S. dollar)



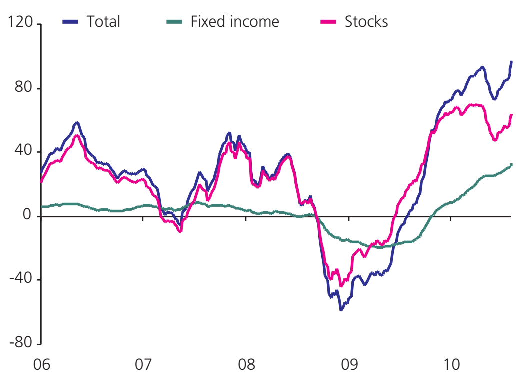

(1) PPP-weighted average for each region. An increase indicates depreciation.
(2) Includes Argentina, Brazil, Chile and Mexico.
(3) Includes China, Hong Kong, Indonesia, Malaysia, South Korea, and Thailand.
(4) Includes Hungary, Poland, Czech Republic, and Russia.
(5) The U.S. dollar relative to a basket of currencies of the main trading partners of the United States. An increase indicates depreciation of the U.S. dollar.
(6) Includes Australia, Canada and New Zealand.

Sources: Bloomberg and International Monetary Fund.

**Figure I.7**

Net investment fund inflows to emerging economies

(US$ billion, moving twelve-month window, weekly data)

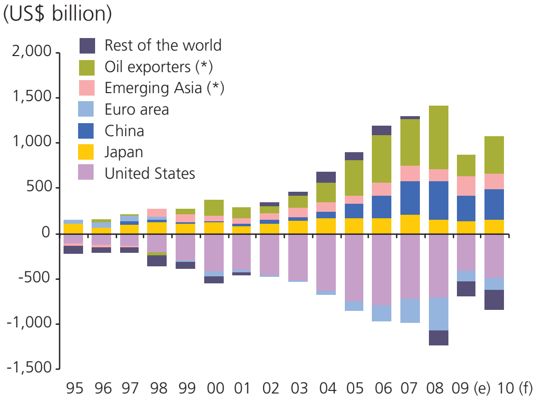



Source: Emerging Portfolio Fund Research.

**Figure I.8**

World current account balance

(US$ billion)




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

Source: International Monetary Fund.

In the past months, the differences in the growth rates of the world's economies have expanded, although the world growth forecasts hold for this year. The emerging economies and some commodity exporters are recovering to their precrisis output levels faster than the developed economies (figure I.3 and box I.1). Nevertheless, the new scenario is one in which world growth will be weaker in the forecast horizon than was projected in the last *Monetary Policy Report*. For this year, the world growth forecast remains at 4.3%, but it has been revised downward 0.2 percentage points for 2011. For 2012, world growth is estimated at 4.7% (table I.1).

## Financial markets

Financial market stress was especially high in May of this year, but it has eased up in the last few months, largely in response to the publication of the results of stress tests on European banks. The tests showed that out of a total of 91 banks—which represent close to 65% of the region's banking system—only seven presented difficulties. Market volatility therefore fell relative to the levels recorded a few months ago (figure I.4), and liquidity premiums fell in the money markets, especially in the United States. Nevertheless, risk indicators remain high, particularly in economies in the European periphery. This led the European Central Bank (ECB) to purchase sovereign bonds from countries in trouble.

Most recently, the markets' perception of increased fragility in the U.S. economy has been reflected in the financial indicators. Thus, stock markets and long-term interest rates are dropping again in the main developed economies. Long rates, in particular, have approached or even surpassed the lows recorded in late 2008 (figure I.5). In addition, the dollar depreciated in international markets: 5% against euro, as well as against the majority of emerging currencies (figure I.6 and table II.2).

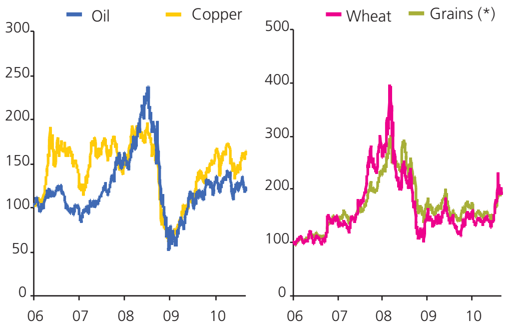
The depreciation of the U.S. dollar is consistent with capital inflows to emerging economies and the differences in the growth rates of developed and emerging economies. Capital inflows have encompassed both stocks and bonds and have been especially marked in Asia (figure I.7). In line with these trends, emerging market stock indices have recorded a generalized increase, with the strongest performances posted in Thailand and Indonesia in Asia, and in Chile and Colombia in Latin America. While the depreciation of the U.S. dollar supports the closing of global imbalances, it remains an underlying risk (figure I.8).

## Commodity prices

The evolution of commodity prices in the past few months has largely reflected the disparity in world growth dynamics. Thus, the copper price has been driven by the greater demand from Asia and a weaker-than-forecast U.S. dollar. At the same time, metal inventories declined, indicating a tighter market. Compared with the last *Report*, copper increased more than 10% and is currently trading at around US$3.30 a pound. Going forward, the baseline scenario of this *Report* revises the copper price forecast upward, to US$3.20 a pound in 2010, and US$2.90 in both 2011 and 2012.

**Figure I.9**

Commodity prices in different currencies
(index: 02.Jan.2006 = 100)

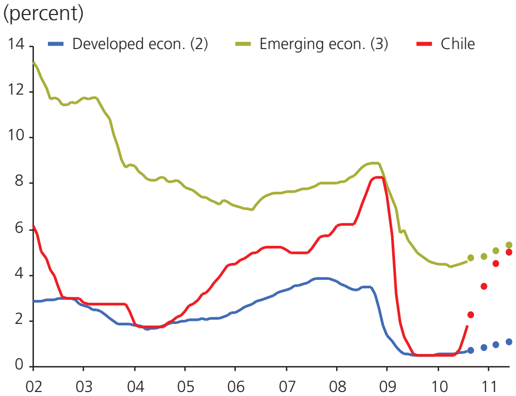



(*) Aggregate S&P GSCI index for grains and cereals.

Source: Bloomberg.

**Figure I.10**

Monetary policy rates around the world (1)
(percent)




(1) Solid lines represent a simple average of the reference rates for each group of countries. Dots are the average of responses from analysts surveyed by Bloomberg in August 2010; they indicate expectations for September and December 2010 and March and June 2011.
(2) Includes Canada, Euro area, Japan, Norway, Sweden, Switzerland, United Kingdom, and United States.
(3) Includes Brazil, Czech Republic, China, Colombia, Hungary, South Korea, Mexico, Peru, Poland, South Africa, and Turkey.

Sources: Central Bank of Chile and Bloomberg.

**Table I.2**

World inflation (*)
(average annual change in local currency, percent)

| | Ave. 90-99 | Ave. 00-07 | 2009 | 2010 (f) | 2011 (f) | 2012 (f) |
|---|---|---|---|---|---|---|
| United States | 3.0 | 2.8 | -0.3 | 1.6 | 1.5 | 2.0 |
| Euro area | 2.3 | 2.2 | 0.3 | 1.5 | 1.5 | 1.7 |
| Japan | 1.2 | -0.3 | -1.3 | -1.0 | -0.3 | 0.1 |
| China | 7.8 | 1.7 | -0.7 | 3.0 | 3.3 | 3.3 |
| Australia | 2.5 | 3.2 | 1.8 | 3.0 | 3.0 | 3.0 |
| New Zealand | 2.1 | 2.6 | 2.1 | 2.6 | 4.3 | 4.0 |
| Argentina | 253.7 | 8.9 | 6.2 | 10.5 | 10.9 | 10.6 |
| Brazil | 854.8 | 7.3 | 4.9 | 5.0 | 4.6 | 4.7 |
| Mexico | 20.4 | 5.2 | 5.3 | 4.2 | 4.2 | 3.8 |
| | | | | | | |
| EPI (*) | 1.8 | 4.6 | -6.2 | 4.6 | 2.3 | 4.7 |
| LPI (*) | 27.2 | 5.2 | -1.5 | 4.6 | 3.7 | 3.4 |

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

Sources: Central Bank of Chile, based on sample of investment banks, Bloomberg, Consensus Forecasts, and International Monetary Fund.

The oil price is at a similar level to the close of the June *Report*, with WTI crude currently trading at just under US$75 a barrel. The oil price forecast is of an average of US$77 a barrel in 2010, US$79 in 2011, and US$82 in 2012, based on average futures curves in the last ten business days.

The last three months have seen a return of hikes in some food prices, especially wheat. The wheat market has recently been affected by Russia's decision to impose export restrictions on this commodity. Although Russia is an important producer in the world wheat market, its relative share has been shrinking over time. The recent trend in the wheat price (which has increased nearly 50% since the last *Report*) is similar to the spike recorded in early 2007, but the situation in the market is different this time around. Specifically, global inventories are currently higher than in 2007, and the price trend implicit in futures contracts incorporates a drop in the price in the short term (box IV.1).

## World inflation and monetary policy

The world inflation trend also reflects the differences in the growth rates of various economies (table I.2). The persistence of large output gaps in the main developed economies has translated into inflation records that, in the majority of cases, continue to be below the established targets, and forecasts have therefore been revised downward. Consistent with this view, expectations are that the normalization of policy interest rates will be postponed, and the process of withdrawing the monetary stimulus will be slower than previously forecast. Moreover, in the case of the United States, Japan, and the euro area, the unconventional monetary policy measures have been broadened.

Monetary policy actions have been different in the emerging economies and some commodity exporters, and several emerging economies are in the process of normalizing their monetary stimulus. Most recently, some of these economies have put the brake on this process or reduced the pace of implementation. In addition, monetary authorities are increasingly concerned about the appreciation pressures on their currencies. This can be seen in monetary policy communication and, in some cases, in the use of different policy instruments. In some regions, the trend in local parities has been reflected in lower real inflation in the last month, and it has led to a downward revision in the inflation outlook for this year.

# Box I.1: Dynamics of the world recovery and global imbalances

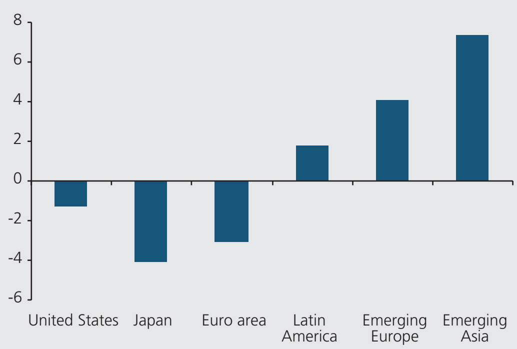
Differences in recovery rates among economies have widened over the past few months. In general, the main developed economies are taking longer than the emerging economies to return to the output levels recorded before the crisis of 2008–2009. This box describes the differences in recovery rates and discusses the possible implications for exchange rate parities and global imbalances.

As the world moves out of the global recession, the forecast for world growth this year is similar to the average of 2000–2007. A comparison of GDP levels in the second quarter of 2010 with the precrisis period (second quarter of 2008) reveals that the main developed economies—namely, the United States, Japan, and the euro area—remain below their earlier levels. In contrast, Latin America, emerging Europe, and especially emerging Asia have already surpassed their precrisis levels (figure I.11). In the majority of the developed countries, the recovery to date has been slower than in previous recessions, when at this phase of the cycle they had already met or surpassed their prior levels.

**Figure I.11**

Deviation of real GDP from precrisis levels (*)

(difference between real GDP in 2Q10 and 2Q08, percentage points)




(*) Regional GDP constructed using PPP weights from the IMF (WEO, April 2010). Latin America includes Argentina, Brazil, Colombia, Ecuador, Mexico, Peru, Uruguay, and Venezuela. Emerging Europe includes Hungary, Poland, and Czech Republic. Emerging Asia includes Indonesia, South Korea, Malaysia, Singapore, Taiwan, and Thailand. Where data are not available for GDP in the second quarter of 2010, the first quarter is used.

Sources: Bloomberg and International Monetary Fund.

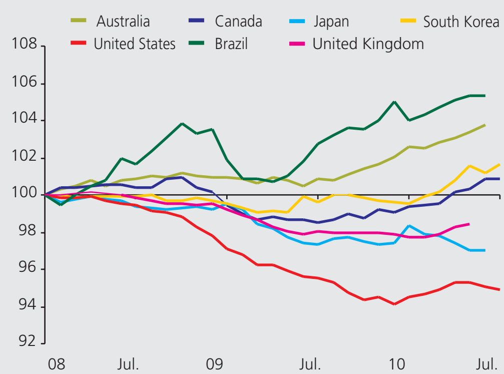
This difference in recovery rates can be explained by several factors. First, the financial systems in the developed economies have not yet overcome all the problems left by the financial crisis: the banks are still cleaning up their balance sheets, which prevents lending from bolstering output. At the same time, both households and businesses are undergoing a deleveraging process. Second, several developed economies were already in a delicate fiscal position before the crisis detonated reason why the strong stimulus policies cannot be sustained for long. In fact, several of these economies, especially in Europe, have had to implement fiscal austerity plans. Finally, from the perspective of the monetary stimulus, the developed economies reached their minimum monetary policy rates and had to complement their actions with unconventional monetary policy measures, which recently even have been extended in some countries.

Employment creation has been much slower in the main developed economies than in the emerging economies and commodity exporters (figure I.12). The labor market has been particularly weak in the United States, where the creation of jobs has lagged far behind the rate of previous cycles. The delay in the recovery of employment has caused indicators of consumer confidence to remain low. Nevertheless, consumer confidence is somewhat better in Europe, which has recorded the highest indicators since 2007.

**Figure I.12**

Evolution of employment (*)

(index: January 2008 = 100)




(*) Seasonally adjusted data.

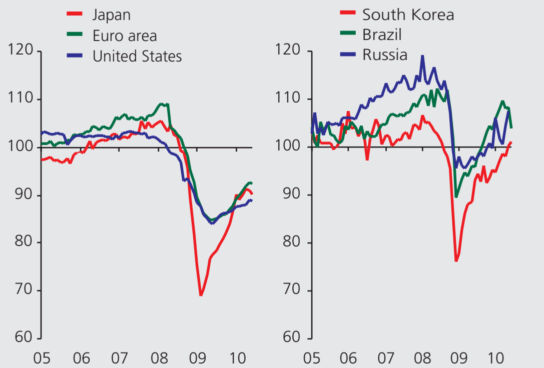
Source: Central Bank of Chile, based on data from the Organization for Economic Cooperation and Development (OECD) and the International Labor Organization (ILO).

Manufacturing output also displays a wide disparity in performance (figure I.13). In the main developed economies, manufacturing production has not yet returned to trend levels, whereas the emerging economies have already met or surpassed them.

**Figure I.13**

Manufacturing production (*)

(indices, trend level= 100)




(*) A value over 100 implies that the level of manufacturing production is above its trend level. The trend is calculated with an HP filter.

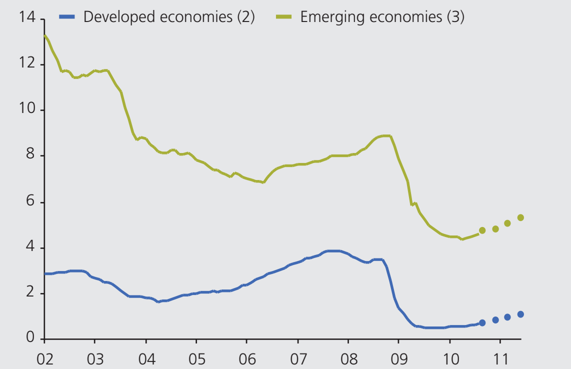
Sources: Central Bank of Chile and Organization for Economic Cooperation and Development (OECD).

At the same time, capital inflows to emerging economies have risen to their precrisis levels (figure I.7). This has occurred in conjunction with the depreciation of the U.S. dollar in international markets and an upsurge in emerging stock markets. Although the world recession partially corrected global imbalances, particularly through the increase in private saving in the developed world, projections indicate that these imbalances will expand again[1]/. When combined with expectations of monetary policy interest rate hikes in the emerging economies and the growth disparities described above, this trend raises the challenge of managing the capital inflows in some economies (figures I.14 and I.15).

**Figure I.14**

Monetary policy rates around the world (1)

(percent)




(1) Solid lines represent a simple average of the reference rates for each group of countries. Dots are the average of responses from analysts surveyed by Bloomberg in August 2010; they indicate expectations for September and December 2010 and March and June 2011.

(2) Includes Canada, Euro area, Japan, Norway, Sweden, Switzerland, United Kingdom, and United States.

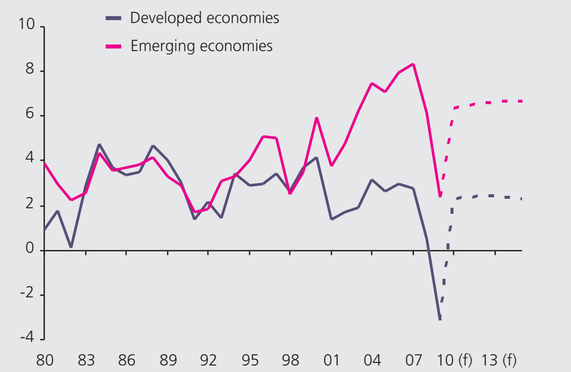
(3) Includes Brazil, Czech Republic, China, Colombia, Hungary, South Korea, Mexico, Peru, Poland, South Africa, and Turkey.

Sources: Central Bank of Chile and Bloomberg.

**Figure I.15**

World growth

(annual change, percent)




(f) Forecast.

Source: International Monetary Fund (WEO, April 2010).

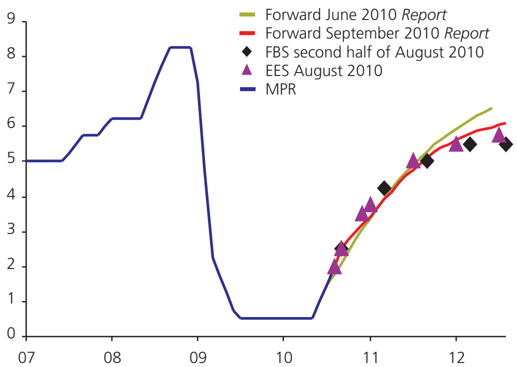
[1]/ The IMF's forecasts of an expansion of global imbalances are based on a scenario in which real exchange rates remain at their current levels. The expansion would be smaller under a scenario with greater exchange rate flexibility in some emerging economies, especially in Asia.

# II. Financial markets

**Figure II.1**

MPR and expectations

(percent)

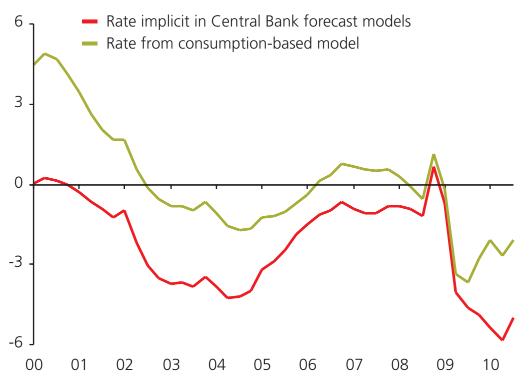



Source: Central Bank of Chile.

**Figure II.2**

Real interest rate gap: real MPR less indicated neutral interest rate

(percent)




Source: Central Bank of Chile.

This chapter reviews the evolution of the main financial markets from a monetary policy perspective.

## Monetary policy

The process of normalizing the monetary policy rate (MPR), which began in June, continued at the July and August meetings with MPR hikes of 50 basis points (bp) each, to 2.0%.

Different measures of expectations are consistent with the Board's communication, in terms of the monetary stimulus continuing to be withdrawn over the coming months. However, the magnitude of the MPR increase expected by the market has changed since June, especially in the short term. For December of this year, private expectations project an MPR between 50 and 100bp higher than in the June *Report*. Toward the end of the relevant forecast horizon, however, market expectations for the MPR are very similar to what they were in June.

As in June, the MPR implicit in swap contracts is lower than the rate implicit in the forward curve[1]/ (figure II.1 and table II.1). This is mainly a reflection of the significant differences between the rates on nominal Central Bank bonds and swap contracts at the same maturities. It is possible that these differences may originate with the types of institution that operate in each market, which are not fully integrated, reflecting the different preferences for instruments denominated in pesos versus UFs (the *Unidad de Fomento*, or UF, is an inflation-indexed unit of account) by resident and non-resident institutions. This partial market integration could also mean that swap contract rates more quickly and completely incorporate changes in external risk-free rates. Expectations captured in market surveys are also lower than the MPR levels implicit in the forward curve.

**Table II.1**

Expectations for the MPR

(percent)

| | In December 2010 | | In one year | | In two years | |
|---|---|---|---|---|---|---|
| | June *Report* | September *Report* | June *Report* | September *Report* | June *Report* | September *Report* |
| EES (1) | 2.50 | 3.50 | 3.75 | 5.00 | 5.50 | 5.75 |
| FBS (2) | | | 3.75 | 5.00 | 5.50 | 5.50 |
| Forward (3) | 2.75 | 3.21 | 4.19 | 5.11 | 6.31 | 6.08 |
| Forward swap (4) | 2.46 | 3.08 | 3.85 | 4.51 | 5.33 | 5.18 |

(1) Economic Expectations Survey for June and August 2010.
(2) Financial Brokers Survey for the first half of June and second half of August 2010.
(3) Constructed using swap contract rates up to two years and then BCP rates.
(4) Constructed using only swap contract rates up to two years.

Source: Central Bank of Chile.

[1]/ Constructed using swap contract rates up to two years and then BCP rates.

**Figure II.3**

Real monetary policy interest rate based on EES expectations

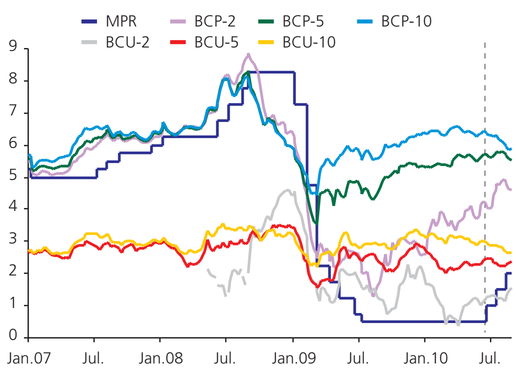
(percent)


Source: Central Bank of Chile.

**Figure II.4**

MPR and interest rates on Central Bank of Chile instruments (*)

(weekly averages, percent)



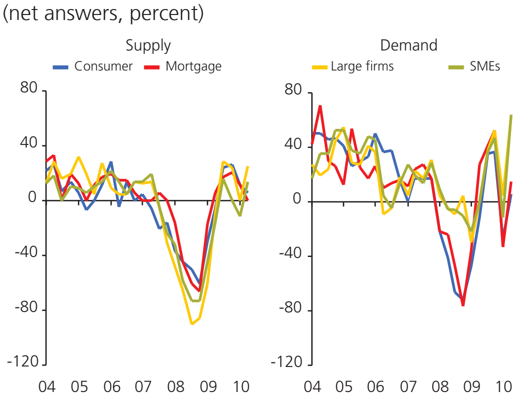

(*) Vertical dotted line represents the publication of the June 2010 *Monetary Policy Report*.

Source: Central Bank of Chile.

**Figure II.5**

Bank lending survey (*)

(net answers, percent)




(*) Average response by quarter. Negative values indicate tighter conditions than in the previous quarter.

Source: Central Bank of Chile.

A working assumption used in the baseline scenario of this *Report* is that the pace of MPR normalization will be similar to the one that can be deduced from various expectations surveys. Continuing the process of normalizing the monetary stimulus is necessary for achieving the inflation target within the policy horizon (figure II.2). An analysis of the inflation and MPR expectations captured by the Economic Expectations Survey (EES) reveals that, in real terms, the expected MPR one year out is lower than before the financial crisis, when the economy was similarly in an expansionary phase, as it is now. According to these same expectations, the MPR will be below the range estimated for its neutral level[2]/ at least until early 2012 (figure II.3).

Although the tension in the external financial markets has eased off in the last few months, there is still substantial uncertainty and asset price volatility. However, most emerging economies, like Chile, have proven relatively resilient to this phenomenon. The spread on bonds issued by the Government of Chile was 90bp, while the rate on peso-indexed bond issues was 5.5%; both these figures are low compared with other economies. Since the publication of the June *Report*, the rates on Central Bank instruments have followed different trajectories, depending on maturity more than indexation. The rates on two-year instruments, both nominal and UF-indexed, increased around 50bp. The rates on long-term instruments (10 and 20 years) fell between 40 and 50bp, in line with the trend for external bonds in the same period (figure II.4). The withdrawal of additional liquidity measures provided during the crisis—namely, the FLAP and repos—did not generate stress in the money market.

Prime time deposit rates have risen significantly in the last few months, even more than the increase in MPR expectations. This is reflected in a high prime-swap spread. This could be related to portfolio changes implemented by the pension fund administrators (AFPs) and mutual funds.

## Financial conditions

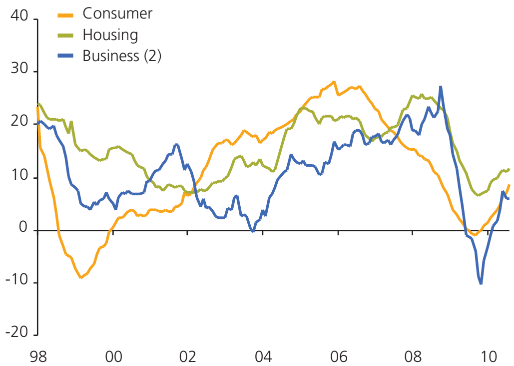
Different measures indicate that financial conditions have continued to normalize in the last three months, with a more favorable scenario in terms of both interest rates and bank lending requirements. According to the Bank Lending Survey (BLS) for the second quarter, lending conditions are becoming more flexible, while demand is strengthening (figure II.5). For businesses, loan approval conditions generally loosened, which is explained by the improved economic environment and outlook, a reduction in client portfolio risk and increased competition among financial institutions. The demand for this type of credit strengthened, mainly in response to increased working capital requirements and growth of investment in fixed assets. Mortgage lending conditions were stable, after loosening in the first quarter. Consumer loans did not loosen as much, but demand strengthened for both consumer and mortgage loans, based on more attractive interest rate terms.

[2]/ In Fuentes and Gredig (2008), more estimates may be found for the neutral interest rates.

**Figure II.6**

Nominal loans by type (1)

(annual change, percent)



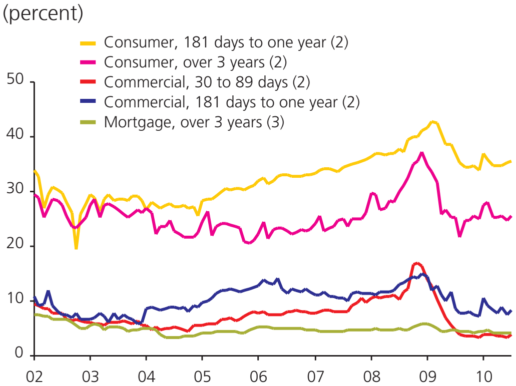

(1) Preliminary data for August 2010.
(2) Commercial loans plus foreign trade loans.

Sources: Central Bank of Chile and Superintendence of Banks and Financial Institutions.

**Figure II.7**

Lending rates (1)

(percent)



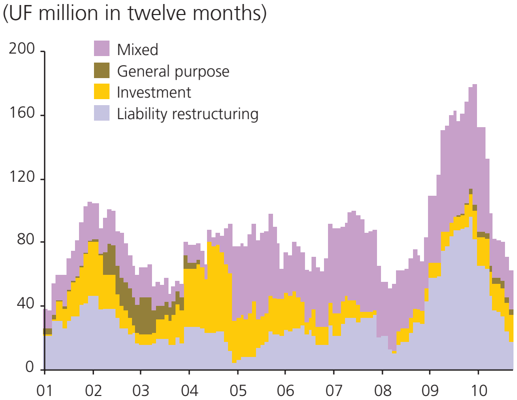

(1) Weighted average rates for all operations carried out in the month.
(2) Nominal rates.
(3) UF rates.

Source: Central Bank of Chile.

**Figure II.8**

Corporate bond issues by objective (*)

(UF million in twelve months)




(*) Preliminary data for August and September 2010.

Sources: Central Bank of Chile and Superintendence of Securities and Insurance.

Personal loans, including both consumer and mortgage loans, have continued to grow in monthly and annual terms (figure II.6). Since May, the interest rates on consumer loans showed mixed movements, but rather moderate. The increase of these interest rates, in a portion, is consistent with the higher cost of funds, given the increase in the MPR and the outlook for further hikes. Another possible reading of this trend is that clients who were considered high risk during the 2009 recession are returning to the system. The interest rates on mortgage operations have followed the rates on risk-free indexed instruments, so they have recorded a slight downward trend in the past few months (figure II.7).

Business lending conditions have also become more favorable over the course of 2010. Between May and August, the stock of business loans grew slightly, while the annual growth rate was around 6%. The BLS indicates that the greatest degree of loosening in the second quarter occurred in the large firm and SME segments, even exceeding consumer and mortgage loans. The interest rates on commercial loans have risen since May, especially for the shortest-term loans.

It is remarkable that since April, businesses have started issuing corporate bonds again, after holding off in the first quarter of the year. The amounts issued are lower than at the same point in 2009 (figure II.8). Nevertheless, the corporate-BCU spreads are at historically low levels. Firms are also issuing stocks in the local market, though to a lesser extent.

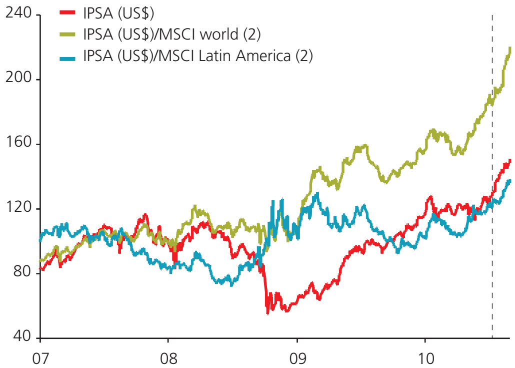
The resilience of the national financial market to external events is also evident in the performance of the local stock exchange. Since the publication of the last *Report*, the IPSA stock index has returned nearly 14% measured in pesos. The return is even higher in U.S. dollars, with a gain relative to other emerging economies. By month, the biggest expansion was seen in July (figure II.9), which is related to the good performance of specific firms and some mergers.

Based on data through August, M1 grew around 27% in annual terms, while M2 and M3 expanded 4% and 7%, respectively. In comparison with levels in May, M1 and M2 contracted marginally and M3 increased slightly. The data available as of the publication of the June *Report* were modified to incorporate updated information.

## Exchange rate

In the last month, the peso has appreciated significantly against the U.S. dollar. Specifically, since the statistical closing date of the June *Report*, the peso has appreciated nearly 7%, but this appreciation is lower if measured relative to year-end 2009. This, in part, responds to the U.S. dollar's loss of value at the international level, as seen in the evolution of other parities (table II.2). The appreciation is also lower if the peso is measured against different currency baskets (figure II.10 and table II.3).

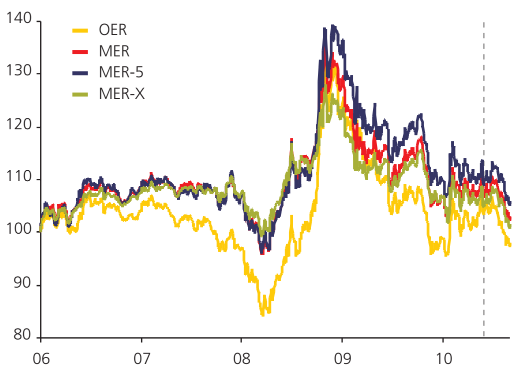
### Figure II.9
Stock markets (1)
(index 2007 = 100)




(1) Vertical dotted line represents the publication of the June 2010 *Monetary Policy Report*.
(2) Morgan Stanley Capital International stock indices by region.

Sources: Central Bank of Chile and Bloomberg.

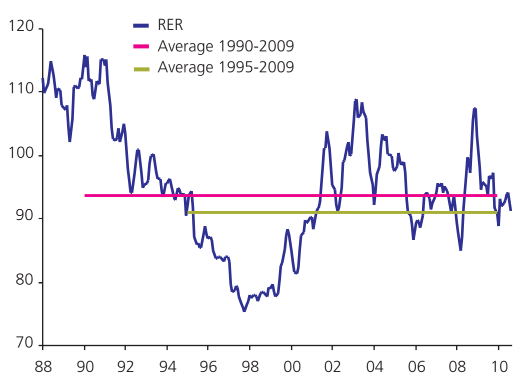
### Figure II.10
Nominal exchange rate (1) (2)
(index 02.Jan.2006 = 100)




(1) See glossary for definition.
(2) Vertical dotted line represents the publication of the June 2010 *Monetary Policy Report*.

Source: Central Bank of Chile.

### Figure II.11
Real exchange rate
(index 1986 = 100)




Source: Central Bank of Chile.

### Table II.2
Parities against the U.S. dollar (1) (2)
(percent change)

| Currency | Accum. 2010 | From 31. Dec. 2009 to Mar. 2010 *Report* | From Mar. *Report* to Jun. 2010 *Report* | From Jun. *Report* to Sept. 2010 *Report* |
|---|---|---|---|---|
| Australian dollar | -1.1 | -3.1 | 9.0 | -6.3 |
| Brazilian real | -0.4 | 1.9 | 2.1 | -4.2 |
| Canadian dollar | 0.2 | -3.2 | 2.2 | 1.3 |
| **Chilean peso** | **-0.6** | **4.5** | **2.0** | **-6.8** |
| Colombian peso | -11.1 | -6.3 | 1.6 | -6.6 |
| South Korean won | 1.2 | -3.3 | 8.3 | -3.3 |
| Hungarian forint | 17.1 | 2.3 | 19.2 | -4.0 |
| Indonesian rupiah | -4.9 | -3.7 | 1.1 | -2.4 |
| Israeli shekel | 0.2 | -1.7 | 3.3 | -1.3 |
| Japanese yen | -7.8 | -0.5 | 0.5 | -7.8 |
| Mexican peso | 0.6 | -3.4 | 2.1 | 2.0 |
| Norwegian krone | 7.3 | 2.1 | 9.8 | -4.3 |
| New Zealand dollar | 0.4 | 0.3 | 4.1 | -3.9 |
| Peruvian nuevo sol | -3.0 | -1.6 | 0.3 | -1.7 |
| Polish zloty | 8.1 | -0.8 | 18.3 | -7.9 |
| Czech koruna | 5.9 | 2.2 | 13.5 | -8.7 |
| Russian ruble | 2.0 | -2.3 | 6.8 | -2.3 |
| Euro | 12.6 | 6.1 | 11.7 | -4.9 |

(1) An increase indicates depreciation of the currency.
(2) Calculated on the basis of the average of the last ten days before the statistical closing of each indicated date.

Sources: Central Bank of Chile and Bloomberg.

In real terms, the exchange rate is close to 90 (where 1986 = 100), based on the nominal exchange rate level and parities in the ten days before the close of this *Report* (figure II.11). This value is consistent with its long-run fundamentals, but below the spot value on the closing date of the June *Report*. As a working assumption, the real exchange rate is expected to be similar to its current level in the long run, which is consistent with its fundamentals at this horizon.

### Table II.3
Observed, multilateral, and real exchange rates (1)
(OER: Ch$ to the US$, monthly average; MER and MER-X: 02.Jan.1998 = 100; RER: 1986 = 100)

| | OER | MER | MER -5 | MER -X | RER |
|---|---|---|---|---|---|
| Jan.10 | 500.66 | 101.68 | 132.82 | 97.73 | 88.96 |
| Feb.10 | 532.56 | 106.20 | 139.52 | 101.04 | 93.17 |
| Mar.10 | 523.16 | 104.72 | 136.65 | 99.72 | 91.98 |
| Apr.10 | 520.62 | 104.21 | 135.18 | 99.23 | 92.44 |
| May.10 | 533.21 | 104.71 | 135.22 | 99.22 | 92.93 |
| Jun.10 | 536.67 | 104.77 | 134.97 | 99.14 | 93.80 |
| Jul.10 | 531.72 | 105.30 | 136.52 | 100.00 | 94.24 |
| Aug.10 | 509.32 | 101.61 | 131.99 | 96.68 | 91.19 |
| Sept.10 (2) | 499.31 | 99.28 | 128.91 | 94.38 | |

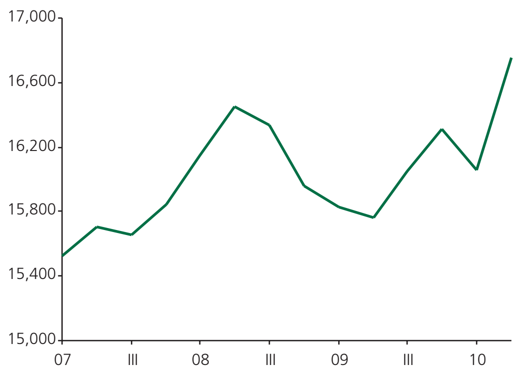
(1) See glossary for definition.
(2) Average as of 3 September 2010.

Source: Central Bank of Chile.

# III. Demand and output

**Figure III.1**

Gross domestic product (*)
(billions of 2003 pesos)

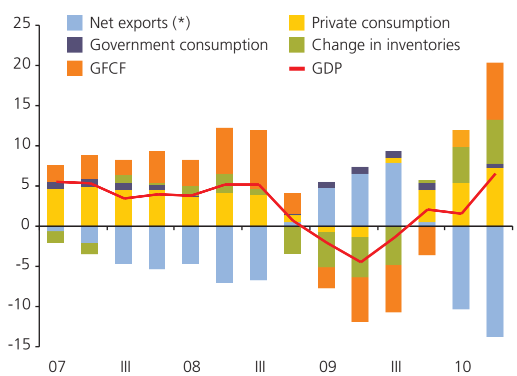



(*) Seasonally adjusted series.

Source: Central Bank of Chile.

**Figure III.2**

Contribution to annual GDP growth
(real annual change, percentage points)




(*) Goods and services export less goods and services import.

Source: Central Bank of Chile.

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

## Aggregate demand

In the second quarter of the year, output and demand were more dynamic than projected in the June *Report*. GDP grew 6.5% in annual terms in the second quarter; with a seasonally adjusted annual rate of nearly 20%. This was clearly driven by the recovery following the earthquake and tsunami in late February (27-F) (figure III.1). The annual growth of output in the second quarter was led by electricity, gas, and water (EGW), communications, transport, and especially trade (table III.1). In contrast, fishing and manufacturing grew less than last year. Partial indicators for the third quarter suggest that output will continue to be dynamic. Based on these data, together with the upward revision of first quarter growth, the range of the GDP growth forecast for this year has been corrected. The baseline scenario of this *Report* considers that annual GDP will grow in 2010 between 5.0 and 5.5%.

**Table III.1**

Gross domestic product
(real annual growth, percent)

| | Weight | 2009 | | | | | 2010 | |
|---|---|---|---|---|---|---|---|---|
| | 2009 | I | II | III | IV | Year | I | II |
| Agriculture, livestock, and forestry | 3.9 | 9.9 | -0.5 | 3.7 | 5.4 | 4.7 | -2.9 | 1.1 |
| Fishing | 1.1 | 10.7 | -25.5 | -26.8 | -10.4 | -12.2 | -26.9 | -10.3 |
| Mining | 6.7 | -7.6 | -3.2 | 1.3 | 3.8 | -1.4 | 2.0 | 0.6 |
| Manufacturing | 15.0 | -9.2 | -12.2 | -5.7 | -0.6 | -7.0 | -6.1 | -0.5 |
| EGW | 2.1 | 18.1 | 13.9 | 11.5 | 19.4 | 15.7 | 21.3 | 37.4 |
| Construction | 7.1 | -4.0 | -6.0 | -5.7 | -5.2 | -5.2 | -1.4 | 3.0 |
| Trade (1) | 10.4 | -5.5 | -6.8 | -1.6 | 3.9 | -2.7 | 8.9 | 16.8 |
| Transport | 7.2 | -4.9 | -6.5 | -4.0 | 1.8 | -3.4 | 0.9 | 10.0 |
| Communications | 3.1 | 7.5 | 6.3 | 6.4 | 7.3 | 6.9 | 11.7 | 10.4 |
| Other services (2) | 37.5 | 0.2 | -0.7 | 1.4 | 2.2 | 0.8 | 2.5 | 4.9 |
| Natural resources (2) | 9.9 | -0.4 | -3.6 | 0.2 | 5.3 | 0.4 | 1.4 | 6.8 |
| Other (2) | 84.2 | -2.3 | -4.3 | -1.2 | 1.4 | -1.6 | 1.3 | 5.7 |
| **Total GDP (3)** | **100.0** | **-2.1** | **-4.5** | **-1.4** | **2.1** | **-1.5** | **1.5** | **6.5** |

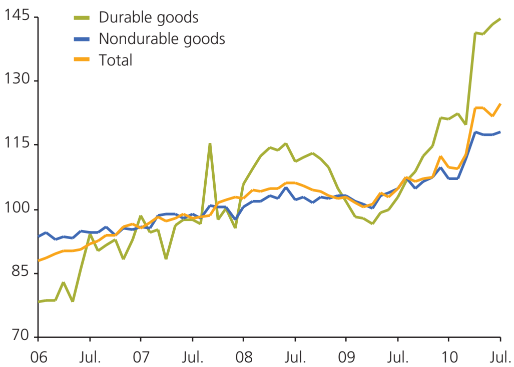
(1) Includes restaurants and hotels.
(2) See glossary for definition.
(3) Total GDP is the sum of natural resources GDP, other GDP, net VAT collected, and import duties, less bank charges.

Source: Central Bank of Chile.

**Figure III.3**

Retail sales (*)

(index: average of 2006–2009 = 100)

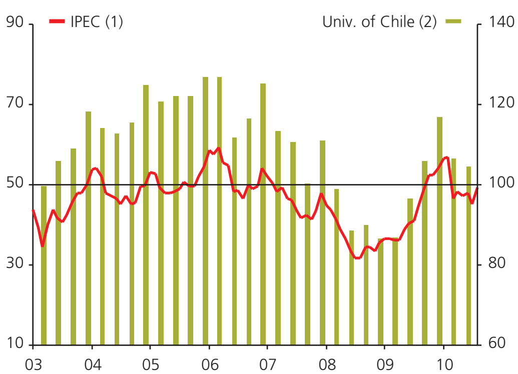



(*) Seasonally adjusted series.

Sources: Central Bank of Chile and National Statistics Bureau.

**Figure III.4**

Consumer expectations indices



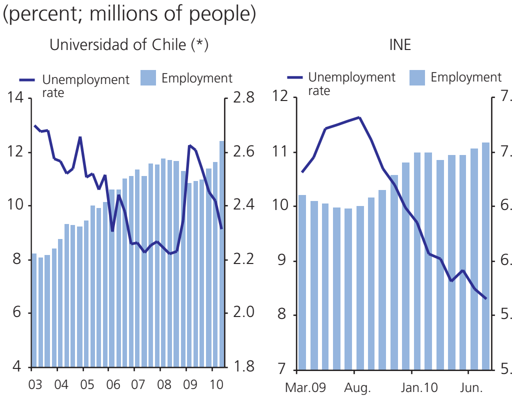

(1) A value over (under) 50 points indicates optimism (pessimism).
(2) Index: March 2001 = 100.

Sources: Adimark and University of Chile.

**Figure III.5**

Labor market

(percent; millions of people)




(*) Seasonally adjusted series.

Sources: Central Bank of Chile, National Statistics Bureau (INE), and University of Chile.

Domestic demand grew 19.4% in annual terms in the second quarter (figure III.2). In particular, private consumption grew 10.7% y-o-y, with an annual growth rate of 6.3% for habitual consumption[1]/ and 46.9% for durable goods. The dynamic performance of the latter component partly reflects the immediate effects of 27-F and is associated with higher television and car imports, as well as higher manufacturing output associated with the production of household goods. Partial indicators for the third quarter point to more stable levels (figure III.3).

Beyond the immediate effects of 27-F, the increase in consumption is supported by its fundamentals. Financial conditions have continued to normalize. Interest rates continue to be low, and according to various sources of information the lending conditions have been flexibilized even further. Consumer expectations, measured through the Economic Perception Index (*Ìndice de percepción de la economía or IPEC*), are practically at neutral levels—above the levels recorded in late 2008 and early 2009, but below the peaks of a few months ago (figure III.4).

The labor market has also developed positively. Several sources indicate that employment has grown and unemployment has fallen. Data from the University of Chile's June survey indicate that the seasonally adjusted unemployment rate for Greater Santiago was 9.1%, while employment grew 5.8% in seasonally adjusted terms (figure III.5). According to the National Statistics Bureau, the national unemployment rate has continued to drop, reaching 8.3% in the moving quarter from May to July, while employment grew 9.4% in annual terms in the same period[2]/.The employment outlook in the Monthly Business Confidence Index (*Indicador Mensual de Confianza Empresarial*, or Imce) remains optimistic for all sectors, and it is higher than in the June *Report* for trade, manufacturing, and construction.

With regard to investment, gross fixed capital formation increased 28.6% annually in the second quarter, surpassing projections (figure III.6). Machinery and equipment, in particular, grew strongly in the second quarter, at 64.5% y-o-y. This reflects the performance of capital goods imports in the period, which in part is associated with the replacement of imported equipment destroyed in the 27-F disaster. The latest data indicate a drop in import levels relative to the peaks recorded in May (figure III.7).

In contrast with machinery and equipment, investment in construction and other works has performed more moderately. In the second quarter of the year, this component of gross fixed capital formation grew 2% y-o-y, with a total annual growth rate of 0.3% so far this year. According to this, the construction activity also shows a subdued performance: -1.4 and 3% in the first and second quarters, respectively. A breakdown of sectoral performance reveals that it was largely driven by repairs and demolitions.

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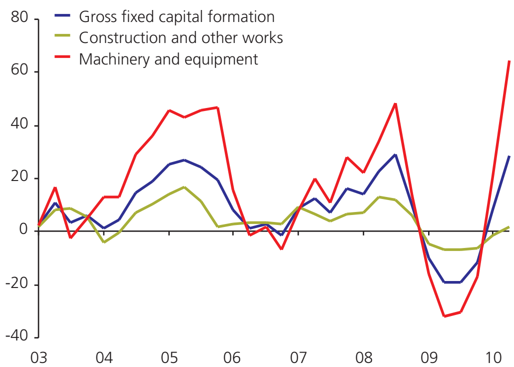
[1]/ Habitual consumption corresponds to nondurable goods and services.

[2]/ In April, INE published the New National Employment Survey (*Nueva Encuesta Nacional de Empleo, Nene*). In comparison with the previous survey there are conceptual changes on classification of labor conditions, and consequently higher rates of employment, labor participation, and unemployment. The survey has comparable data only as of 2009, which prevents comparisons before 2009 and the use of seasonally adjusted figures.

**Figure III.6**

Gross fixed capital formation

(real annual change, percent)

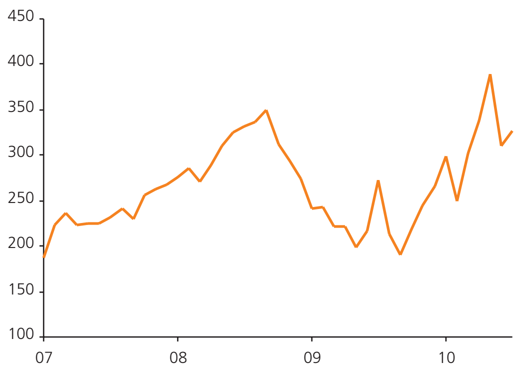



Source: Central Bank of Chile.

**Figure III.7**

Capital goods imports (*)

(index: 2003 = 100, seasonally adjusted series)



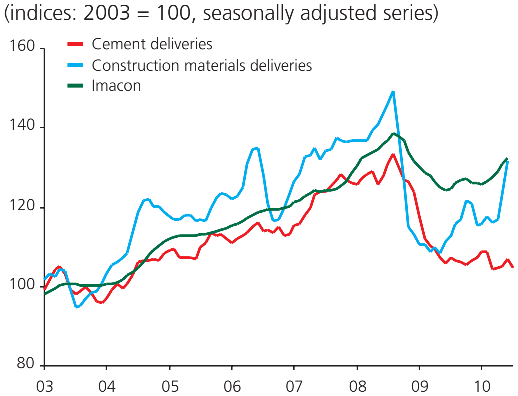

(*) Nominal data.

Source: Central Bank of Chile.

**Figure III.8**

Construction activity indicators (*)

(indices: 2003 = 100, seasonally adjusted series)




(*) Quarterly moving average.

Sources: Central Bank of Chile and Chilean Chamber of Builders.

The poor performance of construction is in line with data showing weak home sales, which translates into an accumulation of housing stocks above historical levels. Nevertheless, partial indicators for the sector—such as sales of construction materials, the Monthly Construction Activity Index (*Índice Mensual de la Actividad de la Construcción*, or *Imacon*), and sectoral employment—are beginning to show signs of improvement, so activity in the sector may pick up in the second half of the year (figure III.8). The reconstruction efforts should reinforce this trend. In addition, several sources corroborate an improved outlook for the sector based on the behavior of suppliers, which have increased their inventories in anticipation of increased activity in the coming period. Finally, expectations for the sector, as measured by the Imce, are still pessimistic, but they have increased since May and are now near their neutral level.

The normalization of financial conditions and the low interest rates on mortgage loans further support projections of an improvement in the construction sector's performance, because of its possible implications for home sales.

The upward revision for the 2011–2013 period of the survey carried out by the Capital Goods and Technological Development Corporation (*Corporación de Desarrollo Tecnológico y de Bienes de Capital*, CBC) provides another indicator of more dynamic investment, despite the downward revision for this year. The greater adjustment for the coming years corresponds to new mining projects. At the same time, the Imce continues to report optimistic business expectations, on aggregate, and a positive outlook for investment; these have been rising since the June *Report*.

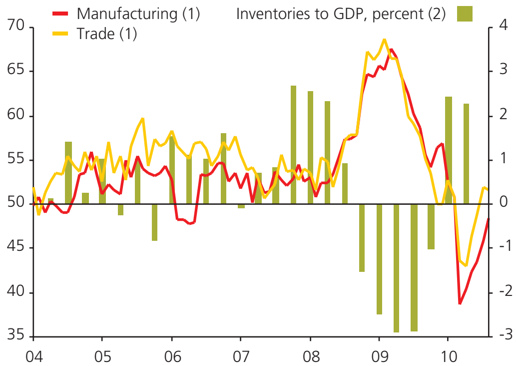
The recovery of activity in the construction sector and less dynamic capital imports at the margin underpin estimates that the composition of investment will change in the second half. Thus, growth will probably be based largely on the national component, rather than the imported component as has been the case to date. The baseline scenario of this *Report* projects that gross fixed capital formation will increase 21.2% in annual terms this year, and the investment-to-GDP ratio will be 28.9% measured in constant prices and 22.7% in current prices.

Inventories have grown in the last few quarters, after being drawn down in 2008 and 2009. In the moving year ending in the second quarter, inventory accumulation equaled 0.2% of GDP (versus –2.4% at year-end 2009). According to the Imce, on aggregate, inventories are practically at their optimal level (figure III.9).

With regard to external demand, the volume of exports fell again: 2.6% y-o-y in the second quarter of the year, although the value of exports increased 22.5%. The drop in volume is primarily associated with the manufacturing sector, in particular shipments of fishmeal and wood pulp. The production of these goods has fallen sharply in 2010, due to lower productive capacity in processing plants and, in the case of fishmeal, also due to a shortage of pelagic resources. The data available for the third quarter point to greater manufacturing output, although the branches affected by 27-F have not yet returned to their previous levels. Mining exports have also contracted in

**Figure III.9**

Current inventory position



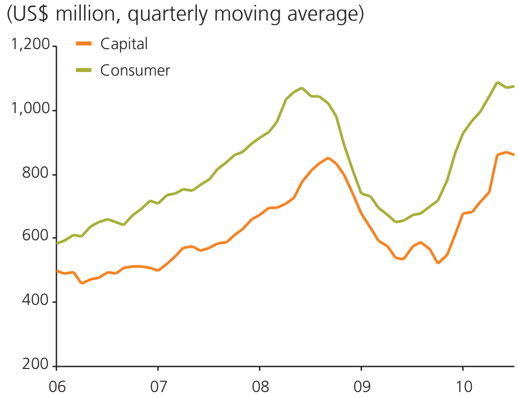

(1) Imce: a value over (under) 50 points indicates that inventories are above (below) optimal.
(2) Seasonally adjusted quarterly series.

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

**Figure III.10**

Goods import (*)

(US$ million, quarterly moving average)




(*) Nominal data. Seasonally adjusted series.

Source: Central Bank of Chile.

terms of volume (–3.1% annual) and expanded in terms of value (30.8%), due to the high copper price. However, indicators for the third quarter show that the sector has been more dynamic. In the second quarter, the volume of agricultural shipments grew 18.3% relative to a year ago, driven by fruit exports.

Imports continued to be very dynamic in the second quarter of the year. Despite these high levels, marginal data for the second quarter and the available figures for the current quarter reveal a slight slowdown. Thus, in the second quarter, the volume of imports grew 35.3% y-o-y (45.9% in value). The volume of consumer goods imports increased 55.7% and capital goods 62.9% y-o-y (figure III.10).

In the second quarter of the year, the current account of the balance of payments accumulated a surplus of US$46.7 million, which is equivalent to 1.6% of GDP in the last moving year. The current account of the balance of payments will thus have a deficit of 1.1% of GDP this year. This deficit will grow in 2011.

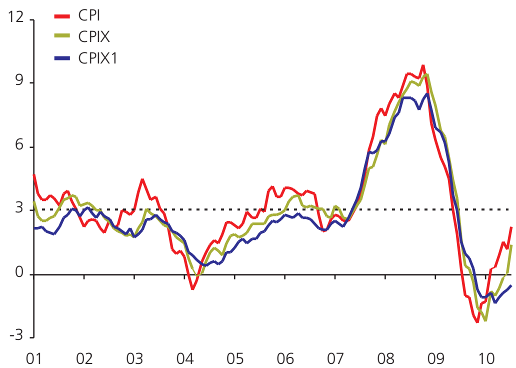
In the fiscal area, the overall balance reached 0.9% of GDP in annual terms in the second quarter of 2010. Total revenue increased 72.9% in real annual terms, which is mainly explained by the growth of tax and copper revenues, together with the low basis of comparison from income tax in 2009 (*Operación Renta 2009*). Expenditures grew 4.7% in real annual terms, most notably subsidies and donations, while investment expense decreased. From a fiscal policy standpoint, the baseline scenario of this *Report* considers the announcements made by the Administration, with no major modifications to the fiscal stimulus in the coming years from June's assumptions.

# IV. Prices and costs

**Figure IV.1**

CPI, CPIX, and CPIX1 inflation (*)

(annual change, percent)



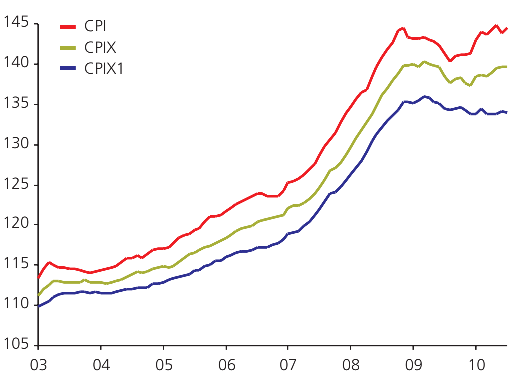

(*) See glossary for definition.

Source: National Statistics Bureau.

**Figure IV.2**

Seasonally adjusted inflation indicators

(index December 1998 = 100)




Source: Central Bank of Chile, based on data from National Statistics Bureau.

This chapter examines recent trends in the main components of inflation and costs, identifying different sources of inflationary pressures and their probable future behavior.

## Recent trends in inflation

Annual CPI inflation and the core indicators (CPIX and CPIX1) have continued to rise over the past few months. In July, the CPI was within the inflation target range, the CPIX was positive, and the CPIX1 is approaching a positive figure (figure IV.1 and table IV.1). The baseline scenario of this *Report* projects that over the rest of the year, the annual CPI inflation will return to figures around 3% to then stand in the upper part of the tolerance range for some months. Inflation will then oscilate around 3% over all of 2011 and until the end of the relevant projection horizon, this time the third quarter of 2012.

**Table IV.1**

Inflation indicators (*)

(annual change, percent)

| | | CPI | CPIX | CPIX1 | CPIX1 w/o foods | CPI w/o foods and energy | CPIT | CPINT | CPIG | CPIS |
|---|---|---|---|---|---|---|---|---|---|---|
| 2009 | Jan. | 6.3 | 8.0 | 6.9 | 4.4 | 5.8 | 1.7 | 11.0 | 4.2 | 9.6 |
| | Feb. | 5.5 | 6.7 | 6.7 | 4.7 | 5.2 | 2.4 | 8.6 | 4.6 | 7.4 |
| | Mar. | 5.0 | 6.5 | 6.2 | 4.7 | 5.2 | 2.1 | 8.0 | 3.8 | 7.3 |
| | Apr. | 4.5 | 5.5 | 5.3 | 4.4 | 4.8 | 1.6 | 8.6 | 2.8 | 7.2 |
| | May. | 3.0 | 4.4 | 3.7 | 3.0 | 3.5 | -0.8 | 8.0 | 0.5 | 6.7 |
| | Jun. | 1.9 | 3.6 | 3.0 | 2.4 | 2.8 | -2.4 | 7.6 | -1.2 | 6.1 |
| | Jul. | 0.3 | 1.7 | 1.5 | 0.9 | 1.4 | -4.0 | 7.0 | -2.8 | 4.6 |
| | Aug. | -1.0 | 0.4 | 1.0 | 0.5 | 0.8 | -5.1 | 6.4 | -3.7 | 2.7 |
| | Sept. | -1.1 | 0.2 | 0.8 | 0.3 | 0.3 | -5.3 | 4.9 | -3.9 | 2.8 |
| | Oct. | -1.9 | -0.4 | 0.2 | -0.4 | -0.4 | -5.9 | 3.1 | -5.0 | 2.2 |
| | Nov. | -2.3 | -1.6 | -0.7 | -1.2 | -1.6 | -4.7 | 0.3 | -4.4 | 0.8 |
| | Dec. | -1.4 | -1.8 | -1.1 | -1.5 | -1.9 | -3.4 | 0.5 | -3.6 | 0.2 |
| 2010 | Jan. | -1.3 | -2.2 | -1.1 | -1.3 | -1.7 | -2.5 | 0.3 | -1.8 | -0.8 |
| | Feb. | 0.3 | -0.8 | -0.9 | -1.2 | 0.1 | -2.5 | 4.2 | -1.5 | 2.6 |
| | Mar. | 0.3 | -1.0 | -1.3 | -1.9 | -0.4 | -2.2 | 3.8 | -1.3 | 2.3 |
| | Apr. | 0.9 | -0.6 | -1.1 | -1.8 | -0.1 | -1.2 | 3.8 | -0.2 | 2.3 |
| | May. | 1.5 | -0.1 | -0.9 | -1.6 | 0.4 | -0.6 | 4.4 | 0.2 | 3.2 |
| | Jun. | 1.2 | 0.1 | -0.7 | -1.5 | 0.6 | -1.5 | 4.9 | -0.6 | 3.5 |
| | Jul. | 2.3 | 1.4 | -0.5 | -1.4 | 1.7 | -0.9 | 6.7 | -0.3 | 5.6 |

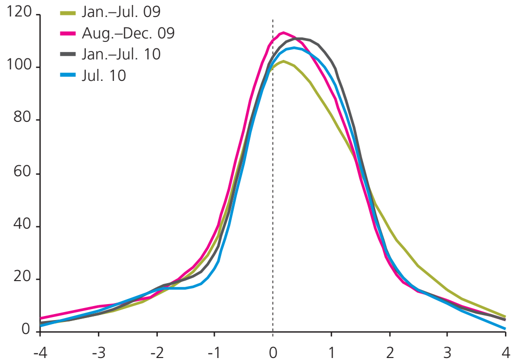
(*) See glossary for definition.

Sources: Central Bank of Chile and National Statistics Bureau.

**Figure IV.3**

Distribution of the CPIX1

(frequency of the monthly change)

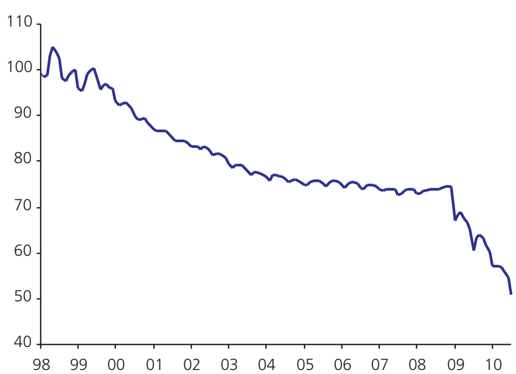



Source: Central Bank of Chile, based on data from National Statistics Bureau.

**Gráfico IV.4**

CPI clothing

(index December 1998 = 100)

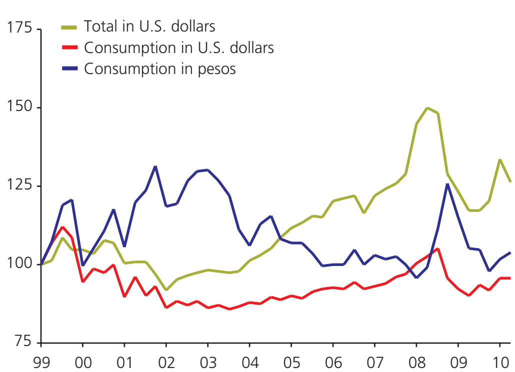



Source: Central Bank of Chile, based on data from National Statistics Bureau.

**Figure IV.5**

Price of imported goods (IVUM) (*)

(index 1999.I = 100)




(*) See glossary for definition.

Source: Central Bank of Chile.

Between May and July, movements in monthly inflation rates were mainly determined by prices of foodstuff, fuels, clothing, and some specific factors such as the increase in financial expenses and public transport fares. The latter was reflected most strongly in the CPIX, which rose 0.9% in the period. The CPI increased 0.6% in the same time. The CPIX1, in contrast, fell 0.1% in this period.

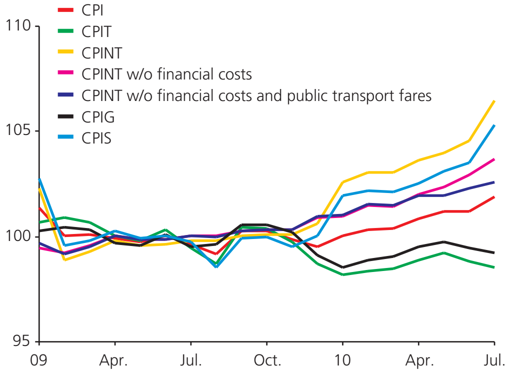
These differences in monthly inflation have also contributed to a noticeable divergence between what has happened with the CPI and CPIX, on one hand, and the CPIX1, on the other. While the former have been rising since the end of 2009, the latter has been stable (figure IV.2). However, the distributions of the monthly price changes in the CPIX1 basket show that the median has moved slightly to the right in the last year (figure IV.3). At the same time, a slidely larger part of prices has fallen, which could explain why the weighted average of the changes has not varied significantly in the past year. Nevertheless, while the *Report's* forecast for average annual CPI and CPIX inflation in 2010 has been adjusted upward since the end of last year, the forecast for CPIX1 inflation has been revised downward. Indeed, in late 2009, average annual CPIX1 inflation was projected to be 0.8% this year, whereas the current forecast is –0.3%.

A number of factors may explain the evolution of CPIX1 inflation. On one hand, some short-term price movements can be attributed to particular factors, such as the tobacco tax increase. On the other hand, fundamental factors such as the output gap and imported price pressures affect the path of inflation in the long run. With regard to the output gap, data on trend GDP and output suggest that the gap is smaller than previously forecast because it has been closing rapidly, as confirmed by a gross view of labor market data. The baseline scenario projects that the output gap closings will produce an increase in inflation, especially in the CPIX1. Consequently, this variable will converge to levels consistent with the 3% target over the coming year.

With regard to imported prices, a decomposition of the CPIX1 basket shows that clothing items have fallen much deeper since the beginning of 2009 compared to previous years (figure IV.4). Considering the methodological change for the CPI calculation introduced by the National Statistics Bureau since 2009, this trend suggests that clothing prices may have been overestimated in the old basket. The price decline could be linked to international phenomena, as shown by the price trend for consumer goods imports. Measured in pesos, consumer import prices rose strongly in 2008 before falling again, and their current level is not much different than the average for 2004–2007 (figure IV.5). The more recent appreciation of the peso could create additional downward pressure on these prices. When clothing is excluded, the CPIX1 increased 0.6%, mainly due to increases in foodstuff prices, public transport fares, and the tobacco tax.

## Figure IV.6

FTradables, nontradables, goods, and services inflation (*)
(index 2009 = 100)

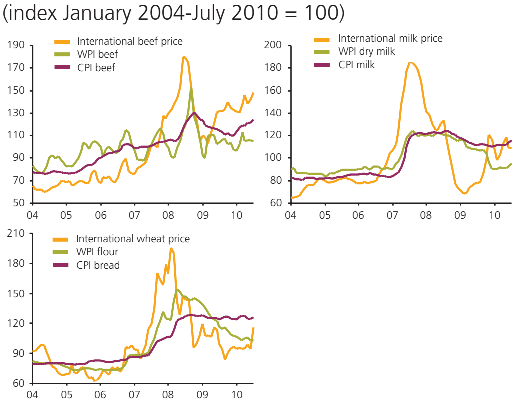



(*) See glossary for definitions.

Source: Central Bank of Chile, based on data from National Statistics Bureau

## Figure IV.7

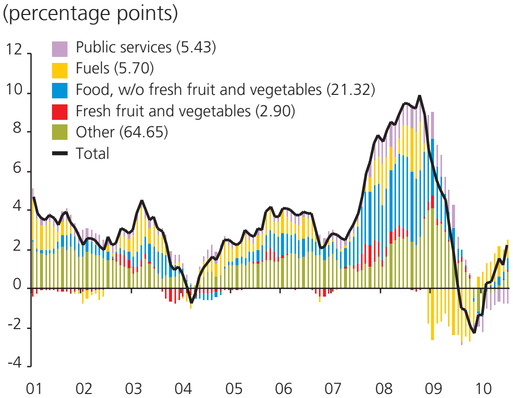
Food prices
(index January 2004-July 2010 = 100)




Source: Central Bank of Chile, based on data from National Statistics Bureau and Bloomberg.

## Figure IV.8

Contribution to annual CPI inflation (*)
(percentage points)




(*) Shares in the 2009 CPI basket (annual base index) are in parentheses. The 2001–2008 period uses the weights in the December 1998 basket. For 2009, the December 2008 basket is used.

Sources: Central Bank of Chile and National Statistics Bureau.

The consumer goods price index (CPIG) and the consumer tradables price index (CPIT) have fallen in recent months, partly as a result of the drop in clothing prices. In contrast, the consumer services price index (CPIS) and the consumer non-tradables price index (CPINT) have been increasing since the start of the year (figure IV.6). These divergent trends are largely explained by the reposition of stamp tax in January and July, the increase in public transport fares in Santiago since April, the adjustment in the cost of basic services such as drinking water, and the trend for indexed prices such as rent. Together, these factors have contributed just over 4 percentage points to CPIS and CPINT inflation so far this year.

The recent upward trend in international food prices has revived concerns about their future evolution, especially considering the experience of 2007–2008. As of the statistical close of this *Report*, the price of wheat in the international market is around 60% higher than a year ago. A large share of this increase occurred in the last three months. The price of milk, though it has recently declined somewhat, is 20% higher than a year ago, while meat and corn are around 30% higher than a year ago[1]/.

The price increases for these products in the local CPI are clearly lower. Bread has risen 2% in the last year, milk 3% on average, and beef just under 10%[2]/. Although there is certainly a cost structure that needs to be taken into account in the analysis, it is possible to note that while local prices followed the upward trend of the international markets in 2007 and the first half of 2008, they did not follow the decline in the second half of that year (figure IV.7). Therefore, it is possible to presume that there is room for the domestic market to absorb the external price increases, without necessarily undergoing a one-to-one pass-through to local prices. In particular, a more detailed analysis of the cost structure in the bread market shows that there is a relevant margin over costs that could contain domestic price increases (box IV.1).

The producer price index (PPI), which only considers domestic goods and services prices, and the wholesale price index (WPI), which includes imported and domestic goods prices, rose only slightly or even declined in the last year. The PPI for milk has increased 3% since July 2009, while beef rose 4% in the same period[3]/. The PPI for flour has fallen around 10% since the middle of last year.

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[1]/ The international reference price for beef corresponds to steer futures contracts in Brazil; for milk, the nonfat dry milk spot price in Oceania; for wheat, the N°2 red soft winter wheat spot price in the United States; and for corn, the N° 2 yellow corn spot price in the United States.

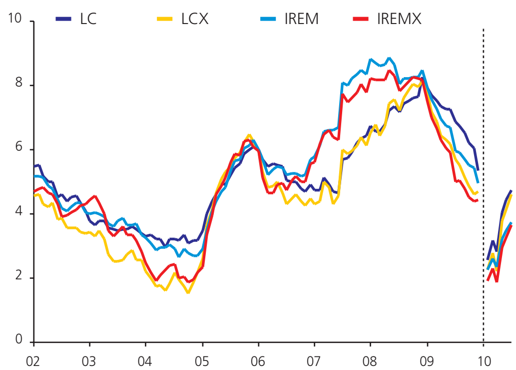
[2]/ For milk, the figure is based on the average of liquid, dry, and preserved milk; beef includes fresh and frozen cattle meat.

[3]/ Milk includes dry, liquid, and raw milk; beef includes cuts and carcasses.

**Figure IV.9**
EES: inflation expectations
(percent)


Source: Central Bank of Chile.

**Figure IV.10**
Nominal wages (1) (2)
(annual change, percent)




(1) See glossary for definitions.
(2) Starting in January (indicated by the dotted line), the new indices with base year 2009 = 100 are used, and therefore the data are not strictly comparable with the earlier ones.

Sources: Central Bank of Chile and National Statistics Bureau.

In any case, the local market has not recorded price movements of the magnitude of those occurring on the international market for these products, but prior experience in this area and the high degree of pass-through from external price increases to the Chilean economy in the past suggest that a note of caution is in order. At the international level, clearly these prices have not yet returned to the peaks of 2007 and the first half of 2008. The price of beef is around 10% below those earlier peaks, while milk and wheat are currently around 45% lower.

In terms of other prices considered in the CPI basket, fuel prices in pesos on the domestic market declined 3%, based on the ten days prior to the statistical close of this and the June *Reports*. The price of gasoline in the external reference market performed similarly (–4%), while the WTI oil price remained practically stable. The contribution of fuels to annual CPI inflation has diminished in favor of the other components, in particular public services (figure IV.8).

Market expectations are consistent with the baseline scenario of this Report, which projects that inflation will return to figures around 3% to then stand in the upper part of the tolerance range for some months. Inflation will oscilate around 3% over all of 2011 and until the end of the relevant projection horizon. According to the August Economic Expectations Survey (EES), the inflation forecast for December 2010 is 3.6%. Thereafter, inflation will gradually decline to 3.5% in August 2011, 3.3% in December 2011, and 3.0% in August 2012 (figure IV.9). Break even inflation at different maturities, as deduced from financial asset prices, have shown less volatility in the last months and are around the inflation target.

## Wages

Cost pressures from the labor market have not changed much in the past months. Considering the new methodology for measuring wages, implemented by the INE in January 2010, the annual growth rate of nominal wages increased to between 4 and 5% in June, depending on the measure (figure IV.10). The change was smaller in real terms, with annual growth of around 3%. The baseline scenario assumes that pressures from labor costs will not post significant variations from today's figures.

# Box IV.1: **Food prices in the world**

The recent upward trend in international food prices has revived concerns about their future evolution and the impact on inflation, especially considering that Chile had a high degree of pass-through from the external price increases in 2007 and the first half of 2008. This box focuses on the case of wheat, because, on one hand, of the high weight of bread in the CPI basket and, on the other hand, the magnitude of the increase in the wheat price since the last *Monetary Policy Report*.

At the international level, wheat is one of the commodities, in particular of foodstuff, with the biggest price hikes since the June *Report*, at nearly 50%. Thus far, the wheat price trend is fairly similar to the events of early 2007 in terms of the magnitude of the increase, however there are important differences in other aspects. On one side, today the world economy is substantially less dynamic than before the 2008 crisis, so future pressure from vigorous demand should be lower. On the other side, current inventories are higher than in the earlier episode, mainly due to a greater supply from nontraditional producers[4]/(figure IV.11). In the last three years, less traditional producers have increased their market share from 62% to almost 70% this year, at the expense of the Black Sea economies (such as Russia, Ukraine, and Kazakhstan) and more traditional producers. Despite Russia's smaller share in this market, the recent price increases were exacerbated when the country decided to limit its wheat exports. Finally, the trend of implicit futures prices for wheat is also different relative to 2007. In that period, futures contained additional implicit increases, which were even surpassed by effective prices. By contrast, now, futures show an important decline in the short term (figure IV. 12).

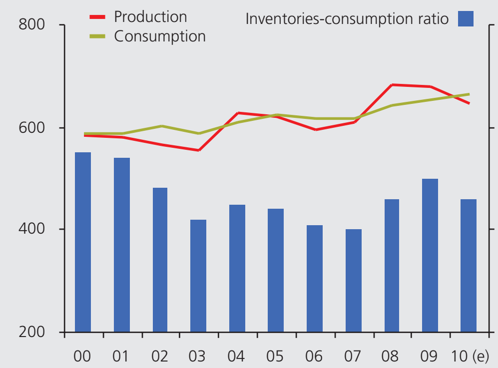
Between mid-2007 and early 2009, the impact of the food price hikes on CPI inflation was particularly strong in Chile, with an average contribution of 4 percentage points to CPI inflation. These price increases had a deep effect on inflation in many economies, but Chile recorded one of the largest increases in the food CPI at the world level (figure IV.13). Pistelli and Riquelme (2010), based on an analysis of food, energy, and core inflation in a sample of countries, find that differences in price levels and local price regulation are significant for explaining the divergence between Chile and other countries.

[4]/ Traditional producers are: Argentina, Australia, Canada, European Union and United States.

**Figure IV.11**

Wheat market

(millions of metric tons; percent)




(e) Estimate.

Sources: U.S. Department of Agriculture and World Agricultural Supply and Demand Estimates (WASDE, 2010).

**Figure IV.12**

International wheat price (1)

(US$/metric ton)


(1) Soft red winter No 2 wheat price, Chicago Board of Trade.

(2) Based on the average of the last ten working days prior to the statistical closing date of each *Monetary Policy Report*.

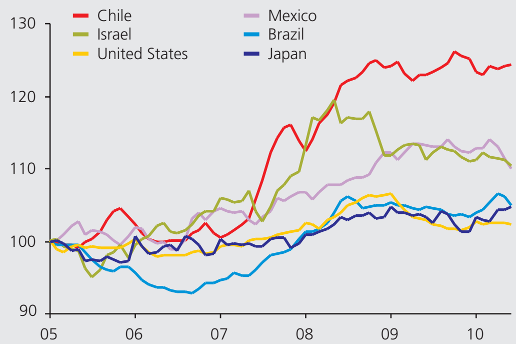
Source: Bloomberg.

However, if the wheat price continues to increase at the international level, it is not clear that this will necessarily replicate in the local economy. In general, the wheat price in international markets is highly correlated with the wheat price in the local market. Rigobon (2010) finds that the degree of pass-through of a permanent shock to the wheat price is fast and significant, and it is greater in the case of bread, cereals, and flour. To date, however, domestic wheat prices—the PPI and WPI—have not risen, although the evidence from 2007 suggests that it could occur with a lag.

The bread and flour consumer price indices have remained practically stable since 2008, and—unlike the PPI and WPI—they did not follow the decline in international prices in the second half of 2008 (figure IV.7). It is thus possible to presume that there is room to absorb the price increases in external markets, without necessarily undergoing a one-to-one pass-through to domestic prices. The cost structure in the bread market shows a relevant margin over costs that could contain domestic price increases. An analysis of a broader set of non-perishable foods that are also in the CPIX1 indicates that producer margins have recovered, especially since late 2007. It must be mentioned that this is different in the case with other goods, such as durables, which have seen their margins shrink since 2006 (figure IV. 14).

**Figure IV.13**

Food CPI versus core CPI (*)
(index January 2005 = 100)




(*) Ratio of food CPI to CPI excluding food and energy.

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

**Figure IV.14**

Margin measures: CPIX1/PPI (*)
(index January 2004 = 100)


(*) Considering the same basket between the CPIX1 and PPI for non-perishable foods and durable goods.

Source: Central Bank of Chile, based on data from National Statistics Bureau.

# V. Inflation scenarios

**Table V.1**

International baseline scenario assumptions

| | 2009 | 2010 (f) | 2011 (f) | 2012 (f) |
|---|---|---|---|---|
| | (annual change, percent) | | | |
| Terms of trade | 4.1 | 15.0 | -4.3 | 0.5 |
| Trading partners' GDP (*) | -0.2 | 4.4 | 3.5 | 4.6 |
| World GDP at PPP (*) | -0.6 | 4.3 | 3.8 | 4.7 |
| World GDP at market exchange rate (*) | -2.0 | 3.3 | 2.9 | 3.9 |
| External prices (in US$) | -6.2 | 4.6 | 2.3 | 4.7 |
| | (levels) | | | |
| LME copper price (US¢/lb) | 234 | 320 | 290 | 290 |
| WTI oil price (US$/barrel) | 62 | 77 | 79 | 82 |
| Gasoline parity price (US$/m$^3$) (*) | 474 | 580 | 595 | 616 |
| Libor US$ (nominal, 90 days, %) | 0.7 | 0.4 | 0.5 | 1.5 |

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

Source: Central Bank of Chile.

**Table V.2**

Economic growth and current account

| | 2008 | 2009 | 2010 (f) | 2011 (f) |
|---|---|---|---|---|
| | (annual change, percent) | | | |
| GDP | 3.7 | -1.5 | 5.0 - 5.5 | 5.5 - 6.5 |
| National income | 4.1 | -1.2 | 11.7 | 5.2 |
| Domestic demand | 7.6 | -5.9 | 16.1 | 6.2 |
| Domestic demand (w/o inventory change) | 7.5 | -2.8 | 11.3 | 7.4 |
| Grossed fixed capital formation | 18.6 | -15.3 | 21.2 | 13.6 |
| Total consumption | 4.0 | 1.8 | 8.3 | 5.3 |
| Goods and services export | 3.1 | -5.6 | -0.3 | 6.1 |
| Goods and services import | 12.2 | -14.3 | 26.3 | 6.4 |
| Current account (percent of GDP) | -1.5 | 2.6 | -1.1 | -2.5 |
| | (US$ million) | | | |
| Current account | -2,513 | 4,217 | -2,200 | -5,700 |
| Trade balance | 8,848 | 13,982 | 10,400 | 7,600 |
| Exports | 66,464 | 53,735 | 64,300 | 66,400 |
| Imports | -57,617 | -39,754 | -53,900 | -58,800 |
| Services | -871 | -1,074 | -1,300 | -1,400 |
| Rent | -13,423 | -10,306 | -14,900 | -14,900 |
| Current transfers | 2,934 | 1,616 | 3,600 | 3,000 |

(f) Forecast.

Source: Central Bank of Chile.

This chapter presents the Board's assessment on the Chilean economic outlook over the next two years, including the analysis performed up until 6 September 2010. Projections are presented of the most likely inflation and growth trajectories, conditional on the assumptions that make up the baseline scenario, so the Board's assessment of the risk balance for output and inflation is also provided.

## Baseline projection scenario

Despite external financial turmoil and doubts surrounding the true pace of recovery of developed economies, in Chile output and demand have remained on a path to recovery that exceeds projections in the previous Report. The strong dynamism of the real sector responds not only to temporary factors but also to more persistent ones. Among the temporary factors, what stands out is the swelling of consumption and investment decisions in the aftermath of the earthquake and tsunami of 27 February (27-F). Among the more persistent phenomena, it is worth mentioning the monetary policy impulse, in a context where the credit channel has been partially restored, and the significant uncertainty with respect to the future of the global economy that was seen in the first half of 2009 has decreased.

The baseline scenario assumes that inflation will stand above 3% in the coming months and will return to 3% in 2011. Although the world economy will slow down somewhat in the next few quarters, the Chilean economy will continue to grow above the trend, thus closing the output gaps, until mid 2011. This faster than expected closing of gaps helps core inflation measures to increase further. Reduced inflationary pressures associated to the strengthened peso (aside from specific developments related to the prices of foodstuffs) combined with the real exchange rate falling short of assumptions in the last Report, mitigate the pressures coming from imported prices and permit the inflation scenario to remain near earlier projections. In that context, the process of normalizing the monetary stimulus has sought to avoid excessive inflationary pressures in the future, and will continue to depend on both domestic macroeconomic conditions and on how the uncertain external scenario unfolds. The Board reiterates that it will continue to use its policies with flexibility so that projected inflation stands at 3% in the policy horizon.

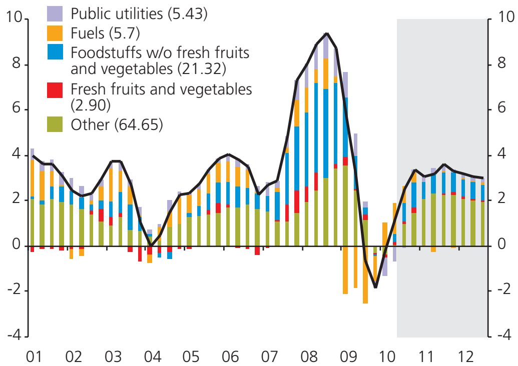
### External scenario

In the baseline scenario, the significant recovery of the world economy after the recession of 2009 has attenuated somewhat. Fiscal and financial problems in the developed world hold back prospects of an upturn of final demand, while the need for fiscal consolidation also limits the expansion of

## Figure V.1

Incidences on annual CPI inflation (1) (2)

(percentage points)



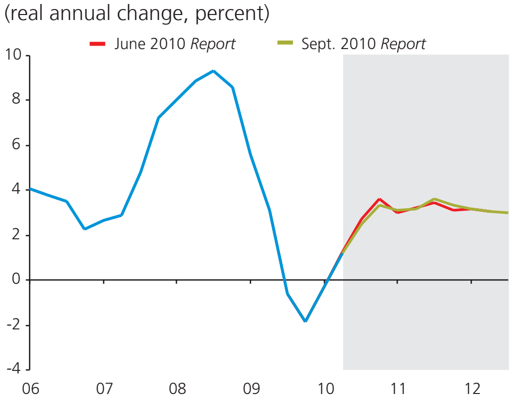

(1) The gray area, as from the third quarter of 2010, depicts the breakdown of forecast inflation in the baseline scenario.
(2) In parenthesis, shares in the CPI basket with annual base 2009. For the period 2001-2008, uses weights in the basket of December 1998. For 2009, uses weights in the basket of December 2008.

Sources: Central Bank of Chile and National Statistics Bureau.

## Figure V.2

CPI inflation (*)

(real annual change, percent)




(*) The gray area, as from the third quarter of 2010, shows the forecast.

Sources: Central Bank of Chile and National Statistics Bureau.

## Table V.3

Inflation

| | 2009 | 2010 | 2011 (f) | 2012 (f) |
|---|---|---|---|---|
| | (annual change, percent) | | | |
| Average CPI inflation | 1.6 | 1.7 | 3.3 | 3.1 |
| December CPI inflation | -1.4 | 3.9 | 3.2 | 3.0 |
| CPI inflation in two 2 years (*) | | | | 3.0 |
| Average CPIX inflation | 2.8 | 0.8 | 3.6 | 3.2 |
| December CPIX inflation | -1.8 | 3.5 | 3.5 | 3.0 |
| CPIX inflation in two 2 years (*) | | | | 3.1 |
| Average CPIX1 inflation | 2.8 | -0.3 | 3.0 | 3.1 |
| December CPIX1 inflation | -1.1 | 1.5 | 3.2 | 3.0 |
| CPIX1 inflation in two 2 years (*) | | | | 3.0 |

(f) Forecast.
(*) Inflation forecast at the third quarter of 2012.

Source: Central Bank of Chile.

aggregate demand in various industrialized economies. Although the pace of economic growth in advanced countries was still important during the first half, a slowdown is expected for the second half of this year and over the next (table 1). Emerging economies will remain strong, but also with some degree of deceleration towards 2011. The Board estimates, as it did in the previous Report, that market consensus forecasts do not properly reflect this diluted global growth, so the baseline scenario contemplates world output prospects lower than the average market consensus (by -0.3 and -0.4 percentage points for 2010 and 2011, respectively). The financial markets have tended to discount lower inflationary pressures, reduced activity and, therefore, more lax and more protracted monetary policy actions in the main developed economies than a few months back.

In any event, this growth scenario is still consistent with high commodity prices. Although recent short-term figures for manufacturing output, entrepreneurial confidence and labor market point at a weakened external scenario, the somewhat calmer financial markets and lower long-term interest rates have supported these prices. In the case of copper, the biggest influence comes from the Asian economies. The prices of some foodstuffs have soared, especially for wheat, but unlike the episode of 2007-2008, the inventories and demand conditions of these products suggest that prices in general will tend to decline. The baseline scenario assumes that the softer tone of global output will also reflect in somewhat reduced inflation prospects around the world. Thus, even though external inflation relevant for Chile will increase 4.6% in 2010 due to the depreciation of the dollar in international markets, it will drop 2.3% in 2011. The terms of trade relevant for Chile will expectedly increase 15.0% this year and drop 4.3% next. The baseline scenario still estimates that long-term prices for the pound of copper and the barrel of oil, measured in dollars of today, are US$2 and US$75, respectively.

Finally, the baseline scenario assumes that there will be no significant recurrence of financial tensions in the world, and that the fiscal consolidation programs will cause no major setbacks in international development in the next several years. Should there be any episodes of increased financial volatility, the financial markets of emerging economies, including Chile, will prove fairly resilient, as they have been thus far.

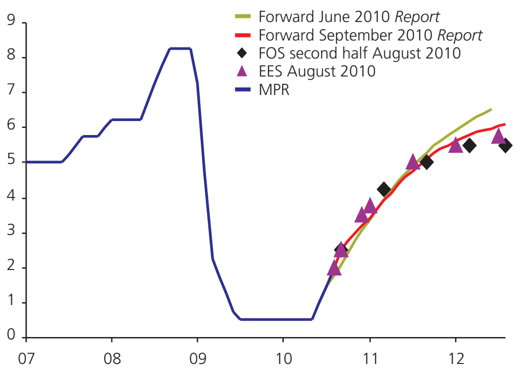
### Output, domestic demand and external accounts

The Board foresees GDP growing in 2010 at a rate between 5.0 and 5.5% (table 2). This range is higher than forecast in June, because the swelling of consumption and investment decisions in the aftermath of 27-F exceeded projections, and the revision of first quarter national accounts has prompted an upward correction of nearly 1 percentage point from earlier estimates. Domestic demand will rise 16.1% this year (11.3% after discounting inventories), with a strong impulse from private consumption and investment, although fading somewhat from the third quarter onwards.

Explained by moderating world growth towards 2011, one-time effects associated to the response of demand in the aftermath of 27-F dissipating, together with the gradual withdrawal of monetary policy stimulus packages, both output and domestic demand will moderate their growth rates in 2011. Accordingly, although GDP growth will approach the trend in mid-2011, for the year as a whole significant growth is expected, in the range of 5.5%

**Figure V.3**

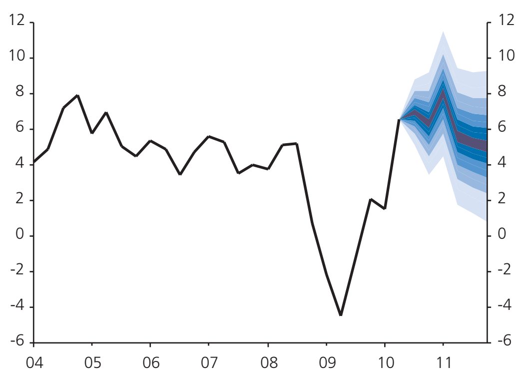
MPR and expectations
(percent)




Source: Central Bank of Chile.

**Figure V.4**

Quarterly GDP growth scenarios (*)
(annual change, percent)




(*) The figure shows the confidence interval of the baseline projection over the respective horizon (colored area). Confidence intervals of 10%, 30%, 50%, 70% and 90% around the baseline scenario are included. These intervals summarize the risks on growth as assessed by the Board. The baseline scenario uses as a methodological assumption that the pace of MPR normalization will be similar to the one that can be deduced from various expectations surveys.

Source: Central Bank of Chile.

to 6.5%. This is attributed to the fact that GDP growth in the first quarter of 2011 will post very good figures owing to the low basis for comparison associated to 27-F. Similarly, after the swelling of domestic demand is over, during next year it should grow by less than half its figures for this year.

Indeed, domestic demand began posting significant growth in the second quarter. The latest data confirm June's expectations, in terms that the pace of growth began slowing down already in this quarter, reflecting one-time phenomena linked to durable consumption, gross fixed capital formation, especially in machinery & equipment, and inventory replacement.

Reconstruction works post 27-F have affected domestic expenditure, but with a different composition from what was thought right after the catastrophe. While at the beginning the general belief was that both public and private efforts would concentrate primarily on infrastructure and construction, in actuality there has been a much greater share of capital goods imports and inventory replacement. In any case, the baseline scenario assumes that, in line with an already visible moderation of investment in machinery & equipment, construction investment will show an important upturn late this year and throughout 2011. On the public sector side, the baseline scenario of this Report considers the announcements made by the Administration, with no major modifications to the fiscal stimulus in the coming years from June's assumptions.

Growth in output and expenditure has also been driven by the significant impulse of monetary policy in recent quarters and by the progressive normalization of domestic financial conditions. The growth scenario points at output gaps closing sooner than predicted, by early 2011, which requires a gradual normalization of the present monetary stimulus. Reduced inflationary pressures from abroad, together with the exchange rate appreciation, has partially offset the stronger inflationary pressures that can be expected from a faster closing of the gaps.

It is expected that this year the current account of the balance of payments will post a deficit of 1.1% of GDP. Measured at trend prices—i.e., considering corrections in prices and not in volumes—, the deficit stands this year and next around 7% of GDP. This is a high number by historical standards, but obeys to the fact that public and private levels of savings and investment are affected by the direct consequences of 27-F and related reconstruction works. In the years ahead, beyond this Report's projection horizon, as the reconstruction advances the deficit should narrow substantially at trend prices.

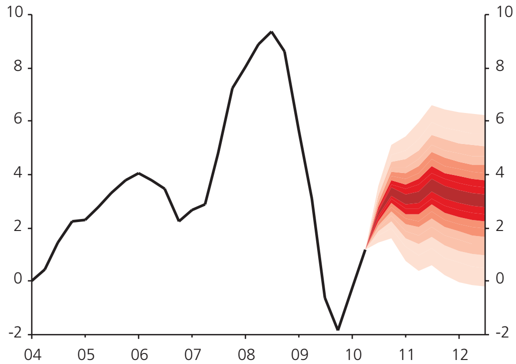
## Inflation

The Board foresees that CPI inflation will continue to rise, and will stand in the upper area of the range for some months. Then it will oscillate around 3% until the end of the relevant projection horizon, this time the third quarter of 2012. Core inflation measures have risen at a slower pace, and will also converge more gradually to 3% (figures1 and 2, table 3).

**Figure V.5**

CPI inflation forecast (*)

(annual change, percent)



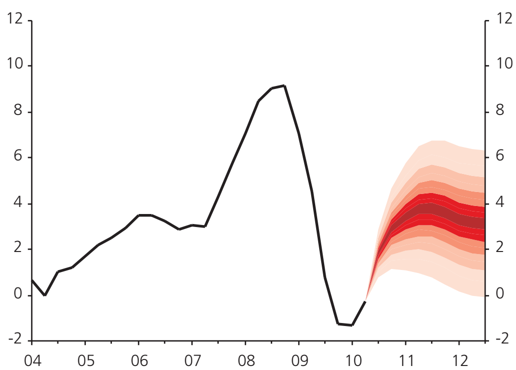

(*) The figure shows the confidence interval of the baseline projection over the respective horizon (colored area). Confidence intervals of 10%, 30%, 50%, 70% and 90% around the baseline scenario are included. These intervals summarize the risks on future inflation as assessed by the Board. The baseline scenario uses as a methodological assumption that the pace of MPR normalization will be similar to the one that can be deduced from various expectations surveys.

Source: Central Bank of Chile.

**Figure V.6**

CPIX 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 future inflation as assessed by the Board. The baseline scenario uses as a methodological assumption that the pace of MPR normalization will be similar to the one that can be deduced from various expectations surveys.

Source: Central Bank of Chile.

As has been said, the convergence of inflation to the target in this Report's baseline scenario is determined by a combination of more dynamic domestic expenditure and activity, but with less pressure from abroad. Also, some prices have risen in the short term, such as public transport fares in Santiago, cigarettes and the stamp tax. Compared with earlier forecasts, these latter factors will contribute somewhat less CPI inflation in the coming months.

Another assumption is that in the long term the RER will be similar to current levels, considering that, as of the statistical closing of this Report, it is consistent with its long-term fundamentals. As aforesaid, this implies less imported inflationary pressures than considered in earlier Reports. Also, it is used as a working assumption that the pace of MPR normalization will be similar to the one that can be deduced from various expectations surveys (figure 3).

## Risk scenarios

The baseline scenario describes the events believed to be the most likely outcomes with the information at hand at the time the projections are made. Different situations will shape a macroeconomic setting and a monetary policy trajectory that will also differ. (figures 4, 5 and 6).

Actually, the scenario depicted here is subject to various risks. Considering that by June domestic demand and output already were showing a faster than foreseen velocity, a faster pace for the closing of gaps than assumed in the baseline scenario can not be ruled out. Nor can it be ruled out that a large part of such dynamism responded to merely transitory effects such as the consequences of 27-F, and may cause output to slow down sooner than assumed.

Various risks remain latent in the global context. Economic growth in the U.S. could weaken further, with effects on financial markets—in particular reversals in stock indexes—and with new postponements in the monetary stimulus withdrawals. The fiscal accounts of developed economies—especially in some countries in Europe—is still cause for concern, particularly because of their effects on perceived risks and the impact it might provoke on world economic recovery. Moreover, measures taken by China to hold back credit growth and avert an overheating may result in a less dynamic world economy and lower commodity prices. As usual, the persistence of global imbalances induces risks on both capital flows across economic areas and in the evolution of parities between different currencies.

The hikes seen in the prices of some foodstuffs around the world, especially wheat, puts forward the risk of increased domestic prices, considering the high pass-through of prices that the Chilean economy has shown.

Hence, as it has done in the past, the Board will adopt every measure necessary to address any events that might reshape the macroeconomic scenario and modify inflationary prospects.

# Box V.1: Changes in the baseline forecast scenario in the past year

This box describes the main changes in the baseline forecast scenario between this *Monetary Policy Report* and the September 2009 *Report*.

The changes in the external scenario have been less radical and less severe than those observed in 2008–2009. The past twelve months have been characterized by the consequences of the international financial crisis and renewed uncertainty regarding the global recovery, reflecting the fiscal position of some European economies and, more recently, the fragility of the U.S. economy. In general, the impact of these factors on the national economy has thus far been moderate. The factor that had the biggest impact on the evolution of local growth and inflation was the earthquake and tsunami that hit the south-central region of Chile in late February (27-F).

Although the external recovery has been favorable for the Chilean economy through mid-2010, the scenario has not been without obstacles and risks. In late 2009, the risks included the impact of monetary normalization on the financial and foreign currency markets, as well as the strength and sustainability of the recovery in the medium term. In the second quarter of this year, the international environment had begun to show important tensions again, although to a lesser degree than in late 2008. The weakened fiscal position in some European countries affected other economies and banking systems, leading to a significant increase in volatility, especially in May. In recent months, doubts about the U.S. recovery have taken center stage. Although the world growth forecasts for this year have been revised upward as the effective data have shown improvements, the forecasts for 2011 have moved in the opposite direction, starting in the second quarter of this year. Financial asset prices have reacted strongly to these events, with fairly sharp movements in the U.S. dollar, the euro, the stock markets, and, in recent months, long-term interest rates. Commodity prices have generally been high, especially copper. Inflation has remained low—below the target in several economies—and the outlook is for it to continue diminishing. In this context, the normalization of monetary policy began in late 2009 in some countries, but recent events have led the monetary authorities to move more cautiously in the withdrawal of the monetary stimulus (table V.4).

In terms of domestic output, the Chilean economy picked up significantly in late 2009, as did the rest of the world. The baseline scenario of the September 2009 *Report* projected that GDP would grow between 4.5 and 5.5% y-o-y in 2010, with a progressive, but partial closing of the output gap in 2010 and 2011. However, the economy suffered a setback with 27-F, which was estimated to have reduced the growth outlook for this year by one percentage point and the level of trend output by between 1.0 and 1.5% due to the destruction of capital stock.

**Table V.4**

Main assumptions for the international scenario

| | Sept. 09 | Dec. 09 | Mar. 10 | Jun. 10 | Sept. 10 |
|---|---|---|---|---|---|
| World GDP at PPP (annual change, percent) | | | | | |
| 2010 | 3.3 | 3.8 | 4.3 | 4.3 | 4.3 |
| 2011 | 4.2 | 4.2 | 4.4 | 4.0 | 3.8 |
| GDP of trading partners (annual change, percent) | | | | | |
| 2010 | 3.1 | 3.6 | 4.0 | 4.4 | 4.4 |
| 2011 | 3.9 | 3.8 | 3.8 | 3.7 | 3.5 |
| WTI oil price (US$/barrel) | | | | | |
| 2010 | 77 | 80 | 82 | 77 | 77 |
| 2011 | 80 | 86 | 85 | 80 | 79 |
| LME copper price (US¢/lb) | | | | | |
| 2010 | 260 | 270 | 310 | 300 | 320 |
| 2011 | 250 | 270 | 290 | 270 | 290 |
| Terms of trade (annual change, percent) | | | | | |
| 2010 | 2.3 | 4.7 | 12.5 | 14.3 | 15.0 |
| 2011 | -2.5 | -2.3 | -5.6 | -7.2 | -4.3 |
| External prices. in US$ (annual change, percent) | | | | | |
| 2010 | 8.0 | 9.6 | 3.7 | 3.4 | 4.6 |
| 2011 | 3,2 | 1,0 | 3,0 | 3,3 | 2,3 |

Source: Central Bank of Chile.

The immediate impact of 27-F was seen in a steep drop in output, as businesses were paralyzed in March and part of April. Accordingly, output was revised downward, based on the effects of the lower productive capacity resulting from the destruction of capital, on one hand, and the disruption in demand decisions and the drop in consumption to accommodate increased saving, on the other. Within this scenario, the magnitude, composition, timing, form of financing, and focus of the public and private reconstruction works were critical factors for delineating the medium-term macroeconomic situation.

Output and demand recovered strongly from the immediate effects of 27-F. Domestic demand grew vigorously, driven not only by gross fixed capital formation, but also by very dynamic consumption. In the second quarter of this year, the gaps narrowed faster than expected, and the current GDP forecast for 2010 is 5.0 to 5.5%. This range is higher than projected in June, and it largely reflects trends in the first part of the year (table V.5).

**Table V.5**

Economic growth and current account for 2010

| | Sept. 09 | Dec. 09 | Mar. 10 | Jun. 10 | Sept. 10 |
|---|---|---|---|---|---|
| | (annual change, percent) | | | | |
| GDP | 4.5-5.5 | 4.5-5.5 | 4.25-5.25 | 4.0-5.0 | 5.0-5.5 |
| Balance of risks to output | Stable | Stable | Stable but biased downward in the very short term | Stable | Stable |
| Domestic demand | 6.7 | 8.9 | 12.4 | 14.5 | 16.1 |
| Total consumption | 2.5 | 3.5 | 5.7 | 7.8 | 8.3 |
| Gross fixed capital formation | 7.4 | 8.2 | 14.8 | 23.0 | 21.2 |
| | (percent of GDP) | | | | |
| Current account | 1.2 | 0.6 | -1.1 | -1.2 | -1.1 |

Source: Central Bank of Chile.

In August 2009, CPI inflation fell into negative territory and stayed there until February of this year. As of the closing date of this *Report*, it is within the tolerance range, and forecasts indicate that it will soon exceed the target. The factors determining this trend include the initial basis of comparison from 2008 (when inflation was close to 10% in annual terms), the drop in commodity prices, the increase in the output gap throughout much of 2009, and the contribution of some specific prices. The exchange rate trend also had an effect on inflation, fluctuating between Ch$490 and Ch$560 to the U.S. dollar since September 2009 (table V.6).

**Table V.6**

Changes in the average CPI inflation forecast for 2010

| | DEc. 09 | Mar. 10 | Jun. 10 | SepT. 10 |
|---|---|---|---|---|
| Initial forecast (1) | 1.5 | 1.0 | 2.4 | 1.8 |
| Fuels | 0.1 | 0.2 | -0.1 | -0.1 |
| Food, w/o fresh fruit and vegetables | 0.0 | 0.1 | 0.2 | 0.1 |
| Fresh fruit and vegetables | 0.0 | 0.4 | -0.1 | -0.1 |
| Public services | -0.2 | -0.2 | 0.1 | 0.2 |
| Other products | -0.3 | 0.9 | -0.7 | -0.2 |
| Final forecast (2) | 1.0 | 2.4 | 1.8 | 1.7 |

(1) Forecast in the previous *Monetary Policy Report*.
(2) Forecast in the indicated *Monetary Policy Report*.

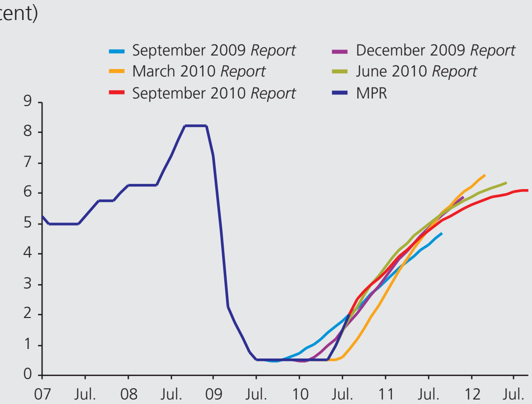
Source: Central Bank of Chile.

Monetary policy has gone from being very expansive to gradually withdrawing the stimulus. In September 2009, the Board reiterated that it would hold the monetary policy rate (MPR) at its minimum level of 0.5% for a prolonged period of time and would continue to apply complementary measures. In November, the Board found it necessary to provide a clearer signal of how the complementary measures were to be modified. Thus, in addition to announcing that the MPR would remain at 0.5% at least until the second quarter of 2010, the Board decided to reduce the maximum maturity of the short-term liquidity facility (*Facilidad de Liquidez a Plazo*, or *FLAP*) from 180 to 150 days starting on 14 December 2009 and to continue shortening the terms by 30 days each month, until the facility closed in May 2010. In June, the Board continued the monetary policy normalization process, increasing the MPR by 50 basis points. This was repeated at the July and August meetings, which left the MPR at 2.0%. The baseline scenario of this *Report* considers that the pace of MPR normalization will be similar to the one that can be deduced from various expectations surveys. In broad terms, market expectations have closely followed the monetary policy path communicated by the Board, and the monetary normalization process expected by the market has fluctuated relatively little (figure V.7).

**Gráfico V.7**

MPR and the forward curve at the statistical closing date of each *Monetary Policy Report*

(percent)




Source: Central Bank of Chile.

# Appendix A: Central Bank of Chile's balance sheet

This appendix presents and analyzes the situation and forecasts for 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 2010 and then presents asset and liability forecasts for year-end 2010 and 2011.

The movements in any balance sheet account can be explained by (a) flows, which are related to settled or new transactions, (b) profits, which correspond to interest earned, and (c) adjustments, which are earnings and losses associated with accounts indexed to movements in the exchange rate and inflation. Because around 70% of its assets are international reserves and 70% of its liabilities are promissory notes and policy instruments (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 or the cost of debt (Monetary Policy Rate). Balance sheet adjustments are mainly corrections due to inflation indexation and exchange rate fluctuations. Since the reserves are made up primarily of U.S. dollars and euros (almost 50% U.S. dollars and 40% euros), earnings and losses depend on the fluctuation of the peso against these currencies. Adjustments also include earnings and losses associated with inflation-indexed accounts (such as bonds indexed to changes in the UF).

## Evolution of the balance sheet in the first half of 2010

In the first half of 2010, the balance sheet has been characterized by a reduction in the size of assets and liabilities, together with a slight improvement in equity. This reflects a gain on monetary positions that has offset losses on indexed debt (due to the positive inflation over the course of this year).

The size of the balance sheet contracted Ch$1.67 trillion (3.9% of GDP) between 30 December 2009 and 30 June 2010. On the asset side, this is explained by a reduction in the short-term liquidity facility (*Facilidad de Liquidez a Plazo*, or Flap). The aggregate balance of repos and the Flap[1/] decreased by Ch$1.92 trillion (figure A.1). Thus, the balance of monetary policy instruments, which includes repos and the Flap, measured as a share of GDP has returned to the levels recorded before the crisis (table A.1). Liabilities, in turn, were adjusted downward due to the decline in the Central Bank's debt balance, while equity did not change substantially. In accordance with the usual accounting principles, the Central Bank's equity rose slightly from –Ch$1.96 trillion on 31 December 2009 (–2.1% of GDP) to –Ch$1.94 trillion on 30 June 2010 (–1.9% of GDP). This small improvement is mainly due to earnings on international reserves.

The currencies that make up the reserves had a mixed performance. On one hand, there were earnings from the depreciation of the peso against the U.S. dollar in the first half of the year. On the other, there were losses from the strong depreciation of the euro against almost all currencies. On aggregate, reserves posted earnings in the first half of the year despite the fluctuation of the euro (table A.1). Inflation increased the nominal cost of debt, which translated into losses that were lower than the gain on foreign exchange positions, as mentioned earlier.

## Balance sheet forecasts for 2010 and 2011

The main assumptions underlying the forecast are the following: (a) bank deposits in the Central Bank (standing deposit facility) will remain at levels similar to those of the last few months; (b) given the ending of the Flap and repos, the balance of monetary policy instruments will decline to near zero; (c) Treasury deposits will remain at their current minimum levels; (d) the evolution of the monetary base will be consistent with macroeconomic fundamentals; and (e) there will not be foreign currency operations during the projection period (table A.2). PDBC operations are expected to be used to adjust for a deficit or surplus of funds. The balance sheet data

[1/] The Central Bank of Chile finished the Flap in May 2010, while the repo facilities were eliminated on 29 June.

presented in this *Report* for 2010 and 2011 do not consider any capital contributions, in accordance with the Fiscal Accountability Law.

A key factor in the forecast is the evolution of the differential between international and local interest rates (profitability of assets and cost of liabilities). The international scenario on which this *Report's* projections are based considers that the international interest rate will remain low in 2010 and 2011. The normalization of the MPR began in June of this year, reaching 2% in annual terms at the close of this *Report*. This implies a widening of the differential between the cost of debt and the interest earned on international reserves, which translates into equity losses of 0.2% of GDP at year-end 2010 and 0.3% of GDP at year-end 2011 (table A.1). This difference will converge to the level of the long-term country risk premium as the world economy becomes more dynamic and the process of external interest rate normalization begins.

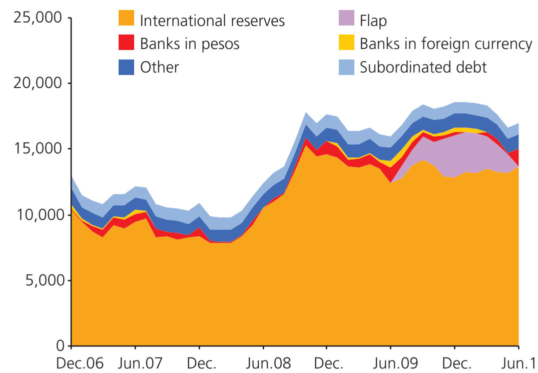
The second key factor in the forecast is the expected evolution of the exchange rate and inflation. The exchange rate, which mainly affects international reserves, is assumed to follow a path consistent with the expected trend for the real exchange rate[2]/.In the most recent period, the peso-dollar parity has been lower than in the first half of the year[3]/. Consequently, in the second half, the balance sheet is expected to show a loss associated with valuation effects, which is projected to reach 0.5% of GDP (table A.1). Thus, the balance of reserves as a share of GDP is expected to record a reduction of around 1.5 percentage points in 2010. For this year, the forecast projects a similar level of reserves to last year, but higher output. The reserves-to-GDP ratio will therefore fall this year. In this *Report*, inflation is expected to be positive in 2010 and 2011, in which case indexed debt (mainly bonds) would generate equity losses equivalent to 0.1% of GDP in both years.

Thus, in 2010 the assets and liabilities (including equity) on the balance sheet are projected to decline as a share of GDP by nearly 6 percentage points (table A.1). In 2011, assets and liabilities will be smaller than in the previous year. On the asset side, this decrease is explained by the fact that both effective and forecast data show a drop in the use of monetary policy instruments. In addition, the balance of international reserves will contract as a result of foreign exchange losses in the second half of this year, as mentioned above. On the liability side, the drop in 2010 is primarily explained by a reduction in the size of the debt and equity losses associated with the revaluation of reserves expected in the second half. In 2011, the main liability movements will come from the equity losses generated by the projected widening of the gap between the return on reserves and the cost of debt.

**Figure A.1**

The Central Bank of Chile's assets

(Ch$ million)




Source: Central Bank of Chile.

[2]/ A working assumption in the forecasts is that the RER will be similar to its present level in the long term, which is consistent with its fundamentals for the long-term horizon.

[3]/ The average parity in August was Ch$509 to the U.S. dollar, versus an average of Ch$525 in the first half.

## Table A.1

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

| | 2006 | 2007 | 2008 | 2009 | Jun.10 | 2010 (f) | 2011 (f) |
|---|---|---|---|---|---|---|---|
| Assets | 17.8 | 12.8 | 20.4 | 20.3 | 16.4 | 14.5 | 13.6 |
| International reserves | 13.3 | 9.8 | 16.3 | 14.0 | 13.2 | 12.5 | 11.7 |
| International reserves | 1.8 | 1.0 | 1.0 | 1.0 | 0.9 | 0.9 | 0.9 |
| Monetary policy instruments | 1.2 | 0.7 | 1.8 | 4.1 | 1.2 | 0.0 | 0.0 |
| Other assets | 1.5 | 1.3 | 1.4 | 1.3 | 1.1 | 1.1 | 1.0 |
| | | | | | | | |
| Liabilities | 20.5 | 15.3 | 19.7 | 22.5 | 18.3 | 17.3 | 16.8 |
| CBC promissory notes tradable in the market | 11.1 | 9.1 | 11.9 | 12.6 | 10.0 | 10.0 | 10.4 |
| Policy instruments with banks | 2.8 | 1.4 | 2.4 | 3.4 | 2.2 | 1.2 | 0.4 |
| Other liabilities with banks | 0.7 | 0.1 | 0.3 | 0.3 | 0.2 | 0.2 | 0.2 |
| Other liabilities excluding the monetary base | 1.6 | 0.5 | 0.4 | 1.1 | 1.3 | 1.2 | 1.1 |
| Monetary base | 4.4 | 4.3 | 4.7 | 5.0 | 4.6 | 4.7 | 4.7 |
| | | | | | | | |
| Equity (A+B) | -2.8 | -2.5 | 0.7 | -2.1 | -1.9 | -2.8 | -3.2 |
| A. Revaluated initial equity | -3.2 | -2.7 | -2.6 | 0.7 | -1.9 | -1.9 | -2.7 |
| B. Net balance | 0.0 | -0.3 | 2.9 | -2.8 | 0.0 | -0.9 | -0.5 |
| Nonfinancial | -0.1 | -0.1 | -0.1 | -0.1 | 0.0 | -0.1 | -0.1 |
| Net interest and UF fluctuation | -0.6 | -0.2 | -0.5 | 0.0 | -0.1 | -0.3 | -0.3 |
| From exchange rate fluctuation | 0.6 | -0.3 | 3.2 | -2.8 | 0.2 | -0.5 | -0.1 |
| Capital revaluation | 0.1 | 0.2 | 0.2 | 0.0 | 0.0 | 0.0 | 0.1 |
| C. Capital contribution | 0.4 | 0.5 | 0.5 | 0.0 | 0.0 | 0.0 | 0.0 |
| | | | | | | | |
| Memorándum | | | | | | | |
| Nominal earnings (1) | -0.2 | -0.3 | -0.7 | 0.0 | -0.2 | -0.4 | -0.5 |
| Foreign currency position (2) | 9.5 | 9.3 | 16.2 | 13.3 | 12.0 | 11.4 | 10.6 |
| Foreign currency position with exchange rate indexed liabilities (3) | 9.0 | 9.1 | 16.2 | 13.3 | 12.0 | 11.4 | 10.6 |

(1) Includes administrative expenses and net costs from interest and UF fluctuations. Does not include losses or gains from exchange rate fluctuations, interest and UF fluctuations on assets whose service program has not been defined, or capital and fixed asset revaluation for monetary adjustment.
(2) Assets minus liabilities payable in foreign currency.
(3) Foreign currency position minus exchange rate indexed liabilities payable in local currency.
(f) Forecast.

Source: Central Bank of Chile.

## Table A.2

The Central Bank's balance sheet flows (1)
(Ch$ billion)

| | 2006 | 2007 | 2008 | 2009 | Jun.10 | 2010 (f) | 2011 (f) |
|---|---|---|---|---|---|---|---|
| 1. International reserves | 688 | -2,045 | 2,691 | 701 | 530 | 511 | -28 |
| 2. Policy instruments in local currency | 654 | 333 | -2,223 | 351 | -102 | 250 | 386 |
| 2a. of which: exchange rate indexed | 82 | 230 | 196 | 3 | 0 | 0 | 0 |
| 3. Central Bank promissory notes in U.S. dollars | 1,293 | 0 | 0 | 0 | 0 | 0 | 0 |
| 4. Other operations in local currency excl. the monetary base (2) | -21 | -109 | -121 | -26 | 1,807 | -33 | -5 |
| 5. Other operations in foreign currency (3) | -2,137 | 2,051 | 180 | -661 | -526 | -507 | 28 |
| | | | | | | | |
| Monetary base (change = 1+2+3+4+5) | 477 | 230 | 527 | 345 | 163 | 221 | 381 |
| | | | | | | | |
| Memorandum | | | | | | | |
| Foreign currency position (exchange operations = 1+3+5) | -156 | 6 | 2,871 | 40 | 4 | 4 | 0 |
| Foreign currency position with exchange-rate-indexed liabilities ( = 1+2a+3+5) | -74 | 236 | 3,067 | 42 | 4 | 4 | 0 |

(1) Foreign exchange flows. Where applicable, the balances are also affected by interests, inflation indexation, and price changes.
(2) debt service on UF denominated Treasury promissory notes, subordinate debt service, and other operations in local currency.
(3) Treasury and bank deposits, and other operations in foreign currency.
(f) Forecast.

Source: Central Bank of Chile.

# Appendix B: The management of international reserves

International reserves are the liquid assets in foreign currency held by the Central Bank of Chile to support its monetary and exchange rate policies. Reserves management seeks to provide efficient and secure access to international liquidity and to safeguard the Bank's net worth, in accordance with the legal framework defined in Article 38, Title III, of the Basic Constitutional Act of the Central Bank.

In carrying out its international reserve management, the Central Bank maintains a clear separation of responsibilities at different hierarchical levels, in line with international recommendations in this area and external evaluations. The Bank also undergoes periodic internal and external audits of the different processes in the investment cycle. This ensures that the decision-making process and management assessment within the Bank are correctly defined and that the risks are limited.

The Central Bank monitors compliance with its investment parameters and standards through a Middle Office, which reviews the Board's guidelines daily. The eligibility of countries, supranational institutions, commercial banks, and agencies in which international reserves can be invested is determined on the basis of variables such as risk rating, institutional equity, and debt ratios. In addition, the investment division has developed a series of complementary indicators that support a closer monitoring of the different positions managed (for example, daily reports on positioning, CDS, and ratings). With regard to its information systems, the Central Bank has continued to introduce improvements in its technological platforms, reinforcing operational continuity and implementing high availability mechanisms.

International reserves are grouped in two main portfolios: the investment portfolio and the liquidity portfolio. The investment portfolio includes short-term foreign exchange assets, made up of bank deposits and money market instruments maturing within one year, and long-term assets, which mainly includes investments in nominal and indexed bonds with maturities of one to ten years. A small share of the investment portfolio (5%) is managed by external administrators, under two long-term programs. The first, managed by Pimco and Wellington, includes the full range of eligible instruments. The second, managed by BlackRock, is a mortgage-backed securities (MBS) mandate[1]/.

The liquidity portfolio is designed to cover the foreseeable need for funds in the short term. It is made up of bank deposits (overnight and term) and money market instruments.

Between September 2009 and August 2010, the investment policy was revised to update the reference benchmark, credit risk, and currency composition, in order to better address the volatility of the international financial markets and to safeguard the Central Bank's balance sheet. The main changes include the incorporation of the Australian dollar, the Canadian dollar, and the pound sterling into the reference benchmark. The currency composition of the investment portfolio is now 50% U.S. dollars, 40% euros, 3.5% Australian dollars, 3.5% Canadian dollars, and 3.0% pounds sterling. In July 2010, the benchmark share of bank risk was reduced from 20 to 10% of the investment portfolio, while the maximum amount allowed in these issuers was decreased from 25 to 15%. The benchmark duration of U.S. dollar and euro deposits was also reduced, from 3.0 to 1.5 months. The duration of the internally managed investment portfolio was held at 17 months (tables B.1 and B.2).

**Table B.1**

Benchmark structure of the internally managed investment portfolio, by type of risk and comparator

| Structure | Credit risk | Current share | Current benchmark |
|---|---|---|---|
| Short-term portfolio | Bank | 10% | Merrill Lynch indices: Three-month Libid last 3 months (USD, EUR, AUD, CAD, and GBP). |
| | Sovereign, Agency, and Supranational | 50% | Merrill Lynch indices: US Treasury bills (USD) German Gov. bill index (EUR) Six-month Fixbis Average of last 6 months (AUD, CAD, and GBP). |
| Long-term portfolio | Sovereign, Agency, Supranational, and Bank | 34% | JP Morgan bond index for 1- to 10-year segments in U.S. and Germany. For United Kingdom, global 1- to 10-year segments. |
| | Inflation-indexed | 6% | Barclays bond index for 1- to 10-year segments in U.S and Europe. |
| Total portfolio | | 100% | |

Source: Central Bank of Chile.

The annualized return on international reserves in the first semester was 4.16% measured in foreign currency[2]/. The differential return relative to the benchmark structure was –0.16% (table B.3).

1/ The reference benchmark of this mandate is 85% MBS and 15% U.S. Treasury bonds and notes.

2/ Based on the investment portfolio's reference basket.

## Table B.2

Currency, maturity, and duration structure of the internally managed benchmark portfolio

| | | USD | | EUR | | AUD | | CAD | | GBP | | Total | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Share % | Maturity (months) | Share % | Maturity (months) | Share % | Maturity (months) | Share % | Maturity (months) | Share % | Maturity (months) | Share % | Maturity (months) |
| Short-term portfolio | Bank, | 5.0 | 1.5 | 4.0 | 1.5 | 0.4 | 1.5 | 0.4 | 1.5 | 0.3 | 1.5 | | |
| | Sovereign, Agency, and Supranational | 25.0 | 3.0 | 20.0 | 4.6 | 1.8 | 3.0 | 1.8 | 3.0 | 1.5 | 3.0 | | |
| | **Subtotal, short-term** | **30.0** | **2.8** | **24.0** | **4.1** | **2.1** | **2.8** | **2.1** | **2.8** | **1.8** | **2.8** | **60** | **3.3** |
| Long-term portfolio | Indexed bonds | | | | | | | | | | | | |
| | Maturity segment | | | | | | | | | | | | |
| | 1–3 years | 9.3 | 22.8 | 7.5 | 21.1 | | | | | | | | |
| | 3–5 years | 4.0 | 45.6 | 3.2 | 44.4 | | | | | | | | |
| | 5-7 years | 1.7 | 65.6 | 1.3 | 62.1 | | | | | | | | |
| | 7-10 years | 1.7 | 86.3 | 1.3 | 84.6 | | | | | | | | |
| | 1-10 years | | | | | 1.4 | 46.4 | 1.4 | 47.6 | 1.2 | 52.0 | | |
| | **Subtotal** | **16.7** | **38.9** | **13.3** | **37.1** | **1.4** | **45.1** | **1.4** | **44.2** | **1.2** | **55.0** | **34** | **39.3** |
| | Indexed bonds | | | | | | | | | | | | |
| | Maturity segment | | | | | | | | | | | | |
| | 1-10 years | 3.3 | 29.5 | 2.7 | 27.8 | | | | | | | | |
| | **Subtotal** | **3.3** | **29.5** | **2.7** | **27.8** | | | | | | | **6** | **28.8** |
| | **Long-term subtotal** | **20.0** | **37.4** | **16.0** | **35.6** | **1.4** | **45.1** | **1.4** | **44.2** | **1.2** | **55.0** | **40** | **37.7** |
| **Total portfolio** | | **50.0** | **16.6** | **40.0** | **16.7** | **3.5** | **19.7** | **3.5** | **19.3** | **3.0** | **23.6** | **100** | **17.0** |

Source: Central Bank of Chile.

## Table B.3

Absolute, benchmark, and differential returns on international reserves (percent)

| Period | In forex RRII | In forex BMK | In U.S. dollars RRII | In U.S. dollars BMK | Differential |
|---|---|---|---|---|---|
| 2010 (*) | 4.16 | 4.33 | -9.36 | -9.20 | -0.16 |
| 2009 | 2.15 | 1.65 | 3.34 | 2.84 | 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 |
| 2004 | 1.84 | 1.95 | 4.08 | 4.20 | -0.11 |
| 2003 | 2.31 | 1.78 | 6.64 | 6.12 | 0.53 |
| 2002 | 5.25 | 4.69 | 9.34 | 8.78 | 0.57 |
| 2001 | 5.57 | 5.27 | 3.90 | 3.60 | 0.30 |
| 2000 | 6.88 | 6.65 | 4.84 | 4.61 | 0.22 |

(*) Annualized returns in the first half.

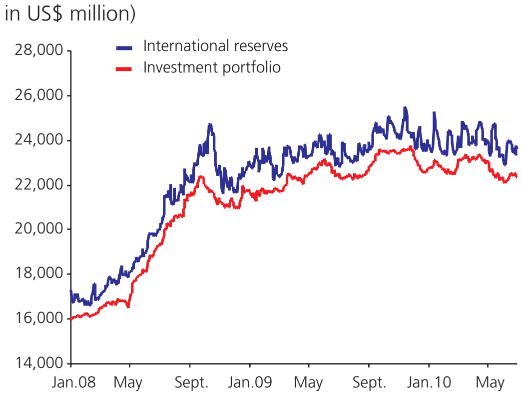
Source: Central Bank of Chile.

As of 30 June 2010, international reserves had declined US$197 million relative to the close of 2009, to US$25.18 billion. Of this amount, US$22.45 billion corresponded to the investment portfolio and US$1.2 billion to the liquidity portfolio. Of total reserves, 50.5% was invested in U.S. dollars; 33.6% in euros; and 15.8% in other currencies (figure B.1 and table B.4).

In June 2010, investments in bank deposits in the investment portfolio totaled US$4.07 billion, which represents a reduction of US$834 million relative to December 2009. The majority of the bank deposits in the investment portfolio have a risk rating of AA–. Bank credit risk, measured as the weighted average of current deposits each day times a numerical index of risk rating[3], has improved this year.

## Figure B.1

International reserves (*)
(stock in US$ million)




(*) Excluding other assets.

Source: Central Bank of Chile.

[3]/ The numerical index is constructed by assigning a value of 10 to the AAA rating, 9 to AA+, 8 to AA, and so on down to 5 for an A rating.

**Table B.4**

Composition of international reserves
(millions of dollars)

| Type of portfolio | Currency | 2009 Dec. | 2009 Share % | 2010 Jun. | 2010 Share % |
|---|---|---|---|---|---|
| Investment portfolio | | 22,695.7 | 89.4 | 22,445.7 | 89.2 |
| Currency and deposits | U.S. dollar | 2,846.4 | 11.2 | 1,990.9 | 7.9 |
| | Euro | 2,183.0 | 8.6 | 1,417.4 | 5.6 |
| | Other | 39.8 | 0.2 | 663.3 | 2.6 |
| Securities | U.S. dollar | 10,896.5 | 42.9 | 9,446.3 | 37.5 |
| | Euro | 6,539.9 | 25.8 | 7,041.3 | 28.0 |
| | Other | 190.1 | 0.7 | 1,886.5 | 7.5 |
| Total | U.S. dollar | 13,742.9 | 54.2 | 11,437.2 | 45.4 |
| | Euro | 8,722.9 | 34.4 | 8,458.7 | 33.6 |
| | Other | 229.9 | 0.9 | 2,549.8 | 10.1 |
| Liquidity portfolio | | 1,153.6 | 4.5 | 1,233.4 | 4.9 |
| Currency and deposits | U.S. dollar | 1,141.4 | 4.5 | 1,233.4 | 4.9 |
| | Euro | 12.2 | 0.0 | 0.0 | 0.0 |
| | Other | 0.0 | 0.0 | 0.0 | 0.0 |
| Totals | U.S. dollar | 1,141.4 | 4.5 | 1,233.4 | 4.9 |
| | Euro | 12.2 | 0.0 | 0.0 | 0.0 |
| | Other | 0.0 | 0.0 | 0.0 | 0.0 |
| Other assets | | 1,523.2 | 6.0 | 1,496.4 | 5.9 |
| Monetary gold | Other | 8.8 | 0.0 | 9.8 | 0.0 |
| IMF SDRs | Other | 1,143.4 | 4.5 | 1,168.5 | 4.6 |
| IMF reserve position | Other | 286.1 | 1.1 | 270.9 | 1.1 |
| Reciprocal credit agreements | U.S. dollar | 84.9 | 0.3 | 47.2 | 0.2 |
| **Total** | | 25,372.5 | 100.0 | 25,175.5 | 100.0 |
| | U.S. dollar | 14,969.2 | 59.0 | 12,717.8 | 50.5 |
| | Euro | 8,735.1 | 34.4 | 8,458.7 | 33.6 |
| | Other | 1,668.2 | 6.6 | 3,999.0 | 15.8 |

Source: Central Bank of Chile.

Securities investments in the investment portfolio increased US$774 million in the period, closing the first half at US$18.37 billion, while the liquidity portfolio closed the period at US$1.23 billion (figure B.2).

**Figure B.2**

Bank rating index
(numerical)


Source: Central Bank of Chile.

With regard to the exposure of the internally managed investment portfolio by type of risk and country, at the close of the first half, there was an appropriate degree of diversification among the different types of risk in which international reserves are invested. Investment in sovereign risk was mostly concentrated in the United States and Germany, which together accounted for 47.5% of the internally managed investment portfolio. Investment in bank risk was primarily with banks in the United Kingdom, France, Spain, and Germany (table B.5).

The exposure of the externally managed portfolios was mainly in sovereign risk, in particular in the United States and Germany. Bank risk was minimal, while there was agency risk stemming from the specialized MBS mandate (table B.6).

**Table B.5**

Internally managed portfolio: investments by country and type of risk
(US$ million)

| Country | Sovereign (1) | Bank (2) | Agencies | Supranational (3) | Total |
|---|---|---|---|---|---|
| United States | 5,134 | 16 | 1,259 | | 6,410 |
| Germany | 5,046 | 514 | | | 5,560 |
| France | 1,468 | 678 | | | 2,146 |
| United Kingdom | 451 | 1,243 | | | 1,694 |
| Supranationals | | | | 1,053 | 1,053 |
| Canada | 729 | 10 | | | 739 |
| Spain | 132 | 551 | | | 683 |
| Australia | 343 | 200 | | | 543 |
| Austria | 437 | 45 | | | 482 |
| Italy | 324 | 130 | | | 454 |
| Belgium | 258 | 107 | | | 365 |
| Sweden | 45 | 308 | | | 353 |
| Netherlands | 229 | 124 | | | 353 |
| Denmark | 140 | | | | 140 |
| Ireland | 138 | | | | 138 |
| Portugal | 135 | | | | 135 |
| Switzerland | | 98 | | | 98 |
| Japan | | 31 | | | 31 |
| Finland | 25 | | | | 25 |
| Total | 15,034 | 4,054 | 1,259 | 1,053 | 21,401 |

(1) Sovereign exposure includes the following institutions that have an explicit sovereign guarantee: Instituto de Crédito Oficial (Spain,18), Oesterreichische Kontrollbank (Austria, 11), KFW (Germany, 772), and SPPE (France, 253).
(2) Bank exposure in the United States corresponds to an overnight deposit in the U.S. Federal Reserve and current account balances.
(3) Exposure in African Development Bank (101), European Investment Bank (68), BIS (331), Council of Europe (27), Inter-American Development Bank (177), International Bank for Reconstruction and Development (248), and European Bank for Reconstruction and Development (101).

Source: Central Bank of Chile.

**Table B.6**

Externally managed portfolio: investments by country and type of risk
(US$ million)

| Country | Sovereign (1) | Bank (2) | Agencies (3) (4) | Supranational (5) | Total |
|---|---|---|---|---|---|
| United States | 483 | 18 | 193 | | 694 |
| Germany | 198 | 28 | | | 226 |
| France | 30 | | | | 30 |
| Canada | 30 | | | | 30 |
| Australia | 26 | | | | 26 |
| United Kingdom | 18 | | | | 18 |
| Netherlands | 10 | | | | 10 |
| Italy | 7 | | | | 7 |
| Supranationals | | | | 3 | 3 |
| Norway | 3 | | | | 3 |
| Total | 804 | 46 | 193 | 3 | 1,045 |

(1) Sovereign exposure includes the following institutions that have an explicit sovereign guarantee: Export Development Canada (Canada, 2) and KFW (Germany, 18).
(2) Bank exposure in Germany corresponds to Jumbo Pfandbriefe bonds; in the United States, it is related to the current account balances of the external managers.
(3) Includes Ginnie Mae.
(4) US$176 million corresponds to investments in MBS.
(5) Exposure in European Investment Bank.

Source: Central Bank of Chile.

# Appendix C: Main measures taken by the Central Bank of Chile in 2010

**January**

7 By Resolution 1517E-01-100107, the Board appointed Mr. Manuel Marfán Lewis to the position of Deputy Governor of the Board and the Central Bank of Chile through 9 December 2011.

7 By Resolution 1518-01-100107, the Board appointed Mr. Juan Eduardo Chackiel Torres to replace Ms. Gloria Peña Tapia as the Central Bank's representative before the National Commission for investigating the existence of price distortions in imported goods markets, as established by Article 11 of Law 18,525.

14 By Board Resolution 1519-03-100114, Chapters IV.E.1 and IV.E.2 of the Central Bank's Compendium of Financial Regulations were modified to establish the general conditions on bonds issued by the Central Bank of Chile and incorporate them into the tax regime described in Article 104 of the Income Tax Law, which exempts the capital gains tax on the greater value in the transfer of publicly offered debt securities as provided for in that Article.

Article 104 N° 6 of the Income Tax Law establishes that the indicated tax treatment will be applicable to instruments issued by the Central Bank of Chile even when they do not comply with one or more of the requirements outlined in N° 1 of the Article. The securities must be included in the list of eligible instruments that was established for this purpose by Ministry of Finance Executive Decree 1,220 of 23 October 2009, published in the *Official Gazette* on 21 November 2009.

The modifications put into effect by this Resolution will apply to bonds issued in 2010 and thereafter; bonds issued before that date will continue to be subject to the previous norms. Bonds issued under the indicated tax treatment must incorporate this information in their conditions of issue, in order to distinguish them from bonds that do not qualify for this special tax treatment.

The BCP, BCU, and BCD considered in the 2010 Debt Plan approved by the Board will be issued under the conditions stipulated in Article 104 of the Income Tax Law, in the terms provided for in the Article.

With regard to bonds issued under Article 104 of the Income Tax Law, the general conditions of issue establish that the Central Bank of Chile will deduct 4% of the amount of interest accrued by the bonds at the time the respective coupon is paid in each half-year period. For these purposes, it is understood that on paying the coupon, the Central Bank of Chile, in its role as bond issuer, has met its payment obligation in full and on schedule.

In making the aforementioned deduction, the Central Bank of Chile is complying with the withholding requirements stipulated in Article 74 N° 7 of the Income Tax Law, and the annual declaration and payment thereof must be carried out by the issuer in accordance with Article 79 of that Law. Additional regulations establish the mechanism by which the Central Bank will notify investors who request notification of the retention and who are not considered taxpayers for the purposes of the Income Tax Law, which must be determined with regard to the 4% of interest accrued on the bonds in accordance with the Income Tax Law, for the period in which the bonds have been held by the respective investor.

14 By Board Resolution 1519-04-100114, the Central Bank accepted the fiscal agency granted through Executive Decree 1,686, issued by the Ministry of Finance and published in the *Official Gazette* on 12 January 2010, to represent and act in the name and on the account of the Treasury in the issue and administration of the bonds identified in the decree. Specifically, five new Treasury bonds (BTU-5, BTU-10, BTU-20, BTU-30, and BTP-10) are to be issued in the local capital market in the first half of 2010, in accordance with Executive Decree 1,686. The directive includes the service of the bonds at maturity.

28 By Board Resolution 1521-04-100128, Chapters IV.D.1, IV.D.1.1, and IV.D.1.2 of the Central Bank's *Compendium of Financial Regulations* were modified to incorporate special guidelines on foreign currency swap auctions held by the Central Bank of Chile for banks, using electronic communication and connection systems to facilitate the invited institutions' participation in the respective auction.

### February

19 In Administrative Directive 527 addressed to banking firms, the Central Bank of Chile specified the characteristics of the new banknotes dyed with anti-theft devices, in relation to the established procedures for their exchange by the Central Bank, in its role as the issuer of legal tender and pursuant to the analysis carried out by officers of the Chilean Investigative Police, in accordance with the investigative order decreed by the Attorney General's Office.

It was further reported that banks could present banknotes without these characteristics to the Central Bank for exchange, in accordance with the established procedures for unacceptable banknotes, as deemed appropriate.

These instructions were issued in response to numerous inquiries by banks and the general public, so as to clarify the scope of earlier communications by the Central Bank of Chile on this matter, and to avoid confusion about banknotes that have some other type of stain or ink mark.

22 The Central Bank of Chile announced that, starting on Wednesday 24 February 2010, it will publish the results of the Financial Brokers Survey (FBS) every fifteen days. The FBS is a survey of the main local and foreign financial operators involved in Chile, and it complements the Economic Expectations Survey (EES).

25 By Resolution 1526-03-100225, the Board accepted the changes to the performance guidelines submitted by the Minister of Finance with regard to the fiscal agency established in the Law on Fiscal Accountability. The changes address the management of resources in the Economic and Social Stabilization Fund and the Pension Reserve Fund, as well as the annual compensation to the Bank for its work as fiscal agent.

### March

18 By Board Resolution 1529-01-100318 and in accordance with the stipulations in Articles 6, 7, and 12 of Decree Law 211 of 1973, which established the Regulations on Competition, the Board issued the Notice of Meeting and approved the Guidelines for Candidates in the public search for a replacement for the position of Alternate Judge/Economist on the Competition Tribunal (*Tribunal de Defensa de la Libre Competencia,* or *TDLC*), following the voluntary resignation of Ms. María Soledad Arellano Schmidt. The chosen candidate will serve for the time remaining in Ms. Arellano's period of office, that is, through 12 May 2012.

31 By Resolution 1522-01-100204 of 4 February 2010, the Board stipulated the technical specifications of the new $10,000 banknote, which entered circulation on 31 March. This measure was taken in the context of the release of a new family of Chilean banknotes in time for the Republic of Chile's bicentennial celebration, with the goal of providing the community with modern, safe, reliable means of payment.

The release of the new banknote was originally scheduled for 3 March, but was postponed due to the earthquake and tsunami that affected a vast area of the country.

### May

19 The Central Bank of Chile informed the Minister of Economy, Development, and Reconstruction of the appointment of Mr. Teodoro Wigodski Sirebrenik to the position of Alternate Judge / Economist on the Competition Tribunal, following the public search for candidates initiated by Board Resolution 1529-01-100318. The appointment was formalized through Board Resolution 1539E-01-100519.

20 By Board Resolution 1540-01-100520, and in accordance with the stipulations in Articles 6, 7, and 12 of Decree Law 211 of 1973, which established the Regulations on Competition, the Board issued the Notice of Meeting and approved the Guidelines for Candidates in the public search for the position of Judge on the Competition Tribunal, following the voluntary resignation of Mr. Tomás Menchaca Olivares. The chosen candidate will serve for the time remaining in Mr. Menchaca's period of office, that is, through 12 May 2012.

### June

3 By Resolution 1542-01-100603, the Board renewed the appointment of Mr. Vivian Clarke Levi to the Central Bank's Audit and Compliance Committee for a period of three years, starting on 16 June 2010.

At the same time, the Board established an institutional policy on renewing the appointment of members of the Audit and Compliance Committee, authorizing up to one extension of the term of duty, for a new period of three years. Thus, the maximum term of appointment for this position will be up to six years.

The above ruling does not preclude the consideration, in due course, of the specific situation of the President of the Committee, Mr. Luís Bates Hidalgo, who was initially appointed for a period of one year. The appointment was then renewed for a period of three years, which expires on 16 June 2011.

15 At its monthly monetary policy meeting, the Board of the Central Bank decided to increase the monetary policy interest rate by 50 basis points, to 1.0%.

**July**

1 By Board Resolution 1548-01-100701, the Central Bank accepted the fiscal agency granted through Executive Decree 554, issued by the Ministry of Finance and published in the *Official Gazette* on 25 June 2010, to represent and act in the name and on the account of the Treasury in the issue and administration of the bonds identified in the decree, in accordance with the terms and conditions established therein. Specifically, three Treasury bonds that were issued in the first half of 2010 are to be reopened (BTU-10, BTU-20, and BTU-30), and a new series is to be issued (BTU-07), in the second half of 2010.

15 At its monthly monetary policy meeting, the Board of the Central Bank decided to increase the monetary policy interest rate by 50 basis points, to 1.5%.

27 By Resolution 1550-02-100715 of 15 July 2010, the Board stipulated the technical specifications of the new $20,000 banknote, which entered circulation on 27 July. This is the third bill to be released in the new family of Chilean banknotes.

**August**

5 The Central Bank of Chile informed the Minister of Economy, Development, and Reconstruction of the appointment of Mr. Javier Eduardo Velozo Alcaide to the position of Judge on the Competition Tribunal, following the public search for candidates initiated by Board Resolution 1540-01-100520. The appointment was formalized through Board Resolution 1555-01-100805.

5 By Board Resolution 1555-04-100805, modifications were introduced to the general conditions stipulated in Board Resolution 1103-01-031223, governing demand deposit bank accounts opened with the Central Bank of Chile. These changes establish the text of demand account contracts signed with Management Companies that operate in the securities clearing and settlement systems, which are governed by Law 20,345 (Management Companies). The sole objective of the changes is to allow the companies to settle the credit and debit balances resulting from payment instructions processed through the aforementioned systems, as identified in Article 3 of that Law. The settlements in question can be carried out by the respective Management Company, in its role of holder of the demand deposit account, through one of the payment systems regulated or authorized by the Central Bank of Chile, subject to the regulatory guidelines issued by the Central Bank.

5 By Board Resolution 1555-05-100805, Chapter III.H.4 of the Central Bank's *Compendium of Financial Regulations* was modified to authorize access to the Central Bank's real time gross settlement (RTGS) system for Management Companies that hold demand deposit bank accounts with the Central Bank of Chile, in accordance with current legislation on this matter (Law 20,345). To qualify for authorization, the company must submit a request to participate and comply with the requirements and conditions established to that effect.

Resolutions 1555-04 and 1555-05 clarify that the sole objective of allowing the Management Companies to participate in the RTGS system and open demand accounts is compliance with the applicable legislation. As such, these measures do not imply, under any circumstance, that these companies will be granted financing or refinancing facilities, nor that the Central Bank of Chile will guarantee the operations to be settled.

11 By Administrative Directive 3013-671, the Central Bank of Chile disclosed the general conditions contract pertaining to the demand deposit accounts opened for the Management Companies, the terms of the adhesion contract for these companies to join the RTGS system, and the modifications to the Operating Regulations governing the RTGS system, contained in Chapter III.H.4.1 of the *Compendium of Financial Regulations*, with regard to Resolution 1555-05.

12 By Resolution 1556-02-100812, the Board, in accordance with the stipulations of Article 10 of Law 20,345, granted its prior favorable ruling on the Operating Guidelines of the securities clearing and settlement systems to be managed by the corporation *Sociedad CCLV Contraparte Central S.A.*, in its capacity of Managing Company. This favorable ruling constitutes a legal prerequisite for the approval of these guidelines by the Superintendence of Securities and Insurance, consisting in Exempt Resolution 481, of 13 August 2010.

12 At its monthly monetary policy meeting, the Board of the Central Bank decided to increase the monetary policy interest rate by 50 basis points, to 2.0%.

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# Glossary

**Commodity exporters:** Australia, Canada, and New Zealand.

**CPIGX:** Consumer goods price index, which excludes fuels and fresh fruit and vegetables, leaving 48.6% of the total CPI basket (45.6% in the December 2008 basket).

**CPISX:** Consumer services price index, which excludes basic services and public transport fares, leaving 34.4% of the total CPI basket (36.8% in the December 2008 basket).

**CPIX:** Core consumer price index. CPI excluding fuels and fresh fruit and vegetables, leaving 91% of the total CPI basket (91% in the December 2008 basket).

**CPIX1:** CPIX excluding fresh meat and fish, regulated tariffs, indexed prices, and financial services, leaving 73% of the total CPI basket (73% in the December 2008 basket).

**Credit Default Swap (CDS):** A derivative instrument that provides insurance against the credit risk of sovereign or corporate debt. The premiums implicit in the cost of this hedge (the CDS spread) are commonly used as an indicator of sovereign or corporate risk.

**Emerging Asia:** Philippines, Hong Kong, Indonesia, Malaysia, South Korea, Singapore, Thailand, and Taiwan.

**EPI:** External price index, calculated using the wholesale price index (WPI)—or the CPI if the WPI is not available—expressed in U.S. dollars, of the countries relevant to Chile (that is, the countries used for the calculation of the multilateral exchange rate, MER), weighted according to their share of Chilean trade, excluding oil and copper.

**EPI-5:** EPI using the price indices of Canada, the euro area, Japan, the United Kingdom, and the United States.

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

**GDP, other services:** Includes the following sectors: financial and business services, home ownership, personal services, and public administration.

**GDP, other:** Includes the following sectors: agriculture, livestock, and forestry; manufacturing; construction; retail; transport and communications; financial and business services; home ownership; 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.

**IREM:** Wage index. The average wage paid per hour, weighted by the number of regular hours worked.

**IREMX:** IREM excluding community, social, and personal services, electricity, gas, and water (EGW), and mining.

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

**LCX:** Labor costs (LC) excluding community, social, and personal services, electricity, gas, and water (EGW), and mining.

**LPI:** Local price index of the economies relevant to Chile, calculated using the WPI (or the CPI if the WPI is not available) expressed in the local currencies of the countries considered in the EPI, weighted according to their share of Chilean trade, excluding oil and copper.

**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 2010, the following countries are included: Argentina, Belgium, Brazil, Canada, China, Colombia, Ecuador, France, Germany, Italy, Japan, Mexico, Netherlands, Peru, South Korea, Spain, Sweden, Switzerland, United Kingdom, United States, and Venezuela.

**MER-5:** MER using only the currencies of Canada, the euro area, Japan, the United Kingdom, and the United States.

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

**Oil exporters:** Angola, Algeria, Azerbaijan, Bahrain, Ecuador, Equatorial Guinea, Gabon, Iran, Kazakhstan, Kuwait, Libya, Nigeria, Norway, Oman, Qatar, Rep. Congo, Russia, Saudi Arabia, Syria, Sudan, Trinidad and Tobago, United Arab Emirates, Venezuela, and Yemen.

Parity price of gasoline: Reference cost of gasoline imports, calculated on the basis of quotes for similar conditions to Chile, in relevant markets (America, Europe, and Asia). Includes maritime shipping, the insurance rate, duties, and other costs.

**Prime deposit rate:** Interest rate that financial institutions offer their best clients on short- and medium-term deposits.

**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:** Philippines, Hong Kong, Indonesia, Malaysia, South Korea, Singapore, Thailand, and Taiwan.

**Swap:** Derivatives contract between two parties, who carry out an exchange of flows at future dates. One of the most common contracts is the interest rate swap, in which the parties exchange predetermined flows at a fixed rate, set when the contract is written, for predetermined flows at a variable rate.

**VIX:** Stock volatility index, based on S&P 500 options contracts.

**World growth at market exchange rate:** Each country is weighted according to its GDP in U.S. dollars, published in the IMF's World Economic Outlook (April 2010). The sample of countries used in the calculation represent around 88% of world GDP. For the remaining 12%, average growth is estimated at 1.0% for the period 2009–2012.

**World growth:** Regional growth weighted by its share in world GDP at PPP, published in the IMF's World Economic Outlook (WEO, April 2010). World growth projections for 2009–2012 are calculated from a sample of countries that represent about 85% of world GDP. For the remaining 15%, average growth is estimated at 3.4% for the period 2009–2012.

# Abbreviations

**BCP:** Central Bank bonds in pesos
**BCU:** Central Bank bonds in UFs
**EES:** Economic Expectations Survey
**FBS:** Financial Brokers Survey
**CPIG:** Consumer goods price index
**CPINT:** Non tradables consumer price index
**CPIS:** Consumer services price index
**CPIT:** Tradables consumer price index
**IVUM:** Unit price of imports index
**FLAP:** Short-term liquidity facility (*Facilidad de Liquidez a Plazo*)
**MPR:** Monetary policy rate

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