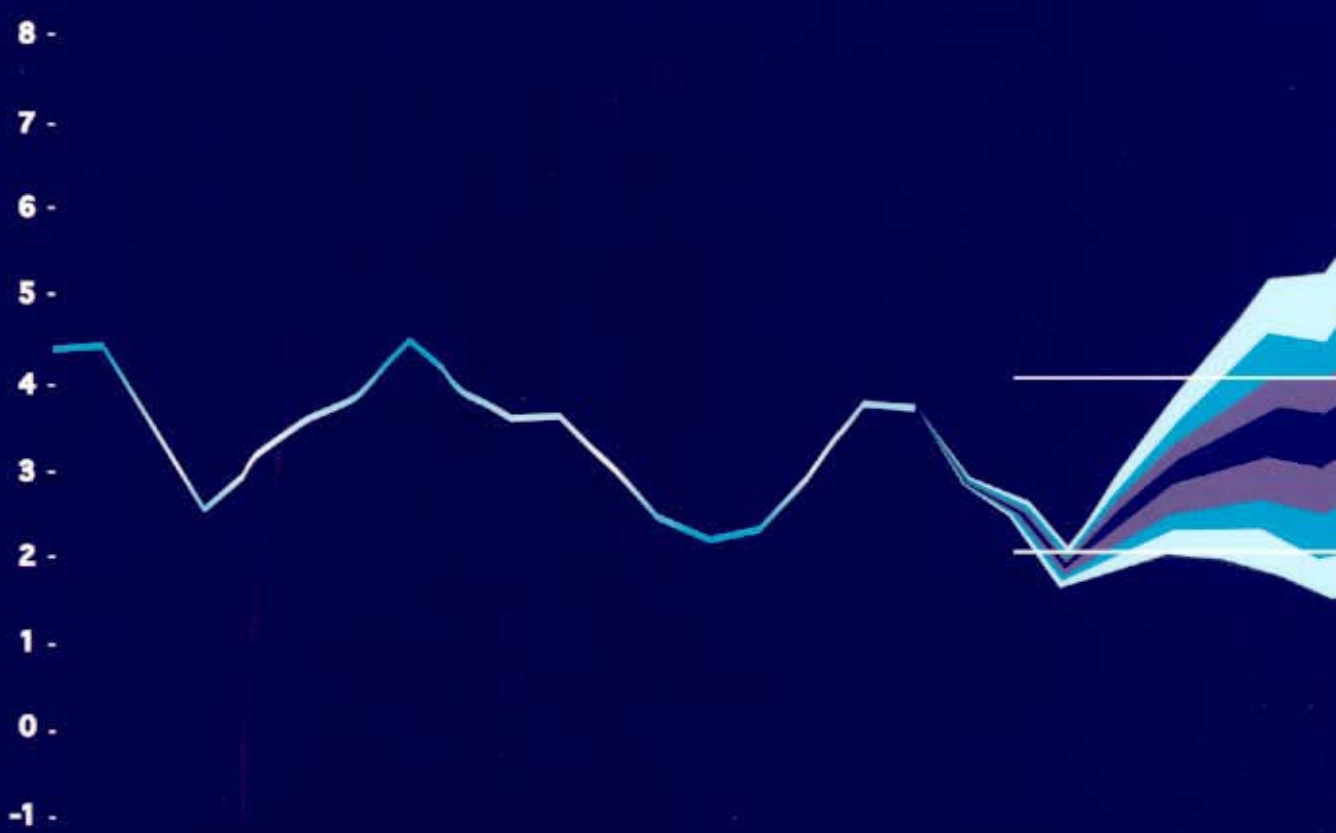
Monetary Policy Report

MAY 2004



CENTRAL BANK
OF CHILE

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[1/] The *Report's* statistical closing date was 17 May 2004, except for tables I.2 and I.3, that closed on 24 May 2004.

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Preface

The main purpose of the Central Bank of Chile's monetary policy is to keep inflation low and stable, targeted at a range of 2% to 4% per annum, centered on 3%. Controlling inflation is the means by which monetary policy contributes to the population's welfare. Low, stable inflation improves economic performance and growth, while preventing the erosion of personal income. Furthermore, monetary policy's focus on inflation targeting helps to moderate fluctuations in employment and domestic output.

The main objectives of this *Monetary Policy Report* are: (i) to inform and explain to the general public the Board of the Central Bank's view on recent and expected inflation trends, and their consequences for the conduct of monetary policy; (ii) to publicly disclose the medium-term framework used by the Board to formulate monetary policy; and (iii) to provide information that can help guide economic agents' expectations regarding future inflation and output trends.

This *Report* is published three times a year, in January, May and September, and focuses on the main factors that influence inflation. These include the international environment, financial conditions, prospects for aggregate demand, the current account, the labor market, and recent price and cost developments. The last chapter summarizes the results of this analysis in terms of both prospects and risks affecting inflation and economic growth over the next eight quarters. The *Report* also provides several boxes that offer more detailed information on issues relevant when it comes to evaluating inflation and monetary policy.

The Board approved this *Report* at its meeting on 20 May 2004 and presented it to the Senate's Finance Commission on 1 June 2004.

The Board

Summary

The external scenario facing the Chilean economy improved in recent months, reflecting sustained growth in the United States and China and, above all, the rise in the price of copper. The Chilean economy is considered to be handling this scenario in a healthy fashion, which includes posting a current account surplus for this year. This is consistent with the conclusion that part of the rise in the copper price is temporary. Although with the volatility typical of more frequent figures, the pace of growth in activity, spending and investment has continued a gradual but steady rise, while the low inflation scenario for this year has begun to materialize. For the future, a stronger performance from activity is expected to continue to reduce the slack in installed capacity, pushing inflation up from current lows to 3% within the usual 24-month policy horizon.

The external scenario relevant to Chile has improved beyond projections early in the year. Expected growth for this year has risen for almost all the world's main economic areas and, provided the most likely scenario materializes, world growth for the 2004-2005 period should be above the historic average. The prospects for more growth have consolidated, especially in the US, where the pace of job creation has picked up, as has inflation. The Chinese economy has accelerated strongly, with authorities trying to cool this to a more sustainable level, to prevent further inflationary consequences. These factors have significantly affected recent trends in commodity prices, particularly copper, and led to increases in maritime transportation costs and different production inputs. Geopolitical risk remains in the Middle East and, along with the pace of rising international demand, has pushed the oil price up significantly from its levels a couple of quarters ago. Thus, the information pointing to rising activity over time, especially in China and the US, has come with signs that the global trend in recent years toward falling inflation is probably coming to a close. This is evident in inflation indicators for the main economic regions and the general price of the dollar worldwide. Altogether, financial markets expect normalization of the US's very expansionary monetary stance to begin soon, as is occurring in other economies, such as England.

The renewed vigor of the world economy pushed the copper price to levels not seen since the middle of the past decade, before it gave way in light of recent measures taken by the Chinese authorities. It is expected to reach somewhere between US$1.18 and US$1.10 per pound this year and next. Based on the available information, the terms of trade are expected to rise by almost 13% in 2004, which would push domestic income toward a growth rate somewhat more than one point higher than GDP.

The financial environment faced by emerging economies has held steady for several months, but in recent weeks has bounced around more, coinciding with the imminent start of a rising cycle in interest rates in the US. In particular, the spreads of countries with significant external financing needs and high debt loads have risen. This reflects the persistent challenges to macroeconomic stabilization and implementation of structural reforms in some of Latin America's largest economies. Overall, global financial conditions remain favorable, with spreads for the Chilean economy somewhat above their historic lows, apparent just some weeks ago.

Baseline scenario assumptions

	2002	2003	2004(f)	2005(f)
		(annual change, percent)		
Terms of trade	3.3	2.9	12.8	-1.5
Trading partners' GDP	2.0	2.7	4.3	3.6
External prices (in US$)	-4.1	10.5	5.6	1.8
		(levels)		
Copper price, LME (US ¢/lb)	70.8	80.6	118.0	110.0
Brent oil price (US$/barrel)	24.9	28.9	33	29
LIBOR US$ (nominal, 90 days)	2.0	1.2	1.4	3.2

(f) Projection.

Source: Central Bank of Chile.

In Chile, the lower annual inflation scenario forecast for this year in the previous *Monetary Policy Report* has gradually materialized, although with lower underlying price pressures reflected in changes in the CPIX and the CPIX1, indices that exclude the prices of more volatile products, which have been offset by a higher oil price in the total CPI. Altogether, recent events have made it possible to maintain exceptional monetary conditions for longer than forecast, as is apparent in the current levels and structures of interest rates.

In terms of passthrough of the most recent cuts to the monetary policy rate (MPR) to borrowers, declines in lending rates on consumer loans have occurred more quickly than in other episodes of monetary relaxation. This probably reflects the lower risk of the financial system's client portfolio, along with better macroeconomic conditions in terms of activity, employment, and non-bank sources of financing used by large corporations, which have increased competition. Consumer loans continue to perform well, rising at two-digit rates for several quarters, while mortgages have also grown well since early 2003, along with the cut to mortgage rates to historic lows. As for corporate credit, the banking system's commercial loans have remained flat, despite the more favorable financing environment facing companies. For larger companies, financial surcharges on corporate bonds have fallen significantly since early last year, as bond issues have increased. The financial burden associated with other general financing sources has also fallen compared to the end of last year. For small firms, less traditional financing options, such as leasing and factoring, have posted substantial growth rates. Overall, a broad measure of corporate borrowing, which includes not only bank loans and bonds, but also external debt (at a given exchange rate), has risen at an annual rate of 3.5% through December 2003.

The peso has lost ground in nominal and real terms since the start of the year, although more noticeably against the US dollar than a broader currency basket. This has occurred despite improved terms of trade. It is estimated that part of this peso depreciation in recent months reflects the more expansionary domestic monetary stance, prospects of increases in rates abroad in a shorter term, the rise in emerging countries' sovereign spreads, a stronger US dollar, and a correction to a possible over-reaction occurred in the second half of last year. In any case, a methodological assumption for projections is that the real long-term exchange rate will remain below levels observed in recent days, which is consistent with changes in conditions affecting the parity of external and domestic interest rates and variables that determine it in the long term. This working assumption suggests a slight real appreciation in the next 24 months.

On activity and spending, the Chilean economy is clearly adjusting well to the strong improvement in the external environment. Essentially, this will involve significant growth in domestic income, by a higher percentage in the case of the public sector, thanks to better terms of trade. Given their temporary nature, most of these resources should be saved and not spent, as is precisely considered in the fiscal surplus rule that governs the public sector. Thus, the main scenario of this *Report* expects public sector accounts to post a surplus in 2004 and 2005, after some years of deficit.

In the domestic private sector, the evidence available suggests that for now the rise in income is pushing consumption up as forecast. While posting a relevant expansion at the margin, the purchase of durable goods in particular shows no additional acceleration over and above trends in recent quarters. Indicators for non-durable consumption, meanwhile, show year-on-year growth similar to that of GDP. For the future, consumption is expected to go on rising at a moderate pace. Although the different indicators for household confidence look somewhat less optimistic than in earlier months, consumers' expectations and perceptions are still better than in recent years. In the labor market, the pace of job creation has slowed since late last year. This is believed to reflect primarily a decline in the strong rise in self-employment and women's participation that drove aggregate employment during 2003, and not a definitive sign of weakness in the labor market. Formal employment has outdone the growth rates of previous years and vacancies, although with some swings, suggest that the unemployment rate should continue to fall, but probably at a slower rate.

While investment performance has continued below levels usual at this stage in the cycle, part of the decline from the second half of last year has turned around. Trends in corporate profitability, financing conditions, the gradual reduction in idle capacity and indicators for business confidence, all point to the continued strengthening of the recovery in investment, although some important swings in the annual growth rate for fixed capital formation are still expected, due to the basis for comparison. Reflecting the good price conditions they face, higher investment is already apparent in some manufacturing branches linked to natural resources, whose production decisions are strongly tied to installed capacity. This process is lagging somewhat more in the case of mining, although several relevant projects are being developed. Because financing possibilities have not been restrictive in recent years, it is unlikely that better external conditions will lead to a sharp rise in investment, typical of cases where these kinds of restrictions exist.

Similarly, it may be necessary for higher commodity prices and the prospect of higher growth rates for both Chile and the world to complete consolidation for the expected recovery in this spending component to finally occur. The main scenario of this *Report* expects gross fixed capital formation to rise by 7.1% this year. This would bring the investment rate, in constant pesos, to almost 24% of GDP, which compares well with average rates for recent decades and remains close to expectations of last January.

As usual, the projections in this *Report* assume that the structural surplus rule will be maintained. Moreover, no correction to the long-term copper price, which would have major consequences for macroeconomic results, is expected in this framework.

The trade balance has risen significantly, and for this year a historic high is expected. This is not only the mechanical result of the strength of the world economy and rising export prices, but it also reflects greater saving associated with improved domestic income. This year the current account is expected to post a surplus of about 1% of GDP, driven mainly by a surplus in the balance of trade of about US$7 billion. It is estimated that the price of copper should reach US$0.88 per pound, the gap between GDP and potential GDP should disappear, and the current account deficit is expected to remain in line with those of other economies with levels of development and international integration similar to Chile's.

By sector, manufacturing is the area reflecting most improvements in the external scenario and prospects for greater growth over time in aggregate activity. Although the latest figures have been rather volatile, the stronger signs from February and March have appeared in export-oriented sectors. Some mining-specific conditions and some technical problems have tended to depress mining production. These last are expected to be temporary.

Thus, in the most likely macroeconomic scenario, the Board estimates that growth in activity in 2004 will be in a range similar to the January forecast, between 4.5% and 5.5%.

Private sector projections for GDP growth this year have risen over January's, reaching the center of the forecast range. According to the Central Bank's survey of economic expectations, the median of growth projections for this year rose from 4.5% in January to 4.8% in May. For 2005, the projection remained at about 5.0% since January. Meanwhile, *Consensus Forecasts* projections for this year rose from 4.7% in January to 4.9% in May, remaining at about 5% for 2005. Meanwhile, the International Monetary Fund forecasts growth rates of 4.6% for 2004 and 5.3% for 2005.

Altogether, the counterpart of the faster pace of expansion of activity and labor market trends is an increase in labor productivity, which rose very little in 2002 and 2003. This is consistent with investment rates forecast for this year and next, and should bring total factor productivity back to more normal growth rates. In this context, it is estimated that trend GDP growth will rise slowly in the next two years, with this year's growth gradually closing installed capacity gaps. For 2005, activity is also expected to rise over trend growth, closing gaps even more quickly than forecast in January's *Report.*

Economic growth and the current account

	2002	2003	2004(f)
	(annual change, percent)		
GDP	2.2	3.3	4.5 - 5.5
National income	3.2	3.4	6.3
Domestic demand	2.5	3.5	5.7
Gross fixed capital formation	1.4	4.8	7.1
Rest of domestic demand	2.8	3.1	5.2
Exports of goods and services	1.5	7.8	11.8
Imports of goods and services	2.4	8.8	13.8
Current account (% of GDP)	-1.2	-0.8	1.1
	(US$ million)		
CURRENT ACCOUNT	-807	-594	1,000
Trade balance	2,651	3,015	7,000
Exports	18,477	21,046	28,200
Imports	-15,827	-18,031	-21,200
Services	-957	-767	-900
Income	-2,927	-3,280	-5,700
Unilateral transfers	426	438	600

(f) Projection.

Source: Central Bank of Chile.

This gradual closing of capacity gaps and the steady dissipation of the effects of peso appreciation of the second half of last year are the main forces pushing inflation back to 3% during the projection horizon, although the higher relevant annual external inflation and the gradual rise in retail margins will also contribute. The closer the economy approaches full employment, the more supply and demand conditions in factor and goods markets will tend to generate underlying inflationary pressures greater than in recent years. Although this process is occurring somewhat more gradually than forecast last year, the recent and probable trend in external fuel markets and the exchange rate will push CPI inflation to 3% toward the end of 2005, at a pace similar to previous estimates.

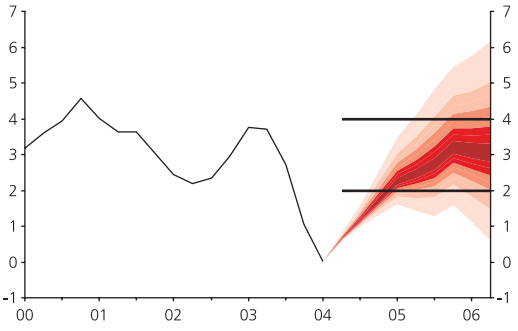
Several factors contribute to the dynamics of inflation projections. First, competitive conditions in the retail market have increased over time, and were particularly obvious in the second half of last year, when some specific product prices declined significantly. These declines have not yet turned around. Second, in recent years a significant capacity for replacing suppliers and products has become apparent, which has driven down external prices in dollars. This has made it easier for peso appreciation over the previous year to increase retail margins. In the particular case of durable goods, current margins are well above the averages for recent years. This, meanwhile, has limited the possibility of substantial short-term price increases, at least with regard to this cause. Finally, competitive pressures and costs themselves have probably generated productivity increases larger than can be measured with the current information, mainly in the manufacturing sector. This, along with trends in nominal wages, which have been rather gradual, indicate that unit labor costs are following a course of growth that does not threaten inflation targets.

In the short term, peso depreciation over levels earlier in the year and the rise in the oil price have mainly affected domestic fuel prices and public utility rates, that add to the impact of legally determined rates, which have recently come into effect. In any case, the legally decreed change in telephone rates could have a significant downward effect on inflation in the third quarter. Regarding external inflation, the main factor has been the strong rise in the oil price, which has been even more marked than that of gasoline, and a tardy and moderate reaction of the prices of imported consumer goods to higher external inflation in dollars. Higher fuel prices will especially influence the high monthly inflation expected for May. Moreover, with the information available, it is expected that the impact on inflation of higher international transportation costs, arising from the stronger performance from world economic activity and problems with the supply of gas from Argentina, will remain under control.

All these elements will have a passing influence on inflation, which should fade next year. In this sense, trends in medium-term inflation expectations will be key. After plunging in the last months of 2003, the different measures available, including the provision for inflation implicit in financial asset prices have posted a significant turnaround, moving back to the center of the target range (between 2% and 4%) and approaching 3%. Meanwhile, household and company expectations also point to medium-term inflation rising above current levels.

In conclusion, the main projection scenario estimates that annual inflation will return to the target range at year's end, reaching almost 3% toward

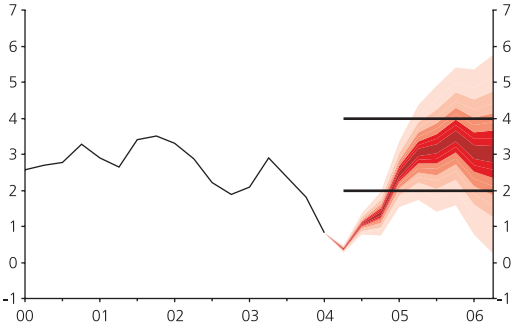
CPI inflation projection (*)
(annual change, percent)



(*) The figure shows the confidence interval for the baseline projection for the respective forecast horizon (colored area).
Confidence intervals of 5%, 15%, 25%, 35%, 45%, 55%, 65%, 75%, 85% and 95% are used. These confidence intervals summarize the Central Bank's risk assessment for future inflation, assuming that the monetary policy rate remains constant at 1.75% for the next two years.

Source: Central Bank of Chile.

Core inflation (CPIX) projection (*)
(annual change, percent)



(*) The figure shows the confidence interval for the baseline projection for the respective forecast horizon (colored area).
Confidence intervals of 5%, 15%, 25%, 35%, 45%, 55%, 65%, 75%, 85% and 95% are used. These confidence intervals summarize the Central Bank's risk assessment for future inflation, assuming that the monetary policy rate remains constant at 1.75% for the next two years.

Source: Central Bank of Chile.

the end of 2005. It is important to underline that this rise in year-on-year inflation does not involve a substantial rise in prices in the short term. In effect, underlying prices today are rising at rates of about 2% to 2.5%. It is enough for that pace to rise moderately to 3% over coming quarters for year-on-year inflation to rise significantly, once the bases for comparison for the second half of last year and the first quarter of this year are left behind. This scenario assumes that the surprises of the second half of last year will not be repeated and that the main determinants of imported inflation will follow a relatively stable path in the next two years.

More concretely, and assuming that activity rises within the projected range, it is hoped that for some time longer, core (CPIX) and CPI inflation will remain below the target range, reaching about 2% at the end of this year before gradually rising to 3% toward the end of 2005.

Assuming that in 2004 the international oil price holds at an average of US$33 per barrel and then falls back to US$29 per barrel in 2005, 12-month CPI inflation should be somewhat below the CPIX in 2004 and 2005. Private sector inflation projections do not differ substantially from this inflation scenario.

Inflation

	2002	2003	2004(f)	2005(f)	2006(f)
Average CPI inflation	2.5	2.8	0.9	2.6	
December CPI inflation	2.8	1.1	2.1	3.1	
12- and 24-month CPI inflation (*)				2.5	3.0
Average CPIX inflation	2.6	2.3	0.9	3.0	
December CPIX inflation	1.9	1.6	1.8	3.3	
12- and 24-month CPIX inflation (*)				3.1	3.0
Average CPIX1 inflation	2.5	2.2	1.1	3.2	
December CPIX1 inflation	2.1	1.8	2.0	3.2	
12- and 24-month CPIX1 (*)				3.3	3.1

(f) Projection.
(*) Inflation projected for June of each year.

Source: Central Bank of Chile.

Despite the positive tone of the baseline scenario, the Chilean economy continues to face risks, associated with both the external environment and some aspects of its own. In the short term, the information available points to a turnaround in the weak inflationary pressures apparent in the world in recent years, suggesting that the start of a gradual cycle of less expansionary monetary policy is closer in the US and has already begun in other relevant economies. A trend toward higher external interest rates over and above those expected in the market today could involve greater turbulence in the region's economies, with potential consequences for the exchange rate. Moreover, geopolitical uncertainty has not faded and oil prices could rise further, which would influence inflation and, possibly, consumption.

Toward the medium term, fiscal imbalances in some developed economies, such as the US, and current account imbalances in the main economic areas, should gradually adjust, while emerging Asia, especially China, is dealing with the need to gently stabilize its pace of growth, in a context of rising trade and financial integration. However, the possibility that these

corrections could significantly affect interest rates, currency parities or growth cannot be ruled out. A sharp slowdown in the Chinese economy could have negative side effects on the world economy and the terms of trade.

On the risks associated with Chile's own economy, the information available to date suggests that problems in the distribution of natural gas from Argentina do not seem to be significantly affecting the economy. However, these effects could increase if the shortage of natural gas should become worse than has been so far.

Likewise, it is possible that domestic spending could react to the improved external scenario faster and more intensely than forecast for this year and next. The projection scenario contained in this *Report* considers the lags that have affected gross fixed capital formation in this cycle likely to fade gradually. However, once the external scenario firms up, this component of spending could recover more strongly, which might take us back to patterns observed in the past 15 years, pushing activity growth above forecasts, especially toward 2005.

Finally, the balance of risks for activity is considered balanced, while there is a slight upward bias in the case of inflation. These scenarios, different from the most probable one, are associated with different courses of action for monetary policy. Moreover, the Board will gradually adjust the degree of monetary stimulus, as circumstances require.

Monetary policy decisions in the past three months

Background: Monetary Policy Report from January 2004

In the main scenario of the past *Report*, the Board estimated that, on average, the annual CPI inflation rate would be 0.7% this year and 2.4% in 2005, to reach 2.7% toward the end of the policy horizon, which at that point ended in December 2005. However, factors such as the surprises that affected import costs and the evidence of less compressed margins significantly reduced inflation in the very short run. It was even considered possible that inflation might dip into negative figures for some months during the first half of the year. Toward the medium term, the additional closing of capacity gaps was expected to be the main factor that would push inflation back toward the center of the target range, in the context of the Central Bank's full commitment to using its policies to meet the inflation target. This scenario also assumed that the international oil price would average about US$26 per barrel in 2004, US$23 in 2005, and that there would be no major changes in the real exchange rate. In terms of activity, the GDP was projected to grow from 4.5% to 5.5% this year, mainly reflecting concrete improvements in the external scenario, especially trading partners' improved growth, the recovery in the terms of trade, and more optimism on the domestic front. These factors were all enhanced by the expansionary monetary approach of the moment.

Internationally, the main sources of risk included the adjustment that the dollar or international interest rates could undergo in light of the US deficit and a more intense recovery in the world economy and commodity prices. Domestically, risks had to do with growth in demand that could lead gaps to close differently from forecast; nominal wage growth inconsistent with lower inflation rates; and private inflation expectations remaining out of line with the target for a lengthy period. Overall, the Board considered the risks to inflation and growth to be balanced.

Monetary policy meetings from February to May

For the February meeting, the news accumulated was limited and pointed in opposite directions. In particular, actual inflation in January was lower than expected and nominal wages slowed; the copper price continued to rise, leading to a 10% increase in the projection scenario for this price this year and next; medium-term inflation expectations stopped declining and some showed a slight increase. Altogether, the news was considered to support projections for activity and prices contained in the last *Report.*

With this information, the option of maintaining the interest rate seemed the most plausible in February. Justifying a rate increase seemed very

difficult. The inflation projection for the next 24 months had not changed and expectations continued to place it near 3% at the end of the projection period. Perhaps the only factor that might favor a monetary impulse reduction was that the terms of trade were likely to improve in 2004 more than assumed in the January *Report.* However, this did not seem like reason enough to change the forecast for inflation, particularly when no change of similar significance in other variables for the external environment was apparent. Nor was it considered appropriate to cut rates. On one hand, the main reasons for cutting rates in January not only had not intensified, but rather had tended to reverse at the margin and, on the other, the news of prices did not change expected inflation trends. The Board therefore unanimously agreed to maintain the annual monetary policy rate at 1.75%.

At its March meeting, the information reviewed suggested that the path of inflation in the short run was continuing to follow the general pattern forecast in the previous *Report*, although core inflation figures were somewhat lower than expected. The latter was offset by a slightly higher oil price and a slight peso depreciation. In these conditions, the prospects of a gradual rise in annual inflation to 3% over the normal policy horizon held. Meanwhile, the terms of trade continued to rise, especially thanks to the unexpected and substantial increase in the copper price, while global financial conditions remained openly expansionary. However, data on the progress of domestic activity during the first quarter pointed to a performance less robust than expected, mainly reflecting information from the mining and manufacturing sectors for January and the still slow rise in investment. Despite this, this data was considered insufficient to modify the year's growth projections. Nonetheless, the risk of growth in 2004 falling within the lower half of the projection range was considered to have risen.

As with the previous meeting, maintaining the policy rate seemed to be the best option in March. On one hand, increasing the interest rate could be ruled out, because activity indicators were less robust than expected, increasing the risk that gaps would take longer to close than forecast and suggesting that price pressures would be more limited. Moreover, actual measures of core inflation also remained lower than would be consistent with the inflation target. Nor was there sufficient justification to further cut interest rates. The Board thought the "minor tone" of the indicators for activity, spending and employment was probably temporary. External conditions continued to improve, especially the terms of trade, and domestic financial conditions remained very expansionary, thus suggesting that the medium-term growth scenario should be maintained, even though private projections had been marginally adjusted. Moreover, although core inflation indicators suggested some surprises, these did not seem enough to change the overall analysis, since these remained under control and could be attributed to the passthrough of the exchange rate appreciation apparent in the second half of 2003. The level and persistency of the oil price and the slight rise in the exchange rate added to this appreciation: should they persist, they would increase future inflation. After weighing this information, the Board unanimously decided to maintain the monetary policy interest rate at 1.75% per year.

In April, the data indicated that CPI inflation continued to follow a path similar to that forecast in the January *Report*, but confirmed that core

inflation measures for the first quarter were lower than expected. Although this information was considered insufficient to change the prospects for a gradual increase in annual inflation to 3% during the usual projection horizon, the Board estimated that this process could be somewhat slower than foreseen. At the same time, the improvements in external conditions were reaffirmed, especially the higher copper price, which continued to be well above the figure considered in the last *Report*. Moreover, after the weakness apparent in domestic activity in January, the information available for February and March indicated that activity and spending had resumed a pace of growth in line with the main projection scenario. While manufacturing sales and production posted significant growth rates in February, March imports boosted the prospects of gross fixed capital formation growth during the first quarter. Only mining posted less activity than forecast. Altogether, this information helped to confirm the growth projections contained in the January *Report*.

In April, the option of maintaining the monetary policy rate again seemed the best option. On one hand, it remained hard to justify cutting the interest rate. The prospects for a larger increase in the terms of trade for the year were consolidating and actual figures for activity had moved back into line with the *Report's* baseline scenario. Perhaps the only argument in favor of increasing monetary impulse further was the set of data accumulated since January, which revealed that core inflationary pressures were less than forecast. However, it was estimated that their effect would be a temporary reduction in the future trajectory of inflation compared to January's estimates, but this would nonetheless move toward the center of the target range over the usual policy horizon. It was argued that surprises from core inflation had not continued in March and there was no data to justify thinking that these effects would be especially persistent. Moreover, given the lags with which current monetary policy acts, a change in rates would have no considerable effect on the lower path projected for inflation this year. Furthermore, keeping rates below market expectations from previous months would reflect an even more expansionary monetary policy stance. There was not enough justification to increase interest rates on this occasion either. Although the data that was arriving was consistent with the possibility of starting to normalize monetary policy in the future, pressures from inflation were under enough control so that in the absence of new events, this change was not imminent.

Given these considerations, the Board unanimously agreed to maintain the monetary policy rate. It also concluded that, given the information received, it would probably maintain the expansionary bias of monetary policy for somewhat longer than initially estimated.

In May, the information available continued to reveal positive trends in the external scenario relevant to Chile, despite more volatility apparent in financial markets and the rise in the international oil price. At the same time, figures for activity and domestic spending reaffirmed the likelihood of a gradual rise in growth expected for this year. With all this information, the Board estimates that annual CPI inflation will continue to move toward 3% during the usual 24-month horizon, although in the short term monthly inflation may fluctuate significantly. Overall, the Board decided unanimously to keep the monetary policy interest rate at 1.75% per year.

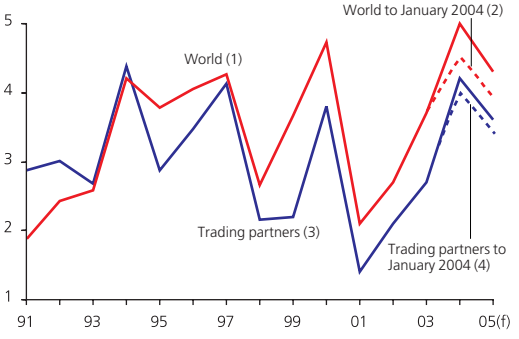
I. International outlook

This chapter examines recent developments and prospects for the world economy over the next two years, outlining the external scenario and the risks that the Chilean economy is exposed to. It analyzes recent trends in world economic activity, the terms of trade, international inflation, and international financial conditions.

World growth

Figure I.1

World growth
(percent)



(1) and (2) Weighted growth by share of world GDP at PPP.
(3) and (4) Weighted growth by share of Chile's total exports (2002).
(f) Projection.

Sources:
Consensus Forecasts, corrected using projections from a sample of investment banks.
International Monetary Fund.
Central Bank of Chile.

Our trading partners' growth estimates for 2004-2005 have been corrected upward by 0.5 percentage point over January forecasts, based on new figures from a sample of investment banks and *Consensus Forecasts*, weighted for Chile's trade with these countries. Growth is therefore expected to be 4.3% in 2004 and 3.6% in 2005. For world growth weighted by purchasing power parity (PPP),[1]/ projections rise to 5% for 2004 and 4.3% for 2005, up 0.9 percentage point over the previous *Report* for the two years (figure I.1 and table I.1). This scenario assumes more growth than expected in January for Japan, emerging Asia (led by China) and the United States—economies that altogether represent more than half of world output—and lower than expected in the euro zone, especially in 2004. It should be noted that growth expected for trading partners is the highest in the past ten years. This scenario also assumes a 0.5 to 1 percentage point increase in world investment rates (box I.1).

Estimated GDP growth for Chile's main trading partners during 2004-2005 is one percentage point higher than average growth in the 1990s.

Since the past *Report,* the US's growth prospects have been corrected significantly upward. This reflects its strong economic performance since mid-2003, among other factors. Non-residential investment has also stood out in recent months, combined with soaring residential investment, encouraged by low interest rates. Recent positive trends in the labor market have also contributed, along with stronger consumption and activity in manufacturing and service sectors. Because of these changes, the baseline scenario has corrected growth projections for this economy upward, to 4.8% in 2004 and 3.9% in 2005. In the medium term, uncertainty remains

[1]/ World growth weighted by purchasing power parity (PPP) exceeds the weighted figure for Chile's main trading partners (exports plus imports), because of the difference in Asia's share. China, with high growth rates, accounts for a much larger share of world GDP at PPP than it does within Chile's exports. Japan's share of Chilean exports is almost double its share of world GDP at PPP.

about how long growth will go on, especially given closely related external and public imbalances. How these corrections are made will be crucial. Some signs suggest that a more stable current account deficit, a more depreciated dollar, and increased external demand could relieve pressure in this sense. On the fiscal deficit, while improved growth will help reduce the deficit in public accounts in the short run, future spending by social security and health systems will require deeper reforms to bring the fiscal deficit to a healthier level and stabilize public debt.

Table I.1

World growth

(percent)

	Average 1990-1999	2002	2003 (e)	2004 (f)	2005 (f)
World (1)	3.3	2.7	3.7	5.0	4.3
United States	3.0	2.2	3.1	4.8	3.9
Europe	2.0	1.0	0.9	2.0	2.3
Euro zone	2.0	0.8	0.6	1.7	2.1
Japan	1.7	-0.3	2.7	3.5	2.2
Rest of Asia (2)	7.9	6.7	7.1	8.5	7.0
Latin America (3)	2.8	-0.3	1.2	4.3	3.4
Trading partners (4)	3.0	2.0	2.7	4.3	3.6
Trading partners (5)	2.9	1.5	2.6	4.2	3.4

(1) Regional growth weighted by share of world GDP at PPP. Countries included represent 85% of world GDP (1999).
(2) China, Indonesia, Malaysia, Thailand, Singapore, South Korea, Philippines, Taiwan and Hong Kong.
(3) Brazil, Argentina, Mexico, Colombia, Uruguay, Venezuela, Ecuador, Paraguay, Bolivia and Peru.
(4) Growth of Chile's main trading partners weighted by share of total exports (2002). Countries included account for 92% of total exports.
(5) Growth of Chile's main trading partners weighted by share of non-copper exports (2002). Countries included account for 92% of total exports.
(e) Estimate.
(f) Projection.

Sources:
Consensus Forecasts, corrected using projections from a sample of investment banks.
International Monetary Fund.
Central Bank of Chile.

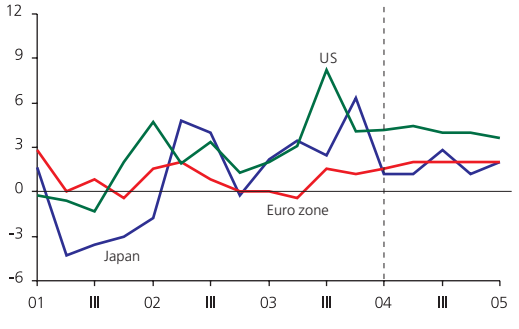
The euro zone has recovered more slowly than other developed economies, because of euro appreciation's impact on the external sector, as domestic demand still shows no sign of recovery. This is reflected in a decline in business and consumer expectations during the early months of the year, although these are starting to pick up, according to the latest indicators. Recovery in this region still seems to be based on low interest rates, a slowdown in its rapid currency appreciation, recovered external demand and countercyclical fiscal policies. While recovery has been slower than in other developed economies, pulling growth projections down for 2004, activity should rise by 1.7%, better than last year's 0.6%. Toward 2005, the outlook is less favorable than expected early this year, with 2.1% growth.

Japan is still performing well, driven by its robust external sector, supported by the US and emerging Asia, especially China, which altogether buy almost half its export basket. This has brought strong growth to manufacturing, which is slowly becoming reflected in domestic demand, as can be deduced from the strong and unexpected rise in GDP in the fourth quarter of 2003 and the first quarter of 2004. Thus, the prospects for this economy have brightened considerably and pushing growth to 3.5% this year, almost two percentage points above the average for the past 14 years. Sustained recovery, however, requires the complete restructuring of Japan's financial system to give small- and medium-sized firms access to financing.

Figure I.2

Annualized quarterly GDP growth (*)

(percent)



(*) From the first quarter of 2004, projections.

Sources:
Consensus Forecasts, corrected using projections from a sample of investment banks.
International Monetary Fund.
Central Bank of Chile.

Emerging Asia, meanwhile, will keep up a strong performance that began in mid-2003, after overcoming the SARS (Severe Acute Respiratory Syndrome) episode. Growth projections point to a 1.9 percentage point increase in 2004-2005 over forecasts earlier this year, based on the US, which represents 25% of this region's exports, and the strength shown by domestic demand. The Chinese economy continues to post significant growth, a central factor in the rising prices of different commodities, particularly copper, which has pushed up maritime transportation costs and those of several production inputs. This strength is starting to cause concern and the Chinese authorities have taken some measures to prevent overheating. There is uncertainty about how this economy's correction process will move it toward a more sustainable pattern of growth. The centralized approach to cooling growth, however, could end up hurting some specific sectors and commodity prices. Overall, growth projections for this region stand at 8.5% for 2004 and 7% for 2005 (figure I.2).

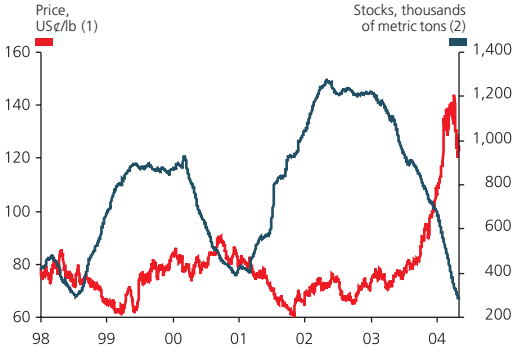
In Latin America, the outlook for growth in 2004 and 2005 has not changed from the previous *Report's* forecasts. Nonetheless, it could pick up somewhat this year, offsetting a downward correction in 2005 projections and it should perform significantly better in the next two years than it did in the past three, with growth averaging 0.4%. This growth is especially associated with a stronger external scenario, positive price trends for the main exports and ongoing favorable financing conditions. How long this region's growth will last remains uncertain, as growth is associated with pending structural reforms and the risks involved in developed economies' decisions to begin raising interest rates again. Argentina continues to have idle capacity; nonetheless, better prospects for 2004 could be dampened by the energy crisis it is experiencing. Moreover, in the medium term, doubt persists about the restructuring of its public debt and banking system capitalization. In Brazil, the cycle of monetary relaxation continues and, with public debt's exposure in US dollars now reduced, there are grounds for raising this year's growth estimates. Nonetheless, political disagreements within the governing coalition could hurt economic policies and affect growth and investor confidence. In Mexico, the more favorable external scenario has not brought an upward correction to growth, because once US interest rates rise they will affect external financing costs and increase pressure on currency, hampering recovery. Strong competition from China, moreover, has hurt Mexico's foreign trade. For the future, approval of structural reforms is important, particularly at the fiscal level, to achieve more sustained growth. As a whole, the region should grow 4.3% in 2004 and 3.4% in 2005.

Commodity prices and terms of trade

Continuing the trend since late 2003, the copper price has risen steadily and substantially. In the first four months of the year, the price averaged US$1.26 per pound, ranging from US$1.17 to US$1.40 to average over US$1.32 per pound in the past three months. This reflects more world activity than expected, driven by the main copper consumers: China, the US and Japan. Production has risen only slightly, reflecting some deposit-specific problems. This has significantly enlarged the deficit forecast for 2004, as compared to early in the year. Consequently, copper inventories have fallen steadily to half their average last December, considering the

Figure I.3

Copper market



(1) Daily prices on the London Metal Exchange (LME).
(2) Daily stocks on the London and New York Metal Exchanges.

Source: Bloomberg.

Table I.2

Copper price projections

(US¢/lb, London Metal Exchange, average)

	2003	2004(f)	2005(f)
Central Bank	80.7	118	110
Futures (*)	-	119.8	107.8
Goldman Sachs	-	130	-
Deutsche Bank	-	129	137
Scotiabank	-	127-130	130
Economist Intelligence Unit	-	114.3	98.5
Merrill Lynch	-	120	110
JP Morgan Chase	-	119	118
Macquarie Research	-	130	120
Cochilco		126-130	-
Credit Suisse First Boston	-	122	-
Morgan Stanley	-	135	125

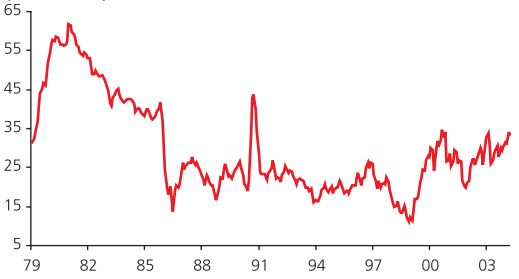
(*) Average over the 30 days prior to 24 May 2004.
(f) Projection.

Sources:
Bloomberg.
Goldman Sachs Global. Metals Watch (10 May 2004).
Deutsche Bank. Global Commodities Focus (7 May 2004).
Scotiabank. Market Trends (7 May 2004).
Economist Intelligence Unit. International Assumptions (6 May 2004).
Merrill Lynch. Global Metals & Mining (28 April 2004).
JP Morgan Chase. Global Metal & Mining Weekly (26 April 2004).
Macquarie Research (22 April 2004).
Comisión Chilena del Cobre (Cochilco). *Informe Mercado del Cobre* (Copper Market Report). First quarter 2004 (20 April 2004).
Credit Suisse First Boston (20 April 2004).
Morgan Stanley (11 March 2004).
Central Bank of Chile.

Figure I.4

Real oil price in US dollars, April 2004 (*)

(US$/barrel)



(*) This is the monthly average for Brent oil traded on the International Oil Exchange in London. Figures from before 1983 are the oil import price published by the US Department of Energy.

Source: Bloomberg.

Table I.3

Brent oil price projections

(US$/barrel, average)

	2003	2004(f)	2005(f)
Central Bank of Chile	28.9	33	29
Futures (1)	-	33.8	30.7
Goldman Sachs	-	31.5	-
JP Morgan Chase	-	28.7	26.0
EIA (2)	-	34.6	32.7
Deutsche Bank	-	29	25
Scotiabank (2)	-	32	27.0
Economist Intelligence Unit	-	27	22
WEO	-	30	27
Merrill Lynch	-	27.8	-
Credit Suisse First Boston	-	28	25.0

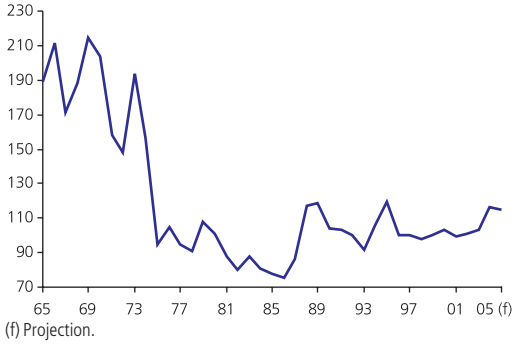
(1) Average for the 30 days prior to 24 May 2004.
(2) The Brent oil price was estimated using the West Texas Intermediate oil price, corrected for the average difference observed in the past 10 years.
(f) Projection.

Sources:
Bloomberg.
Goldman Sachs. Energy Weekly (20 May 2004).
JP Morgan Chase. Weekly Oil Data Report (19 May 2004).
Energy International Administration. US Dept. of Energy (11 May 2004).
Deutsche Bank. Global Energy Wire (10 May 2004).
Scotiabank. Market Trends (7 May 2004).
Economist Intelligence Unit. International Assumptions (6 May 2004).
World Economic Outlook (April 2004).
Merrill Lynch (14 April 2004).
Credit Suisse First Boston (8 April 2004).
Central Bank of Chile.

Figure I.5

Terms of trade index

(base 1996=100)



(f) Projection.

Source: Central Bank of Chile.

world's three main exchanges.[2] / In this context, speculation has grown, contributing to price volatility. An additional factor affecting prices has been the dollar's continuing depreciation against the main currencies. Thus, market fundamentals suggest that the copper price will be substantially higher this year and next, compared to January's forecast. Toward 2005, it will start to fall, given the start-up of new investment and the deposits that will reopen, attracted by current prices. Signs have already appeared in this sense, particularly from BHP Billiton and Codelco. Thus, the baseline scenario assumes an average copper price of US$1.18 per pound in 2004 and US$1.10 in 2005 (figure I.3 and table I.2). The copper market's structure suggests that the long-term price will be below projections for 2004-2005 (box I.2).

Other export commodity prices have also risen, particularly wood pulp, which is up 14% over last December's average. This reflects more demand from North America and Asia, regions that together represent 60% of world consumption. In future, the price will hover around its current US$640 per metric ton because, despite higher demand, inventories remain above the mean. The price of fishmeal has picked up, 7% over last December, reflecting strong demand from China and Japan, combined with supply factors associated with early fishing bans and weather, which have led to smaller catches in Chile and Peru, the world's two main suppliers. Today, the price stands at about US$700 per metric ton, but is expected to drop somewhat as these conditions fade.

So far this year, the oil price has been higher than forecast last January, with monthly averages above US$30 per barrel and over US$38 in recent weeks. This rise reflects more demand associated with the main consumers' stronger economies (the US, China and Japan) and greater demand for crude oil derivatives, all in a context of historically low inventories, while producing countries have little room to increase supply.[3]/ Similarly, the low dollar against the main currencies has brought a de facto increase in the ceiling of OPEC's price band. Higher risk of terrorist attacks and political uncertainty in the Middle East have aggravated the situation. These factors are behind a substantial upward correction over January's forecast, to US$33 per barrel in 2004 and US$29 in 2005. Nonetheless, current geopolitical risks suggest that these projections may have to be corrected upward again. It should be noted that in recent years the real oil price has been higher (figure I.4 and table I.3).

All the above suggests that the terms of trade will recover sooner than forecast in the last *Report,* with average annual growth reaching 12.8% in 2004, up 9% over estimates earlier this year and from -1.5% in 2005 (figure I.5).

The baseline scenario assumes the terms of trade will improve substantially, especially the copper price, although the oil price will remain high.

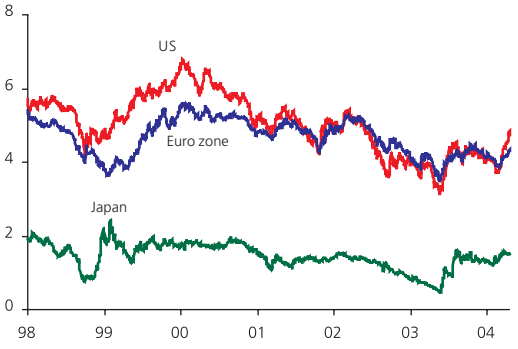
[2]/ London Metal Exchange, COMEX New York and the Shanghai Exchange.

[3]/ A one-million-barrels-per-day quota cut scheduled by OPEC to come into effect on 1 April does not seem to have been decisive in the price, because most member countries have been producing more than the current quota since November, and this is expected to continue.

Figure I.6

10-year government bond yields

(percent)

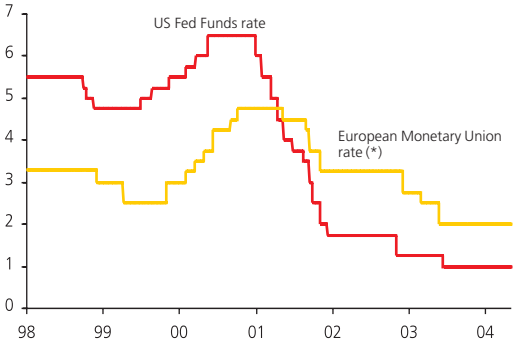


Source: Bloomberg.

Figure I.7

Monetary policy interest rate

(percent)

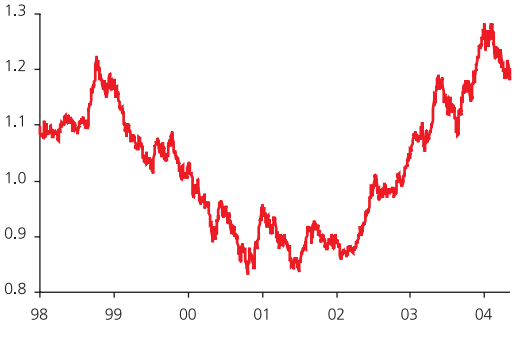


(*) Rate prior to 1999 was the German repo rate.

Source: Bloomberg.

Figure I.8

US$/euro exchange rate (1)



(1) Through 31 December 1998, figures are for the US$/ecu.

Source: Bloomberg.

International inflation

In line with an oil price higher than forecast in last January's *Report* and stronger domestic demand, projected inflation for the US in 2004 has risen from 1.4% to 2.2%, and is expected to fall in 2005. In Europe, the baseline scenario remains similar to that of some months ago, with average inflation under 2% for 2004-2005. This reflects the fact that in euro terms, the oil price rise has not been as noticeable and domestic demand remains weak. In Japan, the incipient recovery in domestic demand has brought the latest inflation projections to just over zero in 2005, suggesting a change in the deflationary conditions affecting that economy since 1999 (table I.4).

Table I.4

World inflation

(percent, average change in local currency)

	Average 1990-1999	2002	2003 (e)	2004 (f)	2005 (f)
United States	3.0	1.6	2.3	2.2	1.7
Europe	3.1	2.1	2.2	1.8	1.8
Euro zone	3.0	2.3	2.1	1.8	1.9
Japan	1.2	-0.9	-0.3	-0.1	0.1
Rest of Asia (1)	7.6	0.9	1.8	3.8	3.2
Latin America (2)	387.0	9.7	7.8	6.2	5.3

(1) China, Indonesia, Malaysia, Thailand, Singapore, South Korea, Philippines, Taiwan and Hong Kong.
(2) Brazil, Argentina, Mexico, Colombia, Uruguay, Venezuela, Ecuador, Paraguay, Bolivia and Peru.
(e) Estimate.
(f) Projection.

Sources:
Consensus Forecasts, corrected using projections from a sample of investment banks.
International Monetary Fund.
Central Bank of Chile.

World inflation projections relevant to Chile, measured in US dollars and calculated using the External Price Index (EPI),[4]/ have fallen compared to the last *Report,* to 5.6% for 2004 and 1.8% for 2005. This is associated with a stronger dollar than generally projected earlier this year.[5]/

International financial markets

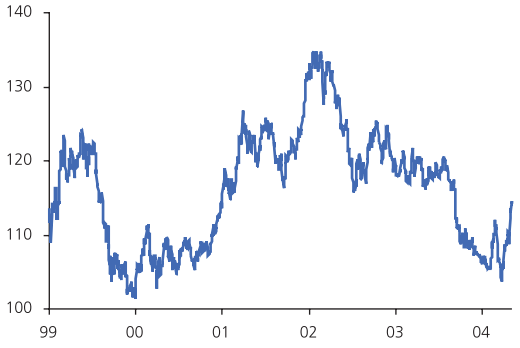
Current favorable financial conditions in developed markets have not changed much since the close of the last *Report*, although there was a temporary improvement. In fact, doubts regarding the labor market's recovery pulled the yield on long-term bonds in the US 100 basis points below their current level. Later, as indicators pointed to better growth

[4]/ The external price index is calculated using dollar-denominated WPIs for Chile's main trading partners, weighted for their relative importance to imports and exports (excluding copper, oil, derivatives and other fuels) to and from Chile. The main shares for 2003 are: the US (25.7%), Brazil (9.1%), Japan (8.4%), China (7.5%), Argentina (7.4%), Mexico (5.6%) and Germany (4.4%).

[5]/ In terms of evaluating imported inflation pressures on medium-term inflation, changes in external inflation are not as important as the import unit value (IVUM). Beyond changes in currency parities, the IVUM reflects the actual dollar cost of importing goods, so it reflects the imported component of costs more accurately.

Figure I.9

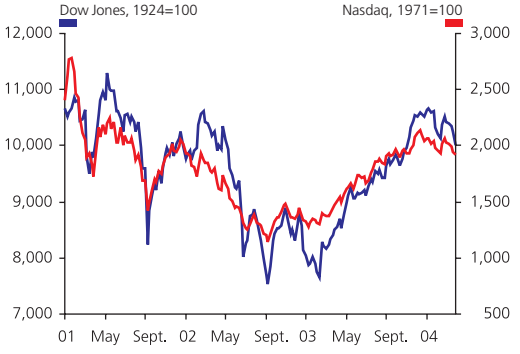
Yen/US$ exchange rate



Source: Bloomberg.

Figure I.10

Stock price indices

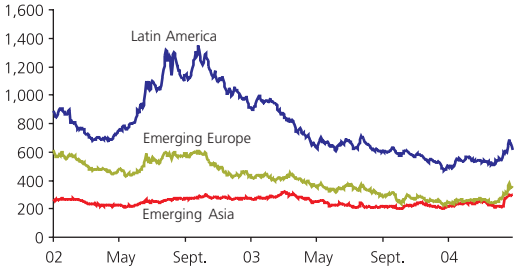


Source: Bloomberg.

Figure I.11

Regional sovereign spreads

(basis points)



Source: JP Morgan Chase.

rates for this economy, interest on 10-year bonds rose to 4.7%. In the euro zone, meanwhile, long-term bond yields remained lower than in early January, enlarging the differential with the US, in line with this region's slower recovery (figure I.6).

Regarding monetary policy rates, the market expected the Federal Reserve to begin raising rates in the US at its June meeting, as indicators, especially those from the labor market, continued to post solid gains, and the incipient signs of price-side pressures materialized. In the euro zone, meanwhile, analysts expect the expansionary monetary policy to continue. While euro appreciation forced authorities to rule out an additional cut, persistently weak domestic demand and inflation, which remains under target, have postponed the rate increase cycle. Currently, the market expects the ECB to raise rates for the first time in 2005.

Undoubtedly the timing and especially the size and speed of this interest rate increase in developed economies are the main sources of risk in the baseline scenario, associated with the appearance of stronger inflationary pressures than previously assumed (figure I.7).

On parities, there has been some turnaround in the dollar's depreciation through last January, reflecting growth in the US and expectations regarding when interest rates will start to rise (figure I.8). Moreover, yen/dollar parity was affected by the debate about the Japanese authorities' intervention in the foreign exchange market (figure I.9). Finally, exchanges are somewhat lower than they were in January (figure I.10).

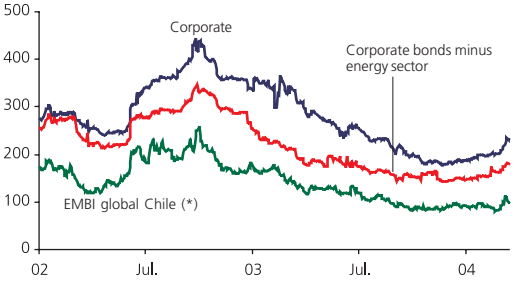
Analysts in the US expect interest rates to start rising toward mid-year, while the European Central Bank should postpone action until 2005.

Emerging financial markets

The financial climate facing emerging economies is less favorable that early in the year, although there have been some upsurges in the interim. Domestically, economies face a rather more promising global outlook with still falling domestic interest rates. However, exchanges have posted declines, especially in recent weeks, reflecting market concern about greater risk associated with how and when developed economies will start increasing their interest rates. Thus, in recent weeks investors have shifted their portfolios, preferring investment in these economies. This has boosted sovereign spreads, while US companies' have also increased, although less. Long-term US rates have risen, causing external financing conditions to worsen since last January, although conditions remain very favorable. In Latin America, the idiosyncrasies of some economies have influenced this situation. Brazil, in particular, aside from its debt being highly sensitive to increased interest rates, is also suffering from the negative effect of corruption scandals and divisions among authorities over economic policy management. Chilean bond spreads have moved in the same direction as other emerging economies, but by smaller amounts, with the EMBI global for our economy rising just 8 basis points since the last *Report*. In emerging Asia sovereign bond spreads have moved similarly, and debate continues about advancing toward a more flexible exchange market (figures I.11, I.12 and I.13).

Figure I.12

Chile's spreads
(basis points)

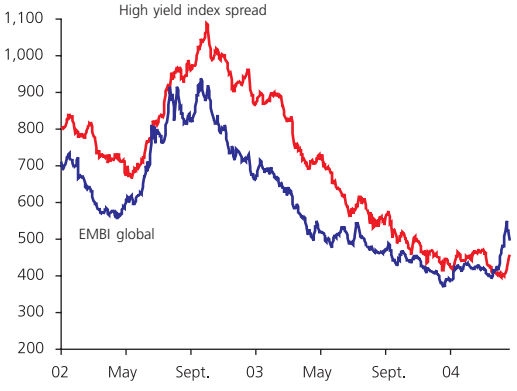


(*) Emerging Market Bond Index Global Chile: This is Chile's sovereign spread calculated by JP Morgan Chase and measures the average premium, in basis points, between a sovereign bond and its equivalent, issued by the US Treasury. The spread represents the risk premium agents demand to invest in Chilean government debt instruments.

Source: JP Morgan Chase.

Figure I.13

US high yield index and EMBI global (*) spread
(basis points)



(*) Emerging Market Bond Index Global: A weighted index of sovereign spreads for emerging economies, prepared by JP Morgan Chase.

Sources:
JP Morgan Chase.
Goldman Sachs.

Finally, despite better growth prospects for emerging economies and a stronger performance from world activity, less favorable external financing conditions make unlikely a significant change in expected capital flows into these economies, compared to last January's forecast.

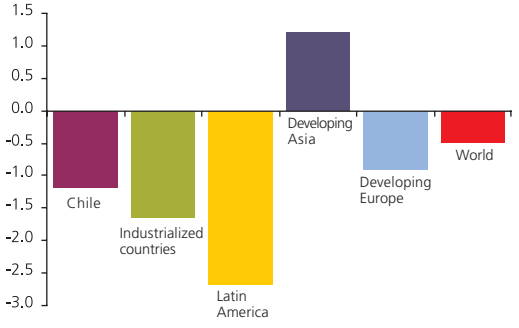
Financial conditions for emerging economies are less favorable than they were last January.

Box I.1: **Investment in the world**[6/]

Figure I.14

Change in the gross investment rate, 1992-97 and 2003

(percentage change in points of GDP)

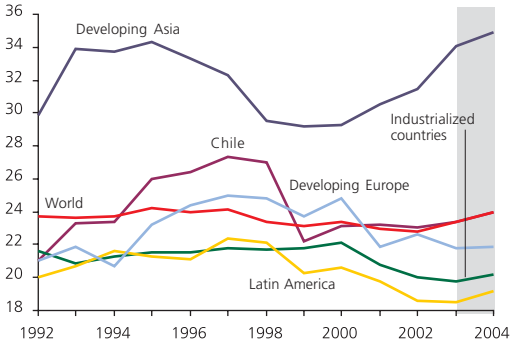


Sources:
Central Bank of Chile.
International Monetary Fund.

Figure I.15

Gross domestic investment rate 1992-2003 and 2004 projections (*)

(percentage of GDP)



(*) Grey area represents projections.

Sources:
Central Bank of Chile.
International Monetary Fund.

Chile's gross domestic investment rate fell from 24.6% of GDP in 1992-97 to almost 23.2% between 2000 and 2003. How does this compare with shifts in capital accumulation around the world? What's behind these changes and what can be expected of this spending component in the world for 2004? This box examines some of the main signals.

The world's average investment rate fell by 0.5 percentage point of GDP in 2003 from its average for 1992-1997, less than half the 1.2 percentage points of GDP that Chile's investment rate dropped in the same period[7/] (figures I.14 and I.15). However, this global tendency disguises some very different behavior in the main regions. In the developing countries of Asia, where China and India account for 77%, the investment rate rose. In contrast, in other regions, investment in 2003 fell compared to 1992-97: in industrialized countries, by 1.6 percentage points; in developing Europe, by 0.9 percentage point and in Latin America, by 2.7 percentage points of GDP. Moreover, Chile's investment rate is four percentage points of GDP higher than Latin America's investment rate.

What is behind this behavior? An international analysis based on a review of the empirical literature suggests the following.

The weak world economy from the late 1990s to the early years of this decade is one factor behind the fall in global investment. The investment rate is very procyclical: in periods of cyclic expansion, the investment rate moves above trend levels, and falls below trend during contraction cycles. This procyclical behavior is confirmed by figures for the past 20 years on investment rates and cycles for Chile, the world, and its main regions. Using three alternative measures, one finds a very high cyclic correlation for world investment, with simple correlation measures that range from 0.59 to 0.73 (table I.5). By region, investment's correlation with the cycle is less obvious: it ranges from about 0.20 for industrialized countries and developing Asia, but rises to about 0.40 for developing Europe and 0.50 for Latin America.

[6/] The countries forming each region in these figures and table were defined by the IMF, see www.imf.orgexternalpubsftweo200401datagroups.htm.

[7/] The investment rate is defined as the ratio of gross domestic investment to gross domestic product of each country. The investment rate series in Chile is the ratio of gross investment to GDP, splicing recent values for these last two series with those for years prior to 1995 (see Correa *et al.*, 2002). The information about and classification of economic regions or country groups is taken from the IMF's *World Economic Outlook*. The information about economic regions is the weighted average by product, expressed in dollars at purchasing power parity.

Table I.5

Correlations between the gross domestic investment rate and the output gap (1) (2) (3)

Lags	Chile region	Industrialized countries	Latin America	Developing Asia	Developing Europe	World
0	***0.28***	-0.04	***0.52***	0.30	0.36	***0.59***
0. -1	***0.33***	0.16	***0.51***	0.23	***0.42***	***0.73***
0. -1. -2	***0.29***	0.25	***0.41***	0.01	***0.47***	***0.67***

(1) The output gap is calculated as the difference between actual and potential GDP for the 1984-2003 period. In Chile's case, the Central Bank's estimate for potential GDP is used.
In the case of regions, a potential GDP is estimated using the Hodrick-Prescott filter.
(2) The rows in this table report three optional combinations of lags for GDP compared to the investment rate: 0 (only a contemporaneous correlation); 0, -1 (average of contemporaneous correlation and lag 1); 0, -1, -2 (average for the contemporaneous correlation and lags 1 and 2).
(3) Numbers in italics are correlations that are statistically significant at 10%.

Sources:
Central Bank of Chile.
International Monetary Fund.

These regional differences between cyclic correlations suggest the role played by the depth of financial and domestic capital markets, as well as access to external capital during weak cyclical periods. Companies in countries with shallow financial markets must finance more of their investment with their own profits, which suffer during recessive periods. Moreover, companies in countries whose sovereign risk is high typically suffer from "sudden stops" (see Calvo, 1998 and Caballero, 2002) in the supply of external credits. This explains why regions and countries with underdeveloped financial and capital markets and higher sovereign risk typically post more procyclical behavior by investment, as Latin America clearly reflects.

Two more possible causes behind the reduction in world investment can be mentioned. The first involves the adverse shocks that have affected the world economy since 1997, which have generated infinite sources of uncertainty, including one financial crisis after another in emerging markets, overinvestment prior to the bursting of the technological bubble, with the subsequent fall in stock markets worldwide, the 11 September terrorist attacks in 2001, corporate scandals in developed countries and war in Iraq. Although it is likely that the adverse effects of some of these events on investment have faded, especially the Asian crisis, altogether they paint a picture of global uncertainty substantially worse than it was in the mid-1990s, with lasting effects on investment.

The second reason is that, as the IMF's *World Economic Outlook* (April 2004) points out, the US's highly expansionary fiscal policy since 2002 could exacerbate a reduction in private investment in that country and around the world.

The IMF estimates that world investment will recover this year and rise by 0.6 percentage point of GDP, making up for the 0.5 percentage point fall between 1992 and 1997. For individual regions, the IMF also projects modest recoveries in investment rates.

Behind projections of better world investment rates lies the reversal of factors that had depressed them in recent years, especially the cyclical recovery reflected in a stronger economy worldwide and in the regions examined.

For Chile's investment rate, the *Report* projects a rise of 0.4 percentage point, to 23.8% of GDP this year. This is consistent with the historic behavior of investment in Chile and projections for capital costs, return on investment, corporate profits and product growth in Chile, which are the main factors determining investment here. This recovery in the country's investment also reflects IMF projections for investment rates worldwide.

Box I.2: Recent trends and prospects for the copper price

The copper price is key to any analysis of the external scenario facing the Chilean economy. Considering the changes in this variable in recent months, we will briefly analyze the factors behind these trends and medium- and long-term prospects.

Recent trends

The copper price has risen significantly since mid-2003, from just over US$0.70 per pound in April of last year to over US$1.30 per pound in the past two months, recently settling at around US$1.20. Although changes of this size are not rare in commodity price cycles, the factors behind the change should be analyzed to establish the prospects for the short-, medium- and long-term copper price.

On the demand side, upward corrections for growth in 2004-2005 in China, the US and Japan—the three largest copper-consuming economies—should be noted: altogether they represent almost 40% of world demand. On the supply side, production did not rise much in 2003, partly due to deposit-specific problems in some mines, for example Freeport McMoran in Indonesia.

Due to these factors, the estimated shortfall in supply this year swelled from 100,000 metric tons (mt) early this year, to almost 600,000 mt (4% of annual demand). Copper inventories, meanwhile, fell from 820,000 mt at the end of 2003[8]/ to barely 370,000 mt, when the three main exchanges are added together (London, New York and Shanghai). This decline in stocks should continue yearlong.

The US's real multilateral exchange rate is another important variable in copper price changes. Despite dollar appreciation in recent months, compared to last year this currency has depreciated by 7%. As studies show,[9]/ the decline in the dollar's worth positively affects the copper price. Thus, nominal price elasticity with respect to this variable stands at about -0.5.

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[8]/ Exchange inventories account for 55% of world copper inventories, which also include private stocks.

[9]/ *Monetary Policy Report*, January 2004, pp. 32-33.

Projections

To project the copper price, it should be kept in mind that current values generate powerful incentives to increase supply. In fact, current conditions favor the reopening of mines, the development of new projects, and expansions. Several companies, among them BHP Billiton, Codelco and WMC have announced programs in this sense and they plan to boost production significantly in coming years. Because of this, toward 2005 the supply deficit should fall significantly and in 2006 copper production should again produce a surplus, rebuilding stocks on exchanges and in private hands.

On the US exchange rate, consensus projections and those from investment banks suggest the dollar should tend to depreciate, because of a significant spending-income gap within the economy. This should cushion the effect of the inventory recovery expected to start in late 2005.

As per usual practice, copper projections by the Central Bank weigh the information from analysts, future prices and univariate time series.[10] / Based on this information, skilled judgment is used to examine supply conditions in the copper market and the world growth scenario, among other considerations. The baseline scenario in this *Report* assumes average values of US$1.18 per pound in 2004 and US$1.10 in 2005.

It should be noted that to analyze the copper price, the Central Bank has also developed a multivariate model, based on stock levels in exchanges, the real multilateral US exchange rate, and lags in the copper price.[11] / This model is particularly useful for explaining the past behavior of the copper price, but for the purposes of projection it does not represent a significant gain over the univariate model, because for now suitable methodologies for projecting independent variables are not available.

Long-term prospects

The copper market's structure suggests that its current high price is essentially temporary. In the long run, it will tend to fall. According to market analysts and the experts' group consulted by the Ministry of Finance during the third quarter of last year, the long-term copper price should range from US$0.85 to US$0.95 per pound.[12] / These estimates are consistent with the start-up of new mines and the reopening of some operations in the future, which will boost production beyond the expected rise in demand. In this sense, in the long run, the copper price will depend on the average cost structure of mining firms. In this sense, new

[10]/ This methodology involves an AR(1) specification, whose projections are carried out using a monthly frequency series, including also a deterministic trend in the modeling. The basis for this specification comes from results from unit root tests that find that the real price is stationary around a trend.

[11]/ When using this methodology, projections are done using monthly frequency series, including moreover the specification of a deterministic trend model.

[12]/ Ministry of Finance, *JP Morgan Chase* and *Morgan Stanley*.

technologies and better company management have pulled the main producers' average extraction costs downward. Currently these stand at US$0.35 to US$1.00 per pound.[13]/

Finally, experience has shown that reopening mining operations is less costly than closing them down. As a result, high price cycles tend to last less than low price cycles, making caution necessary when defining future prospects based on the current situation, which is particularly favorable to the copper price.

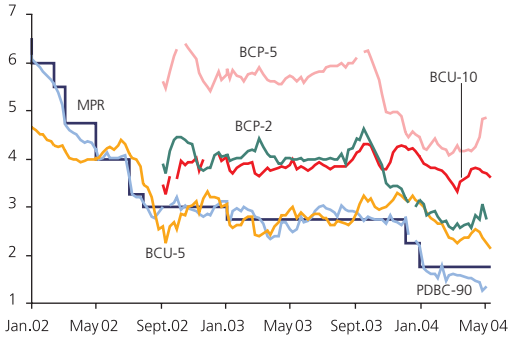
[13]/ Sources include the Copper Research Unit (CRU) and Codelco.

II. Financial markets

Figure II.1

MPR and interest rates on Central Bank of Chile instruments

(weekly averages, percent)

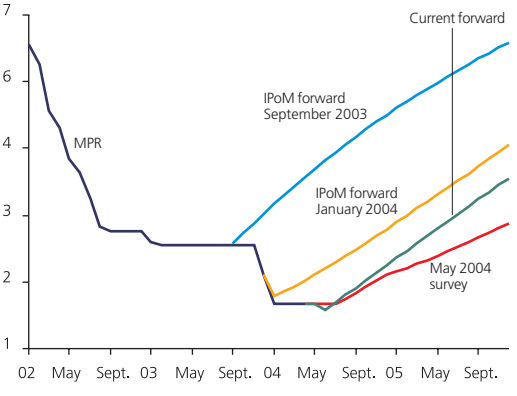


Source: Central Bank of Chile.

Figure II.2

MPR, expectations and the forward curve

(percent)



Source: Central Bank of Chile.

This section reviews recent trends in financial markets' main variables from a monetary policy perspective, and evaluates general conditions affecting the banking sector in recent months.

Monetary conditions

The monetary stance has been expansionary in recent months. This is reflected in the structure of interest rates on Central Bank of Chile instruments. Since the end of 2003, interest rates on Central Bank instruments have fallen, with some fluctuations, to historical lows in late March (figure II.1).

Interest rates on indexed promissory notes were from 50 to 100 basis points smaller than those of late 2003. This behavior is different from their international equivalents, which for the same period posted a significant increase. Interest rates on longer-term nominal promissory notes stood at under 3.0% for those maturing in two years and 5.0% for those maturing in five, figures that reflect an increase of from 15 to 35 basis points over December's averages.

Interest rates on short-term nominal promissory notes were about 30 basis points lower than the MPR, where they have stood since early in the year. This difference is consistent with the estimated 10 to 30 basis points from the technical reserve's effect on interest rates for promissory notes maturing in less than 90 days.[1] /

Expectations implicit in the forward curve suggest this expansionary approach should last longer than forecast early this year. In fact, for the 24-month horizon, the MPR is expected to rise 10 basis points less than anticipated in last January's *Report* (280 basis points). Overall, the increase in the policy rate, discounted for markets, should be from 50 to 100 basis points in six to nine months, in line with responses to the Central Bank's survey of expectations in its May version (figure II.2).

Aside from interest rates standing at historical lows, any evaluation of the current monetary policy stance is directly tied to the real neutral rate and its gap with the current MPR. The main problem with this measure for current conditions is that the neutral interest rate cannot be observed directly. An initial estimate can be obtained from the neutral interest rate implicit in medium-term projection models used by the Central Bank,[2] /

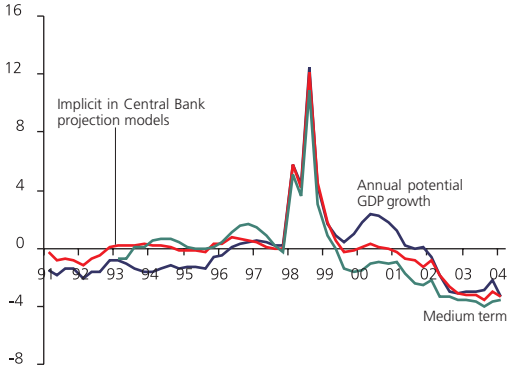
[1]/ R. Alfaro and E. Arraño (2003).

[2]/ Modelos Macroeconómicos y Proyecciones, Central Bank of Chile, 2003.

Figure II.3

Real interest rate gap: MPR minus the neutral interest rate

(percent)



Source: Central Bank of Chile.

Figure II.4

Monetary aggregates

(nominal annual change, percent)

Source: Central Bank of Chile.

which is the result of a combination of economic theory, past averages, statistical filters and judgments by Bank authorities. A second possible approach is to deduce it from financial asset prices. These are obtained assuming that the medium-term interest rate (BCU5) and the long-term rate (BCU10) share a common stochastic trend, which is the medium-term trend or neutral interest rate.[3] / A third approach uses annual growth in potential GDP to measure the average return in the economy. With these measures for the neutral interest rate, it is clear that the current monetary policy stance is the most expansionary since the early 1990s. We can also conclude that the latest cuts to the MPR have offset the negative effect on monetary conditions of surprise inflation at the end of last year (figure II.3). Compared to other economies, Chile's current monetary policy stance is among the most expansionary, although most central banks have applied this sort of monetary policy (Box II.1).

The current monetary policy stance reflects the very expansionary nature of monetary policy.

Monetary aggregates

Monetary aggregates have not changed significantly since late 2003. Growth of the most liquid aggregate, M1A, has slowed as the unusual liquidity levels of early 2003 have been incorporated into the base, after the Corfo-Inverlink case. For the broader aggregates, M2A and M7, annual growth rates of from -2% to 2% are still reflecting portfolio decisions being made by pension fund managers (AFPs, figure II.4). Time deposits' share within the AFP investment portfolio fell from 22% in January 2003 to 18% in April 2004, while Central Bank instruments fell from 25% to 16%, and bills of credit fell from 11% to 8%. These changes reflect a rise in the limit on investment abroad, from 20% to 25% in May 2003 and again to 30% in March 2004. This has seen flows abroad reach US$7.5 billion during the same period. Part of the financing is reflected in a reduction in the broader aggregates.

On the velocity of circulation of monetary aggregates in recent quarters, M1A has slowed. This is normal, given low nominal short-term interest rates.

Household and corporate credit conditions

Total bank borrowing picked up during the first months of 2004, with personal loans playing a decisive role. For companies, although a broader measure of their financing shows solid growth, figures for commercial loans remain lower than at comparable stages in previous cycles. Trends in bank debt partly respond to trends in interest rates applied by banks and their spreads against interest rates charged by other financing sources. Moreover, according to the Central Bank's survey of banking credit market conditions, the demand for and the supply of credit to households and companies have strengthened in practically all segments.

[3]/ Baeza (2004).

In the first quarter of 2004, consumer loans continued to perform strongly as they had during earlier quarters, rising 18% in real terms over 12 months. Mortgages, although less dynamic, have also been growing strongly since early 2003. This reflects strong employment and activity, and the decline in consumer credit costs, indicating both the passthrough of MPR cuts and greater competition. Compared to October 2003, interest rates on mortgage notes have fallen by 80 basis points, while average interest rates on consumer credits maturing in more than 90 days have fallen more than 400 basis points, posting the lowest margins over the MPR since data has been collected (January 2001). Meanwhile, the spread on consumer contracts maturing in more than three years also fell, but without drifting far from its normal range (table II.1).

Table II.1

Lending interest rates in pesos

(360-day base, share of total loans)

	Consumer loans				Commercial					
	1 to 3 years		More than 3 years		30 to 89 days			90 days to 1 year		
	Rate	Share	Rate	Share	Prime (1)	Rate	Share	Prime (2)	Rate	Share
2002 Avg.	25.3	2.5	26.4	4.0	5.8	7.2	16.9	10.2	7.9	8.2
2003 Avg.	21.7	2.8	26.2	6.3	4.1	5.8	15.4	7.0	6.7	10.2
2003 Sept.	21.6	2.7	25.6	7.2	4.3	5.8	15.1	5.8	6.5	11.3
Oct.	21.7	2.9	25.9	7.6	4.2	5.9	13.1	7.6	7.0	8.8
Nov.	22.4	2.5	26.9	7.3	4.1	6.1	14.0	7.7	6.4	11.6
Dec.	21.1	2.5	26.3	6.8	4.1	5.5	14.1	6.4	6.4	10.4
2004 Jan.	21.8	3.0	27.0	8.0	4.6	5.3	18.5	6.0	7.2	18.5
Feb.	20.9	2.7	26.8	6.7	3.5	4.7	15.2	5.8	7.6	30.7
Mar.	17.4	3.5	23.0	7.0	4.6	5.2	14.5	6.0	7.7	30.5
Apr.	17.8	2.8	23.9	5.9	3.4	4.4	13.8	5.8	7.2	34.8

(1) Rate on operations of more than UF 5,000 to under 90 days.
(2) Rate on operations of more than UF 5,000 to over 90 days.

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

Good performance of household credits continued, as they have in recent quarters, with two-digit annual growth rates.

Overall, the rise in credit to individuals has not led to material changes in household borrowing patterns apparent since 1998. Measured against disposable income, this was somewhat less than 40% in late 2003, well below rates in more developed countries: 80% on average in the euro zone and 110% in the US.[4]/ On households' financial burden, Chilean households were estimated to be paying somewhat more than 5% of disposable income in 2003, which, while it remains within the range of European countries (2% to 8%) is high with regard to the level of debt.

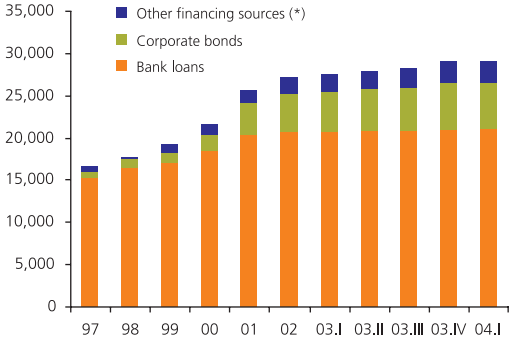
The stagnation affecting bank credit to companies can be attributed to a structural change in the markets of corporate debt, plus a temporary reduction in total demand for financing. In fact, if we take a broader measure of company debt, which includes bond issues and other financing

[4]/ Del Río (2002).

Figure II.5

Corporate borrowing

(balance, billions of pesos)



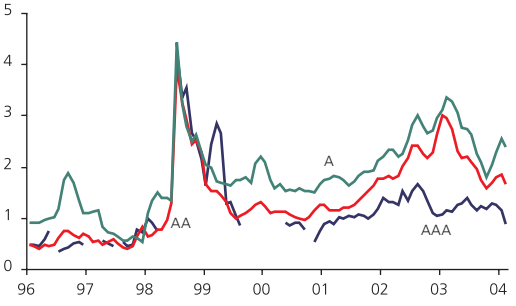
(*) Includes securitized bonds, factoring, leasing and bills of trade.

Sources:
Superintendence of Banks and Financial Institutions.
Superintendence of Securities and Insurance.

Figure II.6

Corporate bond spread over Central Bank bonds

(by risk rating, percent)



Sources:
Central Bank of Chile.
Santiago Stock Exchange.

sources, such as factoring and bills of exchange, there has been a significant increase since 1998, with the bond market's share in particular rising (figure II.5). Nonetheless, and as is usual during the early months of the year, recent figures on actual emission and announcements of bond issues reveal a weakening. In fact, from January to April, bond issues totaled barely UF 11 million, 10% of the total issued last year. On companies' external borrowing, only bond issues show much movement, with issues reaching US$650 million between late 2003 and early this year.

Trends in the prices of alternative financing for companies also support the hypothesis of a substitution effect present. In general, interest rates on commercial credits, unlike those on personal loans, have risen since December 2003. One possible explanation is the quality, in terms of risk, of borrowers. Similarly, the interest rate spread on bank credits over the MPR also increased in the first quarter of 2004. This was not the case with corporate bonds compared to Central Bank bonds, which have fallen since the second quarter of 2003, hitting their lowest point last December. Their current level is between 100 and 200 basis points below bank spreads on commercial credits, that is, of more than 5.000 UF (figure II.6).

Stagnation in bank loans to companies is believed to reflect the substitution of financing sources.

The stock market has again become an alternative for company financing. In fact, during the first four months, more than US$300 million in shares were offered, an amount unheard of since 1997. So far this year, the Chilean stock market has been driven by a combination of external and domestic factors. On the external side, the most notorious was the negative effect on prices of terrorist attacks in Madrid (March) and more recently the greater likelihood of a policy rate increase in the US. Domestically, the news has come mostly from telecommunications and electricity; the first influenced by news about the rate decree for the sector and the second by restrictions on natural gas supplied to Chile by Argentina. Overall, the selected stock index (IPSA) has fallen 5.7% in pesos and 11.7% in US dollars so far this year. From January to mid-May, average daily trading on the Santiago Stock Exchange was 27.7 billion pesos, 85% more than the same period last year (table II.2).

International stock exchanges in general have fallen this year, influenced by expectations that US interest rates will soon be on the rise. Thus, the Dow Jones varied -5.2%, the Nasdaq -6.3%, and Latin American ADRs -13.7%, although Chilean ADRs rose 0.8%. In the region, the Bovespa in Brazil, measured in US dollars, fell 24.2%, because of the political challenges facing the government, while Argentina's Merval fell 20.9% in US dollars.

Exchange rate

Since the last *Report* closed, the observed exchange rate in pesos per dollar (OER) has depreciated 10%, despite substantial improvement in the terms of trade during the same period, reflecting the more expansionary domestic monetary policy stance, expectations about interest rate increases abroad coming earlier than originally expected,

recent dollar depreciation against other currencies, and a correction to what was possibly an earlier overreaction. Measured against a broader currency basket, peso depreciation falls to 6.7%, reflecting the dollar's movements in international markets (figure II.7). According to indicators published by the Federal Reserve, the US dollar appreciated 4.8% against the set of currencies of the US's main trading partners,[5]/ during the same period. If current peso depreciation were discounted from international dollar appreciation, the exchange rate would be 3.9% (24 pesos) below its current level. Therefore, nearly half of the peso depreciation since January, is explained by international changes in the dollar. More recently, the peso has been very volatile, with the price ranging from 635 to 645 pesos per dollar (table II.3).

Table II.2

Stock indices (1)

(monthly change, percent)

		IPSA	Dow Jones	NASDAQ	ADR Lat. (2)	BOVESPA	MERVAL
1999	Avg.	2.0	2.0	5.6	3.9	6.3	2.6
2000	Avg.	-0.8	-0.4	-3.3	-1.7	-1.1	-2.0
2001	Avg.	-0.3	-0.5	-1.1	-0.6	-1.5	-1.2
2002	Avg.	-1.7	-1.3	-2.8	-2.0	-3.2	-3.7
2003	Avg.	4.5	1.8	3.1	4.4	6.6	7.3
2003	Jan.	-2.6	-3.5	-1.1	-3.8	-1.9	9.0
	Feb.	-1.8	-2.0	1.3	-3.4	-7.6	8.3
	Mar.	-0.3	1.3	0.3	5.2	17.3	2.2
	Apr.	19.4	6.1	9.2	17.7	28.4	18.2
	May	8.0	4.4	9.0	3.1	3.7	4.5
	Jun.	-1.0	1.5	1.7	2.1	0.5	16.3
	Jul.	8.8	2.8	6.9	4.7	1.0	-5.4
	Aug.	3.3	2.0	4.3	5.6	11.9	-6.9
	Sept.	8.8	-1.5	-1.3	3.2	6.8	17.9
	Oct.	10.8	5.7	8.1	7.3	14.6	13.9
	Nov.	-0.6	-0.2	1.5	4.4	9.3	3.0
	Dec.	5.6	6.9	2.2	10.8	11.8	9.8
2004	Jan.	-5.0	0.3	3.1	0.4	-3.6	6.0
	Feb.	10.0	0.9	-1.8	4.9	-0.5	4.7
	Mar.	-9.8	-2.1	-1.8	0.8	2.7	3.9
	Apr.	-2.2	-1.3	-3.7	-11.3	-13.2	-10.2
	May (3)	-4.2	-3.1	-2.3	-8.4	-11.3	-23.5

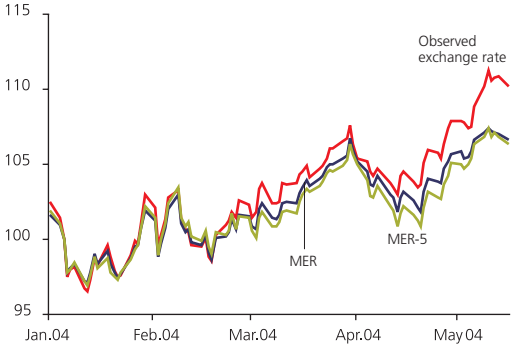
(1) Expressed in US dollars.
(2) Latin American ADRs.
(3) Through 17 May.

Sources:
Bloomberg.
Santiago Stock Exchange.

Figure II.7

Observed and multilateral exchange rate

(indices, 6 Jan. 2004=100)



Source: Central Bank of Chile.

Figure II.8

Differential between domestic and foreign interest rates

(weekly average, percent)

Sources:
Bloomberg.
Central Bank of Chile.

During the first four months of the year, the total real exchange rate (RER), which includes Chile's main trading partners, moved in line with nominal peso depreciation and lower local inflation. Its current level (101.5) is therefore 5.3% higher than last December's. The RER-5, which covers a smaller set of countries, rose 5.1% during the same period. The real differential between long-term domestic and foreign interest rates fell in May by more than 50 basis points after being stable since late January, while the nominal differential has fallen steadily, accumulating a 70 basis point drop, in line with the larger increase in external interest rates (figure II.8).

[5]/ Broad Index, published daily by the US Federal Reserve.

Table II.3

Observed (OER), multilateral (MER) and real exchange rate (RER)

(OER: pesos per US$, monthly average; MER and MER-5: 2 Jan. 1998=100; RER and RER-5: 1986=100)

	Dec. 03	Jan. 04	Feb. 04	Mar. 04	Apr. 04	May 04 (1)
OER	602.9	573.6	584.3	603.9	608.2	634.4
MER (2)	111.4	107.6	109.3	112.3	112.8	115.9
MER-5 (3)	146.7	141.8	144.6	147.3	147.4	152.3
RER (2)	96.4	93.7	95.8	98.3		
RER-5 (3)	96.4	86.5	88.6	90.0		

(1) Average through 17 May 2004.
(2) Represents the nominal and real value of the peso against a broad basket of foreign currencies, ordered by their weight: US, Brazil, Japan, Argentina, China, Mexico, Germany, France, Spain, United Kingdom, South Korea, Netherlands, Italy, Peru, Canada, Colombia, Taiwan, Ecuador, Belgium, Finland and Sweden.
(3) Brings together values for the Chilean peso against the currencies of the US, Japan, United Kingdom, Canada and the euro zone.

Source: Central Bank of Chile.

The real exchange rate has depreciated 5.3% since December, in line with nominal peso deprecation and lower local inflation.

Expectations about the future behavior of the US dollar, based on Bloomberg prices, suggest it will remain at current levels until late 2005. The Central Bank's May survey of expectations, however, pointed to a 0.9% depreciation for late 2004 and 2.4% by December 2005.

Solvency, risk and profitability of Chile's financial system

Positive trends in the main indicators for Chile's financial system in the first months of 2004 confirm the stability and solvency that have characterized it in recent years. The decline in credit risk indicators, a stronger performance from borrowing, and constant capitalization stand out in particular.

The banking system's solid equity, measured using the Basel Index,[6]/ continues to show significant slack, standing at 15% in March for the financial system as a whole. Individually, most institutions' capitalization is over 11%, well above the legal minimum of 8%.

The financial system's profitability, measured as annual return on equity (ROE) stood at about 17% in the early months of this year, up slightly from last December. This reflected less spending on provision, thanks to a better loan portfolio, and better results due to the higher valuation of financial investment.

Credit risk indicators have also done well. In the first quarter of 2004, the non-performing loans indicator continued down a falling trend that began in mid-2003, hitting 1.57% in March, its lowest point in five years. Consistently with these trends, the financial system continues to show excess provisions over non-performing loans (1.4 times), which would enable it to handle any potential decline in the quality of its loan portfolio.

[6]/ This is actual equity over risk-weighted assets, net of the required provisions.

Financial risk management remained appropriate in the first quarter of 2004. This reflects compliance with the margins established by current rules, apparent in indicators measuring exposure to liquidity risk (to 30 and 90 days), foreign currency risk, and fluctuating interest rate risk.

Box II.1: Changes in the expansionary monetary policy stance in Chile and the main economies

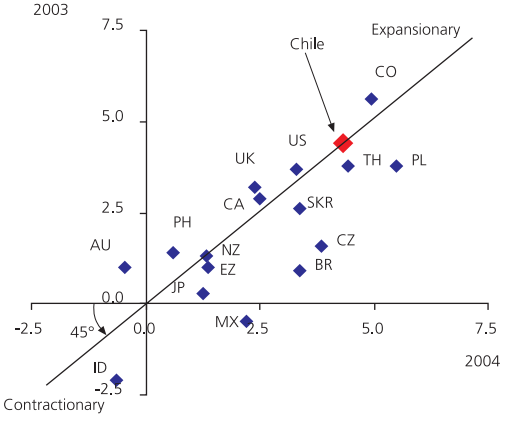
Chile's current monetary policy reflects a very expansionary moment, both compared to previous periods and to other economies. The May 2003 *Report* [7]/ carried an initial evaluation of monetary impulse, comparing information from more and less developed economies. Here, that comparison is updated and another measure of current conditions presented.

A first approach consists of comparing current market interest rates to their historic averages. This analysis uses interbank deposit rates or rates on 90-day Treasury (or Central Bank) notes, depending on what's available in each country. To control for changes in inflation, real interest rates are used. Compared with average past interest rates, most countries' policies today are very expansionary, reflecting temporary low inflation present in most of the economies studied. Chile's current monetary policy stance is the most expansionary in this comparison, and is close to where it stood one year ago (table II.4 and figure II.9).

Figure II.9

Current real interest rate and historic averages for March 2003 and 2004 compared (*)

(percent)



(*) A difference between past and current interest rates greater than zero denotes an expansionary monetary policy stance.

Sources:
Bloomberg.
Consensus Forecasts.

Table II.4

Interest rates and inflation

(percent)

Country	Interest rate			Inflation		
	Average (1)	Mar-03	Mar-04	Average (1)	Mar-03 (3)	Mar-04 (3)
Brazil (2) (BR)	20.6	24.6	16.0	7.3	12.2	6.1
Colombia (CO)	20.7	7.6	7.8	13.8	6.3	5.8
Chile (CL)	7.3	2.6	1.6	3.3	3.0	1.9
Mexico (MX)	10.9	8.9	6.2	6.7	4.2	4.2
South Korea (SKR)	7.7	4.7	3.9	3.5	3.1	3.1
Philippines (PH)	11.8	8.4	9.1	5.8	3.8	3.7
Indonesia (ID)	22.6	12.3	7.7	21.2	8.8	5.7
Thailand (TH)	6.1	1.8	1.4	2.4	1.9	2.1
Australia (AU)	5.7	4.7	5.5	2.7	2.7	2.0
New Zealand (NZ)	6.7	5.8	5.6	1.8	2.2	2.0
Poland (PL)	16.7	6.1	5.4	8.1	1.3	2.3
Czech Republic (CZ)	9.0	2.3	2.0	6.3	1.2	3.1
United States (US)	5.8	1.3	1.1	3.1	2.3	1.7
Canada (CA)	5.4	3.2	2.2	2.2	2.9	1.5
Japan (JP)	2.2	0.6	0.1	0.7	-0.6	-0.2
United Kingdom (UK)	8.0	3.7	4.3	3.8	2.7	2.5
Euro zone (EZ)	3.7	2.5	2.0	2.0	1.8	1.7

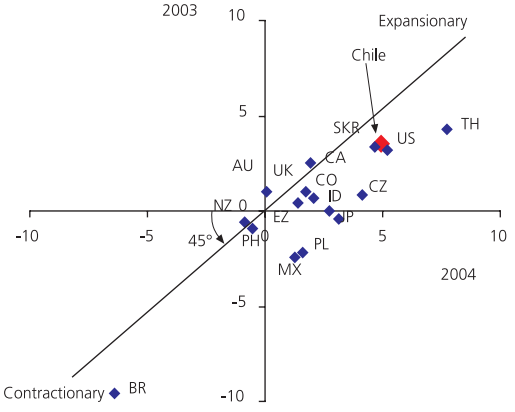
(1) Average to March 2003.
(2) The interest rate used for Brazil is to 30 days.
(3) 12-month inflation projections from Consensus Forecasts.

Sources:
Bloomberg.
Consensus Forecasts.

[7]/ Pp. 37-38.

Figure II.10

Real GDP growth minus real current interest rate (*)
(percent)



(*) A difference greater than zero denotes an expansionary monetary policy stance.

Sources:
Bloomberg.
Consensus Forecasts.
International Monetary Fund.

Alternatively, the current monetary policy stance can be evaluated using the difference between real GDP growth and the current monetary policy rate,[8]/ assuming that real GDP growth measures the economy's average return. This measure indicates that, compared to March 2003, the current monetary policy stance in Chile is among the most expansionary. It is also clear that according to this measure, most economies are more expansionary today than they were last year (figure II.10).

In short, compared to one year ago, most economies have maintained or increased their expansionary monetary policy. For Chile in particular, one of the measures reviewed indicates that its monetary policy impulse has even deepened in the past year.

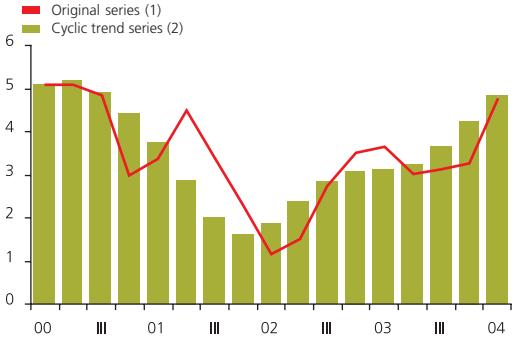
[8]/ In the case of real GDP, IMF-estimated growth is used for 2003 and 2004. For real interest rates, the ex ante rate is used, that is the current nominal rate minus projected inflation for the respective year, from *Consensus Forecasts*.

III. Demand, current account, and labor market

Figure III.1

Imacec

(percent)



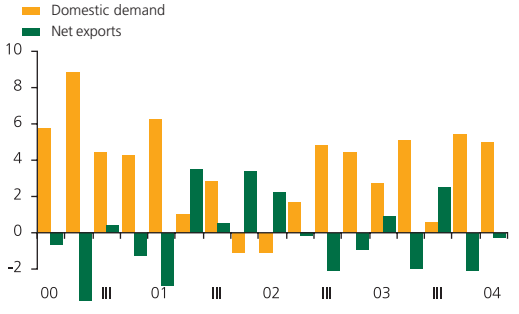
(1) 12-month change.
(2) Annualized quarterly change.

Source: Central Bank of Chile.

Figure III.2

Domestic demand and net exports

(contribution to growth, percentage points)



Source: Central Bank of Chile.

This section reviews the factors influencing recent trends in output, domestic and external demand and employment, to explore possible inflationary pressures arising from goods and factor markets.

Domestic activity and spending

In 2003, output grew 3.3%, driven especially by mining, agriculture and the wholesale and retail trade sectors. In the first quarter of this year it continued to gather force, with annual GDP growth reaching 4.8% and the cyclical tendency rising in recent quarters (figure III.1). This occurred within a context of greater activity in the manufacturing, fishing and agricultural and forestry sectors, driven by better conditions abroad and more favorable supply. In contrast, mining performance was poor, reflecting factors specific to production processes in some companies. These elements are considered temporary. The volume of net exports of goods and services fell slightly in the quarter over the same period the previous year, although both exports and imports accumulated two-digit increases in volume (figure III.2).

By sector, manufacturing has benefited the most from improvement abroad and the prospects for growing aggregate activity. Aside from considerable volatility in the latest figures, export-related branches clearly posted the strongest results in February and March, which is consistent with exports of manufactured goods by volume (figure III.3).

Activity in fishing also stood out, thanks to a significant temporary increase in catches and good performance from cultivation centers. The wholesale and retail trade sector also posted solid growth, explained by good manufacturing sales.

In the second quarter, GDP should continue the growth apparent in previous periods, driven by the mining, agriculture and wholesale and retail trade sectors. Overall, growth in the second quarter should remain in line with the 4.5% to 5.5% annual increase estimated for the year as a whole. For now, restrictions on the gas supply from Argentina do not appear to be having any significant macroeconomic effects on activity, but the impact of future cuts is unclear. It should be noted that the effects of reduced supply are not linear, since the cost of substituting energy sources grows more than proportionally (box III.1).

Domestic demand, meanwhile, rose in line with GDP last year and the first quarter of 2004. Although during the first quarter of the year

Figure III.3

Chile's manufactured exports by volume and manufacturing production for export (*)

(1996 average =100)

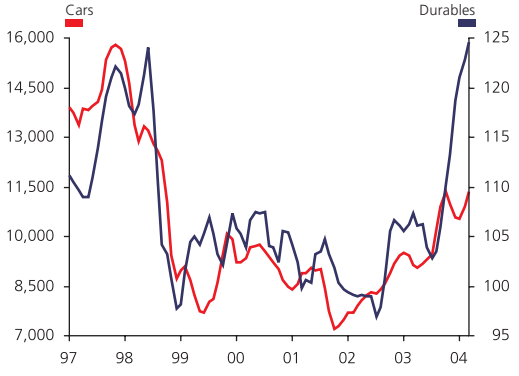
(*) Seasonally adjusted series.

Source: Central Bank of Chile.

Figure III.4

Sales of new cars and retail sales of durables (*)

(cars: units; durables index: 2002 average =100)



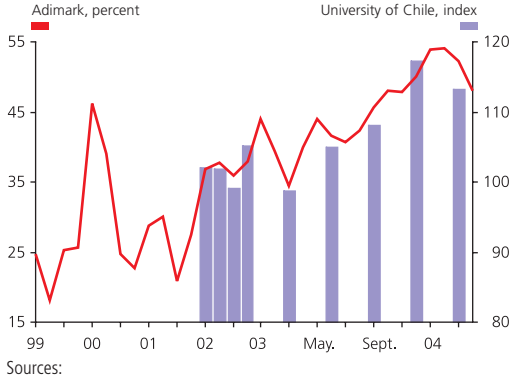
(*) Moving quarterly average, seasonally adjusted series.

Sources:
Asociación Nacional Automotriz de Chile (national association of car dealers).
Cámara Nacional de Comercio (national chamber of commerce).

Figure III.5

Consumer confidence indices

(those surveyed who believe the economy will improve)



Sources:
Adimark.
Universidad de Chile.

investment was more sluggish than expected for this stage of the cycle, it has partly turned around the low levels from the second half of 2003, in line with current domestic and external financial conditions. The most likely scenario, in any case, is that this will continue to move back to normal as different sectors pick up current idle capacity and grow.

Better conditions abroad and the recovery in the terms of trade have had an important impact on national income. A substantial part of the large increase in public sector income will go to saving, as per its structural saving rule. The increase in private income, meanwhile, has brought only a slight improvement to consumption so far. Overall, the combined effect of more disposable income, the current monetary policy stance, the gradual improvement in employment and better expectations compared to 2003 should produce a steady increase in demand.

For the second quarter, demand should continue to rise, in line with GDP. Gross fixed capital formation, despite almost no annual growth due to the high basis for comparison in 2003, will remain similar to the previous quarter.

GDP growth in the first quarter of 2004 is in line with the 4.5% to 5.5% increase expected for the year as a whole.

Consumption and inventories

Partial indicators for consumption reveal significant growth in the first quarter of 2004. Aside from some specific shifts, durable consumption continued to grow, approaching 1997 peaks (figure III.4).

Durable consumption relies to an important degree on prevailing credit conditions. Interest rates on consumer credits have fallen significantly of late, while demand for credits has increased steadily, with consumer loans rising at two-digit rates for almost 18 months, in real terms. Aside from the known figures, this increase in demand for credit also reflects consumers' greater optimism compared to late 2003 (figure III.5).

Non-durable consumption[1] / has tended to grow at the same rate as GDP, although less noticeably than the durable component.

On inventories, data gathered from FECUs[2] / for the last quarter of 2003 show an increase in inventories for the third consecutive quarter (figure III.6). For the first quarter of this year, partial indicators suggest accumulating inventories, as apparent in the manufacturing sector's production to sales ratio. For the second quarter, inventories are expected to go on accumulating, although unevenly by sector. The monthly indicator for business confidence (IMCE) from the Icare/Adolfo Ibáñez University (box III.2) shows that in the mining sector stocks are perceived as "excessive", while in wholesale and retail trade, and manufacturing, they are considered "normal" by company executives.

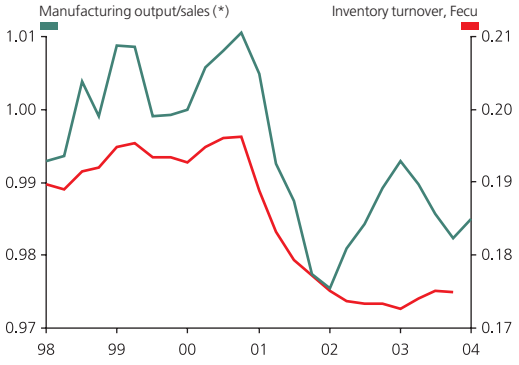
[1]/ This accounts for about 70% of private consumption.

[2]/ *Ficha Estadística Codificada Uniforme*, a standardized form that listed companies are required to fill out.

Figure III.6

Inventories

(moving annual average)



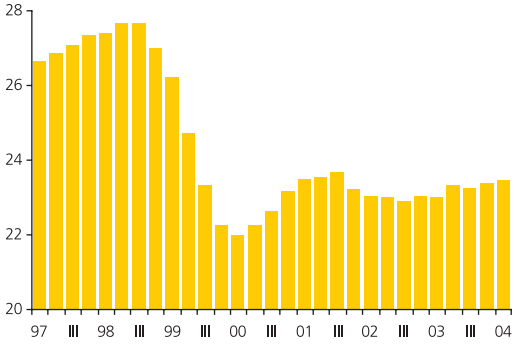
(*) Seasonally adjusted series.

Sources:
Santiago Stock Exchange.
National Statistics Bureau (INE).
Central Bank of Chile.

Figure III.7

Gross fixed capital formation

(percentage of GDP in 1996 pesos, moving years)

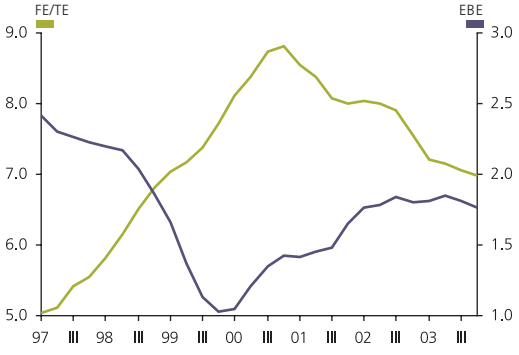


Source: Central Bank of Chile.

Figure III.8

Corporate earnings and financing expenses (*)

(percent)



(*) Moving annual average.
FE/TE: financing expenses over total expenses.
EBE: EBITDA (earnings before interest, tax, depreciation & amortization) over equity.

Source: Santiago Stock Exchange.

Gross capital formation

The annual increase in gross fixed capital formation (GFCF) estimated for 2003 was corrected upward, reflecting the updating of the deflator for capital goods imports and its effect on the machinery and equipment component.[3] / Thus, the GFCF is estimated to have risen 4.8% in 2003, almost two percentage points more than previously estimated. For the moving year ending in the first quarter of 2004, GFCF rose 5.7%, to 23.5% of GDP, measured in 1996 prices, slightly higher than in 2003 (figure III.7). Overall, investment continues to perform more weakly than expected in this stage of the cycle, although it does show signs of recovery from the lag identified in the past *Report*. In any case, investment growth is likely to strengthen, as different sectors absorb current idle capacity and continue to grow (box III.3). This can already be seen in some manufacturing branches, reflecting good prices in natural-resource-related sectors, whose production decisions depend heavily on installed capacity.

On business returns, figures from FECUs show relative stability in the fourth quarter of 2003 over previous periods. At the same time, better financial and credit conditions are apparent in companies' declining financial burden (figure III.8). Despite a recent fall, business expectations measured by the IMCE remain more optimistic than in late 2003. Overall, trends in business profitability, domestic and external financing conditions and business confidence indicators, all point to the recovery in investment continuing.

Within the machinery and equipment component, which accounts for almost 41% of GFCF, information for the first quarter of 2004 points to a steady increase in capital goods imports. At the same time, manufacturing sales of capital goods (INE) are posting annual increases, despite a tendency to fall at the margin (figure III.9). In the second quarter, capital goods imports should remain high, although slowing significantly in terms of annual growth, and even falling into negative figures, given the high comparison basis.

On the building component of investment, which accounts for almost 32% of GFCF, sales information shows some stagnation since mid-2003. At the same time, stocks remain constant since late last year, meaning they will last for more months (figure III.10). Better credit conditions for mortgages, in terms of both cost and terms, indicate this sector's prospects should remain the same or improve.

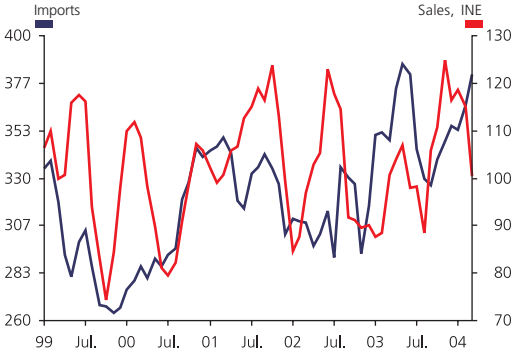
For the engineering works component, 27% of fixed investment, the project list prepared by the capital goods corporation (CBC) in April indicates investment should be almost 5% higher in 2004 than the previous list (January). In this sense, for 2003-2006, the sectors capturing the largest share of private investment are public infrastructure concessions, mining and forestry (figure III.11). New investment projects recently

[3]/ The figure assumed for 2003 used the external price index (EPI) as deflator. The current value assumes a deflator based on more detailed monitoring of prices, consistent with the annual measure methodology used in national accounts.

figure III.9

Sales and imports of capital goods (*)

(imports: millions of 1996 dollars; sales: index 1999=100)



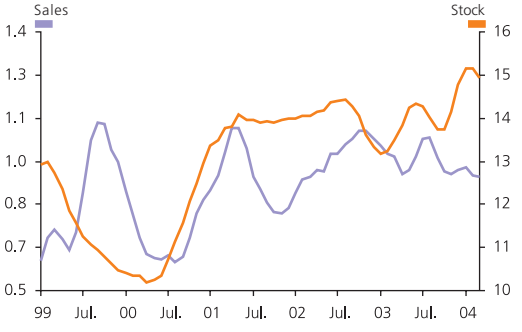
(*) Moving quarterly average, seasonally adjusted series.

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

Figure III.10

Sales and stock of new housing (*)

(thousands of units)



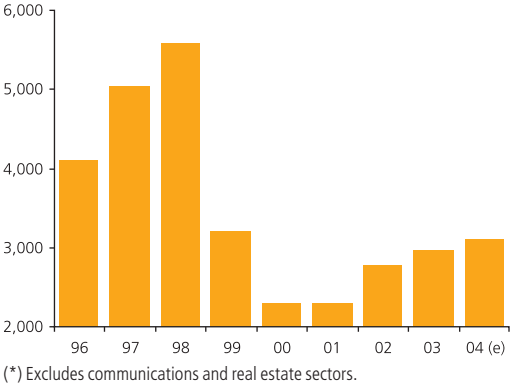
(*) Seasonally adjusted series, moving quarterly average.

Source: *Cámara Chilena de la Construcción* (national builders' association).

Figure III.11

Investment list (*)

(US$ million)



(*) Excludes communications and real estate sectors.
(e) Estimate.

Source: *Corporación de Desarrollo Tecnológico de Bienes de Capital* (capital goods technological development corporation, April 2004).

announced by the private sector will contribute to this shift; however, since their works are not yet scheduled, they are not included in the list. Several of these are in the mining sector.

According to the 2004 budget, public sector investment will rise by a real 6.2% over last year. The main items include commitments associated with the infrastructure concessions program, ongoing projects, targets in the *Chile Barrio* program, housing programs and public works projects.

The recovery in investment has gradually taken shape in a context of stable returns, more optimism and better financial and credit conditions.

Fiscal policy

In 2003, the central government's conventional balance was –0.4% of GDP according to accrued criteria, and -0.8% of GDP according to cash criteria, this last slightly higher than projected in the Budget Law (–0.7%). The structural surplus, meanwhile, was 0.9% of GDP (figure III.12). In the first quarter of this year, the consolidated balance showed an accumulated overall balance for the central government of –0.2% of GDP[4] / because fiscal accounts posted a US$402.5 million surplus. First quarter results reflected 10.9% real annual growth in total income combined with a real 6.4% annual increase in total spending. The important rise in income was the result of the high copper price and the larger volumes exported during this period, while high spending on personnel explained the change in spending.

In 2003 the central government's net debt amounted to 6.8% of GDP, less than 2002, especially because of the peso's appreciation. The deficit for this period was financed by gross borrowing and deaccumulating assets. Gross debt fell from 15.7% to 13.3% of GDP from 2002 to 2003. The Central Bank's net debt,[5] / meanwhile, went from –2.4% to 0.5% of GDP. This reflected peso appreciation, which generated capital losses, given the Central Bank's net creditor position in foreign currency. Overall, consolidated central government and Central Bank debt rose from 5.5% in 2002 to 7.3% of GDP in 2003. Gross consolidated debt was 34.4% of GDP, down from 36.8% in 2002 (figure III.13).

The strong improvement in the external environment has pushed national income up significantly, especially in the public sector. Given the temporary nature of this shift, a substantial portion should go to saving, which in the case of the public sector is established in the structural surplus rule. Thus, the baseline scenario of this *Report* assumes that public sector accounts will post a surplus in 2004 and in 2005, after some years of deficit.

The temporary nature of the rise in public sector income, reflecting an improvement in the terms of trade that is also temporary, makes it advisable to save an important fraction of this higher income.

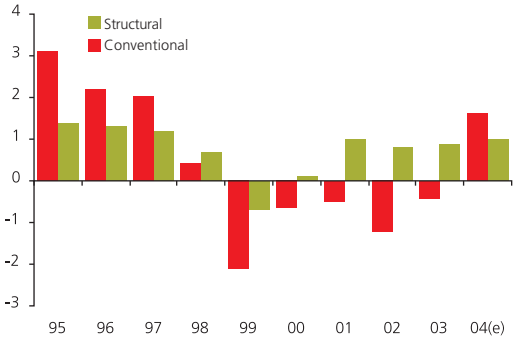
[4]/ This is different from the balance of 0.4% reported by the national budget division, because this *Report* examines both the balance and GDP accumulated in the past year, while the national budget division uses the balance for the period over the calendar year GDP.

[5]/ Measured using the methodology from the public debt statistics report from the Ministry of Finance.

Figure III.12

Conventional and structural Central Government surplus (deficit)

(percentage of GDP)



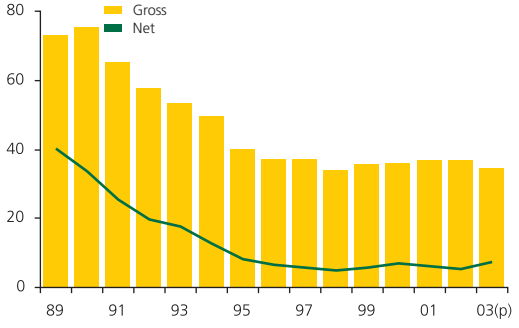
(e) Own estimate based on data submitted to the *Comisión Mixta de Presupuestos* (mixed budget commission) in April.

Source: *Dirección de Presupuestos* (national budget division), Ministry of Finance.

Figure III.13

Consolidated Central Government and Central Bank debt (*)

(percentage of GDP)



(*) The consolidation of Central Government and Central Bank figures eliminates items representing liabilities (assets) for the Central Government and assets (liabilities) for the Central Bank. These are promissory notes and fiscal deposits in the Central Bank.
(p) Preliminary figures.

Source: Ministry of Finance.

Net external demand

Considering new and revised information,[6]/ total goods exports rose 7.2% and goods imports rose 9.5% in 2003, up by 0.5 and one percentage point, respectively, from estimates in the previous *Report*.

To date in 2004, nominal net exports have risen significantly, with this year's balance of trade expected to post a significant surplus. In the first quarter, growth in total export volumes was approaching 11.4%, driven mainly by agricultural and manufactured products (table III.1). For the second quarter, a similar trend is expected, with mining and manufacturing shipments standing out.

Table III.1

Exports by volume

(quarterly data, annual change, percent)

	2003					2004
	I	II	III	IV	Year	I
Total	8.8	1.4	15.5	6.4	7.2	11.4
Mining	3.5	0.1	20.4	2.3	5.8	7.2
Agriculture, livestock, forestry, and fishing	6.8	15.1	24.3	13.2	10.1	11.9
Manufacturing	17.4	-0.3	11.4	8.8	8.3	14.1

Source: Central Bank of Chile.

On imports, in the first quarter volumes grew almost 14.5%, due especially to consumption and intermediate goods (table III.2). For the second quarter, a similar trend is expected, with consumption and intermediate goods again outstanding. Capital goods imports, although expected to remain the same as in the previous quarter, will post a negative growth rate due to the high comparison basis.

Table III.2

Imports by volume

(quarterly data, annual change, percent)

	2003					2004
	I	II	III	IV	Year	I
Total	8.6	8.0	6.3	16.6	9.5	14.5
Consumption	23.1	10.0	9.0	25.7	16.8	13.6
Intermediate	4.8	0.1	5.6	16.9	6.1	15.5
Capital	7.7	19.4	-4.2	6.4	7.2	10.2

Source: Central Bank of Chile.

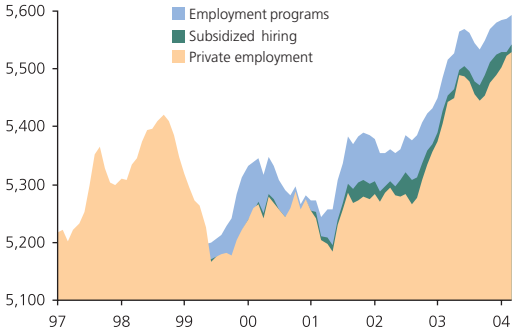
In the first quarter, the export goods prices were much higher than expected, posting an annual change of about 25%, driven mainly by mining shipment prices (59%). On goods imports, meanwhile, prices in US dollars rose by 3%, due to increases in the cost of intermediate goods, pushed by the oil price and other intermediates (shipping charges). Overall, in 2004 the terms of trade should rise about 13%, more than estimated early in the year (10%).

[6]/ Exports have incorporated figures from the changes in value report (*Informe de Variación de Valor*, IVV) 2003, which forms part of the usual review of information to publish annual balance of payments statistics. The import account information is brought into line with information from national accounts, a process that on this occasion occurred earlier than usual.

Figure III.14

National employment (*)

(thousands of people)



(*) Seasonally adjusted series.

Sources:
National Statistics Bureau (INE).
Ministry of Labor and Social Security.

Figure III.15

Composition of employment (*)

(thousands of people)

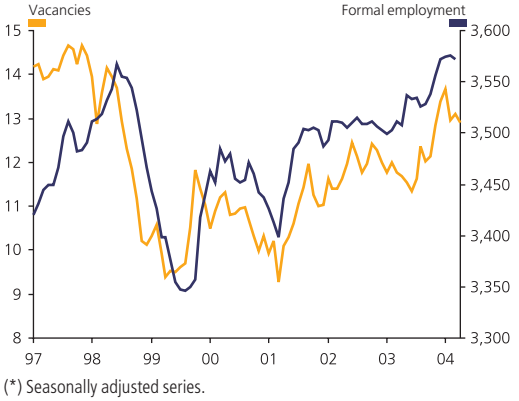
(*) Seasonally adjusted series.

Source: National Statistics Bureau (INE).

Figure III.16

Vacancies and formal employment (*)

(thousands of jobs)



(*) Seasonally adjusted series.

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

Current account and the balance of payments

The current account of the balance of payments closed 2003 with a US$594 million deficit, 0.8% of GDP. This deficit, lower than the previous year's, reflected a larger surplus in the balance of trade and a small improvement in income net of transfers. Income and services, meanwhile, posted larger deficits. For income, this reflected mainly net outflows in profits and interest on direct investment, greatly influenced by the better copper price. These larger outflows were partly offset by lower net outflows in the other investment item.

In the first quarter of this year, the current account posted a US$746 million surplus, closing with a 12-month deficit of US$120 million, -0.15% of GDP. The outlook for 2004 points to the surplus reaching about 1.0% of GDP, given the effect of the increase in the terms of trade on national saving, particularly by the public sector (table III.3).

Table III.3

Current account

(US$ million)

	2001	2002	2003	2004 (f)
Current Account	-1,100	-885	-594	1,000
Goods and services	999	1,600	2,249	6,100
Goods	1,844	2,256	3,015	7,000
Exports	18,272	18,177	21,046	28,200
Imports	16,428	15,921	18,031	21,200
Services	-844	-657	-767	-900
Income	-2,526	-2,915	-3,280	-5,700
Unilateral transfers	427	430	438	600

(f) Projection.

Source: Central Bank of Chile.

The current account surplus should be around 1% of GDP in 2004, in line with a significant increase in net exports.

Labor market

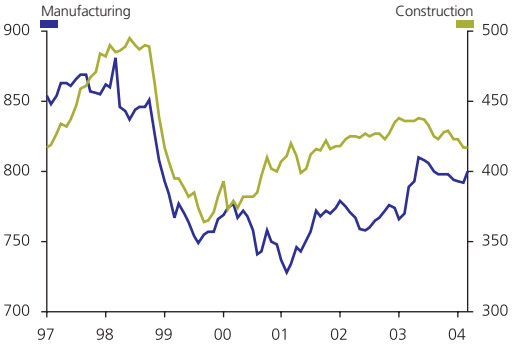
The labor market's performance flattened somewhat in recent months. Although job creation has slowed since late last year, as reflected in less growth in private employment and the reduced weight of special governmental employment programs, this is not a definitive sign of a weak labor market (figure III.14).

On the composition of employment, secondary sectors have resumed leadership after growing more modestly than early in 2003. In sectors associated with formal employment, the rising trend apparent since the second half of 2003 flattened in recent months. Thus, in the first quarter seasonally adjusted formal sector employment, about 64% of total employment, remained almost constant over December, while self-employment, 26% of total employment, remained at about 27,000 jobs (figure III.15).

Trends in formal employment reflect the vacancy index in the past six months, which has risen despite some fluctuations (figure III.16). Trends

Figure III.17

Employment by sector (*)
(thousands of people)

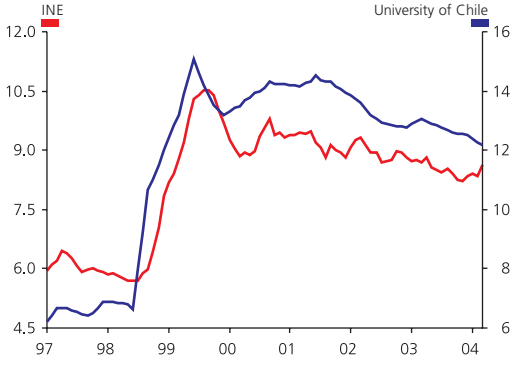


(*) Seasonally adjusted series.

Source: National Statistics Bureau (INE).

Figure III.18

Unemployment rate (*)
(percent)

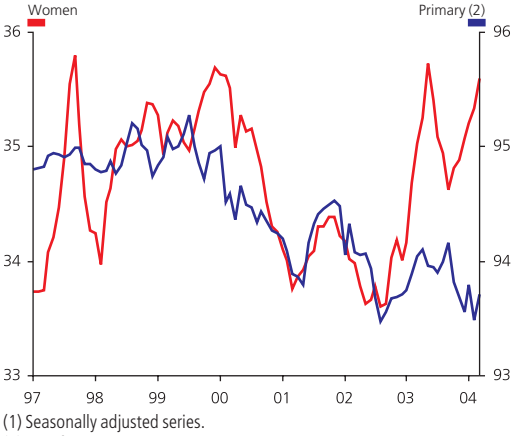


(*) Seasonally adjusted series.

Sources:
National Statistics Bureau (INE).
University of Chile.

Figure III.19

Participation rate (1)
(percent)



(1) Seasonally adjusted series.
(2) Men from 25 to 54 years.

Source: National Statistics Bureau (INE).

in the vacancy rate —the number of vacancies over total labor force as reported by the National Statistics Bureau (INE)— in the context of the Beveridge curve,[7]/ recent levels are out of line with their historic pattern, so part of this increase may be reversed, as happened in February. Nonetheless, sustaining current vacancy rates with lower unemployment in coming months is a possibility.

By area of economic activity, aside from recent figures, employment in the manufacturing and construction sectors has fallen steadily. In contrast, employment in services shows substantial increase (figure III.17).

The seasonally adjusted unemployment rate rose at the end of the first quarter, after holding relatively steady since last November. The primary unemployment rate (men aged 25 to 54 years) behaved similarly, with a slight rise at the margin, after holding steady at about 6.7% in the second half of 2003. Alternative measures suggest a somewhat different outlook. Through March 2004, unemployment in Greater Santiago, as measured by the University of Chile, was at its lowest since late 1998 (figure III.18).

The participation rate, meanwhile, has risen since mid-2003, especially associated with women, whose participation turned around part of the previous decline. This change was particularly noteworthy among women aged 35 to 54 (about half the total female population). Finally, the participation of the total primary population has been volatile since the second half of last year, after holding steady in the first half of 2003 (figure III.19).

[7]/ It compares the unemployment rate with vacancies (Bellani et al., 2002).

Box III.1: Effects of restricted gas supply on economic activity

The Argentine government's decision to ration gas to Chile in late March calls for an estimation of the possible effects on domestic economic activity. To do so, different scenarios must be examined, with different assumptions on the amount and duration of the restriction, both uncertain variables since the beginning of the cuts, but essential in the estimations.[8] / It is also vital to consider that the effects of a restricted gas supply on activity are not linear, because production units forced to use alternative energy sources (coal or diesel, among others) may substitute at increasingly higher costs, using less efficient technologies. Finally, the results depend to a significant degree on how the restriction is assigned to the main demanding sectors (power generation companies, manufacturing, residences). Here we will present the basic data on national gas consumption by the main users and the result of estimates based on assumptions.

Gas consumption in Chile

The main users of natural gas in Chile are the electric power generation sector (natural gas-based thermal generation stations in the far north and the central regions), manufacturing sectors, and residential-retail (especially in Santiago and Region V), where 100% of supply comes from Argentina. Estimates from the National Energy Commission (CNE) for 2004, indicate that thermal power generation stations require about 8.7 million m^3 of natural gas, to generate almost 28.5% of the country's electric power supply (figure III.20).

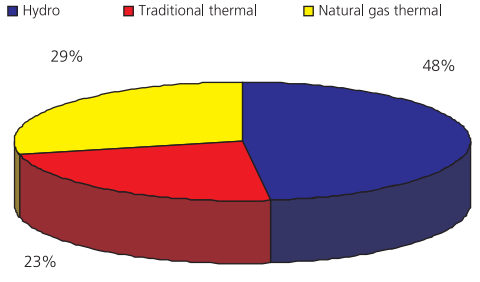
Manufacturing and residential-retail use 5.9 and 2.6 million m^3 of natural gas per day, respectively, all imported from Argentina.[9] / According to these figures, the current gas restriction (seven million m^3 daily) represents 41% of demand in Chile's northern and central-southern regions.

Estimating effects on activity[10] /

The scenario is built using information on gas restriction and the sectors known to be affected to date. It is assumed that the restriction will continue during the winter months (June-September), totaling six months since

Figure III.20

National power generation, 2003 (*)
(percentage of total)



(*) Total generated 45,403 GWh. Excludes wind generation equivalent to 5.2 GWh.

Source: *Centro de Despacho Económico de Carga - Sistema Interconectado Central* (SIC) (electric power distribution center).

[8]/ In late March, the month cuts began, the restriction was 2.3 million m^3, increasing to about 7 million in mid-May.

[9]/ Daily demand from other sectors (petrochemical firms and transportation) was not considered in this analysis. See *Comisión Nacional de Energía* (2004).

[10]/ For a review of this calculation method, see Escobar et al. (2004).

cuts began last March. Thus, the impact on activity is derived from data on actual restrictions in April and May and assuming an average restriction of 7 million m^3 daily from June to September. At the same time, this restriction is assumed to be distributed as a 2.6 million m^3 cut to thermal generation plants in the northern electrical interconnected system (SING), 3.7 million m^3 to the central grid (SIC) and 0.7 million m^3 to manufacturing. The impact on this last sector, however, should be partly offset if an operational agreement could be reached by companies to create a system for transferring excess gas from the electric sector to other users (a gas exchange). According to the information available, managing of this surplus has already been assigned to an independent firm, which should be responsible for connecting the gas market's users and suppliers.

In this scenario, the gas restriction should have virtually no impact on electric power generation, given that thermal generation plants can use other energy sources[11] / and medium-term idle capacity in the national power system, thanks to the upcoming start-up of the Ralco hydro-electric power generating station.

Where natural gas is replaced by an alternative fuel (coal or oil), thermal plants' variable generating costs rise. In the case of the regular measures included in national accounts, assuming constant electric power generation, the rising costs reduce the aggregate value of each megawatt of energy generated and, therefore, the GDP associated with the sector as a whole.[12] /

The effects on electric power generation for April and May have been estimated using data on gas restrictions so far. To estimate the impact on the next four cold months, the restriction on this sector is assumed to be 6.3 million m^3.

Table III.4

Effects of gas restrictions on GDP (*)
(percentage points)

Annual impact on GDP	Sector	Total economy
Generating companies	-2.9	-0.08
Manufacturing companies	-0.3	-0.05
Total effect		-0.13

(*) Prepared using data for April and May and assuming a 7 million m^3 daily cut from June to September.

Source: Central Bank of Chile.

Considering the share of gas in the companies' costs, replacing this input involves an increase in total costs, which yields a 2.9 percentage point decline in annual GDP for the electricity, gas and water sector. Given this sector's weight in total GDP (2003), and the restriction's six-month duration, the effect on total GDP should be somewhat under 0.1 percentage point (table III.4).

In the case of the manufacturing sector, the estimated effects are based on a restriction of 0.7 million m^3 daily from June to September. This restriction could produce two effects among manufacturers that can reconvert, which represent about 60% of the companies using natural gas. The first involves higher costs, associated with the fuel change, which, as with electricity, would affect the aggregate value generated by these companies. The second is reduction in activity associated with the down time necessary to reconvert.[13] / Both effects together would reduce

[11]/ This is true for all thermal plants in Chile, except those located in the central grid (SIC).

[12]/ The substitute fuel would be coal in the first place, since plant reserves would allow them to use 3.3 million m^3 in the northern grid (SING) and almost 1.8 million m^3 in the SIC. See Bernstein (2004).

[13]/ In the case of companies that cannot substitute, the effect would only be a higher input price, without affecting the aggregate value at constant prices, calculated by national accounts.

the manufacturing sector's annual GDP by 0.3 percentage point, which would amount to almost 0.05 percentage point of total GDP.

Given these effects on the electric power generation and manufacturing sectors, restrictions on natural gas will cause an estimated reduction in total annual GDP of slightly more than 0.1 percentage point in 2004.

These estimates are a referential exercise on the possible effects of natural gas restrictions on economic activity. Differences in the assumptions used and/or changes in other variables would change these results in one direction or the other. On the positive side, these effects will be reduced if the restriction turns out to be smaller in magnitude or of shorter duration and, especially, if hydroelectric power generation is higher than forecast, which will depend essentially on the weather in the next few months.

It must be kept in mind that these estimations are not linear, that is, these effects may not be proportional to the size of the restriction. This because of the use of more costly substitute fuels, production technologies that require minimum amounts of fuel, or unfeasibility of manufacturing firm reengineering, among the main factors. Thus, for example, an increase of 5 million m^3 daily in the assumed natural gas restriction from June to September would produce a further decline in annual GDP of somewhat more than 0.1 percentage point.

Box III.2: New indicators for current conditions: the business confidence survey developed by Icare and the Adolfo Ibáñez University

Table III.5

Correlation between business confidence for time *t* and GDP

(quarterly data, annual change)

	GDP(t-1)	GDP(t)	GDP(t+1)	GDP(t+2)
United States	0.45	0.73	***0.84***	0.74
Japan	***0.81***	0.78	0.71	0.63
Germany	0.51	0.60	***0.63***	0.61
France	0.76	***0.87***	0.84	0.65
Italy	0.43	0.55	***0.59***	0.55
United Kingdom	0.79	0.86	***0.87***	0.76
Canada	0.66	0.85	***0.86***	0.81
Belgium	0.42	0.60	0.71	***0.73***
Denmark	0.55	***0.65***	0.59	0.53
Netherlands	0.27	0.42	0.44	***0.54***
Spain	0.70	0.84	***0.85***	0.80

Source: Santero T. and N. Westerlund.

Business confidence indicators have become internationally recognized as leading indicators of economic activity[14] / (table III.5). Central banks and economic analysts in developed countries use them extensively in their projections, because empirically these indicators have been able to forecast breaking points in growth cycles[15] / (table III.6). A series of successful international examples confirm their valuable contribution to the analysis of current conditions and output projections.[16] / Several confidence indicators for time *t* in industrialized countries show a higher correlation with changes in GDP ahead of time (8 of 11 cases). Even where these periods coincide or data come out with a lag of one period, they tend to be available before the short-term quantitative statistics from national accounts.

Tabla III.6

Economic Sentiments Indicator (ESI), European Commission

(manufacture's past performance compared to cycle breaking points, monthly data 1970-1999)

	Analysis of breaking points (median lag in months)			Correlation analysis	
	ESI lead on the peak at time t	ESI lead on the trough at time t	ESI lead at the breaking point (any) at time t	Month of maximum correlation	Correlation
European Union	t-5	t-2	t-2	t-6	0.6
Germany	t-7	t-0.5	t-2	t-6	0.6
United Kingdom	t-1	t-5	t-3	t-8	0.7
France (1)	t-4	t+3 (2)	t-1	t-3	0.6
Italy (1)	t-4	t-5	t-5	t-3	0.6

(1) The data are for an ESI change consisting of an equal weight of component indices.
(2) In this case, the modified ESI is a lagged indicator for the trough.

Source: Nilsson R.

[14]/ Empirical evidence on the ability of these indicators to predict significant changes in activity are extensively documented in McNabb and Taylor (2002), Nilsson (2000), Hufner and Schroder (2002), Hamilton and Pérez-Quiros (1996), Mourogane and Roma (2002), Santero and Westerlund (1996), among others.

[15]/ The ability to predict breaking points is an empirical quality relevant to each country and the specific composition of each confidence indicator, as shown by Nilsson (2000) for different European confidence indicators.

[16]/ These include, among others: the PMI, from the Institute for Supply Management in the United States, the European Union's Industrial Confidence Indicator and Economic Sentiment Indicator, and the TANKAN survey business confidence indicator in Japan.

To create this kind of analytical instrument in Chile, the Central Bank decided to promote a business confidence survey, which was adjudicated in public auction to the *Instituto Chileno de Administración Racional de Empresas* (Icare) and Adolfo Ibáñez University (UAI). The survey is monthly and involves interviewing about 600 executives with firms in manufacturing, mining, construction and wholesale and retail trade. This box provides basic information for reading its results.

Confidence indicators in general are built on reply balances. The underlying principle is that each variable consulted in the survey (Xj) is a function of the percentage of "favorable" (Fj), "unfavorable" (Dj) and "neutral" (Nj) replies. The balance of replies (Bj) for variable "j", is constructed as the difference between the percentages of respondents giving positive and negative replies: Bj = Fj – Dj; so that these balances are contained in the interval [-100,100]. To make it easier to use logarithmic transformations and multiplicative time series models, balances are usually presented as diffusion indices, which are obtained by adding 100 to the balance of replies and dividing this result by two. This transformation places indicators within the [0,100] range, with the "neutral barrier" centering on 50. Thus, a diffusion index over 50 suggests sentiments are "optimistic" or "favorable" with regard to the variable in question; conversely, if it is under 50, it means the outcome of replies is "unfavorable".

The main result of Icare/UAI business confidence survey is a diffusion index called the monthly business confidence indicator or (IMCE, which consists of the weighted average of four confidence indicators, reflecting the sectors from which interviewees are selected (table III.7).

The industrial confidence (ICIN) and the mining confidence indicator (ICMI) are the same as that for construction and are in line with the European Union's Industrial Confidence Indicator.[17] / This last is a diffusion index based on the simple average of reply balances for three variables: "future trends in production," "orders placed" and (with a negative sign) "inventories".

Survey questions are formulated to capture when economic activity deviates from recent trends. The questions about "expected future production", for example, include the alternatives "it will rise," "it will fall," or "it will remain the same" as recent trends. The "remains the same" answer assumes that it will continue to follow recent trends, while the sign of deviations from the neutral barrier should indicate the implicit direction of the activity cycle.

In the case of "orders placed" or "demand level", the question is formulated to make comparisons with the level currently considered "normal". If the demand level is above "normal", it is understood that production flows should pick up in the coming months to levels above recent trends; if, in contrast, the demand level is less than "normal", activity would be expected to slow in the future.

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[17]/ Harmonization with prestigious international surveys offers greater scope for international comparison, as well as methodological and empirical advantages, and allows to benefit from the knowledge and experience accumulated by other countries. Nonetheless, the cultural peculiarities of Chile's own business people are also taken into account when designing surveys. Instead of the "orders" variable, for example, "demand level" is used.

Table III.7

Main confidence indicators from the Icare/Adolfo Ibáñez University survey

Diffusion index	Indicators included	Formula
Monthly Business Confidence Indicator (IMCE)	ICIN = Manufacturing confidence indicator ICMI = Mining confidence indicator ICOM = Retail trade confidence indicator ICOT = Construction confidence indicator	IMCE = w1*ICIN+w2*ICOT+w3*ICMI+w4*ICOM, where w is the weight, according to the sector's share of GDP
Manufacturing Confidence Indicator (ICIN)	PE = Balance for expected production (future trend) DT = Balance for total demand for company production (current level) IPT = Balance for inventories of finished products (current level)	ICIN = [((PE + DT - IPT)/3) + 100]/2
Mining Confidence Indicator (ICMI)	PE = Balance for expected production (future trend) DT = Balance for total demand for company production (current level) IPT = Balance for inventories of finished products (current level)	ICMI = [((PE + DT - IPT)/3) + 100]/2
Retail Trade Confidence Indicator (ICOM)	SEA = Balance for current business conditions SEF = Balance for expected business conditions (future trend) IPV = Balance for inventories of products for sale (current level)	ICOM = [((SEA + SEF – IPV)/3) + 100]/2
Construction Confidence Indicator (ICOT)	DT = Balance for total demand for company production (current level) E = Balance for expected employment trends (future trend)	ICOT = [((DT + E)/2) + 100]/2

Source: Central Bank of Chile.

Finally, the question about current inventory levels offers the alternatives: "excessive", "sufficient" and "insufficient". A "sufficient" inventory level would reflect trend activity levels, and fluctuations around this would reflect the level of undesired inventories, due to mismatches in supply and planned spending. This particular indicator is incorporated into the sector index with a negative sign, because of its countercyclical interpretation, since in this case a diffusion index of over 50 would represent "excessive" inventories (undesirable inventory accumulation), thus reflecting that in the balance of opinion, companies would prefer their inventories to fall and therefore could reduce future production. In contrast, an "insufficient" inventory level (index below 50) would reflect greater than expected demand, which would lead to a strong increase in production over current trends.

The retail trade confidence indicator (ICOM) and the construction confidence indicator (ICOT), have also been harmonized with the European Union's indicator model.

The ICOM includes the balance of answers on three variables: "evaluation of current general business conditions", "evaluation of future business conditions", and, with a negative sign, "inventory levels". The response choices for the first are: "good", "satisfactory", or "bad". The "neutral" business opinion again corresponds to the "normal" pace of activity or recent trends, while the extreme alternatives point toward the general direction of the activity cycle. The previous variable is complemented by an evaluation of the company's general situation for the next three months, which is similarly interpreted, given the alternatives: "it will get better", "it won't change", or "it will get worse", while inventory levels have the same reading as the ICIN and ICMI.

The ICOT is based on a simple average for the two response balances: "orders" ("demand level") and "changes in employment expectations". Each indicator is interpreted as described above.

The survey also provides confidence indices for costs and prices, along with quarterly indicators for wages, employment and investment intentions. The results are completed with a general economic confidence indicator and a quantitative percentage index estimating capacity in use in manufacturing and mining, which is expected to be very useful to measure output gaps in the future.

In concluding, a warning is in order, that to eliminate seasonal effects typical of high-frequency time series and to be able to use standard cycle analysis techniques, a set of data for a sufficiently long period is required. Because of this, the results from the Icare/UAI business confidence survey should be viewed cautiously for now, given the statistical limitations of a series that currently consists of just seven monthly observations.

Box III.3: Composition by sector and prospects for machinery and equipment investment

An analysis of investment by sector offers a different view from the usual study of aggregate economic growth. This is because areas of economic activity perform differently from each other, for example in terms of capital-output and capital-labor ratios. Thus, while investment in housing boosts output through actual (rent) or imputed annual service, the same investment in a manufacturing project may produce a much larger increase in output, because it creates jobs and company profits, and contributes to tax revenues. Similarly, putting these resources into public infrastructure will have direct and indirect effects on economy at large, by reducing production costs and contributing to the development of different sectors.

This box provides a sector analysis of machinery and equipment investment,[18] / which accounts for almost 40% of gross fixed capital formation, being primarily imported (table III.8). This study focuses on the sectors most relevant in economic terms and because of their share of total gross investment (table III.9). Finally, some information is provided on the prospects for spending on equipment by investment activity in the short and medium terms, especially based on the private investment project list prepared by the capital goods corporation.

Table III.8

Gross fixed capital formation by assets
(1996 prices, percent)

	Average 1996-2002
Construction and other works	60.4
Machinery and equipment	39.6
Domestic	2.7
Imported	36.8

Source: Central Bank of Chile.

Table III.9

Machinery and equipment investment by sector
(1996 prices, percent)

	Average 1996-2003
Agriculture, livestock, forestry, and fishing	4.5
Mining	12.6
Manufacturing	27.6
Electricity, gas and water	5.5
Construction	8.9
Wholesale and retail trade, hotels, and restaurants	4.8
Transportation and communications	15.2
Financial and company services	11.8
Other services	9.1

Sources:
Central Bank of Chile.
Pérez (2003).

Investment by sector: past behavior and prospects

Mining

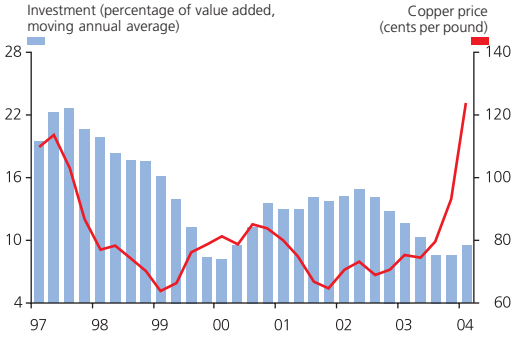
Mining's strong performance in the first half of the 1990s reflected a significant investment effort. Metal prices were good and sector investment rates were high. This situation changed toward decade's end, leading to the postponement of new projects. Given the current rise in the copper price, and the apparent lag in investment with regard to this variable (about one year), an upturn in capital goods purchases is expected. This is reflected in machinery and equipment investment estimates measured as a percentage of the sector's added value, which increased in the first quarter of 2004 (figure III.21).

In confirmation of the above, the most recent private investment project list 2004-2006, revealed some important investment initiatives whose works are already scheduled. The relevant project file for the mining sector includes investment for almost US$3 billion, of which 37% should go to

[18]/ The methodological aspects of preparing investment matrices for each economic sector can be found in Pérez (2003).

Figure III.21

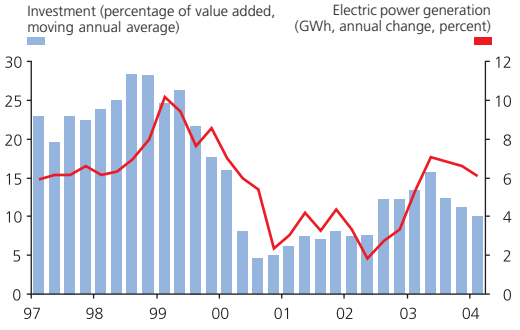
Mining: machinery and equipment investment and the copper price



Sources:
Central Bank of Chile.
Comisión Chilena del Cobre (Chilean Copper Commission).

Figure III.22

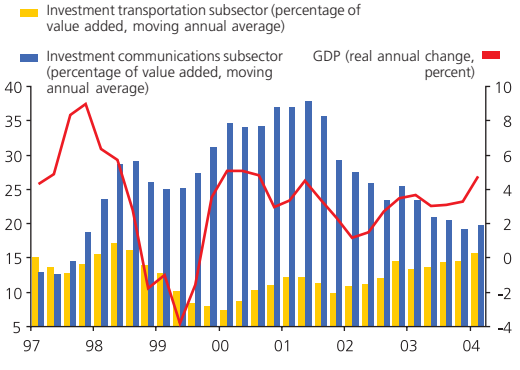
Electricity, gas and water: machinery and equipment investment and electric power generation



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

Figure III.23

Transportation and communications: machinery and equipment investment and total GDP



Source: Central Bank of Chile.

buying machinery and equipment. This, combined with projects not in the list because they have yet to schedule their works plan, should bring figures for mining sector purchases abroad into line with a clear recovery in the short and medium term.

Electricity, gas, and water

This sector's dynamism in the past decade directly reflects growth in electric power generation. The government's energy integration policy has contributed to this, by encouraging the building of gas pipelines and the use of combined cycle turbines, significantly reducing operating costs. Toward 2000, this sector's investment in machinery and equipment fell significantly.

In recent years, quarterly data reveal that the investment rate has been below its historic average (figure III.22). However, the private investment list (April 2004) discovered some recovery in this sector's investment, reflected for example in projects to build two power generating stations in the medium term, for a total investment of over US$360 million, of which 75% would go to buying machinery and equipment. Similarly, the National Energy Commission's works plan recommends 11 power generating stations to be built, for start up between October 2006 and January 2013, while a plant for reconverting liquid natural gas (LNG) is scheduled to be built in 2007, for an investment of from US$400 to US$500 million.[19]/

Transportation and communication

In the transportation subsector, the behavior of machinery and equipment investment closely follows GDP growth (figure III.23). Currently, this sector's investment rate is similar to its 1998 peak. On prospects for this year and next, several major projects are slated for start up or implementation, among them the extension of the Metro and the *Transantiago* bus plan, which have a substantial impact on demand for transportation equipment and materials.

In the communications subsector, meanwhile, the arrival of new actors and the resulting increase in competition have led to the application of the latest technologies, which has strongly influenced companies' investment plans. This process of creating new products (mobile telephone service, Internet) and market penetration determined that by 2000, investment measured as a percentage of the sector's added value was peaking (37%). In the following years, rates fell, although they remained above historic levels (25%), except in 2003 when investment dropped to 19%. For the first quarter of 2004, estimated investment promises to reach the sector's historic average, for the first time since 2002.

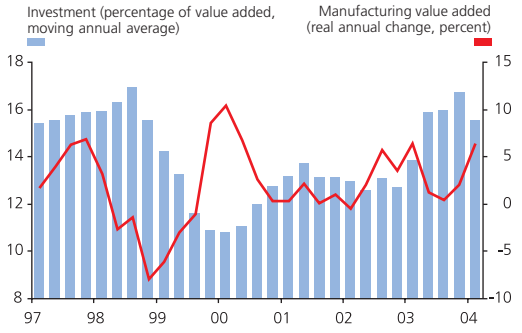
Manufacturing

The processes of change that marked the drive behind mining, energy and communications also affected the sectors that would become growth

[19]/ This project seeks to diversify the country's energy supply, by importing LNG from producing countries overseas.

Figure III.24

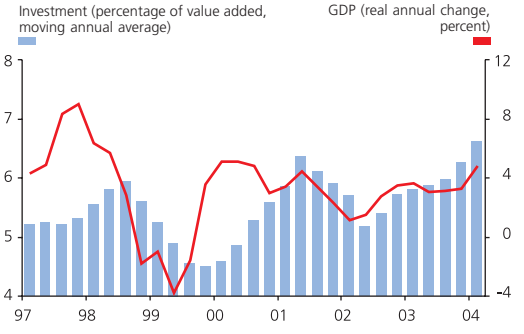
Manufacturing: investment in machinery and equipment and manufacturing value added



Source: Central Bank of Chile.

Figure III.25

Other sectors: investment in machinery and equipment and total GDP



Source: Central Bank of Chile.

leaders in Chile's economy and magnets for investment, namely, agribusiness, wood pulp production and fishery-related manufacturing. The economy's orientation to external markets was key to this process.

Most recently, there is more optimism, especially about the opportunities that should arise from trade agreements with the European Union, the United States and South Korea, without forgetting the upcoming joint study of the potential for a free trade agreement between Chile and China, a country that has consolidated its leadership role in the world economy.

Overall, estimates through the first quarter of 2004 show a rise in machinery and equipment investment, which in 2003 reached 17% of manufacturing output, almost three percentage points above its historic average (figure III.24). This new growth should reflect primarily the startup of new wood pulp plants, followed by investment in fisher-related manufacturing and oil refining.

The CBC list, meanwhile, has found significant projects for 2004-2006, worth almost US$1.8 billion, of which almost half involve spending in machinery and equipment.

Other sectors

Other sectors on average accounted for 39% of machinery and equipment investment in 1996-2003. Financial and business services lead this group, with information technology and related companies holding a large share. These are followed by other services, with public and private health services predominating in machinery and equipment investment, followed by construction, retail trade, agriculture, livestock, and fishing.

The strong performance from investment since the second quarter of 2002, closely tied to output growth, seems to have been led by construction and other services in particular. Altogether, the investment rate for these "Others" today stands above rates in 1997-1998. Similarly, rising demand has clearly been reflected in retail sales, encouraging decisions to invest in new shopping centers and the startup of new department stores throughout the country, a trend expected to continue in the short to medium term (figure III.25).

Conclusions

The information presented here suggests that, in general terms, current levels of machinery and equipment investment, measured as a percentage of added value, should remain above historical averages, but slightly under rates posted before 1998. The situation varies considerably, however, between sectors.

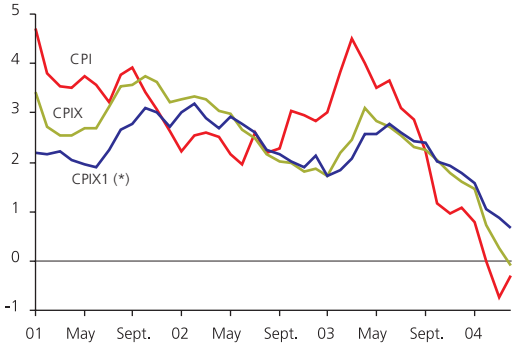
The prospects for investment by sector, based on the private investment project list, reveal a noticeable recovery in this component of aggregate demand with a resulting impact on machinery and equipment purchases. The main projects, that have already been scheduled, are in mining and manufacturing. These two sectors account for most of the investment spending estimated for this year and next.

IV. Recent trends in inflation

Figure IV.1

CPI, CPIX and CPIX1 inflation

(annual change, percent)



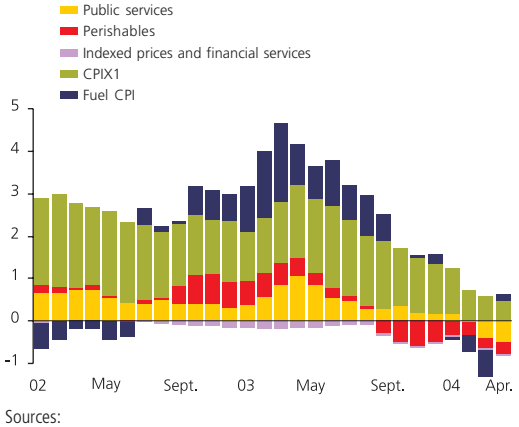
(*) Core inflation, minus prices for fuel, perishables, regulated rates, indexed prices and financial services, which account for 70% of the total basket.

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

Figure IV.2

Factors influencing annual CPI inflation

(percentage points)



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

This section examines recent trends affecting the main components of inflation, identifying different sources of inflationary pressures.

Recent trends in inflation

In the first four months of 2004, annual CPI inflation was similar to projections, although core inflation CPIX1 was lower,[1]/ offset by a higher exchange rate and a higher oil price. Overall, in late April the annual CPI had moved -0.3%, the CPIX –0.1% and the CPIX1 0.7% (figure IV.1).

Negative annual CPI inflation figures in March and April were very influenced by the comparison basis, due to high fuel and some public service prices (especially bus fares) during the same months of 2003, that reflected the temporary effect of war in Iraq. These factors are estimated to have influenced annual CPI inflation by a factor of -1 in March and -0.3 percentage point in April (figure IV.2).

CPI inflation in the first quarter was similar to forecasts, although core inflation was lower, the oil price higher, and the exchange rate appreciated more than originally expected.

Although recent 12-month inflation was negative, monthly inflation has moved out of negative figures where it stood from October 2003 to January 2004. This is partly apparent in the number of CPI items whose price rises every month, which have returned to mid-2003 levels, and an important fall in the number of items whose prices are dropping (figure IV.3).

This change in monthly prices' behavior is also apparent when adjusted for seasonal effects. Data for March and April show a rise, in annualized terms, of the moving average for the seasonally adjusted CPI series (figure IV.4).

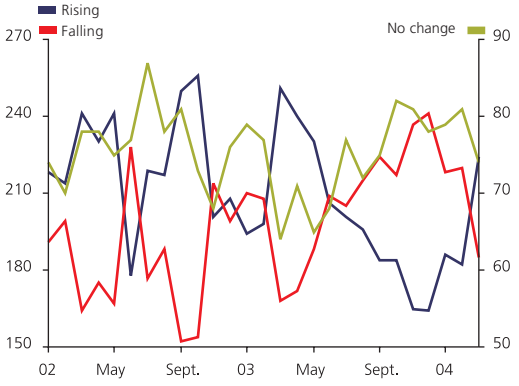
During the first four months, core inflation was lower than expected. Nonetheless, trend indicators show changes since early in the year. The trimmed means for the CPIX and CPIX1 continue to point to a decline in their annual growth rates (figure IV.5). Moreover, the monthly behavior of seasonally adjusted prices, has started to show a rise in core inflation. Annualized figures for April show a rise in the moving quarterly average for the seasonally adjusted CPIX and CPIX1 series (figure IV.6). Overall,

[1]/ This is inflation, minus fuel prices, perishables, regulated services, indexed prices and financial services, equivalent to 70% of the whole CPI basket.

Figure IV.3

CPI items rising and falling

(units)

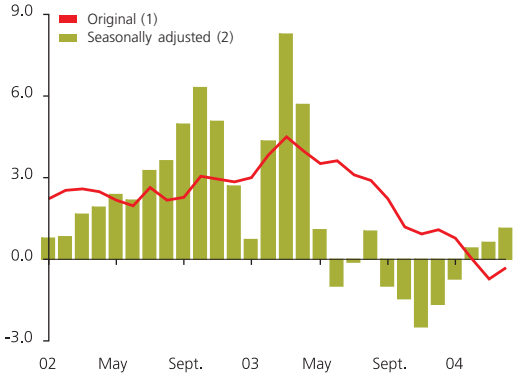


Sources: Central Bank of Chile and National Statistics Bureau (INE).

Figure IV.4

CPI inflation

(percent)



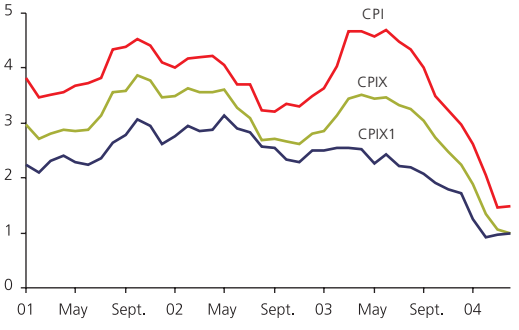
(1) Annual change.
(2) Annualized monthly change in the seasonally adjusted series, moving quarterly average.

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

Figure IV.5

Trimmed means (*)

(annual change, percent)



(*) Core inflation indicator that consists of eliminating the tails of the distributions of weighted changes in different measures of inflation, with the rest reweighted and then the respective price index recalculated (Grünwald et al. 2004)

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

CPIX1 inflation has risen more slowly than forecast last January, and is expected to return to levels consistent with the center of the target range somewhat later than originally forecast.

Inflation components

Regulated prices

In the first four months of 2004, annual inflation on regulated service prices[2]/ fell significantly, to -4.6% in April. This resulted in a 12-month CPI inflation change of -0.4 to -0.5 percentage point in March and April (figure IV.7).

These prices largely reflected trends in bus fares. With exchange rate appreciation and a lower fuel price in late 2003, in the first quarter of 2004 bus fares fell 20 pesos below their level of last September. Altogether, compared to last April, fares this April were down 15%, a decrease of 50 pesos. This situation in itself reduced annual CPI inflation by between -0.7 and -0.8 percentage point. More recent trends in US dollar fuel prices and the exchange rate pushed fares upward in mid-May and for the coming months more changes have not been ruled out.

For regulated prices, the high basis of comparison of the first quarter of 2003 led to negative annual inflation rates in March and April.

Among other regulated prices, the new telephone service rates decreed by authorities are particularly important. The changes announced by the Undersecretary of Telecommunications on 4 May will pull monthly inflation down by some -0.2 to -0.3 percentage point during the third quarter.

Other recent changes will affect electric utility rates. The periodic review of node rates brought an approximately 3% increase in current rates, which will add almost 0.05 percentage point to inflation in May.

Part of this rate increase reflects higher generation costs associated with natural gas supply problems. Further effects are difficult to quantify at the moment, given the uncertainty about the natural gas supply, but additional changes will be apparent when the node price is again reviewed next November. Regarding residential natural gas users, to date there is no sign that the shortage has brought higher rates, so the baseline scenario considers an increase similar to previous periods.

Service prices

In the first months of 2004, service prices, normally tied to total inflation by indexing clauses, performed differently from the CPI. Services linked to housing[3]/ were in line with the CPI, with no significant change in their

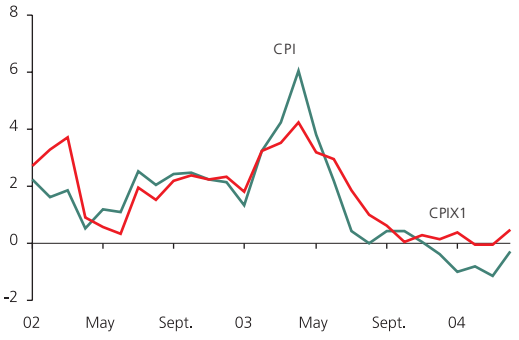
[2]/ These include electricity, drinking water, telephone and bus fares, which altogether represent 8.26% of the CPI basket.

[3]/ Rent, dividends, property taxes, insurance and others, which account for 7.15% of the CPI basket.

Figure IV.6

CPI and CPIX1 inflation (*)

(annualized monthly change, percent)

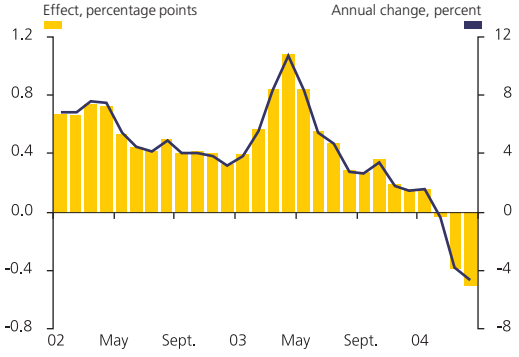


(*) Moving quarterly average, seasonally adjusted series.

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

Figure IV.7

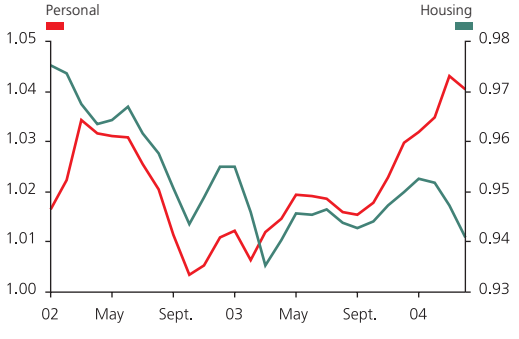
Regulated price inflation and effect on CPI



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

Figure IV.8

Housing and personal service prices over CPI



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

past relationship (figure IV.8). Prices linked to personal services,[4]/ however, averaged 2.2% more than total CPI between September 2003 and April 2004. Part of this may reflect rigidities present in labor contracts when accumulated inflation is negative, as it was during this period.

Fuel prices

In 2004, the oil price has been higher than estimates early in the year. For derivatives, some specific factors have pushed prices higher than crude oil. This has been particularly obvious in the international gasoline price, the fuel that weighs most in the CPI. After moving in line with other derivatives, in February its price started to rise more than the oil price. In fact, by mid-May, it had risen 30% since January, compared to almost 24% per barrel of oil, and the 3% averaged by other fuels (kerosene, diesel oil and liquid gas). Nonetheless, the baseline scenario of this *Report* assumes that the international gasoline price will gradually fall into line with the international oil price (figure IV.9).

The gasoline price in US dollars has risen significantly more than oil, with more impact on inflation.

The above, combined with a somewhat more depreciated exchange rate, resulted in a first quarter fuel inflation, measured in pesos, 4% to 5% higher than forecast in January. Nonetheless, over 12 months, the fall in fuel inflation is one of the main reasons behind the negative indicators for annual CPI inflation in March (figure IV.10).

In recent weeks, the price of oil and derivatives has risen significantly in international markets: around 10% to 15% from mid-April to May. This has brought peso prices for fuels in the domestic market to record figures, which drove monthly inflation higher than in previous months, at least for a while.

Food prices

In the first four months of 2004, perishable food prices[5]/ posted no significant changes. Despite their decline toward the end of the third quarter of 2003, and the 4.5% drop between August 2003 and January 2004, they have remained relatively stable so far this year. A slight rise is expected eventually.

Among perishable foods, fresh vegetables and fruit[6]/ behaved as expected, in accordance with the usual seasonal factors. Their annual growth rate was under -10%, affecting annual CPI inflation by about 0.4 percentage point since the last quarter of 2003 (figure IV.11). The prices of other perishables, fresh fish and meat,[7]/ behaved according to usual seasonal patterns, without significantly influencing recent inflation trends.

[4]/ Domestic, sewing, health, educational and professional services, which account for 23.53% of the CPI basket.

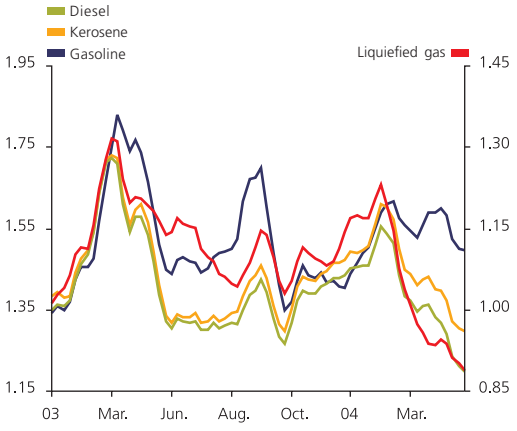
[5]/ 12.96% of the CPI basket.

[6]/ 3.77% of the CPI basket.

[7]/ 5.25% of the CPI basket.

Figure IV.9

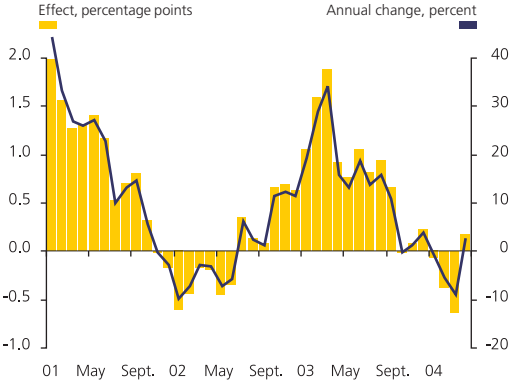
Relative oil derivative prices in US dollars
(moving four-week average)



Sources:
Central Bank of Chile.
National Energy Commission.

Figure IV.10

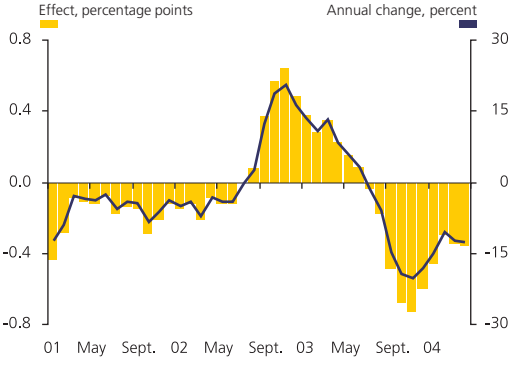
Fuel inflation and effect on CPI



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

Figure IV.11

Fruit and vegetable inflation and effect on CPI



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

CPIX1 inflation

During the first four months of the year, CPIX1 inflation was lower than expected. This was due to prices other than those that gave the surprises of late 2003, which, in any case, were much more pronounced. Prices for medical supplies in particular fell, possibly reflecting more competition within the distribution chain, along with an earlier than anticipated passthrough of the exchange rate from the fourth quarter of last year.

CPIX1 trend indicators have recently signaled some change. The weighted average and median of monthly changes, seasonally adjusted, have risen so far in 2004 (figure IV.12). Moreover, the annualized monthly change for the seasonally adjusted moving quarter has also tended to rise. Even so, CPIX1 inflation is rising more slowly than forecast in January, so it should take somewhat longer to return to levels consistent with the center of the target range.

CPIX1 inflation rose more gradually than forecast in January and is expected to take longer to return to levels consistent with the center of the target range.

In the first quarter, both external prices and the exchange rate introduced some changes on imported inflation. External inflation mainly reflects the higher oil price and a modest, tardy response from consumption IVUMs to higher US dollar-denominated inflation. Thus, we expect US dollar prices on consumer imports to rise about 1% in the first half of 2004, after falling more than 4% in 2003 (figure IV.13).

On the exchange rate, peso depreciation against levels early in the year has particularly affected fuel prices and public service rates, without affecting other prices much to date. Overall, considering the slight increase in US dollar prices and significant peso appreciation over levels one year ago, no significant inflationary pressure is apparent from imported inflation.

On retail margins, recent evidence points to less compression than in previous periods. In particular, margins on durable goods increased significantly in late 2003 and early 2004. Information on retail margins in the car market[8]/ points to a significant rise in margins since the last quarter of 2003 and the first of 2004. This has pushed the current level higher than the average for 1999-2002, and almost 15% over its trend level (figure IV.14). Part of this increase may be directly attributed to peso appreciation, but part reflects the implementation of several trade agreements and greater efficiency along distribution and sales chains. One measure for durable goods margins, obtained from prices for a sample of these goods that are included in the CPI and the WPI[9]/ also points to an increase in recent quarters.

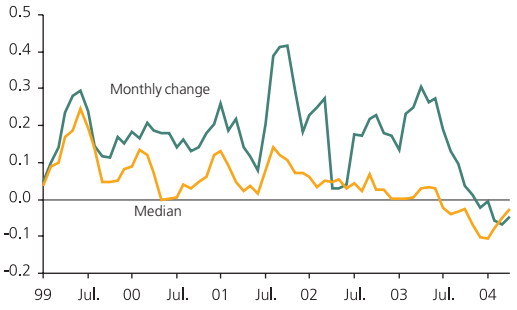
[8]/ This is for a sample of brands and models available in the domestic market, see Cabezas et al. (2004).

[9]/ This includes washing machines, stoves, television sets, radios and refrigerators, all comparable between the two indices.

Figure IV.12

CPIX1 (1) (2)

(percent)



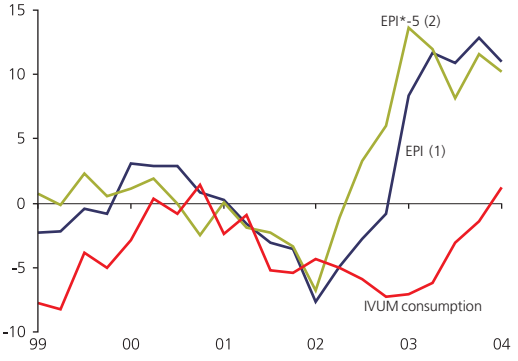
(1) Core inflation, minus prices for fuels, perishables, regulated rates, indexed prices and financial services, which account for 70% of the total basket.
(2) Seasonally adjusted series. Moving quarterly average.

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

Figure IV.13

External inflation in US dollars

(annual change, percent)



(1) External inflation is calculated using WPIs, expressed in US dollars (or CPIs where WPIs are not available), for the main trading partners, weighted for their relative importance to Chile's non-oil imports and non-copper exports. Both WPIs and exchange rates for countries are applied in the form of monthly changes.
(2) Uses the same definition as (1), grouping Chile's trading partners according to the following industrialized countries: United States, Japan, United Kingdom, Canada and those of the euro zone (Germany, Finland, France, Spain, Italy, Netherlands and Belgium).
* External Price Index.

Source: Central Bank of Chile.

Data on retail margins taken from the FECUs[10]/ also points to an important rise in margins in the fourth quarter of 2003, although supermarket margins were significantly lower than in previous periods (figure IV.15). This also indicates less inflationary pressure on this front.

Information on margins for the last two quarters indicates less compression than forecast, reducing inflationary pressures from the retail front.

Wholesale prices

In the first third of 2004, the Wholesale Price Index (WPI) posted a substantial decline, in part reflecting the basis for comparison, the same months one year earlier, included very high fuel prices in pesos and the exchange rate. However, this turned around in April, because of the higher fuel price and peso depreciation (figure IV.16). It should be remembered, however, that there is no direct passthrough in price increases between the WPI and the CPI, because the products making up the basket of each make it impossible to establish a direct relationship between changes in wholesale and retail prices. Empirical evidence specifically points to the absence of such a relationship, except for comparable products where there is an objective relationship between wholesale and retail prices.

Short-term inflation

In the second and third quarters of 2004, annual CPI inflation is expected to rise above zero again, especially given recent trends in peso-denominated fuel prices and as the negative inflation rates for the same periods in 2003 become part of the comparison basis. For May in particular, monthly inflation is expected to be significantly higher than in previous months, because of the significant impact from fuel prices. For the future, trends in the exchange rate and oil prices' gradual return to normalcy should reduce pressures on monthly inflation from these sources, although other scenarios have not been ruled out.

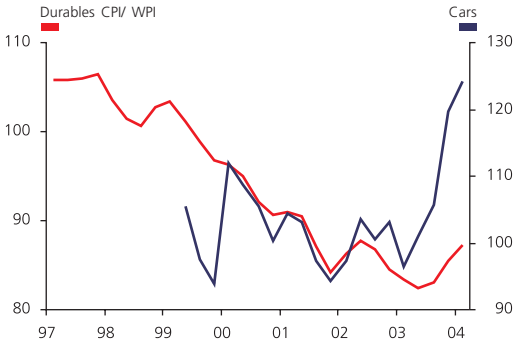
The changes in public utility rates, particularly telephone, should affect inflation significantly in the third quarter. The restrictions on the supply of natural gas and their effects on inflation are hard to foresee, although some of their impact is already clear in the announced rise in the electric bill.

[10]/ A standardized form (*Ficha Estadística Codificada Uniforme*) that listed companies fill out.

Figure IV.14

Durable goods margins

(index, average 1999=100)

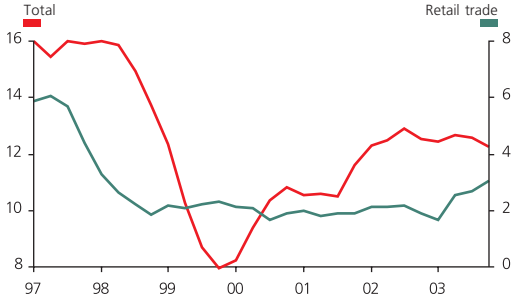


Source: Central Bank of Chile.

Figure IV.15

Corporate operating margins

(moving annual average, percent)



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

Figure IV.16

Total domestic and imported WPI

(annual change, percent)

Source: National Statistics Bureau (INE).

V. Future inflation scenarios

This section presents the Board's recent evaluation of Chile's economic prospects for the next two years, including the analysis and the decisions made during the last monetary policy meeting of 13 May 2004. It provides projections for the most likely course of inflation and economic growth, and examines the main risks. These projections are based on the methodological assumption that the monetary policy rate will remain at 1.75% for the next 24 months and that financial asset prices will follow a path along the current structure of market rates. Projections also depend on a series of events that make up the baseline, or most likely, scenario. New information will modify this scenario and associated projections. Forecasts are presented in the form of confidence intervals, to reflect the future risks to monetary policy.

The baseline scenario

In recent months, the external scenario facing the Chilean economy improved substantially, particularly reflecting the increase in the copper price. This occurred as growth strengthened worldwide and financial conditions remained favorable. The Chilean economy is considered to be responding to this improvement in a healthier way than it did in similar circumstances in the past, because the current framework of macroeconomic policies makes it easier to accommodate temporary swings in international conditions.

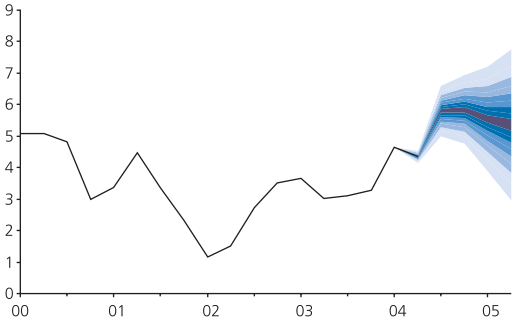
This brought a current account surplus this year, reflecting the rise in domestic saving and price trends for the main financial assets, in line with their fundamentals. Despite the volatility typical of more frequent figures, the pace of growth in activity, spending and investment has continued a gradual but steady rise. The Board expects GDP to grow this year between 4.5% and 5.5%. Toward 2005, a stronger performance from activity should continue to reduce idle capacity (figure V.1).

The scenario involving lower annual inflation forecast by the last *Report* has gradually materialized, with core inflation expected to rise more slowly, offset by CPI inflation, which has been affected by higher fuel prices and peso depreciation in recent months. Private expectations about inflation and the compensation for inflation contained in interest rate structures indicate that the market expects a scenario consistent with this forecast, with inflation rising toward the center of the target range in late 2005.

Altogether, the information presented in this *Report* led the Board to keep the MPR at 1.75% at its May monetary policy meeting. Recent events have therefore allowed expansionary monetary conditions to last longer than

Figure V.1

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



(*) The figure shows the confidence interval for the baseline projection for the respective forecast horizon (colored zone).
Confidence intervals of 5%, 15%, 25%, 35%, 45%, 55%, 65%, 75%, 85% and 95% summarize the Central Bank's risk assessment for future economic growth, assuming that the monetary policy rate will remain at a nominal 1.75% for the next two years.

Source: Central Bank of Chile.

originally forecast, as is apparent in the current levels and structure of interest rates, credit market conditions and the levels of corporate bond issues.

Aggregate demand and the current account

Consumption has continued to rise in recent quarters and is expected to continue, as private income and confidence in economic performance increase in the medium term. Although the Consumer Perception Index has fallen somewhat in recent months, this should not affect this scenario, since the unemployment rate in the labor market is expected to continue to fall and the rise in fuel prices is not expected to last. Positive trends in the credit market complete this picture.

Moreover, the recovery in trend growth is expected to come with a higher rate of gross fixed capital formation. With the positive macroeconomic impulse from better conditions abroad and low interest rates, investment should rise somewhat more than two points over GDP in 2004, and perform more strongly toward 2005. Although the performance from gross capital formation in machinery in recent quarters has been somewhat lower than expected given macroeconomic impulse and expectations about economic recovery, it is gradually moving toward the level suggested by its fundamentals. This should tend to consolidate, particularly since the stronger scenario is already apparent in more vigorous figures for activity.

In 2004, inventory changes will be strongly influenced by exports of previously accumulated copper inventories. If this anomaly is excluded, accumulated inventories show some recovery this year, similar to previous episodes of cyclical recovery, and they should approach historic averages toward 2005.

The projections in this *Report* assume that the country continues to meet the target contained in the structural surplus rule. Fiscal revenues have risen, especially reflecting a substantial increase in public saving this year. No substantial changes in the copper price are expected in the long term.

Altogether, current conditions point to a scenario where domestic demand over output will rise slightly more than GDP this year, with year-on-year growth figures lower than forecast last January. This does not signal a less robust recovery from spending, but rather is almost completely derived from the change in historic figures for gross fixed capital formation, which, based on more definitive data for 2003, turned out to be almost one percentage point higher than estimated in January.

Total exports by value should be significantly higher in 2004 than in 2003, reflecting the brighter external scenario facing the Chilean economy, thanks to the pace of growth in the US and several Asian economies. Although a substantial part of the export increase reflects the better copper price and inventory trends, other Chilean commodity exports have also seen their prices rise and export volumes are expected to increase significantly. In particular, agricultural exports posted two-digit growth during the first quarter of this year, while in manufacturing, some export-oriented areas have started to post better results.

Overall, the balance of payments current account will post a surplus this year, because of the effect of the rise in the terms of trade on domestic saving, particularly in the public sector. Idle capacity will keep investment below trend values. As these variables move back to normal toward 2005, the current account should return to a deficit similar to those of the past.

Activity, factor utilization and productivity

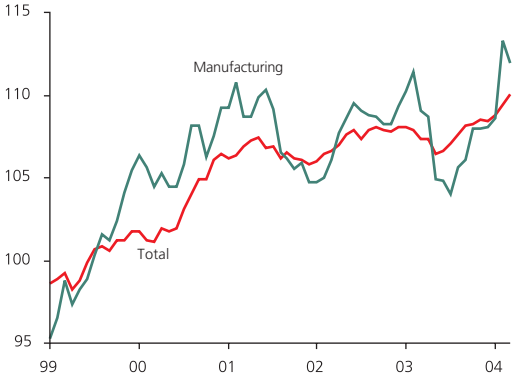
Manufacturing activity has reflected improved conditions abroad and the expansion of private consumption growth. Branches focusing on exports and the domestic consumer goods market have grown the most so far this year. Aside from seasonal factors and calendar effects, the manufacturing industry has grown more than forecast early this year. Aggregate figures for activity mask mining's short-term performance, which has been affected by, probably transient, technical problems.

This rise in aggregate activity, especially in areas not linked to natural resources, has come with lukewarm job creation. If anything, slack within the labor market has remained the same as early in the year. Offsetting this is the fact that recent trends in average labor productivity, which was very low in 2002 and 2003, are picking up. This is particularly clear in the manufacturing sector (figure V.2). All this, combined with investment rates expected for this year and next, should push total factor productivity back to annual growth rates consistent with the current stage in the cycle.

Thus, the prospects for trend growth have not changed since early in the year. The investment rate remains around projections and productivity's recovery was already apparent in information from the first quarter. Thus, trend growth of activity should range from 3.5% to 4% this year and rise one point more in 2005. Capacity gaps have remained virtually unchanged, but between this year and next the output gap should narrow by two to three percentage points (figure V.3).

Figure V.2

Average labor productivity (*)
(index, 1999 average =100)

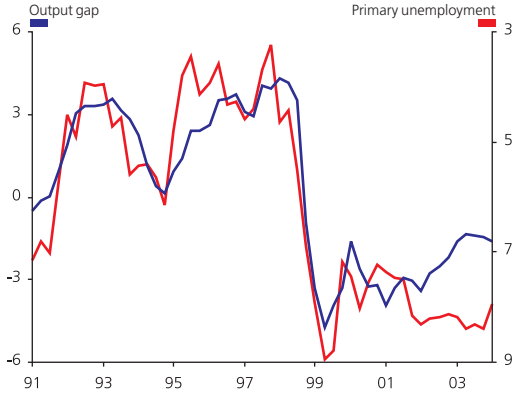


(*) Imacec over employment. Seasonally adjusted series, moving quarterly average.

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

Figure V.3

Output gap (1) and primary unemployment (2)
(percent)



(1) Trend GDP calculated using the Hodrick-Prescott filter.
(2) Unemployment rate for men between 25 and 54 years. Seasonally adjusted series.

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

Costs and margins

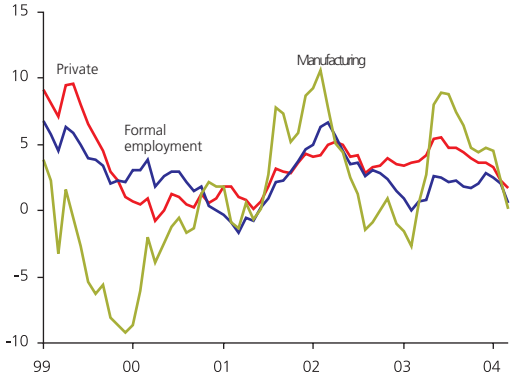
Trends in wages and especially mean labor productivity have kept unit labor costs under control, despite the fact that nominal wages seem to be rising above indexation clauses, thanks to a significant recovery in mean productivity (figure V.4).

Regarding external inflation, the most relevant element has been the rise in the oil price accompanied by a moderate and somewhat tardy response from the consumption IVUMs to higher external inflation in US dollars over the past year. The baseline scenario of this *Report* assumes that annual US dollar-denominated import prices will rise slightly in both 2004 and 2005, but the oil price should fall back to average US$29 per barrel next year. On the exchange rate, peso depreciation is expected to affect fuel prices and public service rates in particular, in May and June, but to date there's no sign of significant shifts in other prices. An important part of this depreciation is considered consistent with the increased slope of the external interest rate curve, so the real exchange rate should appreciate slightly within the baseline scenario. The possible rise in transportation costs, resulting from stronger world trade, should be relatively limited. Currently, cargo charges represent from 6% to 7% of

Figure V.4

Unit labor costs (*)

(annual change, percent)



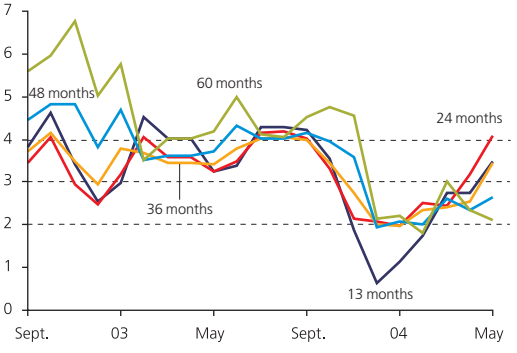
(*) Seasonally adjusted series, moving quarterly average.

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

Figure V.5

Inflation compensation in nominal and indexed notes based on forward curves

(monthly average, percent)

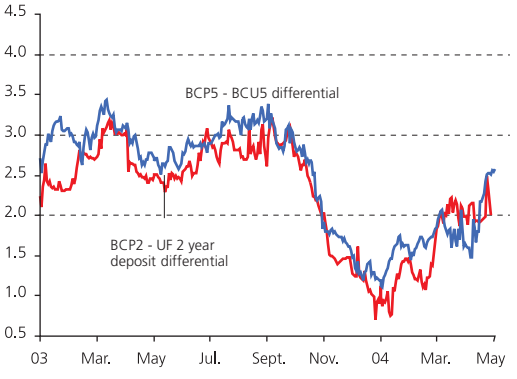


Sources:
Santiago Stock Exchange.
Central Bank of Chile.

Figure V.6

Inflation compensation in nominal and indexed two- and five-year notes

(percent)



Source: Central Bank of Chile.

the cif import price, and higher transportation costs will probable raise average import costs by from half to one percentage point. Overall, taking into account the slight increase in US dollar-denominated import prices and peso appreciation over last year's levels, imported inflation should not contribute any significant inflationary pressures.

Recent trends in retail margins suggest less compression than previous periods, especially for durable goods, and the surprise core inflation early this year is expected to turn around only partially. Altogether, conditions suggest that most of the efficiency gains in distribution and sales chains have been achieved, so the baseline scenario assumes the gradual decompression of margins as they approach equilibrium.

Inflation expectations for all indicators and periods are higher than the minimums last January. In the short term, this trend reflects higher international fuel prices and peso depreciation. Nonetheless, it is quite possible that reaffirming the target in last January's *Report* and the 100 basis point cut to the MPR early this year may also have affected these expectations (figures V.5 and V.6).

Inflation scenario

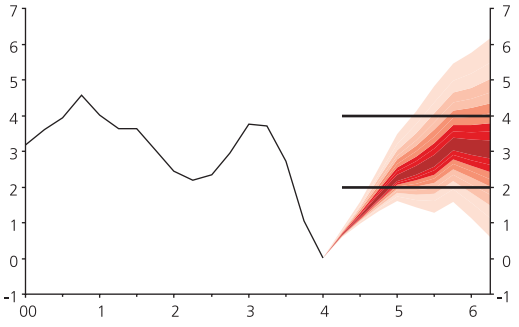
Shifts in the exchange rate and the fuel price in the external scenario presented in this *Report* will have a passing influence on inflation. Once the short-term effects of these cost variables have dissipated, the main factor ruling inflation in the medium term will be the economy's gradual move toward full employment, combined with agents' expectations. In a context in which these expectations are based on the Central Bank using its policies to achieve its inflation target, medium-term price changes should not vary significantly from 3%. As mentioned, after plunging in the final months of 2003, the different indicators for expectations, including compensation for inflation contained in financial asset prices, have bounced back, coming within the target range and approaching 3%. Household and corporate expectations also point to a rise in inflation in the medium term.

In conclusion, in the baseline projection scenario, annual inflation should move back into the target range late this year, reaching almost 3% toward the end of 2005. It should be noted that this rise in year-on-year inflation will not necessarily bring a substantial rise in prices in the short term. In fact, underlying prices are currently rising at 2% to 2.5%. This base is enough to bring them to 3% in coming quarters, since once the comparison basis from the second half of last year and the first quarter of this year is left behind, year-on-year inflation will rise significantly. This scenario assumes that the surprises of the second half of last year will not be repeated and that the main factors determining imported inflation will remain relatively stable over the next two years.

More concretely, and assuming that activity will increase within the projected range, core and CPI inflation are expected to remain under the target range for a while longer, reaching almost 2% later this year before rising gradually toward 3% in late 2005. Provided the international crude oil price averages around US$33 per barrel in 2004, 12-month CPI inflation should reach somewhat less than the CPIX in 2004 and in 2005. Private sector inflation projections do not differ substantially from this inflation scenario (figures V.7 and V.8).

Figure V.7

CPI inflation projection (*)
(annual change, percent)

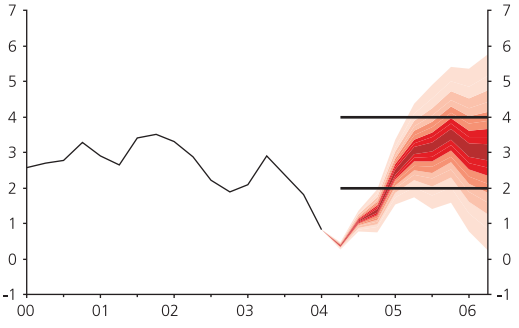


(*) The figure shows the confidence interval for the baseline projection for the respective forecast horizon (colored area).
Confidence intervals of 5%, 15%, 25%, 35%, 45%, 55%, 65%, 75%, 85% and 95% are used. These confidence intervals summarize the Central Bank's risk assessment for future inflation, assuming that the monetary policy rate remains constant at 1.75% for the next two years.

Source: Central Bank of Chile.

Figure V.8

Core inflation (CPIX) projection (*)
(annual change, percent)



(*) The figure shows the confidence interval for the baseline projection for the respective forecast horizon (colored area).
Confidence intervals of 5%, 15%, 25%, 35%, 45%, 55%, 65%, 75%, 85% and 95% are used. These confidence intervals summarize the Central Bank's risk assessment for future inflation, assuming that the monetary policy rate remains constant at 1.75% for the next two years.

Source: Central Bank of Chile.

Balance of risks

Despite the optimism of the baseline scenario, the Chilean economy faces risks associated with external factors and its own particular characteristics. In the short term, the information available suggests that the weak inflationary pressures apparent in the world in recent years are starting to turn around, so the start of a gradual, less expansionary cycle is approaching in the US and has already begun in other relevant economies. A tendency for external interest rates to rise beyond today's market expectations could bring greater turbulence to the region's economies, with potential consequences for the exchange rate. Moreover, geopolitical uncertainty has not faded, and the possibility of a higher oil price cannot be ruled out. This would influence inflation and eventually consumption.

Toward the medium term, fiscal imbalances in some developed economies, such as the US, and current accounts, within the main economic regions, should gradually adjust, while emerging Asia, especially China, must gently stabilize its growth rate, in a context of growing trade and financial integration. However, corrections to these imbalances may significantly affect interest rates, currency parities or growth. A sudden slowdown in the Chinese economy would have negative side effects in the world economy and the terms of trade.

On the risks arising from the Chilean economy itself, the information available to date indicates that the problems with the natural gas supply from Argentina are not hurting the economy materially. However, these effects could increase if the shortage worsens.

Likewise, domestic spending might react more suddenly and intensely to the better external scenario than forecast for this year and next. This *Report's* projection scenario assumes that the lags affecting gross fixed capital formation in this cycle will gradually dissipate. However, once the external scenario firms up, the recovery in this component may leap ahead, to return, for example, to patterns apparent in the past 15 years, which would push activity growth higher than expected, especially toward 2005.

Overall, the balance of risks for activity is considered balanced, while there's a slight upward bias in the case of inflation.

Conclusion

The Board considers its current expansionary monetary policy approach is compatible with inflation moving toward the target range before the end of the projection horizon. Thus, the baseline scenario projects that CPI inflation will reach almost 3% in late 2005. Economic growth will rise, reaching figures beyond potential GDP growth.

In the coming months, the Central Bank will pay special attention to the behavior of core inflation, as well as changes in external inflation, private inflation expectations and labor costs, and the timing of idle capacity absorption, which in turn is linked to the pace of growth in output and spending. One factor particularly relevant to this evaluation will be what happens with investment.

The Board reaffirms that it will continue to use its policies flexibly to confront persistent movements in projected inflation, if it threatens to move away in either direction from the 3% target. Possible future scenarios other than those considered most likely will require different responses from monetary policy. Moreover, the Board will make any necessary adjustments to monetary stimulus, as circumstances require.

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