

# MONETARY POLICY REPORT

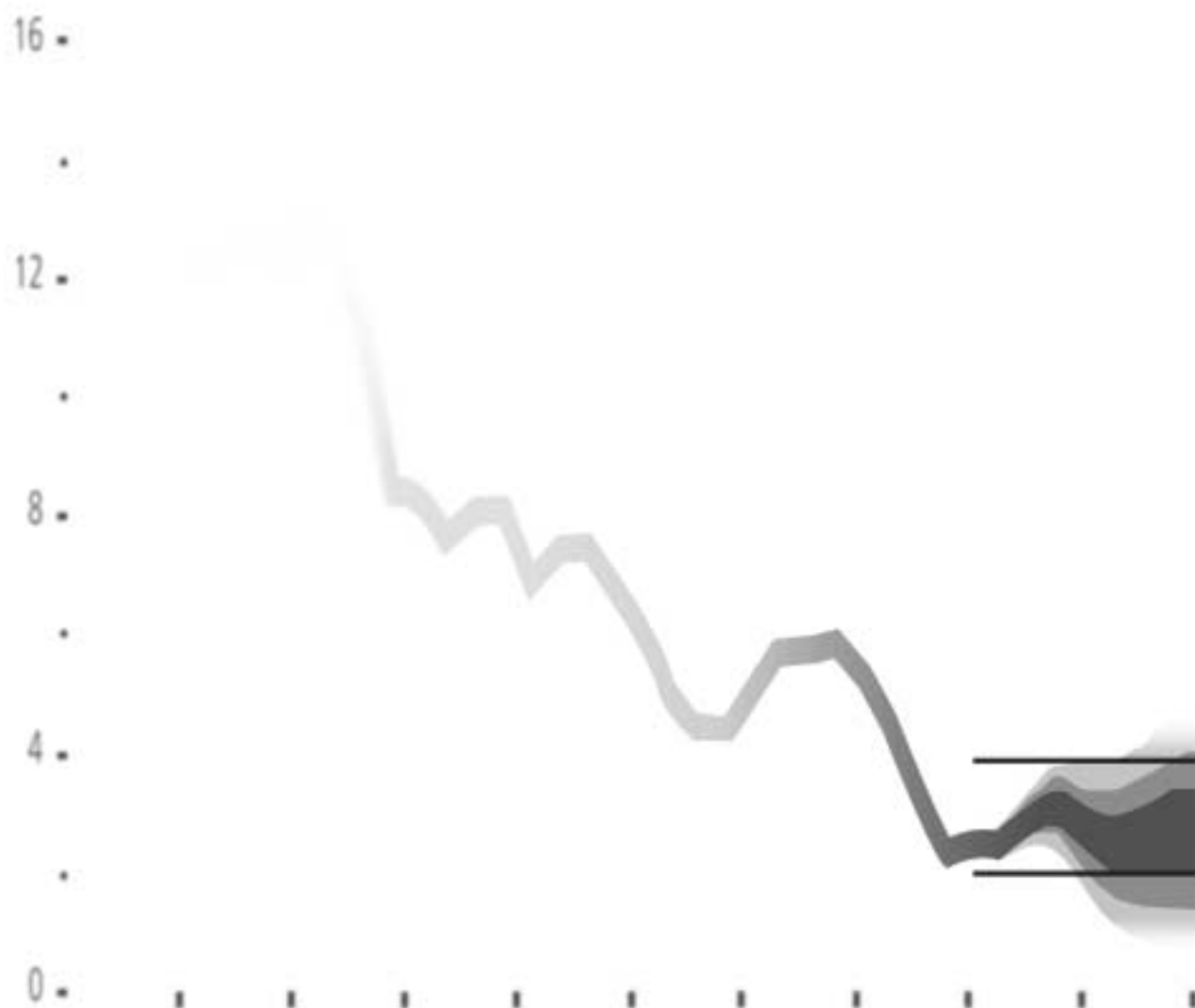
SEPTEMBER 2000



CENTRAL BANK OF CHILE

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LEGAL  
REPRESENTATIVE  
Jorge Carrasco Vásquez

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The main objective of the Central Bank of Chile's monetary policy is to keep inflation low and stable-defined as a range of 2-4% per annum. By controlling inflation, monetary policy contributes to the population's welfare. Low, stable inflation promotes the improved functioning of the economy and greater economic growth, while avoiding the erosion of incomes. Furthermore, monetary policy's focus on achieving inflation targets helps to reduce fluctuations in employment and domestic output.

The main objectives of the Monetary Policy Report are as follows: (i) to inform and explain to the general public the Board's view of recent and expected inflation trends and their consequences for the conduction of monetary policy, (ii) to publicly explain the medium term analytical framework used by the Board of Governors of the Central Bank in the formulation of monetary policy, (iii) to provide information useful for the formulation of economic agents' expectations regarding trends in inflation and output.

The report is published three times a year, in January, May and September. The first section focuses on recent developments in inflation in Chile, imported prices and specific price trends that temporarily affect the pace of inflation. The report then examines the main factors that will influence inflation's future behavior, including the international environment, financial conditions and conditions involving supply and demand. Finally, the last section summarizes the consequences of this analysis both in terms of prospects and risks affecting inflation and economic growth over the next eight quarters. The report also includes several boxes that provide a more detailed look at issues relevant to the evaluation of inflation and monetary policy.

The report for September 2000 was approved during a meeting of the Board of Governors on the 7<sup>th</sup> of September. As per the provisions of Article 80 of the Basic Constitutional Law of the Central Bank of Chile, it also contains appendices describing measures adopted by the monetary authority during the current year and a report on the Bank's accounts and their effect on the institution's equity.

The Board of Governors



In early May, when the previous monetary policy report was published, available information showed economic activity and employment were growing; expansion of the world's economy was stimulating exports; consumer confidence and private expectations for economic growth were gradually improving; and inflation was performing in a stable fashion. Certainly, there were some symptoms of a slowdown in money's performance, retail sales and the real estate market, but altogether the prospects for the Chilean economy looked satisfactory, and were supported by a favorable external scenario and the stimulus of monetary conditions. At the same time, inflation was expected to remain within its medium-term target, although an increase was likely in coming months due to rising fuel prices.

In this context, the monetary policy rate of  $UF + 5.5\%$  was considered appropriate for preserving an environment of price stability, which in turn would favor sustained economic growth. Private expectations, in contrast, foresaw a rapid increase in the policy rate to its historical average, almost  $UF + 6.5\%$ , based on a more optimistic prognosis for economic growth.

However, between May through August, a series of relevant events occurred that tended to push the balance of inflationary risk in a negative direction, and finally led the Central Bank to reduce its monetary policy rate by 50 basis points, during its August 28 meeting. This decision was taken in order to keep domestic demand moving in line with target inflation of 2-4% annually, given that in the alternative scenario, in which the policy rate goes uncorrected, total and underlying inflation could reach 2% per annum toward the end of 2001 and remain there throughout 2002, with a significant risk of breaking through the floor established for the target. It is hoped that the effect of the reduction in the policy rate on demand will be transmitted through the usual mechanisms, including a positive effect on agents' expectations.

On an international level, after greater uncertainty and financial turbulence from late April through late May, expectations for a dynamic world economy grew firmer, with 4% growth per annum expected over the next two years, while the risk of a sharp increase in interest rates in the US fell, and international financial conditions improved slightly. Even so, the limited availability of international liquidity persisted, and was accentuated by the US's strong absorption of financial resources. Similarly, the oil price rose yet again, unexpectedly, on foreign markets, reaching over US\$30 per barrel. This brought with it higher production costs and a loss of real income for the Chilean economy above levels foreseen in May, losses that have gradually been passed on to domestic consumers. Although the price is supposed to fall gradually over the next 24 months, the current projection is higher than last May's by an average US\$3 to US\$4 per barrel.



In the domestic arena, more substantial evidence was accumulated that both output and employment were growing at a slower pace. Figures for the second quarter confirmed a drop in GDP growth to about 2% per annum measured between quarters, while job creation ground to a halt. Similarly, although domestic demand rose more quickly, its more permanent components, including consumption and investment, slowed between April and July. In this context, improved expectations of economic growth and confidence indices reverted, creating a situation likely to last for several quarters until sales improve and employment rises, according to the analysis of the August 28 meeting.

Domestic fuel prices were higher than expected, but indicators of core inflation and wages remained stable or even fell slightly, revealing few of the second round impacts associated with higher oil prices and better reflecting the lasting pressures on inflation than headline CPI-measured inflation. Similarly, the private sector's expectations regarding inflation remained stable or fell somewhat.

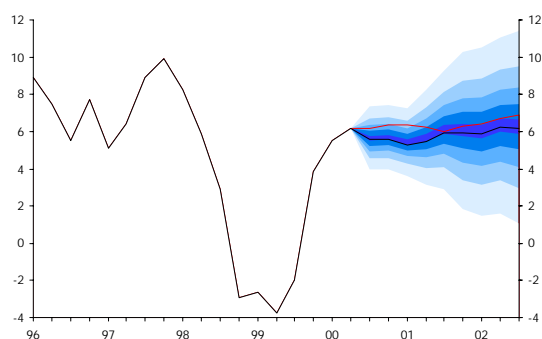
With this information, market expectations of increases in the monetary policy rate prevailing in May gradually declined in the months that followed, accompanied by a significant decline throughout the whole interest rate structure, as well as an increase in both the nominal and the real exchange rates.

As a result of these developments, during monetary policy meetings held by the Board between June and August, the balance of inflation risks was gradually corrected downward from initial evaluations in May, when the previous monetary policy report was prepared. Meanwhile, monetary conditions on financial markets became more expansive. Finally, at the monetary policy meeting on August 28, the accumulated evidence was considered sufficient to conclude that if the monetary policy rate was held at 5.5% (UF+), demand's impact on domestic markets over up-coming quarters would be less than forecast last May, thus reducing medium-term inflationary pressures for the next 12 to 24 months. It is essential to underline that the inflation target is symmetrical and that therefore the Central Bank must act as strongly when inflation threatens to fall below the lower limit as it does when inflation threatens to persistently exceed the upper limit, within the policy horizon.

Given this new monetary policy scenario and within the framework of consolidating the structural fiscal surplus of 1% of GDP for next year, to which the government has committed, the economy will probably average 5.8% growth per annum over the next two years; specifically 5.6% in 2000, 5.7% in 2001 and 6.3% in 2002, while the current account deficit is likely to reach about 1% of GDP this year, 1.7% in 2001 and 2.3% in 2002.

Growth projections for the next 12 months are half a percentage point lower than they were last May, reflecting expectations that domestic demand will not grow as dynamically – less than 8% per annum – over the next eight quarters. The above outweighs the positive impacts of a better international scenario and more expansive monetary conditions.

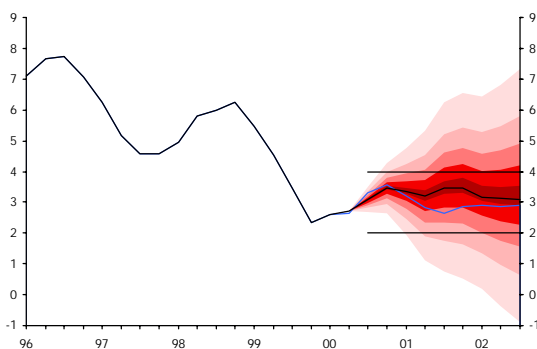
Quarterly GDP growth scenarios (1)  
(percentage change over the same quarter of  
the previous year)



(1) The figure shows the base projection (dark line) and the confidence interval for the respective time horizon (colored zone). Confidence intervals of 10%, 30%, 50%, 70% and 90% are used. These confidence intervals summarize the Central Bank's risk assessment for future economic growth, on the assumption that the monetary policy rate will remain at UF + 5.0% over the next two years. The red line indicates the projection in May 2000.

Source: Central Bank of Chile.

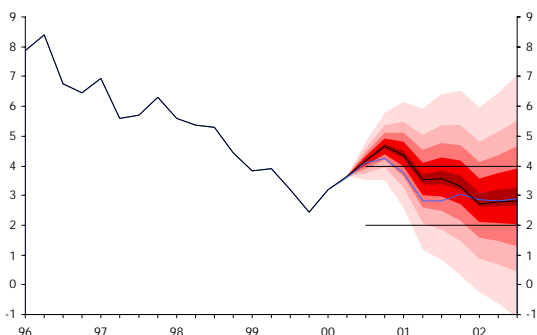
### Underlying (CPIX) inflation projection (1) (percentage change over the same quarter of the previous year)



(1) The figure shows the base projection (dark line) and the confidence interval for the respective time horizon (colored zone). Confidence intervals of 10%, 30%, 50%, 70% and 90% are used. These confidence intervals summarize the Central Bank's risk assessment for future inflation, on the assumption that the monetary policy rate will remain at UF + 5.0% over the next two years. The blue line indicates the projection in May 2000.

Source: Central Bank of Chile.

### Inflation (CPI) projection (1) (percentage change over the same quarter of the previous year)



(1) The figure shows the base projection (dark line) and the confidence interval for the respective time interval (colored zone). Confidence intervals of 10%, 30%, 50%, 70% and 90% are used. These confidence intervals summarize the Central Bank's risk assessment for future inflation, on the assumption that the monetary policy rate will remain at UF + 5.0% for the next two years. The blue line indicates the projection in May 2000.

Source: Central Bank of Chile.

As usual, these projections are based on the working assumption that the monetary policy rate will remain fixed at 5% (UF +) for the next two years. Similarly, this assumes that the nominal exchange rate will follow an intermediate path between the level suggested by futures prices, and that compatible with a constant real exchange rate similar to values observed in July and August.

Prices as measured by total CPI are likely to rise more during the present year than foreseen last May. Thus, average CPI inflation for the fourth quarter of 2000 is expected to reach 4.6% per annum, four-tenths of a percentage point above last May's estimate, as a result of the higher increase in fuel prices, peso depreciation, and fare increases for regulated services tied to these two factors. However, it is important to underline that this turnaround will be temporary, occurring for reasons closely linked to the performance of specific volatile prices, which are not decisive in terms of future inflation. In fact, underlying inflation projections, as measured by CPIX, remain stable at 3.5% per annum for the last quarter of this year, while total inflation measured by the CPI should move toward this level in a relatively short time, less than a year, once the tug of specific price increases during the first part of the current year disappears from annual measurements.

Beyond the one-year horizon, inflation prospects remain stable at around 3% per annum, given the decline in the policy rate.<sup>1</sup> The current projection for CPIX is slightly higher than May's as a result of a stronger push from import and fuel prices. This will be offset by unused capacity on domestic markets that has been slightly larger than previously foreseen. For the same period, the projection for CPI inflation is somewhat lower given that fuel prices should fall more than originally predicted last May (because this price rose more than was originally foreseen). Specifically, for the third quarter of 2001, CPIX-measured inflation should reach around 3.4% per annum (quarterly average), similar to total CPI-measured inflation. In the four quarters that follow, the expected decline in oil-related prices should allow for an additional reduction in total CPI inflation, bringing it to about 2.8% per annum, while CPIX inflation will average about 3.1% per annum.

Despite projections for the principal scenario covering both inflation and economic growth, given today's conditions, there is less certainty about the domestic economy's medium-term performance. An analysis based solely on historic experience omits some relevant shifts in current macroeconomic conditions, which have altered the scenario in which the Chilean economy performs.

Changes taking place over the past eighteen months include the reduced supply of international capital; the implementation of a floating exchange rate system, which makes the financial risks inherent in indebtedness in

<sup>1</sup> Projections are presented as a distribution of probabilities for the evolution of annual inflation over the projection period, that is, from the third quarter of 2000 to the third quarter of 2002. These refer to the change experienced by the average price index for each quarter compared to the same period the previous year.

foreign currency more transparent; the higher level of financial commitments accumulated by domestic firms and consumers; and efforts to consolidate the national budget, implemented recently.

Altogether, the main consequence of these developments is that domestic demand will probably grow more slowly in coming years than it did for the past decade. This situation will in turn affect other aspects of the economy: on one hand, it is reasonable to expect that sectors producing goods internationally tradable will have a greater relative weight in the composition of GDP, and there will be a lower external deficit; on the other hand, some more lasting changes regarding relative prices are also likely, along with compression of mark-ups, less growth in real wages, and depreciation of the real exchange rate; finally, this context is consistent with a slower recovery in employment and consumer confidence, as tightening occurs in each sector. As for monetary policy, this forecast indicates that accelerated inflation is unlikely in coming quarters and interest rates could remain where they are for longer.

In light of the accumulated evidence of recent months, the Board of Governors of the Central Bank found a less dynamic scenario for domestic demand more likely and, as a result, during its meeting on August 28, decided to reduce the policy rate. However, the possibility of a scenario more compatible with historical evidence should not be discounted, in spite of the changes in a range of fundamental variables. A prognosis placing more weight on the historic evidence of the past decade would point to a rapid consolidation of the recovery underway, supported by promising prospects for the world economy, along with lower interest rates and a more depreciated exchange rate. This scenario would argue for a greater transmission of inflationary pressures and, as a result, the Central Bank should be prepared to increase its monetary policy rate in order to keep inflation in line with its target. Future information will no doubt be crucial to validating either vision.

The risks under evaluation involve developments beyond trends in domestic supply and demand. Internationally speaking, there is still some risk of a forced landing for the US economy, although this has become much less likely. This could reduce medium-term prospects for growth and inflation in the Chilean economy, while for a horizon less than one year, foreseeable peso depreciation could increase inflationary pressure. Similarly, the oil price and the exchange rate are volatile variables, which are very hard to predict. Should they behave differently from assumptions in the base scenario, they would affect both short- and medium-term inflation projections.

Finally, it is vital to underline the private sector's growing concern about the degree of flexibility that will exist in a range of domestic markets, and their capacity to adapt to changes in the external scenario and new technology. Reduced flexibility could dampen the investment rate and the pace of productivity increases for the Chilean economy, which would reduce its capacity for growth in the medium term. Faced with less potential growth, demand would also grow more slowly and consistently with supply, while monetary policy would have to adapt in order to keep inflation and external accounts stable.

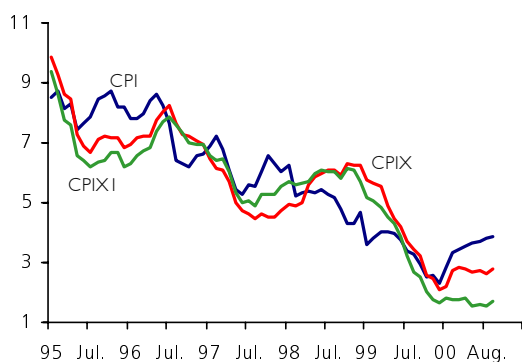
In light of all this information and the recent decision regarding monetary policy, risks appear to be balanced. The threat of a lasting turnaround in inflation as a result of a rapid recovery in domestic demand or a higher oil price is offset by the negative risks of prolonged conditions of less dynamic domestic demand and a lasting reduction in world economic growth. Projected inflation lines up with the central value in the target range during the policy horizon, although in the short term CPI-measured inflation may temporarily exceed 4% per annum. However, there's more uncertainty than in the past, and monetary policy must be administered with the flexibility necessary to preserve an environment of low and stable inflation, an indispensable pillar of economic progress.



This section reviews recent price trends, examining and interpreting the behavior of different inflation indicators, their trends and principal components.

## Recent trends in inflation

**Figure I.1**  
CPI, CPIX and CPIX1 inflation  
(percentage change over the same period of  
the previous year)



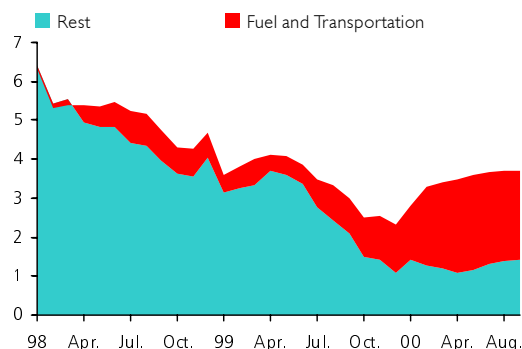
Source: National Statistics Bureau, Central Bank of Chile.

**Table I.1**  
Annualized quarterly inflation

		CPI	CPIX	CPIX1
1998	I	3.9	6.3	9.1
	II	3.7	7.8	7.2
	III	5.3	4.5	4.1
	IV	5.7	6.3	4.1
1999	I	1.5	3.5	2.8
	II	2.6	2.4	2.4
	III	2.0	0.6	-0.1
	IV	3.2	1.8	1.5
2000	I	6.0	6.7	3.4
	II	3.8	2.0	1.6

Source: National Statistics Bureau, Central Bank of Chile.

**Figure I.2**  
Fuel and transportation and other inflation  
(contribution to total inflation; percentages)



Source: Central Bank of Chile.

CPI-measured inflation increased from April to date, rising by the end of August to 3.9% over the previous 12 months, almost half a percentage point higher than that accumulated at the close of the last monetary policy report. The recent performance of trend inflation indicators, in contrast, reveals the absence of significant changes in prices. Thus, the CPIX, which excludes the impact of changes in perishable and fuel prices, had risen 2.8% over the previous 12 months, below the mid-range of the inflation target of 2-4%, established by the Central Bank (Figure I.1 and Table I). The rate has been less than expected, and aside from the impact of oil since May, other prices show no evidence of acceleration. Unused capacity in production and the labor market has reined in price increases to date.

*The stability of trend inflation indicators reveals the absence of significant changes in prices.*

The behavior of inflation measured by total CPI can be explained to a large degree by higher fuel prices and public transportation fares. Peso depreciation, which reached about 7% between the publication of the May report and the days just before the most recent monetary policy meeting, pushed the prices of regulated services upward, due to automatic indexation. The marginal increase in the prices of perishables during July also had an impact. These factors, along with other information, explain the incidence of different determinants of domestic inflation (Figure I.2).

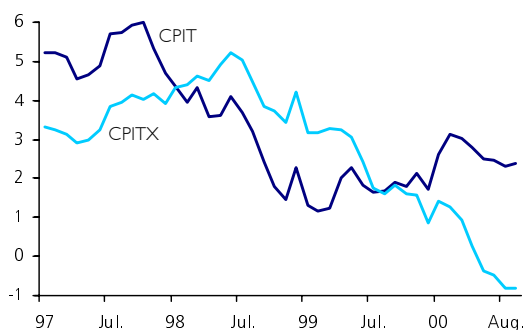
Annual CPIX inflation has not changed since April, because higher transportation and regulated services fares were offset by lower prices for durable goods. In fact, accumulated CPIX1 inflation over the previous 12 months, which excludes the prices of services with regulated tariffs like public transportation and those affected by specific taxes, is lower than the CPI and the CPIX. Thus, the Central Bank does not see cost pressures apparent to date affecting the permanent behavior of inflation. To the contrary, after peaking at 4.6% toward year's end, 12-month CPI inflation should begin to fall to less than 3% towards the end of the projection horizon. This is due to moderate growth in activity and spending, the persistence of high unemployment for a longer period, and the change in the base of comparison for the price of oil starting in 2001.

## Inflation of tradable goods

Inflation affecting tradable goods,<sup>1</sup> that is, those most directly influenced by developments in international markets, fell compared to last April.

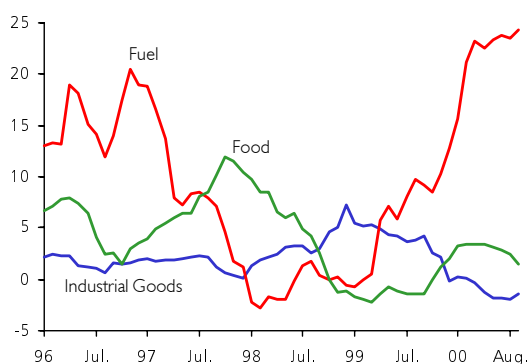
<sup>1</sup> Tradable goods, according to measurements by the National Statistics Bureau (Instituto Nacional de Estadísticas, INE), represent just under half (47.7%) of the CPI basket. The index includes, among others, manufactured articles like clothing, furniture and cars, as well as gasoline and other oil-based fuels, tobacco, and others.

**Figure I.3**  
CPIT and CPITX inflation  
(percentage change over the same period of  
the previous year)



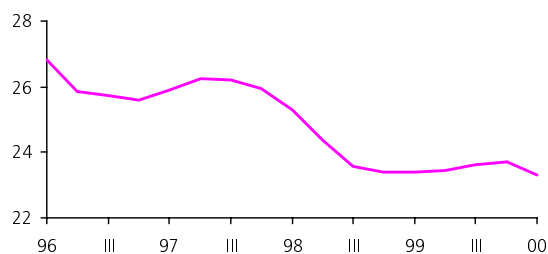
Source: National Statistics Bureau, Central Bank of Chile.

**Figure I.4**  
Breakdown of tradable inflation  
(percentage change over the same period of the  
previous year)



Source: Central Bank of Chile.

**Figure I.5**  
Retail commercialization margins (1)  
(percent)



(1) Operating margin over operating income.

Source: FECUS, Superintendent of Securities and Insurance.

Accumulated 12-month inflation for this group (CPIT) reached 2.4% in August, less than the 2.8% registered in April, in spite of increase in domestic fuel prices included in this index (Figure I.3).

This is because within the tradable goods group there has been less pressure from non-fuel prices, in spite of peso depreciation and rising external inflation. Thus, the underlying indicator for this group (CPITX) showed an annual decline of -0.8% in August, falling even less than the 0.3% registered in April (Figure I.4).

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*Inflation of internationally tradable goods fell compared to last April.*

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CPITX includes mainly clothing and durable goods like domestic appliances. Therefore, this decline contrasts with the increase in the exchange rate and trends in international inflation, indicating a reduction in mark-ups. Existing evidence supports this contraction in the retail sector, which occurred with particular intensity in 1998 and 1999, while growth in consumption has shown no sign of stimulating a recovery. For example, an analysis of profit margins as a proportion of sales, obtained from the FECUS of large commercial chains, reveals a steep drop in 1998 and 1999, with margins stabilizing last year at much lower levels than observed prior to 1997 (Figure I.5).

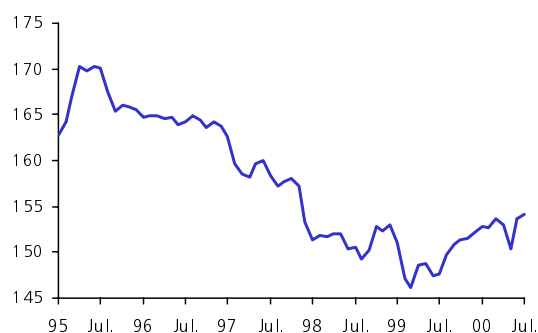
Several factors, both temporary and permanent, help to explain these reduced margins. Temporary factors include the contraction in end sales between 1998 and 1999, in contrast with forecasts of continuing growth in private consumption, which probably helped to pressure sales margins downward. As private consumption recovers, a larger share of the pressures associated with rising external inflation and peso depreciation is likely to get passed on to end prices. However, more permanent factors include an increase in installed capacity in the retail sector in recent years and the impact of technological changes and productivity increases.

Increased investment in the retail sector and in distribution from 1996 to 1998 offers indirect evidence that margins were attractive, which anticipated an increase in competitive pressures in the final sales stage and a reduction in margins. Thus, the contraction in sales may have led to a more rational use of inputs, which positively affected productivity, as in fact has been reflected.

### Inflation of importable manufactured goods

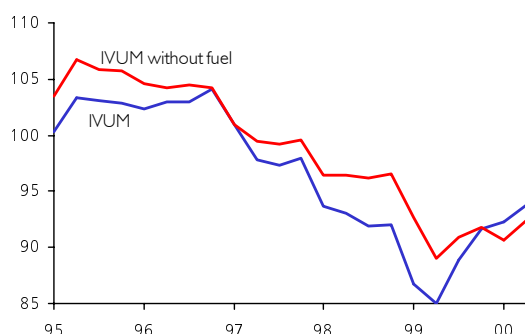
The external price index measured in dollars (IPEX) rose 4.5% in July of 2000 compared to July 1999 (Figure I.6). This was partly due to rising wholesale prices in different economies, which in turn were affected by oil prices in external markets. Meanwhile, the expected depreciation of the US dollar on world markets has not materialized, thus moderating inflation measured in that currency. Nonetheless, import costs (measured in dollars) of manufactured products are expected to rise as the dollar depreciates in international markets, as the distribution of productivity improvements and world growth become more balanced.

**Figure I.6**  
Index for external prices relevant to Chile  
(1986 = 100)



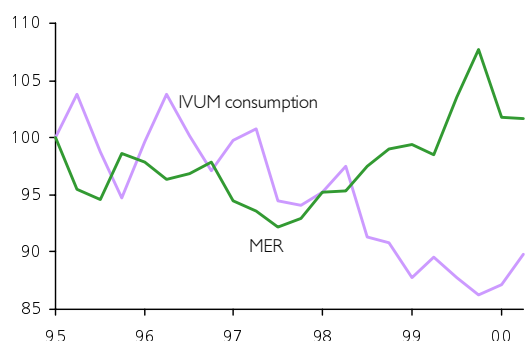
Source: Central Bank of Chile.

**Figure I.7**  
Total IVUM and IVUM without fuel  
(1990 = 100)



Source: Central Bank of Chile.

**Figure I.8**  
IVUM consumption and multilateral exchange  
Rate (MER) (1995.I = 100)



Source: Central Bank of Chile.

*The main scenario forecasts a rise in external inflation (measured in dollars) for manufactured goods over the next two years.*

In the second quarter of 2000, the prices of imports into Chile, as measured by the import unit value index (*índice de valor unitario de las importaciones, IVUM*) rose 10.9% over the same quarter of 1999. Nonetheless, excluding the effect of higher prices for oil and its derivatives, this index rose 4.1% (Figure I.7). This result is largely linked to the 5.8% increase in the price of imported non-oil intermediate goods, followed by a 3.7% increase in the prices of imported capital goods. In terms of imported consumer goods, evidence points to a 0.4% increase in prices, that is, virtually no change over the same period in 1999. This factor helps to explain the absence of inflationary pressures in the performance of tradable goods (Figure I.8).

### Raw materials and wholesale prices in Chile

With the exception of oil, international prices for raw materials have performed in a relatively stable fashion throughout this year. The commodity price index prepared by the Commodities Research Bureau (CRB) rose 7.7% between May and August, led by energy, which rose 40%. Pressures on the prices of manufactured goods, which rose 13.8% for the same period, also began to appear (Figure I.9).

In the case of oil, futures prices continue to point to falling prices for the up-coming quarters, with the price reaching US\$32 toward year's end and US\$26 per barrel within 12 months.<sup>2</sup> Significant changes are not expected to affect other primary goods in the coming months.

*The CRB commodity price index rose 7.7% from May to August, driven by a higher oil price.*

In the case of wholesale prices in Chile, the Wholesale Price Index (WPI) tended to rise between April and August, ending this period with a 12-month rise of 11%. This index was affected both by the higher exchange rate and rising oil prices, especially during the second quarter, when the imported product component of the WPI rose significantly (Figure I.10).

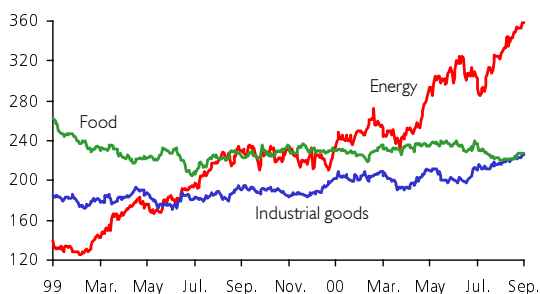
*The recent rise in the WPI reflects the weakening of the peso and the high international price of oil.*

According to these results and in terms of its annual growth rate, the WPI continues to be higher than consumer prices. Nonetheless, its link with the CPI is weak, aside from common factors like oil and the exchange rate, which affect both indexes. The recent gap between the CPI and the WPI reflects the fact that fuel prices exercise less pressure on consumer prices, and the potential effects of fluctuations in the exchange rate, not yet seen in the CPI, but already observed in the WPI.

<sup>2</sup> Prospects for the international oil market are dealt with in more detail in Section II, on the international scenario.

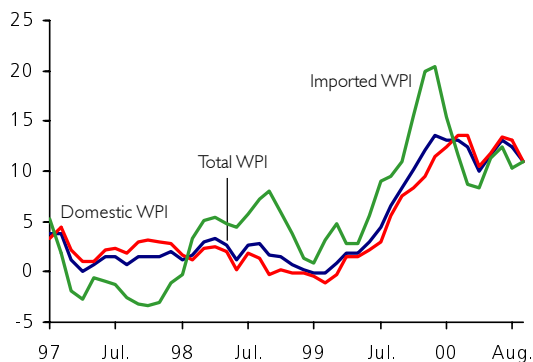


Figure I.9  
Desegregated CRB index



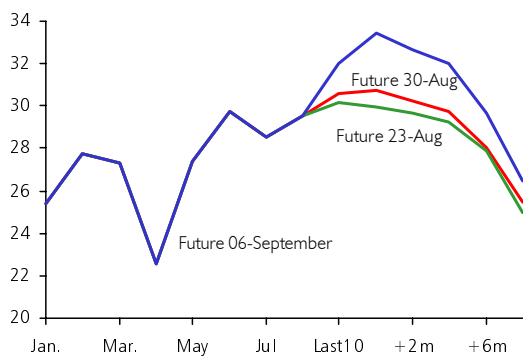
Source: Bloomberg.

Figure I.10  
Total, domestic and imported wholesale price index (WPI)  
(percentage change over the same period of  
the previous year)



Source: National Statistics Bureau.

Figure I.11  
Future oil price  
(dollars per barrel)



Source: Bloomberg.

Oil's impact is expressed more strongly in the WPI, given that it does not take into account the stabilizing effect of the Oil Price Stabilization Fund (*Fondo de estabilización del precio del petróleo, FEPP*). Similarly, pressures associated with the exchange rate are immediately and completely reflected in the WPI of imported products, while consumer prices respond partially and gradually to a rising dollar, due to adjustments in mark-ups. For these reasons, among others, the WPI shows a very significant degree of volatility not reflected in equivalent fluctuations of the CPI.

In terms of the future prospects for imported prices, from May to August peso depreciation introduced new pressure on these and the WPI. The magnitude of the transfer to CPI-measured inflation of these higher peso costs has been the subject of studies in Chile and most emerging countries, which have faced depreciation in their currencies since the Asian crisis (Sidebar 1). In Chile, peso depreciation in 1999 only modestly influenced prices due in large part to the fact that both domestic and external demand were depressed. Brazil and the Southeast Asian economies experienced a similar situation, although with far higher depreciation rates. However, the sensitivity of domestic prices to the exchange rate, especially durables, will probably rise as retail sales growth consolidates.

## Fuel prices

Fuel prices, like those of other products including perishable foods, are volatile and in the short-term play an important role in CPI-measured inflation. However, generally speaking their impact is temporary and does not substantially change medium-term inflation prospects.

So far this year, the price of oil is the factor that has most influenced CPI-measured inflation. Thus, throughout the year, the domestic fuel price has pressured inflation constantly. The sum of the direct impact of higher prices for oil-based products and their indirect effects on the cost of transportation services explains over 60% of the year's accumulated inflation.

The recent price of oil in international markets has been higher than what was foreseen last May, rising even above the upper bound of the stabilization price band announced by OPEC.

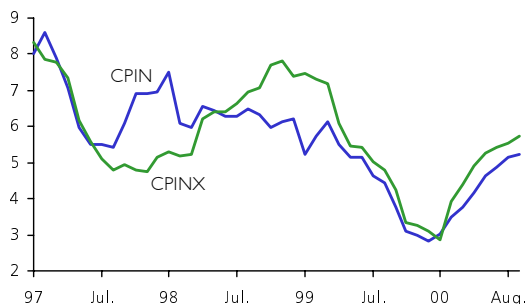
The transmission of higher prices abroad for crude oil to the domestic economy has been cushioned by the Oil Price Stabilization Fund (Sidebar 2). Toward mid-July, domestic prices lined up with international prices, but in recent weeks these have risen once again, reaching over US\$30 per barrel.

According to the new FEPP regulations, the behavior of domestic fuel prices will be tied to that of international prices, whose projections are currently highly uncertain. If international oil prices remain at the levels reached in recent weeks, an additional rise in domestic prices is likely. Beyond this timeframe, the likelihood of reduced international fuel prices is maintained, and is a gradual decline in domestic prices (Figure I. 11).

*Domestic fuel prices could rise in the short term, but prospects for reductions in the medium term remain.*

## Non-tradable goods and services inflation

**Figure I.12**  
CPIN and CPINX  
(percentage change over the same period of  
the previous year)



Source: National Statistics Bureau, Central Bank of Chile.

The oil effect is transmitted to other prices within the CPI through regulated service fares, whose indexing mechanisms are associated with changes in fuel prices, wholesale prices and the exchange rate. In effect, non-tradable goods inflation has introduced greater pressure on total inflation in 2000. By late August, accumulated 12-month inflation as measured by the CPIN was 5.2%, one percentage point higher than in the May report. Unlike tradables, this behavior has also appeared in underlying inflation for this group (CPINX), which had reached 5.7% per annum in August, half a percentage point more than last April (Figure I.12).

*The pickup in non-tradable goods inflation is linked to the rising price of regulated service fares.*

### Services with regulated fares

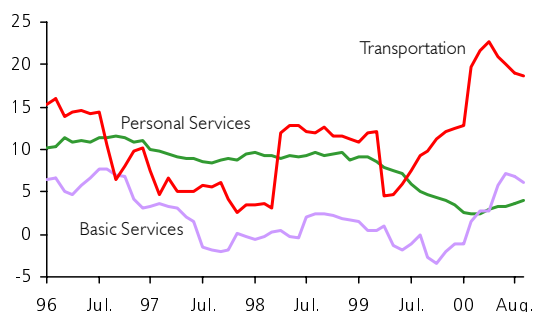
The main explanation for rising non-tradable goods and services inflation can be found in the behavior of regulated service fares from late April to date. Prices for this group had risen by almost 2.7% per annum in late April, and reached 6.1% in August. This behavior reflects higher telephone and electric power prices. Similarly, it reflects trends in public transportation fares, which have also been affected by higher oil prices, accumulating 2% inflation between April and August.

Given that peso depreciation has not been transferred to the price of imported consumer goods to date, the main inflationary impact of the rising price of the dollar is apparent in the performance of regulated fares, whose indexing formulas directly or indirectly incorporate it.

One example of this is bus fare, which has been affected by the rising dollar, given its impact on the cost of replacing equipment. Furthermore, fuel prices, aside from their direct effect on CPI, also indirectly affect the fares of tendered bus services. Altogether, bus fares rose ten pesos in August, as a result of accumulated increases in the domestic price of diesel and peso depreciation. For the rest of the year, there could be more increases in these fares, depending on international oil price trends and the behavior of the exchange rate.

In terms of electric power fees, May's review of node prices brought an increase of almost 2.5% and a further 4.4% increase is expected for September, associated with the fact that electric power generation tariffs are indexed and therefore affected by the oil price and the exchange rate. Similarly, in November, the second of two annual reviews will take place to define tariffs for electric power generation and distribution (Figure I.13).

**Figure I.13**  
Breakdown of non-tradable CPI  
(percentage change over the same period of  
the previous year)



Source: Central Bank of Chile.

*During 2000, potential indexing and adjustments already carried out in public service fares have tended to rise more than inflation itself.*

## Personal services

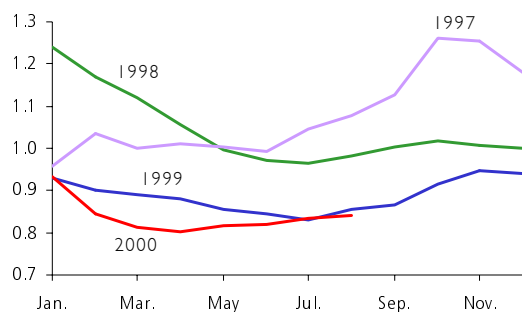
In August, personal services rose 4.1% per annum, indicating that despite higher inflation observed during the first half of this year, there has apparently been no significant transfer to personal services included in the CPI. This trend is coherent with the stable rate of growth in nominal wages throughout the economy, unlike the minimum wage. The latter, which was readjusted in June, not only generally affected wages, but also had a specific impact on domestic service wages included in the CPI.

## Perishable products

Perishable goods prices were affected by the heavy storms that hit central and southern Chile in June and July, causing price increases above historical averages for these months in some agricultural products included in the CPI, especially fresh vegetables. Thus, annual price increases for these products reached 4.3% in July and 2.3% in August, positive for the first time since the end of the first quarter of 1998. However, in the coming months, perishable prices are expected to behave according to historical patterns, exercising a neutral impact on inflation (Figure I.14).

*In synthesis, although CPI-measured inflation has increased since late 1999, this behavior is almost completely due to the higher international oil prices and their transfer to domestic fuel and transportation prices, along with the dollar's impact on the determination of regulated service fees. Trend inflation shows no signs of acceleration, remaining slightly below targets for this year and the next two, probably as a result of smaller mark-ups than those of previous years.*

**Figure I.14**  
Relative perishable price and CPI



Source: National Statistics Bureau.

## BOX I.1: EXCHANGE RATE TRANSFER TO PRICES

The impact of changes in the exchange rate on domestic inflation is known as the “transfer coefficient”<sup>3</sup>. The direct short-term effect of the exchange rate on inflation is related to the imported part of the basket of goods that make up the CPI. The larger the share of imported goods within the CPI basket, the greater the exchange rate’s effect on prices. In Chile, about 48% of CPI goods are considered importable. The exchange rate also directly affects the cost structure of companies using imported inputs. Thus, the greater the proportion imported inputs make up of costs, the more depreciation will affect these companies’ prices.

Although the exchange rate directly affects the peso price of imported goods, this movement does not necessarily get transferred to the end consumer immediately. When this transfer occurs and to what degree depends on several factors, some of which are described below.

In a regime based on inflation targets, this ultimately depends on monetary policy and agents’ expectations. Although in the short-term inflation may rise due to depreciation, in the medium- and long-term inflation should fall back to the target level or range defined by the Central Bank.

The behavior of demand determines whether or not companies can transfer any changes in their costs resulting from fluctuations in the exchange rate to end prices. For example, if the economy is in the midst of a recession, companies will find it difficult to transfer higher costs due to depreciation to their prices. Furthermore, movements in the exchange rate can also influence both the level of aggregate demand and wages as well as the composition of demand. For example, depreciation in the exchange rate that tends to produce a contraction in aggregate demand could also end up reducing prices by an amount equivalent to the upward pressures generated by the same depreciation.

A currency devaluation brings with it a change in relative prices. Assuming that income is constant, when the prices of imported goods rise, consumers’ real income falls. If demand for these imported goods is inelastic, the purchase of other goods and services will have to fall and, as a result, so will the prices of the latter, assuming that prices are perfectly flexible. However, prices are often rigid due to market imperfections. In this case, faced with a currency depreciation, the CPI and inflation rise. This is why many transfer analyses are based on aspects related to market organization (Dornbusch, 1987).<sup>4</sup> This analysis emphasizes, for example, the degree of import penetration, market structure in terms of greater or lesser concentration, and the differentiation and degree of substitution between domestic and imported products.

A greater concentration in a productive sector increases the producing company’s control over price and therefore over profit margins (mark-ups). The same occurs if there is a small degree of substitution between the domestic and imported product. This degree of control over the price could vary with the cycle (Small 1997).<sup>5</sup> In these situations, producers evaluate the costs of modifying their prices and where these are higher than the benefits, they accept transitory fluctuations in their profit margins, causing prices to react less to shifts in the exchange rate.

<sup>3</sup> Some studies deal with this issue more generally and also consider the impact of changes in import prices on inflation. A summary of this issue can be found in: Goldberg, P. and M. Knetter (1997)

<sup>4</sup> Dornbusch R. (1987)

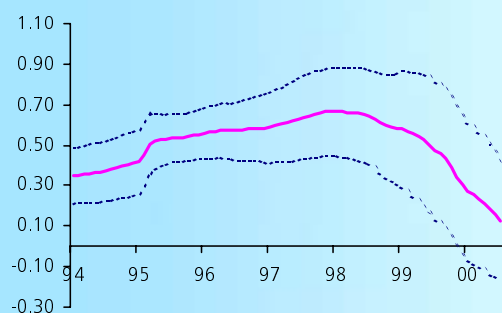
<sup>5</sup> Small, I. (1997)

As a result, in the presence of imperfect competition, aggregate demand movements, combined with fluctuations in the exchange rate, affect importers' mark-ups. More volatile aggregate demand would be associated with a reduced transfer of exchange rate fluctuations to end prices. In this case, importers will be less willing to raise their prices for fear of losing market share.

The volatility of the exchange rate is another factor influencing transfers affecting domestic inflation. Thus, the more volatile the exchange rate, the less its impact on domestic prices should be, because importers will be more cautious when it comes to changing prices, especially when the costs of an adjustment are high. As a result, expectations about the duration of a depreciation affect the speed and size of transfer of a higher exchange rate to prices.

The level of inflation also affects the transfer coefficient. In general, the magnitude of the transfer should fall as the annual inflation rate declines. In a low-inflation economy, the price change for a good is more easily perceived as a modification of relative prices, which has more impact on demand for the good and its market share. Thus, the cost of increasing prices could be high for a company, if its market share plays a decisive role in its margins and total profits.

Figure I.15  
Pass-through coefficient trend (1)  
(percent)



(1) This coefficient is the result of a simple regression using annual inflation and annual depreciation. Estimates are based on an eight-year rolling sample.

Source: Central Bank of Chile.

International evidence indicates that the transfer of the exchange rate to prices is lower in developed countries than in Latin America and Asia. In one panel estimate with 71 countries, Goldfajn and Werlang (2000)<sup>6</sup> found a devaluation-to-inflation transfer coefficient of 0.73 at the end of 12 months. When the sample was sorted according to OECD membership (*Organization for Economic Cooperation and Development*) and emerging economies, at the end of 12 months, transfer coefficients of 0.6 and 0.91 respectively appeared. When this sample was sorted by regions, the 18-month coefficient for Europe was 0.46, while in America it was 1.24. Finally, as a result of an exercise based on their estimates, the authors found a bias toward predicting higher inflation than that actually observed in several well known cases of large depreciations.

In Chile, recent estimates show that the transfer coefficient for the nineties was around 0.25 at the end of a year and 0.4 after two years. However, it is very likely that a depreciation's impact on inflation has declined as a result of increased competition at the distribution level and a rapid decline in inflation since 1990. A simple regression estimate between annual inflation and depreciation shows a substantial reduction from 1998 on, when the estimate is based on a mobile eight-year window (Figure I.15)

<sup>6</sup> Goldfajn I. y S. Werlang (2000).

## BOX I.2: OPERATION OF THE NEW OIL PRICE STABILIZATION FUND REGULATIONS

In late July, the new regulation for the Oil Price Stabilization Fund (*Fondo de Estabilización de Precios del Petróleo, FEPP*), came into effect replacing the previous system dating from 1991. The main changes to the new FEPP are related to the mechanism used to calculate reference parities for each fund, and how the size of the subsidy (or tax) to be paid (or charged) is determined in each case. Additionally, the fund was divided into five sub-funds, one for each fuel type.

Under the previous regulation, FEPP parities reflected medium-term prices for each fuel, leaving their calculation to the judgment of the National Energy Commission (*Comisión Nacional de Energía, CNE*). The new FEPP regulation makes the parity defining mechanism more transparent, establishing three components on which the reference price depends and dividing the resources into specific sub-funds for each fuel.

The mechanism operates by first determining the mean parity of the price band for each sub-fund. Unlike the previous mechanism, mean parity varies from week to week and its value is a weighted average composed of three factors: historical prices, corresponding to the weighted average of fuel import prices for the past two years, giving greater weight to the previous six months; projected prices over one year, which are the result of a prediction obtained from statistical models of weekly and monthly prices for one year; and the projected long-term price, which is a simple average of projected prices for the next ten years, according to a study carried out by an international consultancy. There is also an additional restriction in the sense that the mean parity cannot differ by more than 20% from the average fuel import price for the past year. The band limits for each sub-fund are set at 12.5% of mean parity.

The new FEPP regulation seeks to avoid the exhaustion (or over-accumulation) of resources. Thus, in order to decide the size of the subsidy (or tax) criteria have been established that are sensitive to the amount already accumulated in the fund. For example, if the international parity for a specific fuel is moving well above the upper band, the subsidy provided to that particular fuel would drop over time to avoid the exhaustion of resources. Similarly, since the intermediate parity is based on past trends and expected international prices, the differences between them will tend to diminish over time.



This section examines recent trends and prospects for the world economy over the next two years, outlining the external scenario that the Chilean economy will face. World economic activity, international inflation, terms of trade and international financial conditions that will affect Chile are analyzed.

The prospects for world activity have continued to evolve positively since the close of the previous report. Although the changes in terms of growth projections are not significant, international activity has been dynamic, with an increase in growth in most regions. In line with this process, the prices of our main export commodities have risen, which favors the pace of future growth in the Chilean economy. Although some risk factors remain, the probability of more adverse scenarios has fallen since last May.

International credit conditions remain tight, with no sign of substantial improvements in the short-term. Industrial economies' interest rates have risen to prevent potential inflationary risks and international capital flows have continued to finance the US' significant current account deficit. Nonetheless, lower volatility on stock markets has led to a reduction in the sovereign spread paid by emerging economies such as Chile.

## World growth

Figure II.1  
World growth  
(percent)



(1) GDP growth weighted by share of world output (PPP adjusted).  
(2) GDP growth weighted by share of Chile's total exports (1998).  
(f) Projections.

Sources:  
Consensus Forecasts (June, July and August 2000).  
International Monetary Fund, World Economic Outlook (April 2000).  
Central Bank of Chile.

World growth projections for this year have improved in recent months. Changes, although slight, have been positive in most regions. Thus, the base scenario considered in this report projects 4.8% growth in world output for this year, weighted by GDP measured by purchasing power parity prices (PPP). That is, 0.5% more than expected in the last report. The difference in projections is based mainly on greater growth expectations for the US and Japan, given the dynamic observed so far this year. For the next two years, growth is expected to remain slightly above 4% per annum. These growth rates are over one percentage point above the average growth during the nineties (Figure II.1).

As in previous years, during 2000 the dynamism of the world's economy continues to be based on the outstanding performance of the US economy. Productivity growth in the US economy has been exceptional, at about 3% per annum for the past four years, which has allowed record growth rates. Nonetheless, the imbalance between the pace of growth of demand and prudent estimates of potential output, and the acceleration of inflation, have been motives for concern, leading authorities to take preventive action in the area of monetary policy. This has been justified because, unlike in the past, the labor market and the current account deficit no longer represent an escape valve that can help prevent excessive spending from being transferred to inflation.

In response to more contractive monetary policy, US domestic demand and activity indicators have begun to show signs of cooling during the second quarter, making a smooth landing more likely today. Productivity continues to perform well, so despite the tight labor market, inflationary



pressures appear to be under control. Thus, Consensus Forecasts<sup>1</sup> projections point to growth for this year of 5.1%, 3.4% in 2001.

In line with expectations, Europe is in full recovery, with projected growth for this year of 3.4%, one percent more than 1999. This growth is based on faster growing exports and industrial output, combined with the incipient recovery of domestic demand, particularly private consumption. For 2001 and 2002, growth should reach about 3%.

In Japan, despite only modest signs of recovery, private investment and the external sector have led reactivation. However, private consumption remains weak, due to high unemployment, and no prospects of a significant improvement in the short-term, given high prevailing unused capacity. Although these factors make rapid recovery of private consumption improbable, the future panorama improves since, according to the latest labor market information, the unemployment rate appears to have peaked during the first quarter of this year. Thus, growth projections for the Japanese economy have risen from 1% to 1.6% for this year and are expected to hold steady in coming years.

As mentioned in the previous report, most emerging economies are well on their way to recovery, which will be maintained for the next two years. The consolidation of recovery in Southeast Asian stands out, although some doubts remain regarding the economies of Indonesia and the Philippines, mainly due to political instability. Meanwhile, projections for Latin America have not changed significantly since the previous report, with 3.7% growth likely for 2000, and 4% growth for 2001 and 2002, according to Consensus Forecasts projections (Table II.1).

**Table II.1**  
**World growth**  
**(percent)**

	Average 1990-1998	1999 (e)	2000 (f)	2001 (f)	2002 (f)
World (1)	3.2	3.5	4.8	4.2	4.1
United States	2.9	4.1	5.1	3.4	3.2
Europe	2.0	2.3	3.4	3.1	3.0
Japan	1.8	0.2	1.6	1.9	1.5
Rest of Asia (2)	8.0	6.3	7.1	6.8	6.8
Latin America (3)	3.1	0.0	3.7	4.0	4.0
Trading Partners (4)	3.1	2.3	3.9	3.6	3.5

(1) Weighted regional growth by share of world GDP. Countries included represent 85% of world GDP (1999).

(2) China, Indonesia, Malaysia, Thailand, Singapore, 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 (1998). Countries included account for 94% of total exports.

(e) Estimates.

(f) Projections.

Sources:

Consensus Forecasts (June, July, August 2000).

International Monetary Fund, World Economic Outlook (April 2000).

Central Bank of Chile.

*Average world growth is projected to reach 4.4% per annum for 2000-2002, over one percentage point more than average growth during the past decade.*

<sup>1</sup> Every month, Consensus Forecasts surveys Latin America's main financial and economic analysts (about 80), those of Asia-Pacific (about 130) and those of developed countries (some 200), asking for their projections for a range of variables, including growth, inflation, foreign trade, and exchange rates. Consensus' projections for the different variables are the average based on surveyed analysts' projections.

In light of this expansive scenario for world economic activity, the prospects of demand for Chilean exports are positive, as apparent from figures for the first half of the year. Based on Consensus Forecasts projections, the economic activity of Chile's main trading partners is expected to experience an annual weighted growth of about 3.9% this year, leveling out at 3.5% for the next two years.<sup>2</sup> These figures are strongly influenced by greater growth expected for Europe and Latin America, regions receiving 30% and 20% of Chilean exports, respectively. Similarly, emerging Asia should continue to evolve positively (Figure II.1).

At the same time, latent risks threatening the world's economy have gradually declined. In effect, although risks mentioned in the previous report regarding a hard landing in the US economy and weak recovery in Japan remain, they have been reduced. Thus, in the US case, some indicators show signs of cooling domestic demand, which together with the ongoing high pace of productivity growth, has contributed to reducing the fear of an inflationary outbreak. Similarly, although the risks inherent in the recovery of the Japanese economy have been reduced in recent months, they have not completely disappeared. This is because domestic demand still shows no signs of recovery.

## Commodity prices and terms of trade

Higher growth in the world economy has stimulated demand for basic products, resulting in a gradual recovery of their prices. Chile's export prices have experienced improvement since late 1999 and this trend is expected to continue for the rest of the year, with more significant recovery starting in 2001.

In the international copper market, the price has remained at around 81 cents per pound during the first eight months of the year and in recent weeks, has gone even higher, averaging 84 cents per pound in August (Figure II.2). Assuming that this price holds for the rest of the year,<sup>3</sup> the projection for 2000 is slightly higher than the previous report's, with an average copper price of 82 cents per pound.

The process of inventory reduction is expected to continue until early 2001, given that estimates suggest demand will reach about 400,000 MT, while world supply should rise by somewhat less than half of this (associated with the Tesoro project and Radomiro Tomic's (a large mine) expansion). Thus, the average price should reach about 87 cents per pound. This price projection is the lower bound of Cochilco's (Chilean Copper Commission) projection, given that the deceleration in the US could represent a ceiling on consumption and price levels for copper. By 2002, the price should reach a trend level over the medium- and long-term of about 95 cents per pound (Table II.2).

Figure II.2  
Copper price (1)  
(cents per pound)



(1) Daily prices London Metal Exchange.

Source: Bloomberg.

<sup>2</sup> World growth weighted by purchasing power parity prices (PPP) differs (exceeds) the weighted figure for Chile's main trading partners, because of the difference in Asia's share. This is because China, with high growth rates, accounts for a much larger share in world GDP at PPP than it does within Chile's exports. Meanwhile, Japan's share of Chilean exports is almost double its share of world GDP at PPP, while its economy is growing substantially less.

<sup>3</sup> This is a reasonable assumption given that inventory levels, although they have fallen in line with recovery in Europe and Asia, still remain higher than the average for 1997.

**Table II.2**  
**Copper price projections**  
(cents per pound, London metal exchange,  
average)

	2000	2001	2002
Central Bank	82.0	87.0	95.0
World Bank	81.7	86.2	90.7
Cochilco	81-86	89-94	--
Futures (as of 30-08-00)	83.5	88.6	--

Sources:  
Bloomberg.  
World Bank, Global Commodity Markets (April 2000).  
Chilean Copper Commission (Comisión Chilena del Cobre).  
Central Bank of Chile.

No major changes from the May report's projections are expected in projections for other basic export products. In effect, during the course of the year the price of wood pulp has risen about 17%. Future prospects are optimistic, given falling inventories for this product, as well as reduced world supply. Similarly, the increased dynamism expected for Europe, which receives some 40% of wood pulp shipments, and Asia (excluding Japan), which receives 30% of shipments, should sustain current prices. In the case of fishmeal, prices have fallen throughout this year. Estimates project a slight increase, given that the Japanese economy, the main destination for this product, will grow 1.7% over the next two years (Figure II.3).

*The projected copper price is 82 cents per pound for 2000 and 87 cents per pound in 2001, to reach a medium and long-term trend level of about 95 cents per pound in 2002.*

**Figure II.3**  
**Commodity price index (1)**  
(1967=100)



(1) Daily future price index prepared by the Commodity Research Bureau.

Source: Bloomberg.

Projections for the oil market in 2000 and 2001 are less favorable than in the previous report. In fact, despite increases in world supply ordered by the oil cartel during meetings in March and June, the price to date has averaged over US\$27 per barrel, and has risen above US\$33 per barrel on some occasions. The situation has been extremely volatile, creating considerable uncertainty regarding OPEC's future actions. On one hand, the decision to raise production by 500,000 barrels per day whenever the average price exceeds US\$28 per barrel (the upper bound of the price stabilization band defined by OPEC) for 20 consecutive days remains, but in practice, this has not occurred. On the other hand, expectations of a disguised and unilateral increase by some cartel members have been diluted, and inventories continue to fall. Furthermore, it is possible that the cartel raise production quotas to as high as 1 million barrels per day during their September meeting, and that some producers with the capacity to quickly boost production (Saudi Arabia, Kuwait and Mexico), do so. Overall, the scenario appears uncertain, with mixed signals, which could bring average prices to around US\$30 per barrel for the rest of the year, as futures contracts for the last quarter of the year indicate. Thus, the average price for crude oil in 2000 is expected to rise to US\$28 per barrel (Figure II.4).

**Figure II.4**  
**Oil price (1)**  
(dollars per barrel)



(1) Daily Brent oil prices.

Source: Bloomberg.

In the medium term, the price should converge towards US\$21 per barrel, the real average price since 1985. This takes into consideration such factors as the abundance of the resource, technological improvements, restrictions on demand due to environmental measures in more developed economies, and growing use of alternative energy sources. However, the current low level of inventories, OPEC statements about considering US\$25 per barrel the suitable price level, and the effectiveness of the oil cartel in the past, indicate that progress towards this long-term level will be gradual. For 2001, the oil price is expected to average US\$26 per barrel, considering some countries' capacity for immediately increasing production, the existence of reserves, and the potential arrival of exports from Iraq beginning in the fourth quarter of this year (3 million barrels per day). Toward 2002, the price is expected to average about US\$25 per barrel (Table II.3).

*The base scenario considers an average oil price for 2000 of US\$28 per barrel, reaching nearly US\$ 26 per barrel toward 2001 and US\$25 per barrel in 2002.*

**Table II.3**  
**Brent oil price projections**  
**(dollars per barrel, averages)**

	2000	2001	2002
Central Bank	28.0	26.0	25.0
World Bank	24.0	21.0	19.0
JP Morgan	27.0	23.5	--
Economist Intelligence Unit	22.0	18.8	19.3
Futures (as of 30-08-00)	28.7	27.8	24.5

Sources:  
 Bloomberg.  
 World Bank, Global Commodity Markets (April 2000).  
 JP Morgan, Energy Research (June 2000).  
 Economist Intelligence Unit, Global Outlook (May 2000).  
 Central Bank of Chile.

Overall, it is estimated that the terms of trade for the Chilean economy's goods will rise around 1.5% in 2000, somewhat less than predicted last May. However, it is possible that the positive trend continue for the next two years, boosting this to 2.4% in 2001 and 3.7% in 2002.

## International inflation

Consensual estimates point towards a slight increase in inflation for the most industrialized economies and Asia, excluding Japan, in line with more dynamic demand and an observed increase in commodity prices. In any case, the expected increases are moderate and do not risk price stability nor favorable prospects for the world's economy.

For the current year, US inflation projections have risen since May, influenced not only by higher oil prices, but also by underlying trend performance. In effect, the Consumer Price Index (CPI) rose 3.6% in 12 months through July, mainly affected by fuel prices. Excluding food and energy, the underlying inflation indicator reached 2.4%, half a point higher than in 1999. In the Euro zone, meanwhile, effective inflation performed similarly, reaching 2.4% in July, above the 2% target set by monetary authorities. However, and despite euro depreciation, underlying inflation remained around 1.3%. This discrepancy with total inflation is the result of fuel price trends.

In the next two years, inflation should reach 2.5% in the case of the US, 2% for the Euro zone, and 0.2% in Japan. In Latin America, inflation should continue to fall, according to Consensus Forecasts projections, as a result of more stable exchange rates and a greater commitment to falling inflation targets over time among the region's main economies.

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*During 2000, a slight increase in inflation in the industrialized economies is expected, stabilizing at about 2% over the next two years, except for Japan, where price changes are expected to remain close to zero.*

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International inflation affecting Chile's trading partners, measured in dollars, accelerated so far this year, as a result of yen appreciation and that of other emerging economies' currencies against the dollar, which was only partially offset by euro depreciation. This tendency for external prices measured in dollars to rise will probably intensify over the next two years, because international markets expect the dollar to depreciate in international markets, as productivity increases and world growth become more balanced between the US and the rest of the world (Table II.4).

Table II.4  
World inflation  
(percent)

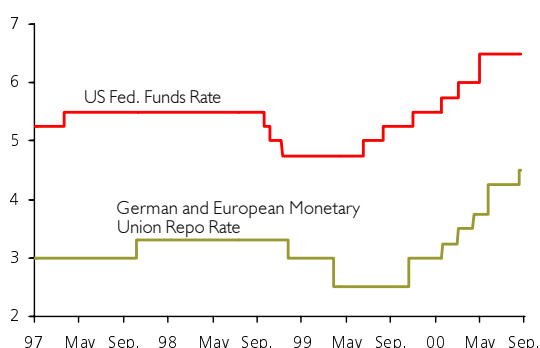
	Average 1990-1998	1999 (e)	2000 (f)	2001 (f)	2002 (f)
	(average monthly change in local currency)				
United States	3.1	2.2	3.2	2.6	2.5
Europe	3.5	1.4	2.1	1.9	2.0
Japan	1.4	-0.3	-0.4	0.0	0.5
Rest of Asia (1)	8.3	1.2	1.4	2.7	2.7
Latin America (2)	421.9	9.8	9.2	7.8	7.3

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

Sources: Consensus Forecasts (June, July, August 2000).  
International Monetary Fund, World Economic Outlook (April 2000).  
Central Bank of Chile.

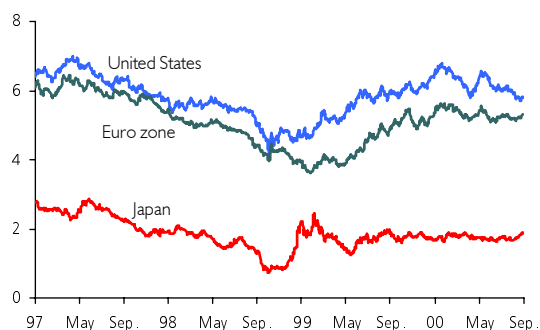
## International interest rates

Figure II.5  
Policy interest rates  
(percent)



Source: Bloomberg.

Figure II.6  
10-year government bond yields  
(percent)



Source: Bloomberg.

During the second quarter of the year, the US and Euro zone central banks continued to increase their monetary policy interest rates, as they had been doing for over a year. This was in the context of increased economic activity and to prevent inflationary pressures. This process is likely to continue, although with less intensity, for the rest of the year.

Expectations of new interest rate increases in the United States have gradually declined, as figures reveal a gradual convergence of the US economy's expenditure and inflation's satisfactory performance. The market has practically eliminated the possibility of a sharp and rapid rise in the policy interest rate by the Federal Reserve, and futures contracts indicate no likelihood of an interest rate increase for the rest of the year. Thus, the Federal Reserve's policy rate should end the year at 6.5%, and remain there for at least the first half of next year, according to information on this variable available from futures contracts. Towards the second half of 2001, in line with the expected convergence of domestic demand and potential output, the interest rate should be gradually reduced. This path is less restrictive than that foreseen last May, in line with fewer risks.

Improved prospects for Euro zone growth for the rest of the year will bring an additional increase in interest rates, in order to ensure that inflation remains consistent with the regional target, that is under 2% per annum. Thus, the expectations implicit in futures markets and 10-year bond yields are consistent with an increase in the monetary policy rate from 4.25% in late August to 4.75% (Figure II.5). Towards late 2001, the policy rate should reach what is considered its medium-term level of about 5%. This expectation is more restrictive than that predicted last May.

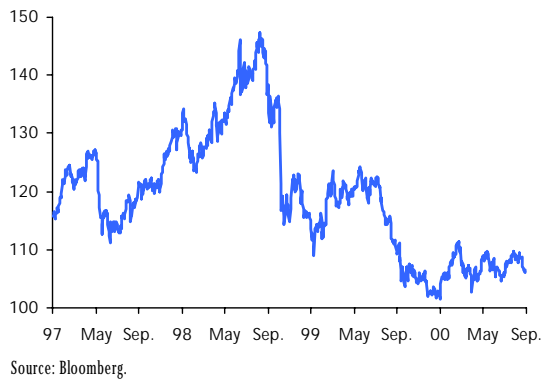
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*No additional increases are expected for the US monetary policy interest rate.*

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Longer term interest rates, expressed in dollars, had tended to rise until the closing of the previous report, in line with the risk of a more drastic increase in the Federal Reserve's policy rate. However, since the monetary policy rate shifted 50 basis points, longer term instrument yields have

Figure II.7  
Yen/US\$ exchange rate



fallen significantly, moving from almost 6.4% in May to 5.8% in August. European governments' euro bonds performed similarly. In effect, after rising during May due to inflation and concern over currency depreciation, bond yields fell during June, once the European monetary authority raised its policy rate by 50 basis points, and at present remains at about 5.2%. Finally, the yield on the Government of Japan's 10-year bonds remained relatively stable at around 1.7% during the year, unlike the above cases (Figure II.6). These factors have made it possible to reduce long-term yields in domestic markets.

Regarding future currency behavior, Consensus Forecasts points to an appreciation of the euro and other currencies against the dollar over the next two years. This trend will be more marked in the case of the Euro, allowing it to recover some of the value lost since its launching. This projection is consistent with the gradual deceleration expected for the US economy, with growth recovering in the Euro zone, and expected movement in interest rates (Figures II.7 and II.8).

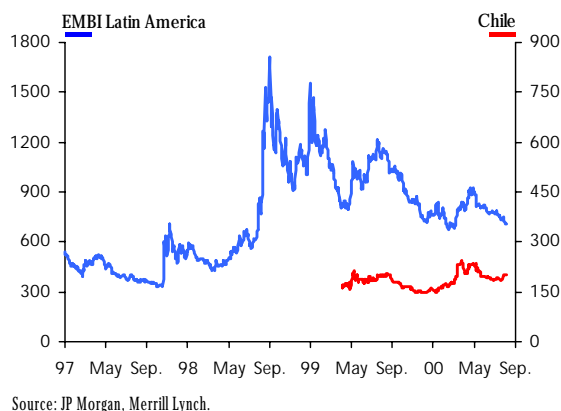
Figure II.8  
US\$/Euro exchange rate (1)



## Emerging financial markets

The surcharge on credit costs for emerging countries has evolved favorably since June, reverting the increase of the previous two months. It is worth noting that between April and May, a generalized increase was observed in emerging economies' sovereign premiums, given the perceived increase in volatility of asset markets, and uncertainty regarding the US monetary authority's actions. This rise was not consistent with emerging economies' fundamentals, whose strong performance was confirmed by international rating agencies' positive risk rating classification reviews. Thus, in a calmer international financial context, sovereign premiums should go back down. After averaging 882 basis points in May, the EMBI index for Latin America had fallen to almost 700 basis points by the closing of this report. Meanwhile, the premium on Chile's sovereign bond went from 227 basis points on average to 200 basis points during the same period (Figure II.9).

Figure II.9  
Sovereign spreads  
(basis points)



Thus, given a more positive and stable international environment, sovereign premiums are likely to continue gradually improving. As a result, sovereign premiums could stabilize at levels lower than those observed last May, reaching those observed at the beginning of the year.

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*After rising in April and May, emerging economies' sovereign premiums, including that of Chilean bonds, once again began to fall.*

---

According to international analysts' estimates, capital flows into emerging countries during the year will rise about 4% over 1999, but will remain well under net flows observed before the Asian crisis. Flows into Latin America have fallen 4% with respect to 1999, accounting for just under 40% of flows into emerging markets. Towards 2001, the panorama for Latin America becomes more encouraging, with capital flows rising 20% over the current year, while the total for emerging economies should rise slightly over 8%.

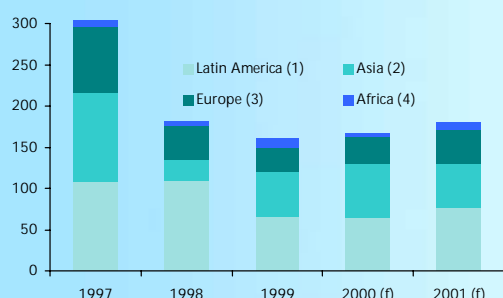
*In summary, the outlook for world growth and terms of trade are positive for the Chilean economy. Favorable trends in global economic activity, led by the United States and emerging Asia, suggest 4.8% world growth in 2000 and 4% in 2001 and 2002. This is somewhat more than one percentage point higher than the average for the nineties. The Chilean economy's terms of trade will rise about 3% per annum on average in 2001 and 2002. This report's base scenario assumes an international oil price of around US\$28 per barrel for the present year, falling slightly towards 2001, to stabilize at around US\$24 per barrel between now and September 2002. A slight increase in inflation is forecast for industrialized economies (except Japan), although this will remain under control given more restrictive monetary policies in the US and Europe. External inflation in dollars will register a greater increase given the expected dollar depreciation in international markets. International financing conditions are more restrictive now than as of some months ago. Higher international rates, the size of the US' current account deficit, and some instability still present in external financial markets, will continue to limit international liquidity, at least in the near future. Despite a generally more favorable landscape and reduced risks, the latter remain negatively inclined, especially considering the possibility of more severe restrictions on US monetary policy, which would reduce world growth in 2001, and produce a scenario less favorable to the prices of our main export products. Similarly, the oil price could remain above the level considered in the base scenario longer than expected.*



## BOX II.1: TRENDS IN CAPITAL FLOWS TO EMERGING ECONOMIES

The increased volatility of international financial markets during the second quarter of the year significantly affected emerging economies. During this period the perception of risks associated with a hard landing in the US economy sharpened, bringing strong increases in interest rates and more volatility to stock markets, particularly those segments linked to technological companies, which triggered significant outflows of capital invested in emerging economies' assets. This resulted from investment funds' redistribution of their portfolios towards more liquid, short-term instruments, in order to deal with the uncertainty associated with the US Federal Reserve's monetary policy. However, the US economy's recent performance has tended to strengthen the soft landing diagnosis, allowing a gradual market recovery, with higher asset prices and less volatility. According to information from foreign investment funds, investments in bonds have risen during the past two months, causing a decline in sovereign risk premiums of emerging economies. This is related not only to the greater stability of international financial markets, but also to plans for restructuring and greater fiscal discipline applied by economies themselves. The principal investment banks continue to assign Latin America's stock markets a relatively stable share of their portfolios, but the ongoing shortage of capital has negatively affected their performance.

Figure II.10  
Net capital flows to emerging economies  
(US\$ billion)



(1) Argentina, Brazil, Mexico, Colombia, Ecuador, Peru, Venezuela and Chile.  
(2) China, India, Indonesia, South Korea, Malaysia, Philippines, Taiwan and Thailand.  
(3) Russia, Poland, Hungary, Czech Republic, Republic of Slovakia, Bulgaria and Turkey.  
(4) Morocco, Nigeria and South Africa.  
(f) Projections.

Source: JP Morgan, Global Economic Forecast (April 2000).

According to IMF information, emerging economies' debt issues reached US\$55 billion during the second quarter, down from US\$71 billion in the first quarter. This was mainly due to declining issues in Latin America, which reached only US\$13 billion during the second quarter, about half the figure registered during the previous quarter. Compared to 1998 and 1999, a strong recovery in emerging Asia's debt issues is apparent, while Latin America experienced no significant change. In recent years, bonds' share has declined compared to stocks, although the former remain more significant.

Overall, the prospects for net capital flows into emerging economies have declined since May's report, suggesting a scenario only slightly more favorable than in 1999. In effect, for emerging regions as a whole, according to JP Morgan, 2000 will result in only a 4% increase in capital flows over 1999, well under the 16% expected in May. Latin America has been corrected accordingly, with capital flows falling about 4% in 2000 over 1999, instead of the 25% increase projected last May. In contrast, Asian economies' positive performance has led to capital flow projections for those countries showing a 20% rise over last year (Figure II.10). For 2001, projections are somewhat more promising, with an 8% increase in capital flows into emerging countries, and a 20% increase into Latin America. Chile's position within these capital flow projections for the region has remained stable in recent months (Table II.5).

Table II.5  
Emerging economies' international issues  
(US\$ billion)

	1998	1999	1999				2000	
			I	II	III	IV	I	II
Issues	156.7	173.9	33.4	53.9	35.9	50.8	71.5	54.6
Bonds	79.5	82.4	21.8	26.5	15.5	18.6	33.7	15.5
Shares	9.4	23.2	2.4	6.6	6.1	8.0	8.9	11.1
Loans	67.7	68.4	9.2	20.8	14.2	24.2	28.8	28.1
Issue by region	156.7	173.9	33.4	53.9	35.9	50.8	71.5	54.6
Asia	41.1	65.9	12.5	18.0	18.9	16.6	30.5	28.2
Latin America	65.9	61.4	13.2	21.8	9.4	17.0	23.7	12.8
Rest (1)	49.7	46.5	7.7	14.1	7.5	17.2	17.2	13.6

(1) Europe, Middle East and Africa.

Source: International Monetary Fund, Emerging Market Financing, Quarterly Report (second quarter 2000).





This section reviews recent trends in financial markets, particularly monetary policy, interest rates and the exchange rate, monetary and credit aggregates, and external financing of the Chilean economy.

## Interest rates and monetary policy

### Monetary policy

The Central Bank of Chile implements monetary policy by setting a target level for the daily interbank interest rate. The target rate corresponds to the monetary policy rate (MPR), and is achieved by maintaining appropriate monetary reserves in the interbank market. Thus in normal liquidity conditions, the interbank interest rate should line up with the MPR, as has occurred recently.

The MPR was raised by 50 basis points during the first quarter of the year in order to avoid worsening inflation expectations in the face of oil-related price increases. Subsequently, both underlying inflation and inflation expectations have remained stable. However, the process of economic recovery has not been consolidated. Indicators of economic activity, domestic demand and employment have all shown slower growth, despite favorable external conditions and the stabilization of international financial markets.

This information led the Board to conclude, during its August 28 monetary policy meeting, that if the MPR were held at 5.5%, there was a clear risk that inflation would tend towards the lower bound of the target range of 2% to 4%. Given the inherent symmetry in the inflation target, and the government's repeated commitment to austerity in public spending in coming years, the Board decided to give the economy a monetary boost, reducing the MPR by 50 basis points, to 5.0% (UF +).

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*The Monetary Policy Rate (MPR) was reduced to 5% during the August 28 monetary policy meeting.*

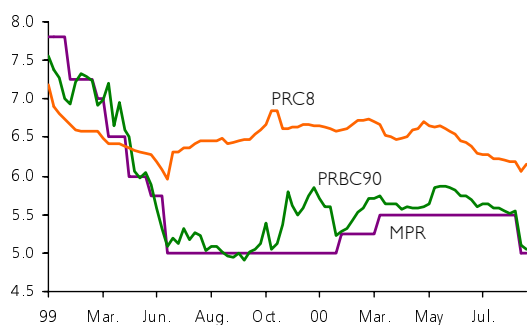
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### Yield curve

The MPR corresponds to the cost of very short-term liquidity, but it affects the general level of interest rates and trends in domestic demand because of its influence on financial agents' expectations and the yield curve. Financial expectations are implicit in the prices of Central Bank paper through what is known as the futures interest rate curve (forward curve), but they can also be obtained through direct surveys carried out among market participants.

Since June, there has been a generalized drop in market interest rate levels for all maturities, from three months to 20 years. In particular, the rate on Central Bank 90-day indexed notes (PRBC-90) has fallen steadily since late May, and by August, before the most recent monetary policy measures, the auction rate had reached a range of just one to

Figure III.1  
Monetary policy rate and interest rates on  
Central Bank of Chile notes  
(weekly average, percent)



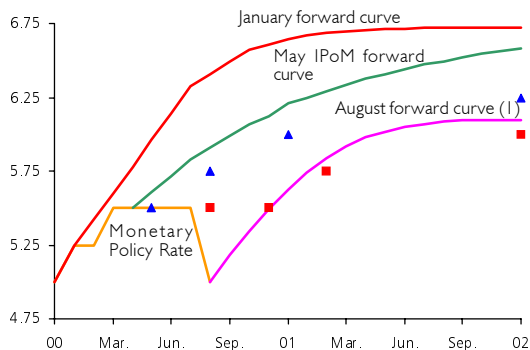
Source: Central Bank of Chile.

five basis points above MPR, that is, about 25 basis points below the level at the close of the May report. On the other hand, the rate on the Central Bank's eight-year indexed promissory notes (PRC8) reached 6.16% in the auction prior to the August 28 monetary policy meeting. This was approximately 35 basis points lower than the April average. Similar variations occurred in longer-term rates (Figure III.1). Following the measures adopted on August 28, the PRBC-90 rate adjusted to the new MPR level, settling at five to 13 basis points above it, while 8-year and longer-term notes remained practically stable.

Two main factors help explain the evolution of real interest rates in Chile in recent months. One, which influences the short-term segment of the yield curve, is the significantly more moderate expectations about the future value of MPR. The other, which affects the longer-term segment of the curve, is the fall in equivalent external rates and the lower sovereign risk premiums for emerging economies, including Chile's.

Regarding the first factor, monetary policy expectations, it is worth noting the sharp fall between January and May, after two 25-basis point increases to the MPR during the first quarter, for the reasons mentioned above. As evidence subsequently grew to show an inflationary trend in line with the target range and slower economic growth than private analysts had anticipated, expectations for MPR became increasingly moderate. Thus, while last May the forward curve showed rising expectations for MPR of between 6.25% and 6.5% (UF+) by late 2000, the most recent data available before the monetary policy meeting showed expectations had weakened to project a level about 50 basis points lower for late 2000. After the decision to cut the MPR, the expectations implicit in the future rate curve continued to fall, indicating the MPR would reach just over 6% for late 2001.<sup>1</sup>

Figure III.2  
Monetary policy rate, MPR expectations and  
forward curve  
(percent)



▲ MPR expectations may 2000 survey.  
■ MPR expectations august 2000 survey.

(I) Through 30 August 2000.

Source: Central Bank of Chile.

The Central Bank's monthly survey on financial expectations carried out in the first half of August, showed expectations about the MPR for late 2000 had fallen by 25 to 50 basis points, compared with the figure of 6% (UF+) seen in June and July. Additionally, expectations for MPR for December 2001 dropped from 6.5% (UF+) in February and March to 6.25% (UF+) in April, May and June, and 6.0% in July and August (Figure III.2). Monetary policy decisions during the year have thus been in line with market reactions to new economic information.

*In recent months, expectations about the future value of MPR have declined significantly.*

Among international factors, the most noteworthy has been the return to greater stability in international financial markets after the turbulence observed in April and May. Expectations of higher interest rates in the United States were revised downwards and resulted in a general fall in long-term international interest rates as well as sovereign risk premiums. The nominal rate for US Treasury bonds fell by almost 60 basis points between May and August, reflecting the reduced inflation risks in the US economy. In the same period, the real rate on indexed 10-year US Treasury bonds fell from 4.15% to 4.0%, while Chile's sovereign risk premium fell from 227 to 200 basis points. Real long-term interest rates

<sup>1</sup> These forward rates depend not only on agents' expectations, but also on premiums for risk or liquidity, and expectations regarding the behavior of the MPR.

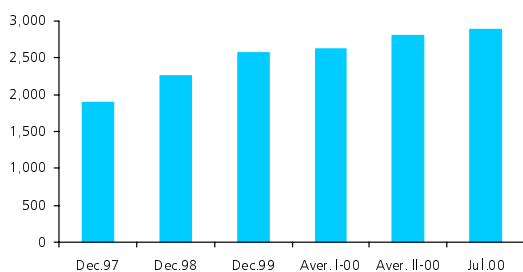
in the US, adjusted for tax and sovereign risk factors, fell by almost 50 basis points between May and August (Figure III.1). These factors have resulted in international arbitrage conditions consistent with lower interest rates in Chile.

Among institutional factors, Chile's pension funds have reduced their foreign investment holdings between the first and second quarter by an average of US\$500 million, accompanied by greater financial investment in Chile of almost US\$1 billion, about US\$750 million of which is held in long-term notes.

Local companies, meanwhile, continue to seek domestic financing in local currency in response to more restrictive external financing conditions. Thus, net issues of private non-financial sector bonds placed on the domestic market have risen by about US\$330 million between March and July (Figure III.3).

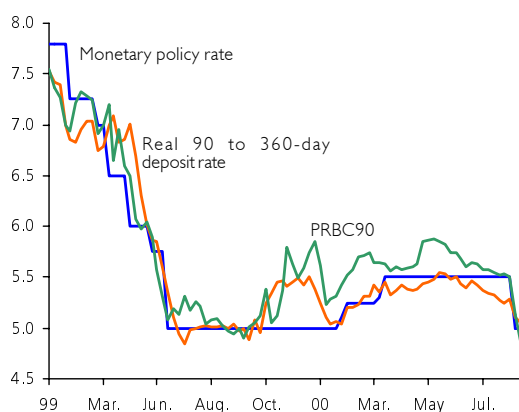
Another significant development, also mentioned in the previous Report, has been the fiscal deficit. The prospect of a return to fiscal surplus implies less competition from the public sector for financing, which helps relieve the pressure on domestic interest rates and increases monetary policy's degree of flexibility. These effects become stronger as the market perceives that public spending is evolving in line with stated government policy and that the commitment to achieving a structural surplus remains firm. In the first semester there was a clear improvement in the fiscal balance, thanks to a substantial recovery in tax revenues and moderate growth in public spending. Furthermore, the recent package of fiscal measures does not change the commitment to the earlier targets.

**Figure III.3**  
Private, non-financial sector bonds  
outstanding  
(US\$ million)

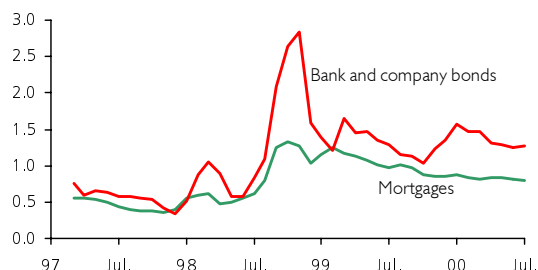


Source: Central Bank of Chile.

**Figure III.4**  
Policy, 90 to 360-day deposit and PRBC90  
interest rates  
(weekly average, percent)



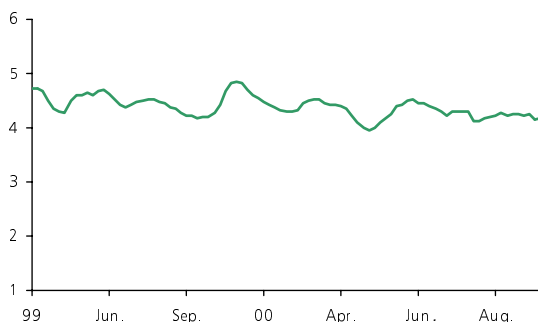
**Figure III.5**  
Interest differential between fixed income  
instruments and PRC8s  
MIRR\* secondary markets (mobile quarterly  
average; percent)



\*Monthly Internal Rate of Return.

Source: Santiago Stock Exchange.

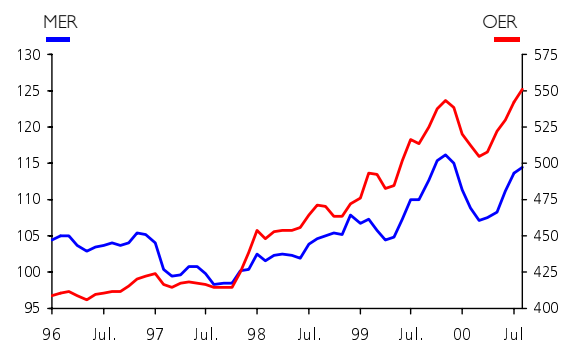
**Figure III.6**  
Premium paid on 1-year nominal vs. indexed  
papers (1) (2)  
(percent, average mobile fortnight)



(1) Since August 2000, this is the difference between the cutoff rate for PDBC-360s and one-year zero-coupon indexed bonds (CEROs). Prior to the creation of CEROs, the 360-day Active Bank Rate (tasa activa bancaria, TAB) published by the Banks' Association was used.  
(2) Includes risk premium.

Source: Central Bank of Chile, Association of Banks.

**Figure III.7**  
Multilateral exchange rate index (MER) (1)  
and observed exchange rate (OER)



(1) Calculation based on parities of Chile's main trading partners. These are (ordered by weight): United States, Japan, Argentina, Brazil, Mexico, Germany, Spain, Italy, France, United Kingdom, Korea, Canada, Peru, Holland, Belgium, Colombia, Taiwan, Venezuela and Ecuador.

Source: Central Bank of Chile.

the auction of Central Bank, 90-day discountable promissory notes (PDBC-90) have fallen, due to lower real interest rates and lower monthly inflation.

Longer term, nominal interest rates provide a reference for inflation expectations over a longer horizon. More specifically, the differential between nominal rates and indexed one-year rates provide a benchmark for inflation expectations for a similar period, although it is important to remember that this differential also includes a risk premium. Thus, in August the differential between PDBC360 and a one-year zero-coupon indexed bond averaged close to 4.2%, slightly above the May average (Figure III.6). On the other hand, the Central Bank's monthly survey showed inflation expectations have remained at May levels, expecting a 12-month rate of 4.1% for the end of this year, and 3.5% by the end of 2001.

## The exchange rate

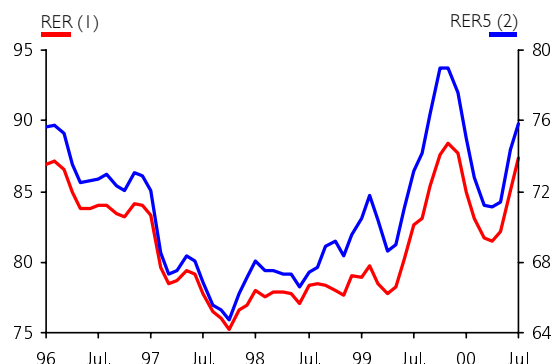
In the ten working days before the last monetary policy meeting the peso was trading in a range of 545 to 551 pesos to the dollar. It moved to 560-570 per dollar once the data on recent economic performance and the drop in the MPR to 5% became public. This represents a significant depreciation in relation to its value at the publication of the May report of almost 10% against the US dollar and about 8.5% against the multilateral exchange rate (MER), a broader basket of currencies (Figure III.7), and higher than the trend projected in the May report. The real exchange rate index (RER), which measures the relationship between main trading partners' prices and Chilean product prices, rose by 6.6% between April and June, reaching a level similar to that of September 1999 (Figure III.8).

*Between the closing date of the last Report on Monetary Policy and the August 28 Monetary Policy meeting, the peso depreciated substantially against both the dollar and a broader basket of currencies (MER5 and MER).*

Generally speaking, changes in perceptions of the future interest rate differential, long-term currency value expectations, and trends in risk premiums are the main factors influencing exchange rate fluctuations. With regard to interest rate differentials, the expected return on risk-adjusted assets held in different foreign currencies should be identical; otherwise, there would be arbitrage gains susceptible to exploitation. The interest rate differential between two currencies should therefore be equivalent to the anticipated performance of the exchange rate between them, adjusted for the risk premium demanded by investors.

Peso depreciation in recent months, including that which followed the drop in the MPR, coincide with the drop in the international interest rate differential. Nonetheless, the magnitude of the depreciation is greater than can be explained simply by the evolution of this differential. In fact, although peso yields have diminished in recent months, so too have external rates, so that the one-year international differential has fallen by about 75 basis points. The decline in nominal shorter-term rates in Chile can only partially explain exchange rate depreciation since last May (Figure III.9).

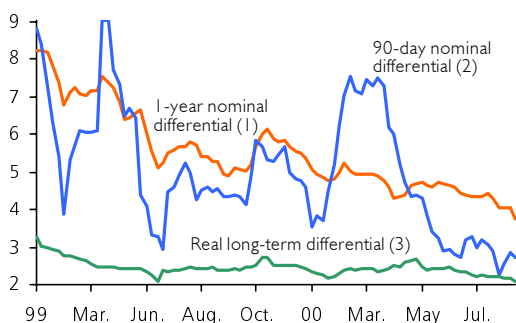
Figure III.8  
Real exchange rate index



(1) Based on parities of Chile's main trading partners (ordered by weight): United States, Japan, Argentina, Brazil, Mexico, Germany, Spain, Italy, France, United Kingdom, Korea, Canada, Peru, Holland, Belgium, Colombia, Taiwan, Venezuela and Ecuador.  
(2) Includes USA, Japan, Canada, United Kingdom, Euro.

Source: Central Bank of Chile.

Figure III.9  
Domestic vs. external interest rate differential (percent)



(1) 1-year US treasury bond vs. 90-day PDBC.  
(2) Differential 90-day LIBOR and 90-day PDBC.  
(3) Differential PRCB and real US 10-year treasury bill.

Sources: Bloomberg, Central Bank of Chile.

Table III.1  
Implicit volatility of Chilean peso vs. US dollar options (1) (percent)

	IPoM May (2)	August 00 (3)
+ M1	8.5	8.3
+ M2	9.5	9.1
+ M3	9.9	9.6
+ M6	10.4	10.5
+ M12	10.9	11.3

(1) Average last ten working days before data deadline for each report.  
(2) Average from 24 April to 5 May.  
(3) Average 22 – 31 August.

Sources: Bloomberg, Central Bank of Chile.

The peso's recent devaluation could be related to changing expectations about the long-term value of the currency or to a higher premium on exchange risk given perceptions of greater volatility in its price, or an increased correlation with yields on risk assets. However, the evidence supporting this is not very robust. In fact, the volatility implicit in options on the Chilean peso fell slightly in short periods (one to three months) and rose slightly over longer periods (six to 12 months), while the calculated volatility based on standard deviation on annualized weekly changes has risen, but only marginally<sup>2</sup> (Table III.1 and Table III.2).

Table III.2  
Volatility of Chilean peso and other currencies against the US dollar (percent)

	Standard deviation (1)		Option volatility (2)	
	Sept.99-Apr.00	Sept.99-Aug.00	IPoM May (3)	August'00 (4)
Chilean peso	5.4	5.6	9.9	9.6
Yen	9.0	8.2	12.8	11.5
Euro	8.5	8.9	13.8	12.5
Mexican peso	5.3	7.3	12.9	10.4
Brazilian real	7.6	6.8	12.0	12.0
Canadian dollar	3.8	4.0	5.8	5.3
Pound Sterling	5.4	6.0	8.7	8.9
Australian dollar	6.9	7.3	-	-
New Zealand dollar	7.9	8.6	-	-

(1) Calculated as annualized standard deviation of the weekly change in percent.  
(2) Volatility implicit in 3-month options on currencies, annualized percent.  
(3) Average from 24 April to 5 May.  
(4) Average from 22 to 31 August.

Sources: Bloomberg, Central Bank of Chile.

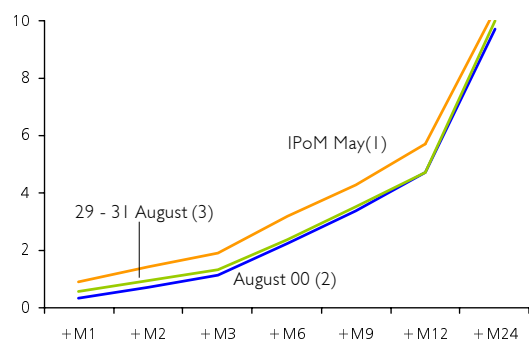
Regarding long-term expectations, the financial survey carried out monthly by the Central Bank reveals that these have tended to move in parallel with observed exchange rate movements. The same has occurred with futures prices. The performance of average depreciation for the MER5 as deduced from futures markets over the ten working days prior to the August 28 monetary policy meeting was down about 1%, for the one-year horizon compared to what was observed during the ten working days prior to the close of the May report, although this difference falls considerably when a two-year horizon is used. Despite the additional weakening of the peso that occurred after August 28, the depreciation rate implicit in futures did not change significantly (Figure III.10).

Despite the increase in exchange rate futures and the result of the financial expectations survey, alternative estimates for the long-term real exchange rate for the Chilean economy, based on historical evidence for Chile and other countries, are lower than recently observed values.<sup>3</sup> This evidence suggests that the exchange rate will depreciate less than futures prices suggest. Factors that could explain a more depreciated real exchange rate in the short term-like the fiscal consolidation process, the reduced level of domestic expenditure, the reduced amount of external financing, and the reduced international differential of interest rates-should become more moderate over a longer term. In effect, the Chilean economy's external financial position remains very robust and recent trends and the expected current account deficit will not change this scenario, while improvements in the international scenario favor the medium-term prospects for the terms of trade.

<sup>2</sup> The Chilean peso has fluctuated less than any other currency operating within a floating regime, except the Canadian dollar.

<sup>3</sup> Sources: Central Bank of Chile and JP Morgan.

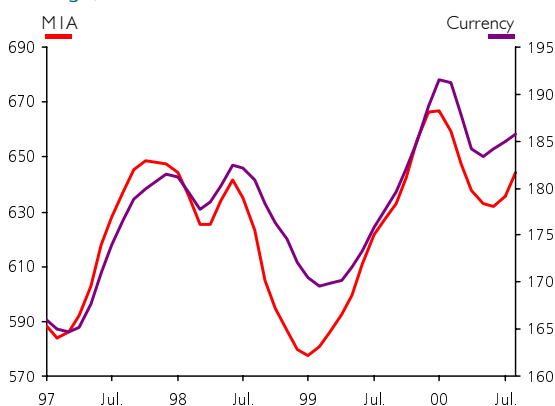
**Figure III.10**  
MER5 depreciation according to futures  
markets  
(percent)



(1) Average last ten working days before data deadline for May report.  
(2) Average last ten working days before Monetary policy meeting 28 August 2000.  
(3) Average last three working days after the Monetary policy meeting 28 August 2000.

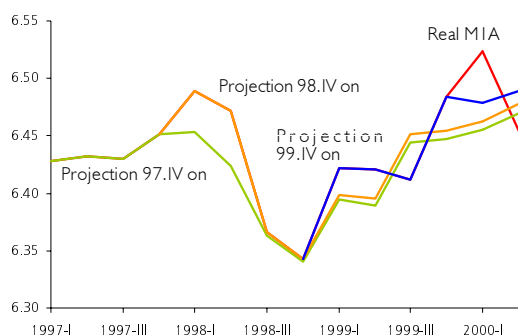
Sources: Bloomberg, Central Bank of Chile.

**Figure III.11**  
Seasonally-adjusted M1A and real currency  
(millions of 1986 pesos; mobile quarterly  
average)



Source: Central Bank of Chile.

**Figure III.12**  
Real quarterly M1A demand determined by  
spending  
(quarterly average)



Source: Central Bank of Chile.

As a result, with regard to future prospects for the exchange rate, the central projection assumes this will depreciate slightly, between 1% and 2%, over the next two years, compared to the level reached in July and August, before the August 28 monetary policy meeting. Alternatively, using as a reference, values from after this meeting of 560 to 570 pesos per dollar, a real appreciation of 1.5% is observed for the projection horizon. This implies depreciation below that implicit in futures markets, but more than assumed last May. Furthermore, it is estimated that, given alternative scenarios included in this report, the probability of appreciation in the exchange rate is greater than the probability of additional depreciation.

Overall, the recent 50 basis point decline in the MPR and lower short- and long-term market interest rates, combined with a significant increase in the real exchange rate, involve more expansive monetary conditions than those observed at the time of the May report, which contributes to generating additional positive stimuli to aggregate demand.

## Money and credit

The examination of the performance of monetary and credit aggregates provides relevant information for evaluating the economy's future path and monetary policy's impact on it, even when the Central Bank has no explicit or implicit targets for the performance of these aggregates.

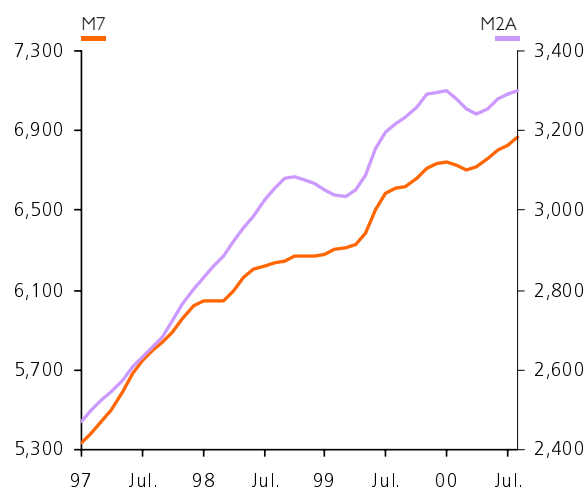
Trends in more liquid monetary aggregates (bills, coins, checking accounts and demand deposits) are related to consumers' and companies' operating needs. From May to August, currency (freely circulating banknotes, coins and checks issued by the Central Bank minus financial system cash balance) showed signs of recovery, although not very robust ones. Checking accounts and time deposits of private money (M1A) began to rise again, reverting the fall experienced throughout the first quarter as a result of portfolio adjustments resulting from Y2K. In June, growth was modest, while in July and August it was more dynamic (Figure III.11).

Given that holding M1A involves indirect financial costs due to unperceived interest, historically money holdings, especially checking accounts and demand deposits are sensitive to shifts in nominal interest rates. Thus, in terms of annual growth, discounting the effect of nominal interest rates, which tended to reduce demand for real money balances, M1A's real annual growth rate reached 5.5% in August, with a positive outlook.

It is worth stating that real M1A has historically shown a very high correlation with activity levels. However, during this cycle it has performed below GDP and more in line with the behavior of domestic spending and private consumption (Figure III.12). In particular, the breakdown of M1A checking account and demand deposit balances between individuals and companies reveals a more dynamic performance on the part of the second group. This behavior is coherent with trends in retail sales and other end sales, that indicate the slow performance of private consumption.

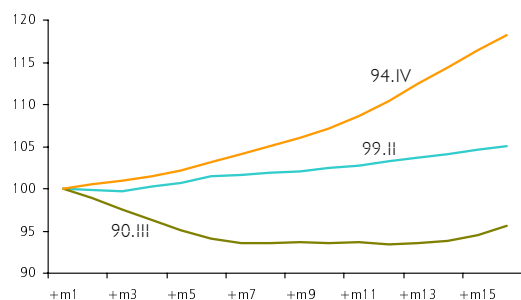


**Figure III.13**  
Seasonally-adjusted real M7 and M2A  
(millions of 1986 pesos; monthly average)



Source: Central Bank of Chile.

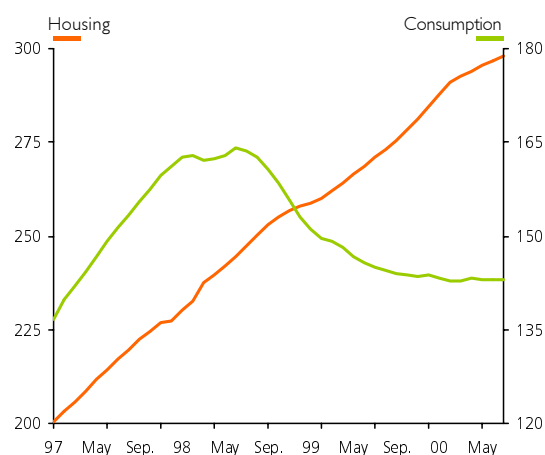
**Figure III.14**  
Recent recoveries of total credit (1)  
(lowest point in cycle = 100)



(1) Mobile quarterly averages.

Sources: Central Bank of Chile.

**Figure III.15**  
Seasonally-adjusted real credit to individuals  
(UF thousands; monthly balance)



Source: Superintendent of Banks and Financial Institutions.

*After very moderate performance very slowly during the second quarter, private M1A money was more dynamic in July and August.*

For their part, less liquid, seasonally-adjusted monetary aggregates, M2A and M7, performed more dynamically during April and May, in response to higher nominal rates, and went on to reduce performance during June and July. In August, M7 picked up, while M2A remained stable (Figure III.13). Most of the growth in these broader aggregates has been sustained by the Pension Fund Administrators (*Administradoras de Fondos de Pensiones, AFP*), which represent about 22% and 37% of M2A and M7, respectively. Isolating this effect, thus providing a more precise measurement of private sector financial assets related to nominal spending, reveals that these aggregates remained stable throughout the year, although they were slightly positive between May and July.

On the other hand, total credit to the private sector has performed in line with its characteristic lag behind economic activity. Thus, at the aggregate level, a more forceful recovery is apparent compared with the cycle in the early nineties (Figure III.14). Nonetheless, the component related to personal loans has performed sluggishly, improving more slowly than during previous recoveries. In the past year, adjusting for seasonal factors, real credit to individuals has risen just 2.6%, led mainly by mortgage loans. Consumer credit, for its part, has held stable in recent months, falling 1% since last year (Figure III.15).

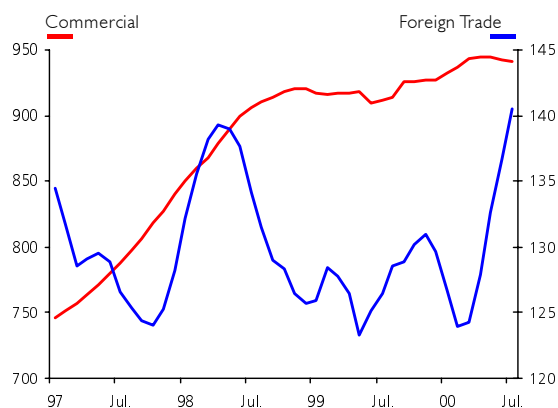
The slow development of consumer loans contrasts with the vigorous activity of past years. This situation can be explained in part by more lasting phenomena, among them the maturing of this market, which in previous years had grown systematically higher than the rate of expansion of the population's income. More immediate aspects also explain poor performance, including the ongoing high level of unemployment and increased pessimism among consumers. Furthermore, recent regulatory changes may also have negatively affected the supply of small consumer credits. Altogether, these factors have led to the less vibrant performance of consumer credits, whose counterpart is the performance of consumer spending on durable goods. Although these purchases have recovered compared to 1999 levels, they remain below levels observed in late 1997.

In contrast, company loans have performed more dynamically, going from 0.1% growth per month in April to 0.4% in May and 0.9% in June, before stagnating in July. The most active component among business credits has been foreign trade loans, influenced in part by higher growth in foreign currency loans due to the exchange rate effects and vigorous demand abroad (Figure III.16). The growth in business loans, despite the fact that fixed investment has not picked up, can be explained by domestic companies' greater use of domestic financing, thus substituting for external resources.

*In general, total credit to the private sector has performed sluggishly, in particular consumer loans, while business loans have performed more dynamically.*

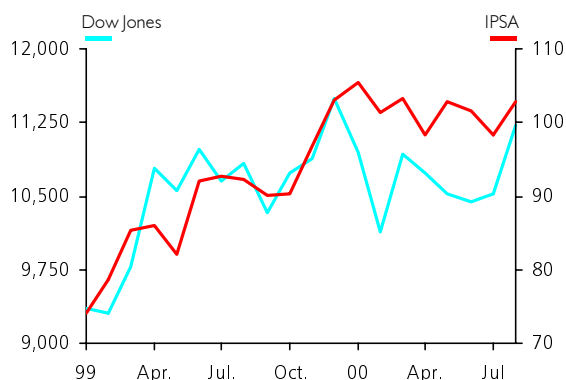


Figure III.16  
Seasonally-adjusted real credit to companies  
(UF thousands; monthly balance)



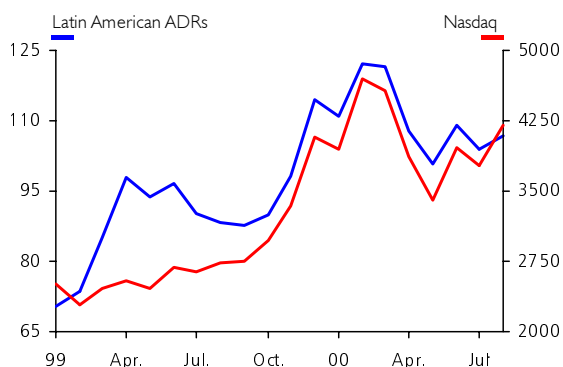
Source: Superintendent of Banks and Financial Institutions.

Figure III.17  
IPSA and Dow Jones stock exchange indexes



Sources: Bloomberg, Santiago Stock Exchange.

Figure III.18  
Latin american ADR indexes and Nasdaq



Source: Bloomberg.

## Prices of other financial assets

During the first eight months of the year, the selected stock index (IPSA) fell 0.2%, while the general stock index (IGPA) fell 4.1%. However, this negative trend has been more moderate since May's Monetary Policy Report, particularly in August. Thus, from April to August the IPSA rose 4.5%, while the IGPA showed no change. Therefore, between January and July the price utility ratio fell, but in August recovered significantly.

The sharp fall in the price of technological stocks in the United States during April and May strongly affected several Latin American countries, as reflected in the significant decline in Latin America's ADR index for this period. In contrast, this effect was not felt as strongly in Chile's stock market (Figure III.17 and Figure III.18).

Several specific factors had a stronger impact on local markets, including the liquidation of the Five Arrows investment fund and dollar depreciation's effect on monetary correction, which negatively affected companies' results at the close of the accounting quarter, as well as the suspension of the one-year stay requirement on foreign investment and the drop in the policy rate in late August.

Price trends for stock market assets have been closely linked to the particular features of the process of economic recovery. In effect, upward trends in the prices of certain export commodities, like copper and wood pulp, significantly stimulated by foreign demand and exchange rate depreciation, have favored the share prices of companies oriented towards external markets, particularly forestry, wine and shipping service sectors. In contrast, slow growth in private consumption has affected companies oriented more towards the local market. For example, from April to August, in the manufacturing sector, aside from fisheries (very affected by falling world prices for fishmeal), the largest declines were in the construction and metalmechanics sub-sectors. In the varied services sector, the largest fall in stock prices was in Investment and Real Estate Firms and Retail and Distributing. Banking and financial services also showed poor results, mainly due to the high levels of provisions that have been necessary to guarantee their portfolios. Finally, within the sub-sector Public Utilities, the strong performance of the electrical power sector, favored by the setting of a maximum potency for the Norte Grande's Interconnected System (*Sistema Interconectado del Norte Grande*) and a year of above-normal precipitation have compensated for the poor performance of telecommunications, mainly affected by high exchange-rate exposure.

## External financing of the chilean economy

Recent and projected trends for the capital account of the balance of payments and a comparative analysis of certain international solvency and liquidity indicators, are relevant to evaluating the solidity of the Chilean economy's external financial position and the prospects for external financing. These variables directly influence the risk premium assigned to the Chilean economy and the strength or weakness of the peso, and less directly, but still significantly, interest rates and other asset prices. Furthermore, modifications in economic agents' portfolio composition, between domestic and external financial instruments, help explain some movements in monetary aggregates.

## Capital account

Capital flows during the first quarter showed a net outflow, offset by the arrival of resources during the second quarter. This behavior is in line with the current account's reduced need for financing in a context of a flexible exchange rate and slow recovery in domestic demand.

In terms of the composition of capital flows, net flows of medium- and long-term credits were positive. Net flows of foreign direct investment were practically zero during the first semester, while portfolio investment flows were negative.

Net direct investment, which posted a negative balance in the first quarter, rose during the second due to contributions entering under DL600 (the main foreign investment statute). Although these were significant, they were far below the extraordinary levels reached in 1999, as a result of the sale of major companies to foreign investors. Net portfolio investment flows from abroad were somewhat less negative during the second quarter, due to fewer ADR-related outflows. Portfolio investment abroad, on the other hand, after strong outflows in 1998 and the first half of 1999, began to generate net income for the country during the second half of 1999, thanks to inflows from returns on investment made by pension funds, to be invested in the local market. This phenomenon continued, although more moderately, during the first half of 2000. Short-term capital flows were negative during the first quarter, but second quarter results were almost enough to offset the first.

In terms of the previous report's projections, the composition of capital flows during the first semester differed somewhat. In particular, the delay of some investment projects contributed to lower income from direct and portfolio investment, as well as medium- and long-term credits. Prospects for the second semester include recuperation in direct foreign investment levels, as economic activity recovers. Portfolio investment from abroad is also expected to turn around and become positive, due to the probable bond issues on the part of some domestic firms. Medium-term credits will continue to be a source of financing during the second half of the year, while short-term capital outflows, which rose significantly in 1999 due to the accumulation of assets abroad, have not been repeated (Table III.3).

Table III.3  
Capital account  
(US\$ million)

	1999 (e)	2000 I (e)	II (e)
CAPITAL MINUS RESERVES	-763.5	-500.9	687.8
Foreign investment	4,496.1	-611.6	114.6
Direct investment	4,365.8	-292.6	209.3
Portfolio investment	130.3	-318.9	-94.8
Other Capital	-5,259.6	110.6	573.2
Medium- and long-term capital	65.0	501.0	120.4
Short-term capital	-5,324.7	-390.4	452.9
ERRORS AND OMISSIONS	158.3	-42.7	145.5
SURPLUS (DEFICIT) BALANCE OF PAYMENTS	-683.3	-93.0	130.4

(e) Estimates.

Source: Central Bank of Chile.

## External financial position indicators

Indicators for the external position of the Chilean economy have not changed significantly since the last monetary policy report. The economy's A- risk rating from Standard & Poor's was confirmed, with stable prospects. Similarly, foreign debt has risen marginally as a percentage of GDP, but has fallen slightly as a percentage of exports. Short-term obligations (short-term debt, plus debt amortization) as a percentage of the Central Bank's foreign currency reserves, have risen slightly. However, in the context of a flexible exchange rate, private reserves begin to play a more active role in responding to external financial obligations, which is not captured by this indicator (Table III.4).

**Table III.4**  
External vulnerability indicators for emerging markets

	S&P debt rating	Total foreign debt (% GDP) (1)	Foreign debt (% exports) (1)	Short-term foreign debt + amortization (% NIR*) (2)	M2 (% NIR) (3)
Chile	A-	48	155	38	212
Argentina	BB	51	392	99	164
Brazil	B+	37	331	218	751
Mexico	BB+	30	95	166	611
China	BBB	15	57	29	927
Korea	BBB	28	68	92	385
Philippines	BB+	70	103	100	341
Indonesia	SD	94	219	131	305
Malaysia	BBB	43	33	40	257
Thailand	BBB-	69	109	83	403
Taiwan	AA+	14	28	28	521

(1) Projections for 2000.

(2) Short-term foreign debt and reserves at the end of 1999. Estimated amortizations for 2000.

(3) Latest information available.

\*Net international (foreign currency) reserves.

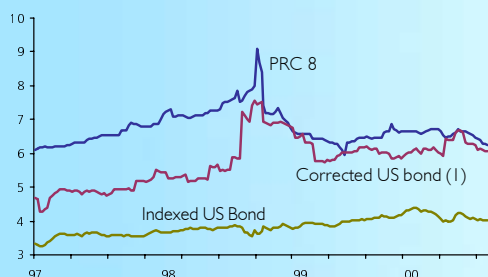
Source: J.P. Morgan, World Financial Markets (3<sup>rd</sup> quarter, 2000).

*The Chilean economy continues to show a solid external financial position, which has been reflected in a decline in its sovereign risk premium.*

*In summary, the monetary policy rate fell from 5.5% to 5.0% on August 28. This decision was adopted on the basis of the increased likelihood of reaching the lower bound of the inflationary target within the two-year projection horizon, thus requiring a greater monetary stimulus for the economy. The structure of real interest rates has diminished for every maturity. The shorter term segment has been very influenced by a significant moderation in expectations of an increase in the MPR and later by the more expansive monetary policy, while longer term rates have evolved in line with equivalent rates abroad and the reduction of sovereign premiums for emerging economies. This, combined with the significant increase in the real exchange rate, has generated conditions for an additional positive stimulus to aggregate demand, which has been reflected in the increased activity of private M1A money observed in July, and particularly, in August. Trends in credit to the private sector have, as usual, lagged behind economic activity, behaving more dynamically in the case of credit to firms, but very slowly in the case of consumer credit. In terms of stock markets, August saw the price earnings utility recover. Finally, the Chilean economy continues to show a solid external financial position.*

## BOX III.1: RELATIONSHIP BETWEEN REAL LONG-TERM DOMESTIC AND EXTERNAL INTEREST RATES

Figure III.19.A  
Chile and indexed US bonds



(I) Corrected for taxes, reserve requirement and Chile's risk premium.

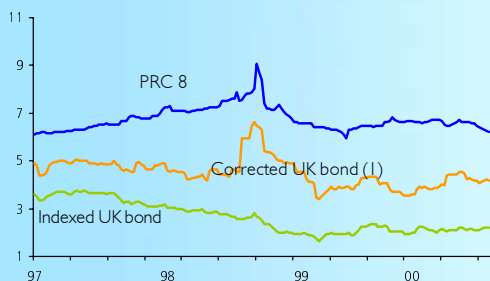
Sources: Bloomberg, Central Bank of Chile.

Increasing globalization of the world economy has generated a tendency towards the unification of world capital markets. As a result of this development, real interest rates across different regions should tend to converge.

This phenomenon should be particularly noticeable in long-term real interest rates. In effect, real short-term interest rates in part reflect each country's particular monetary policy, sustaining expectations of exchange-rate appreciation or depreciation, whose influence should diminish to the degree that the timeframe for these estimates lengthens.

Despite this trend, certain idiosyncrasies can explain persistent gaps between real long-term domestic and foreign interest rates. For example, sovereign risk is specific to each country, as are institutional factors peculiar to specific capital markets. Furthermore, the real exchange rate can show a tendency to appreciate or depreciate, reflecting gaps in productivity or changing consumption patterns.

Figure III.19.B  
Chile and UK indexed bonds



(I) Corrected for taxes, reserve requirement and Chile's risk premium.

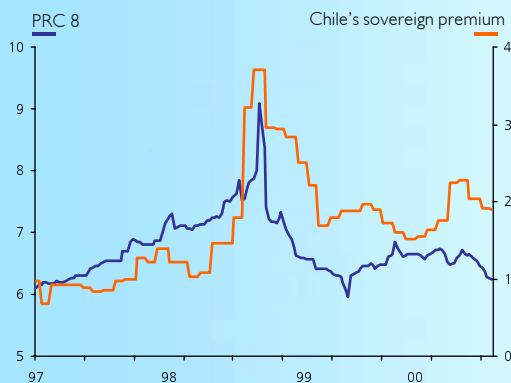
Sources: Bloomberg, Central Bank of Chile.

In Chile, the real long-term interest rate can be calculated for example by looking at the yield (in UF's) of the eight-year PRC (PRC-8). This concept of real interest rate is obtained from a note indexed to past inflation.

Upon researching the evidence of trends in real interest rates in Chile versus other countries that also issue indexed notes,<sup>4</sup> significant differences persist. However, if the performance of country risk and specific taxes on capital flows into Chile are also taken into account, these differences decline considerably (Figures III.19.A al III.19.C).

In principle, real interest rates should fluctuate around a stable long term equilibrium value. However, empirical evidence does not tend to support this prediction. Indexed interest rate series show lasting changes over time. However, there is some evidence that these tend to move in parallel among countries. In the particular case of the Chilean economy, there is evidence of a long-term relationship between Chile's long-term interest rate and that of the United States and the United Kingdom, and shifts in real interest rates in both the US and the UK tend to precede movements in Chile's real rates.<sup>5</sup>

Figure III.19.C  
Chile's sovereign premium and indexed bond trends



Sources: Bloomberg, Central Bank of Chile.

Figures III.19.A and III.19.B reveal that once sovereign premium and taxes are adjusted for, there's a noticeable convergence between Chile's real interest rate and that of the United States, while the difference with the UK persists over time. This is consistent with evidence of persistent differences between the real interest rates of developed countries, which can not be explained solely by exchange rate expectations, but rather, also respond, at least partly, to differences in the macroeconomic performance of these countries.

<sup>4</sup> The sample consisted of the following countries: Australia, Canada, United States, France, New Zealand, United Kingdom and Sweden. Although some emerging Latin American economies issue indexed bonds, like Mexico for example, we don't currently have the information. Emerging economies in Southeast Asia were not included. Nonetheless, real interest rates for these economies have more to do with interest rates prevailing in the Japanese economy.

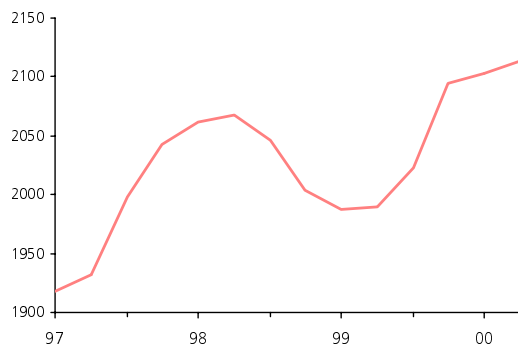
<sup>5</sup> See Breedon, F. and B. Henry (2000).



This section analyzes recent and foreseeable trends in the real sector of the economy, including the prospects for economic activity, the labor market and the current account, in order to examine their relevance to the future behavior of inflation. First, a summary of the prospects for economic growth and the current account are presented, followed by a review of the factors that influence domestic and external demand, along with aggregate supply.

### Prospects for economic growth and the current account

Figure IV.1  
Seasonally-adjusted GDP  
(billions of 1986 pesos)



Source: Central Bank of Chile.

During the second quarter the economy continued to grow, but more slowly than expected, especially in the case of sales, investment and employment. In effect, although GDP grew 6.1% over the same period in 1999, in annualized terms growth during the first quarter reached barely 2%, similar to that reached during the first quarter this year and below the rate during the second semester of last year (Figure IV.1). Similarly, domestic demand grew almost 12% compared to the same period last year, but mainly due to greater inventory accumulation, while its more permanent components, consumption and fixed investment, grew more slowly this quarter. Finally, job creation tended to stagnate, contributing to a rising unemployment rate throughout the first semester. Thus, during the mobile quarter May-July, unemployment rose beyond seasonal factors typical during this time of year. This cooled private expectations of economic growth, as well as indicators of consumer confidence. Together, these factors led to the conclusion that the process of recuperation of expenditure was not consolidating, in contrast with expectations in the last report.

In part, these developments confirm some elements of the diagnosis presented in the May report, which indicated that the speed of recovery would probably be slower than in previous episodes during the nineties. This situation is due to the reduced availability of external financing, higher levels of private debt, the process of fiscal consolidation underway and the existence of greater unused capacity, which are likely to delay the startup of new investment projects. These factors have been partly offset by better prospects at the margin for the economy's tradable sectors, the result of greater growth in the world economy and a more depreciated real exchange rate, as well as lower domestic interest rates. However, the most recent information shows consumption and employment growing more slowly than previously forecast. This situation led to projections that if the interest rate were maintained at 5.5% (UF+), slack in both capacity and employment would be greater than expected, reducing medium-term inflationary pressures. This led the Central Bank to reduce the monetary policy rate to 5% (UF+).

The base scenario analyzed in this report is consistent with average annual GDP growth somewhat lower than forecast in May, reaching about 5.8% over the next 24 months. Growth during 2000 will reach 5.6%, 5.7% in 2001 and 6.3% in 2002. Domestic demand is now estimated to grow about 8% from 2000 to 2002, instead of the 9.5% projected in May for this period. This more moderate projection is mainly associated with lower growth expected in short-term fixed investment. Similarly, consumption is expected to experience a more modest turnaround this year, due to the slow recovery of employment, which

limits the expansion of job-related income. This is compounded by the fact that current unemployment rates do not facilitate a significant increase in credit to households.

Greater slack in the use of domestic capacity is also reflected in less use of external savings than forecast in May. In fact, altogether, the information available suggests a more balanced current account, with the deficit for this year reaching 1.1% of GDP, maintaining projections of 1.7% of GDP for 2001, and 2.2% for 2002. Thus, the Chilean economy's general debt indicators should remain at similar or lower levels than those observed in recent years.

Table IV.1  
Economic growth and current account 1997-2002  
(annual change, percent)

Specification	1997	1998	1999	2000(f)	2001(f)	2002(f)
Domestic demand	9.1	1.9	-9.9	7.9	7.5	7.4
Exports of goods and services	9.4	5.9	6.9	6.3	7.3	5.5
Imports of goods and services	12.9	2.1	-14.3	11.5	11.1	8.0
Current account deficit	-5.0	-5.7	-0.1	-1.1	-1.7	-2.2
GDP	7.4	3.4	-1.1	5.6	5.7	6.3

(f) Projected.

Source: Central Bank of Chile.

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*GDP will grow about 5.8% over the next 24 months.*

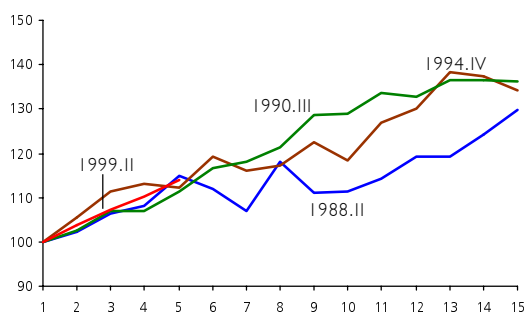
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In any case, there is clearly a significant degree of uncertainty around these projections. This is reflected in the presentation of growth projections as confidence intervals in Section V, which also discusses some relevant alternative scenarios in more detail. Within these scenarios, there is more uncertainty about the future course of domestic demand. On the one hand, the vigor of the world economy and relatively expansive monetary conditions suggest a rapid recovery in Chile's economy, based on the historical evidence of the past decade. On the other hand, changes described above could affect the dynamism of domestic demand more permanently.

Another source of risk refers to the possibility of a more rapid deceleration of the world economy, as a consequence of a hard landing of the US economy. This risk persists, although it is considered less likely now than it was in May. Overall, risks to activity growth are considered balanced. The implications of this for monetary policy are discussed in the subsection *Balance of Risks* in Chapter V of this report.

In the future, the Board will pay special attention to fiscal policy performance and the pace of domestic demand growth, as well as unemployment and evidence regarding changing trends in prices and wages, in order to evaluate the speed at which the unused capacity in the economy observed today is absorbed.

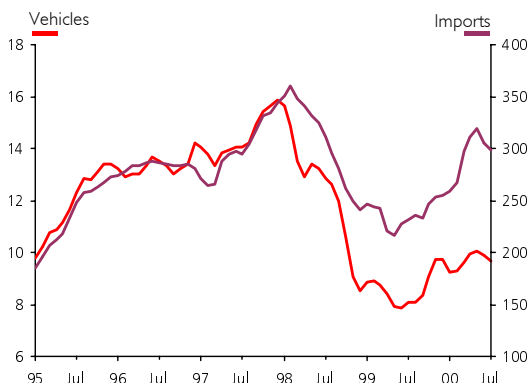
Figure IV.2  
Recent recoveries – rest of domestic demand (1)  
(lowest point in cycle = 100)



(1) Seasonally adjusted quarterly figures.

Source: Central Bank of Chile.

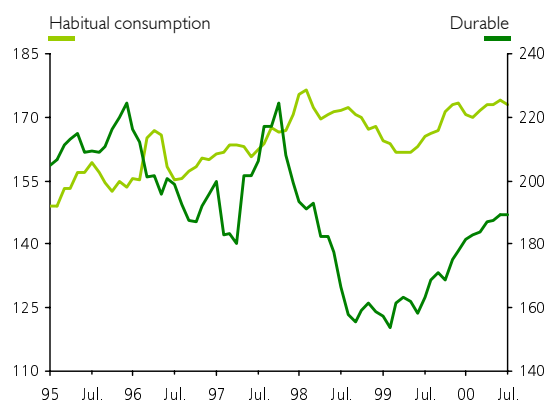
Figure IV.3  
Seasonally-adjusted imports of consumer goods and new vehicle sales (1)  
(US\$ million, thousands of units)



(1) Mobile quarterly average.

Sources: Central Bank of Chile, National Association of Automobile Dealers of Chile.

Figure IV.4  
Seasonally-adjusted sales of non-durable and durable goods (1)  
(1989 average = 100)



(1) Mobile quarterly average.

Source: National Statistics Bureau.

## Domestic demand

### Consumption and inventory changes

During the first six months of the year, the component “other” in domestic demand, which includes total consumption and inventory changes, increased 13.5% year on year, rising more rapidly during the second quarter. However, as in the first quarter, this pickup in “other” demand involved mainly rising inventories (Figure IV.2).

Diverse sectoral information reveals that private consumption tended to grow more slowly during the second quarter of the year. Seasonally-adjusted imports of consumer goods rose 16% during the first quarter of 2000 compared to the last quarter of 1999, but grew only 3% between the first and second quarters of this year. According to the National Statistics Bureau (*Instituto Nacional de Estadística, INE*), seasonally-adjusted sales of durable goods of domestic origin slowed during the second quarter of the year, while figures from the industry association, Sofofa, revealed a flat performance throughout the first semester (Figure IV.3). New vehicle sales performed similarly during the second quarter of this year, remaining virtually constant compared to late 1999 (Figure IV.4). New housing sales (that correspond to investment) fell sharply during the first semester, after the reduction in the tax incentive. Finally, consumer loans tended to stagnate or decline slightly in recent months.

Similarly, supermarket and retail sales in general fell slightly compared to levels reached in late 1999 (Figure IV.5). Together, this information indicates a noticeable slowdown in private consumption growth in recent months.

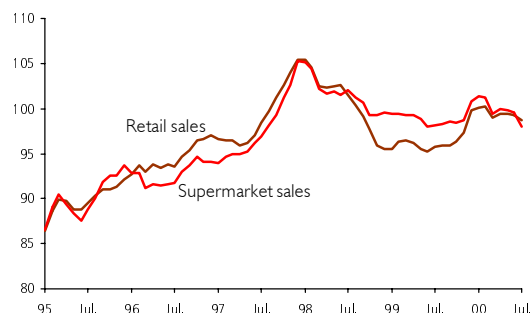
At the margin, growth for the rest of domestic demand was concentrated on inventory accumulation. Although there is no direct information on inventories, this development can be observed in recent months given the gap between the increase in imports and industrial output on the one hand, and the performance of retail and manufacturing sales on the other. Moreover, during the second quarter, the mining sector experienced a brief, significant rise in inventories, but it was reversed in July. Although this inventory accumulation process is common during recovery periods, the current situation is likely to be transitory, given the evident slowdown in end sales.

Several factors can explain slower growth in private consumption indicators. First, the labor market shows stagnate employment along with a decline in real wage growth, which has allowed only a gradual recovery of job-related income. Second, the climate of job insecurity has translated into worsening household expectations about the future. In fact, the economic perception index (*índice de percepción económica, IPEC*) developed by Adimark fell in July, breaking the rising trend observed from the third quarter of 1999 through the first quarter of 2000. The recent increase in unemployment rates make further worsening of this indicator likely in September (Figure IV.6).

*Household spending on consumption slowed during the second quarter of 2000.*



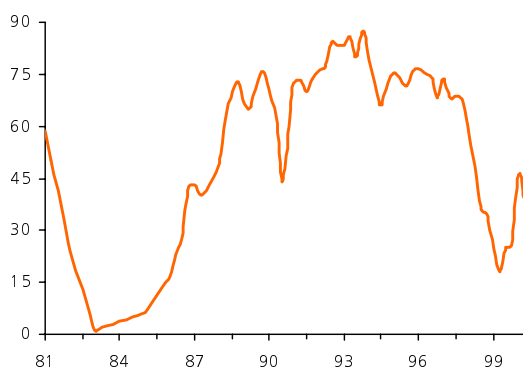
**Figure IV.5**  
Seasonally-adjusted retail and supermarket sales (1)  
(average 1997 = 100)



(1) Mobile quarterly average.

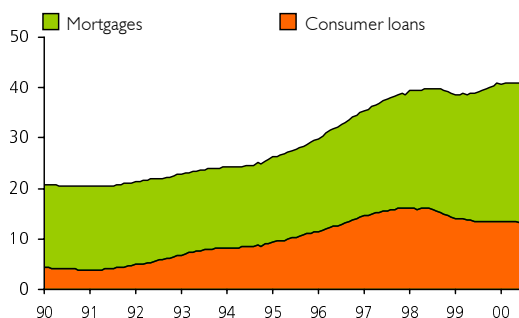
Sources: National Chamber of Commerce, Association of Supermarkets of Chile.

**Figure IV.6**  
Economic perception index (índice de percepción económica, IPEC)



Source: ADIMARK.

**Figure IV.7**  
Debt indicators  
(loans as share of working income (1))



(1) Working income represents seasonally-adjusted total wage bill.

Source: Central Bank of Chile.

The short-term prospects for consumption expenditure are linked to the recovery of employment and real wages, which appear less positive than in the previous report. Moreover, more permanent factors persist that negatively affect household spending. Among these, the slower pace of credit expansion stands out, given that as a percentage of employment-related income it has risen significantly in recent years (Figure IV.7).

In the framework of a more restrictive fiscal policy stance, state transfers more directly linked to private consumption, will experience less growth than during the last decade, which is likely to continue over the next two years. During the second quarter of this year, these transfers grew 4.1% over the same period last year, the upper bound of what was contemplated in this year's budget.

### Fixed investment: construction, machinery and equipment

Unlike the rest of domestic demand, fixed investment only began to recover during the first quarter of this year. This continued during the second quarter, but at a much slower pace. This growth, however, remains insufficient to recover last year's investment levels and fixed investment rate (as a percentage of real GDP). Fixed investment remains between 25% and 26%, well below levels of over 30% registered in 1997 and 1998.

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*Despite showing signs of recovery at the margin, investment levels remain depressed.*

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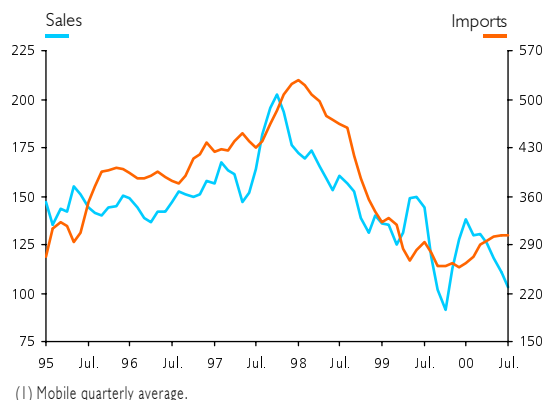
Investment in machinery and equipment only began to recover during the first quarter of this year. Seasonally-adjusted imports of capital goods rose 13% over the last quarter of 1999, but have dropped markedly since then. Similarly, sales of domestically produced capital goods rose 2% during the first quarter over the end of 1999, but fell during the second quarter, accumulating a 15% drop since the beginning of the year (Figure IV.8).

Construction's recovery has followed a somewhat different pattern as a consequence of the application of a short-term tax incentive encouraging the purchase of new DFL2 housing. This incentive advanced decisions to buy during the second half of 1999, quickly boosting employment in the sector and temporarily increasing housing building permits. Afterward, sales of new housing fell off sharply, reaching levels similar to the first half of 1999, new startups fell, and sectoral employment stagnated (Figure IV.9). Although the most recent figures show signs of recovery in building permits, be they for housing or commercial buildings, these remain well under historic averages (Figure IV.10).

In any case, investment's recovery shows lags and magnitudes similar to those of 1990, but slower than in 1988 and 1995 (Figure IV.11).

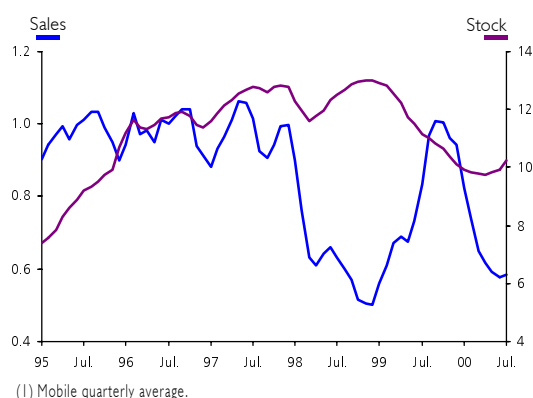
Projected investment recovery between 2000-2002 is more moderate than in the previous report in light of recent trends. The slow startup of new construction works will translate into a more modest rise in investment this year, while capital goods imports are also projected to

Figure IV.8  
Seasonally-adjusted imports and sales of capital goods (1)  
(US\$ millions and average monthly index: 1990=100)



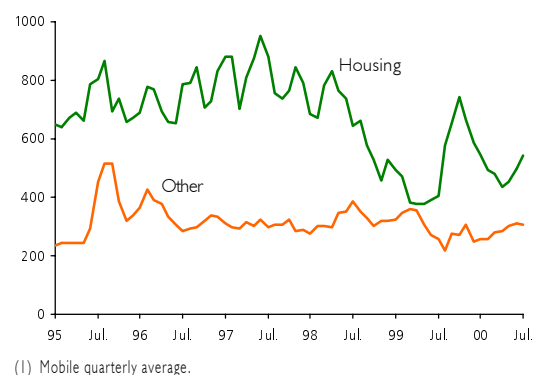
Sources: National Statistics Bureau, Central Bank of Chile.

Figure IV.9  
Seasonally-adjusted sales and stock of new housing (1)  
(thousands of units)



Source: Association of Real Estate Brokers (ACOP).

Figure IV.10  
Building permits, new works (1)  
(thousands of square meters)



Source: National Statistics Bureau.

grow more slowly. This information suggests that in 2000 investment will reach almost 25.5% of GDP, 27% in 2001 and 29% in 2002 (in constant pesos).

*Prospects for investment are more moderate than in the last report.*

These prospects are based on a combination of factors. In the first place, monetary conditions are more expansive than they were some months ago, with long-term interest rates down and slightly improved external financing conditions. Secondly, real exchange rate depreciation has increased the relative cost of investing in machinery and equipment, since most is imported, while Chile's asset prices have remained constant in recent months. Thirdly, today excess unused capacity is expected to persist for more time, given the slowdown in household consumption. This will continue to delay the startup of new projects in the sectors most affected by stagnate domestic demand.

The report prepared by the Capital Goods Corporation (*Corporación de Bienes de Capital*) in June is consistent with a gradual recovery in investment in the coming years and, in contrast with the aforementioned expectations, at the margin, prospects have improved since last May's report. In fact, the survey carried out in June, with information on expectations during the second quarter, showed an improvement of 7% in the prospects for investment spending for 2000-2002, compared to the report for the first quarter. One highlight of these improved projections was the increase in the number of public works projects associated with tenders and new investment in water treatment works, along with increased investment in real estate and mining, while manufacturing, energy, ports and telecommunications remain constant since April, and investment projections for the forestry sector fell (Table IV.2).

Table IV.2  
Investment survey  
(US\$ millions)

Sector	1998	1999	2000(f)	2001(f)	2002(f)
Mining	2,066	784	715	2,048	2,115
Forestry	173	63	160	214	576
Manufacturing	599	340	235	301	499
Energy	2,149	1,218	412	428	881
Ports	44	72	26	82	36
Real Estate	1,902	1,398	1,570	2,006	2,030
Public Works	695	786	1,399	1,392	1,161
Telecommunications	796	719	669	183	45
Other	74	20	15	8	2
Total	8,498	5,380	5,186	6,656	7,343

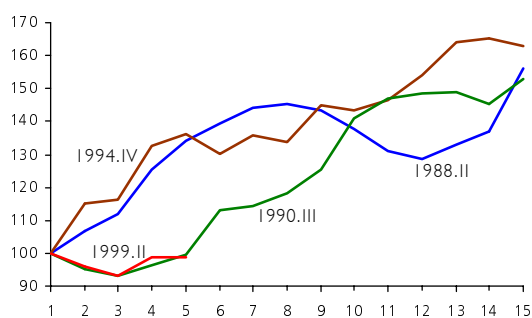
(f) Projected.

Source: Corporation for Technological Development of Capital Goods (Corporación de Desarrollo Tecnológico de Bienes de Capital).

## Fiscal policy

Government authorities have reiterated their commitment to consolidating fiscal accounts this year and next, with expenditure growth with macroeconomic impact rising 3.3% and a structural surplus of 1% to be achieved in late 2001. Recent fiscal announcements have not altered this commitment, given that along with involving reduced amounts of additional resources, with a present value of about US\$30 million, they have remained within the above limits, according to authorities.

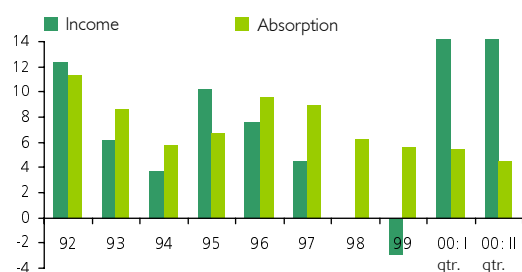
Figure IV.11  
Recent recoveries – investment (1)  
(lowest point in the cycle = 100)



(1) Mobile quarterly average.

Source: Central Bank of Chile.

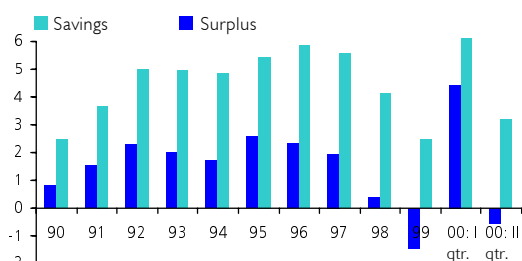
Figure IV.12  
Current income (1) and public absorption  
(change over previous year, percent)



(1) Includes income from privatizations in 2000.

Source: Budget Division

Figure IV.13  
Central government current savings and total surplus (1)  
(percentage of GDP)



(1) Not adjusted for Copper Compensation Fund and including privatization income in 2000.

Source: Budget Division.

Projections regarding fiscal policy are based on the government's commitment to achieving a structural fiscal surplus starting in 2001. Achieving this goal of a structural surplus will be a significant feature of the economic panorama over the next 24 months, as it will break with the expansive trend of previous years. Moving towards this goal of a structural surplus will temporarily weaken growth in aggregate demand, but it will also create more relaxed monetary conditions, on average, which will facilitate the recovery of the components of overall demand, particularly private consumption and investment and exports. At the same time, these signals of fiscal responsibility help to maintain current foreign confidence levels in Chile's economy.

During the first half of this year, public spending with macroeconomic implications rose 5% year on year, above the 3.3% target for the year, but this growth is expected to decline once the comparison base from the previous year includes the impact of employment program spending. Tax income recovered significantly, 10.1% year on year, well above estimates in the 2000 budget (Figure IV.12). Overall, the fiscal surplus for the mobile year including the second half of 1999 and the first half of 2000 reached 0.2%, above the general deficit of 1.6% at the end of 1999 (Table IV.3 and Figure IV.13). These figures include the impact of extraordinary income of US\$475 million during the first quarter of 2000 from the privatization of water treatment companies, which are included under current income.

Table IV.3  
Fiscal indicators

	1998	1999	2000(f)	2001(f)
	(annual percentage change)			
Public absorption	6.2	5.7	3.3	
Current income	0.0	-2.9	0.1	
Tax income	-0.2	-5.6	-4.5	
	(percentage of GDP)			
Total surplus (1)	0.4	-1.5	-0.5	
Copper Com p. Fund	-0.4	-0.7	-0.5	
Fiscal stimulus	0.7	1.2	-2.2	-1.0

(f) Projection 2000 based on National Budget 2000. Projection 2001 consistent to 1% of structural surplus of GDP.

(1) Not adjusted for Copper Compensation Fund and includes capital gains income from privatization of EMOS in 2000 (0.7% of GDP).

Source: Budget Division.

*Prospects point to a partial improvement in the fiscal position for 2000 and its consolidation towards a structural surplus of 1% of GDP in the coming years.*

Fiscal policy projections for 2000 are based on the National Budget approved for this year. During the second semester, public absorption should rise an average 3%, reaching the upper limit of its growth rate by year's end. Adjustments will mainly affect real public investment.

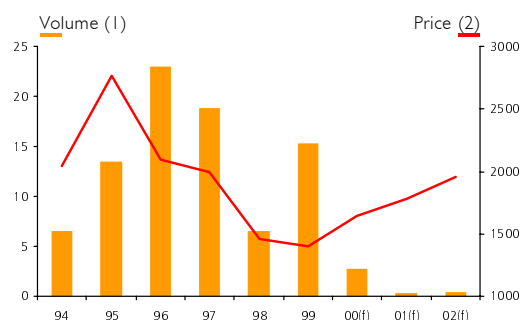
Looking at both income and spending, the projection for fiscal spending affecting domestic demand for the current year is negative, due to the increase in current income. Finally, the Finance Ministry's projection for fiscal accounts is a deficit of 0.2% of GDP. This figure considers as income, the capital gains associated with the sale of EMOS (0.7% of GDP) and withdrawals from the Copper Stabilization Fund (*Fondo de Estabilización del Cobre*) amounting to 0.5% of GDP. This figure does not include, however, the use of the Oil Fund, which has reached nearly 0.2% of GDP so far this year.

**Table IV.4**  
Central government's fiscal balance  
(mobile years as percentage of GDP)

	98.IV-99.III	1999	99.III-00.II
Current income without privatizations	22.6	22.5	23.9
		22.5	23.6
Current surplus without privatizations	6.0	2.5	3.5
		2.4	2.8
Total surplus without privatizations	-1.3	-1.5	-0.1
		-1.6	-0.7

Source: Corporation for Technological Development of Capital Goods.

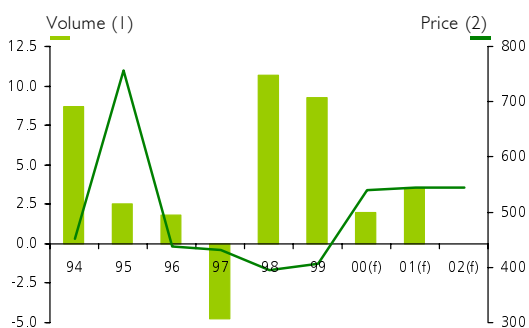
**Figure IV.14**  
Copper exports by volume and price



(1) Annual percentage change of exported volume.  
(2) US dollars per ton.  
(f) Projected.

Source: Central Bank of Chile.

**Figure IV.15**  
Pulp exports by volume and price  
(percentage change over previous year)



(1) Annual percentage change of exported volume.  
(2) US dollars per ton.  
(f) Projected.

Source: Central Bank of Chile.

In terms of the prospects for 2001 and 2002, the Executive Branch has announced that, starting next year, the fiscal position will improve consistently, achieving a structural surplus of 1% of GDP, not including the impact of the temporary fluctuations in the copper price and the economic cycle on the fiscal balance. This announcement suggests that during the period of consolidation of this surplus, fiscal policy will continue to exercise a moderating influence on aggregate demand. However, an evaluation of the fiscal policy stance beyond the present year can only be done with propriety once the budget for the next fiscal year has been approved (Table IV.4).

## External sector

### Foreign trade

During the second quarter of 2000, real exports of goods and services increased slightly more than 2% over the second quarter of 1999, while real imports rose 15% over the same period.

Sales abroad fell slightly more than 10% over the previous quarter. Most of this decline was due to seasonal factors associated with reduced exports of fruit and salmon, as usually occurs at this time. Moreover, copper exports fell briefly during the second quarter of the year, but turned around in the following months (Figure IV.14). Other export products continued to enjoy increasingly vigorous growth, particularly wood pulp, wine and methanol (Figure IV.15). Exports by volume of non-principal products experienced 16% annual growth during the second quarter, underlining their extreme sensitivity to demand abroad (Figure IV.16).

Export trends have been favored by the increased dynamism of the world economy. In the case of secondary export products, these effects can be seen in volume trends, while in the case of principal exports, these effects are apparent in better prices. Projections for the international economy indicate that it will continue to stimulate external demand. The higher real exchange rate will also affect exports, particularly secondary products, although by how much is hard to accurately estimate using historical evidence. Overall, the projection is for 6.3% growth in exports this year, more than forecast in the previous report, and 6.4% on average for 2001 and 2002. Growth projections for secondary products stand out, averaging 10% between 2000-2002.

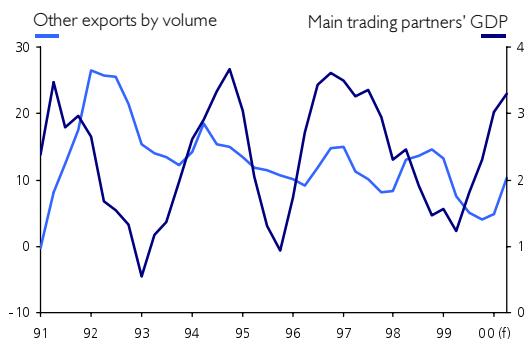
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*The improved international scenario expected for this year and next continues to favor a significant stimulus of exports.*

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Imports continue their path of recovery, initiated during the third quarter of last year. During the second quarter of 2000, imports, except fuels, rose over 19% per annum and 4% over the first quarter of 2000. In real terms, imports rose 15% during the second quarter compared to the same period the previous year. The higher value of imports was particularly noticeable in the purchases of intermediate goods and, to a lesser degree, capital goods. Imports of consumer goods remained flat compared to the previous quarter, while fuel purchases rose significantly, due to both the impact of higher prices as well as seasonal factors typical of the second quarter of the year (Figure IV.17).

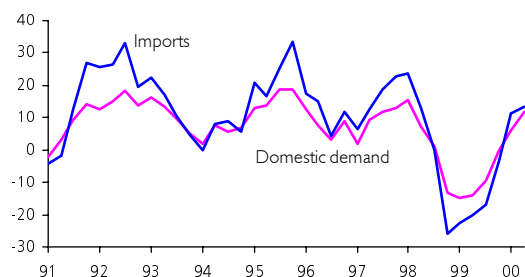
**Figure IV.16**  
Other exports growth by volume and main trading partners' GDP growth (1) (percentage change over the same quarter the previous year)



(1) Includes Argentina, Brazil, US, Japan and Euro zone plus Great Britain.  
Other exports excludes copper and main exports.

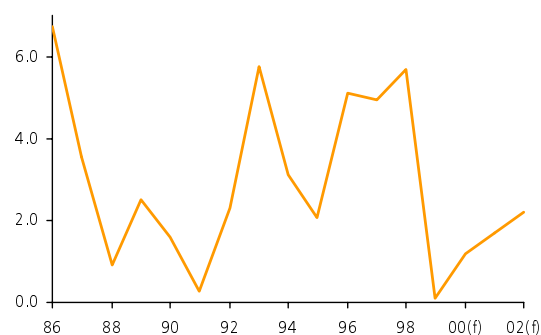
Source: Central Bank of Chile.

**Figure IV.17**  
Imports growth by volume and domestic demand (percentage change over the same quarter of the previous year)



Source: Central Bank of Chile.

**Figure IV.18**  
Current account deficit (percentage of GDP)



(f): Projections

Source: Central Bank of Chile.

Projections for future import trends in coming quarters are more moderate than in May's report, given their relative increase in price and slower than foreseen recovery in domestic demand. Imports are projected to grow almost 11% in real terms this year, and 9% on average from 2001-2002, instead of the 14% expected in the last report. By value, growth rates should reach almost 20% for 2000, 12% on average for 2001 and 2002.

*It is estimated that import values will recover, rising close to 20% this year and 12% in the next two years.*

In summary, projections for net external demand are higher than in the previous report, given the better prospects for secondary exports derived from the more dynamic growth expected in the world economy and the increase observed in the real exchange rate, along with the more moderate performance of investment and consumption.

## Current account

The above developments in the balance of trade are consistent with a more balanced current account than foreseen in May. The current account deficit should reach 1.1% of GDP this year, almost 1.7% in 2001, and 2.2% in 2002 (Figure IV.18).

*The current account deficit will reach 1.1% of GDP this year and around 2% for the next two years.*

This change in projections compared to those of May is based on a higher surplus in the trade balance. This improvement is mainly the result of the higher expected value of exports and, to a lesser degree, to a fall in import estimates. Figures for copper exports and main non-copper exports have been revised upward, while other exports should also behave more dynamically than forecast in May. This is mainly due to upward corrections in international commodity prices, particularly a 1% increase in the copper price and 2% in Chile's main non-copper exports, particularly wood pulp and methanol. In terms of volumes, for 2000 there are no significant changes with regard to May's projections, except for the improved position of secondary exports (Table IV.5).

**Table IV.5**  
Current account  
(US\$ millions)

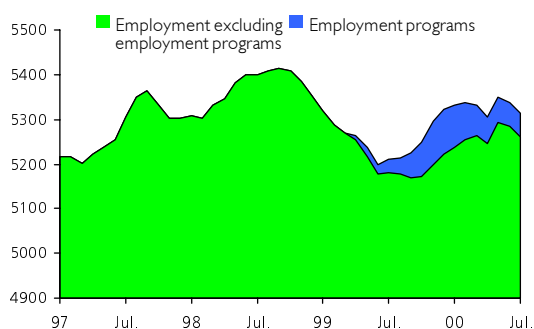
	1999	2000			2001 (f)	2002 (f)
		I	II	Total (f)		
Current account	-78.1	450.7	-702.9	-742.9	-1,278.2	-1,869.5
Trade balance	1,664.4	854.4	81.0	1,609.2	1,300.2	813.5
Exports	15,615.6	4,843.2	4,337.9	18,323.3	19,967.3	21,901.2
Imports	13,951.2	3,988.8	4,256.9	16,714.0	18,667.0	21,087.7
Non financial services	-314.7	-61.7	-189.2	-547.1	-637.1	-609.5
Financial services	-1,880.9	-437.8	-748.0	-2,354.0	-2,565.5	-2,820.9
Transfers	453.2	95.7	153.3	548.5	624.9	746.5

(e) Estimated

(f) Projected

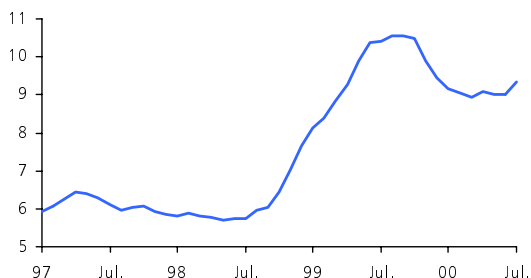
Source: Central Bank of Chile.

Figure IV.19  
Seasonally-adjusted national employment  
(thousands of people)



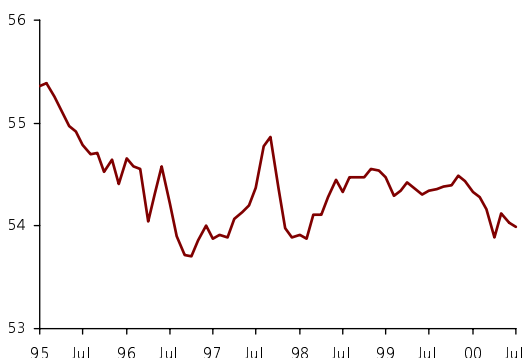
Source: National Statistics Bureau, Ministry of Labor and Social Security.

Figure IV.20  
Seasonally-adjusted national unemployment  
(percentage of the workforce)



Source: National Statistics Bureau.

Figure IV.21  
Seasonally-adjusted national participation rate  
(percentage of the population 15 years and over)



Source: National Statistics Bureau.

## Aggregate supply

### Employment and unemployment

During the second quarter of this year, employment grew significantly less, which was even more marked during the May-July mobile quarter. In fact, the current, seasonally-adjusted employment level, is practically constant compared to early in the year. However, there was a significant substitution of some 50,000 people who moved from municipal employment programs into more permanent jobs. The 1.9% 12-month increase in employment for the May-July quarter (1.6% excluding municipal program employees) corresponds mainly to the creation of new jobs from the fourth quarter of 1999 and the first quarter of 2000 (Figure IV.19).

As a result of the above and controlling for seasonal factors, after remaining practically constant at 9% during the first and second quarters of this year, unemployment rose to 9.4% in the last mobile quarter, or 10.2% including seasonal factors (Figure IV.20). Its behavior reveals the weakness of job creation so far this year. In fact, since the first quarter the unemployment rate for the primary workforce has increased by more than one percentage point. Until the last mobile quarter this was offset by a similar reduction in secondary unemployment, both seasonally corrected. It is important to note that participation rates for both men and women have not changed significantly, so that these shifts in unemployment are mainly due to labor demand factors (Figure IV.21).

Other figures confirm these trends. Unemployment in Greater Santiago, according to the University of Chile's employment survey, rose from 13.1% in March to 14.4% in June 2000. Part of this increase is explained by seasonal factors, but the comparison with 15.4% in June 1999 reveals the weakness of new job creation. Similar to INE figures, this survey found that higher unemployment since March affected mainly men, rising from 12.7% to 14.9%, and the primary workforce, rising from 7.8% to 9.6%. Unemployment among women and the secondary workforce rose less, reaching 14% and 17% respectively. Likewise, rising unemployment is associated with fewer jobs rather than increasing participation of the most affected groups.

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*As of the second quarter of 2000, employment's recovery slowed markedly.*

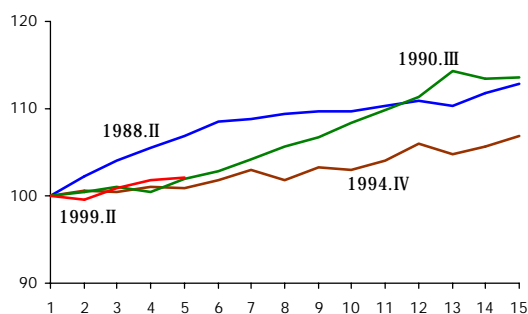
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In general terms, the pace of employment recovery is similar to previous reactivation episodes during the nineties. In fact, only during the 1998 recovery did employment rise more rapidly than today. However, employment has performed differently from previous experiences, picking up earlier in the second half of 1999 and then stagnating during the first half of this year (Figure IV.22).

Medium-term prospects for recovery in employment are associated with the pace of recovery in construction and expansion of the tradable sectors, particularly manufacturing, along with trends in labor costs. The most recent figures indicate that employment in both manufacturing and construction has remained constant compared to the first quarter of 2000 (Figure IV.23).



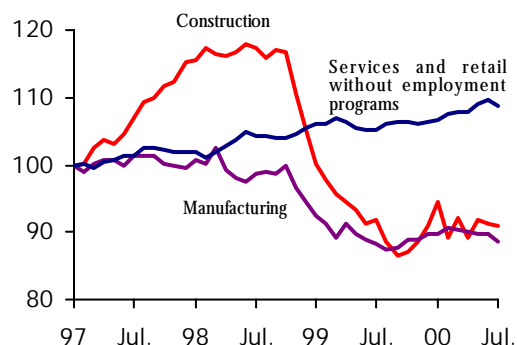
Figure IV.22  
Recent recoveries – employment (1)  
(lowest point in the cycle = 100)



(1) Seasonally-adjusted quarterly figures, excluding PEM, POJH, and municipal programs.

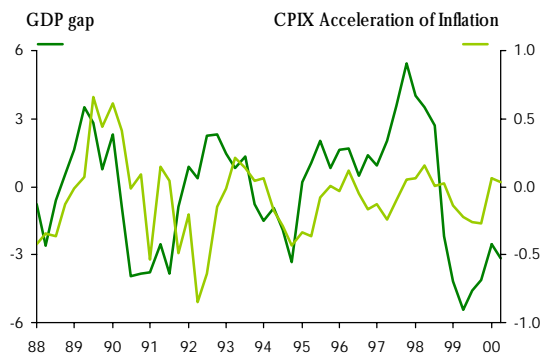
Source: Central Bank of Chile.

Figure IV.23  
Seasonally-adjusted employment by sector  
(January 1997 = 100)



Source: National Statistics Bureau.

Figure IV.24  
Output gap (1) and acceleration of inflation  
(percent)



(1) Trend GDP calculated using Hodrick-Prescott filter. Estimate for 2000.1.

Sources: National Statistics Bureau, Central Bank of Chile.

At the margin, the slower rise in real wages favors overall recovery of employment, while real exchange rate depreciation could stimulate faster recovery of manufacturing employment. The drop in long-term interest rates could have a similar effect on construction. Similarly, employment in municipal programs is expected to decline slowly throughout the year, being replaced by jobs elsewhere in the economy. No significant changes are expected in service and retail employment trends.

Overall, current labor market conditions tend to moderate inflationary pressures rising from labor costs. Similarly, there is no sign of increased growth in real wages, and unemployment rates observed in most economic sectors, regions and job categories remain above historical averages, a situation that will probably persist in the coming months.

#### Productive resource use

The level of productive resources that are put to use is an indicator of the inflationary pressure latent in the economy. Pressures tend to rise when resource use is high, because prices and wages grow faster, while lower use tends to produce the opposite effect.

One indicator of level of resource use is the gap between output and the unemployment rate. The output gap seeks to quantify the difference between actual output and its potential or trend level. This consists of the sustainable output level without changing inflationary pressures. In practice, potential or trend output is unknown, but there are some benchmarks that can be related to inflation trends. Several measures indicate that expansive cyclical periods have been associated with accelerated inflation episodes and viceversa (Figure IV.24).

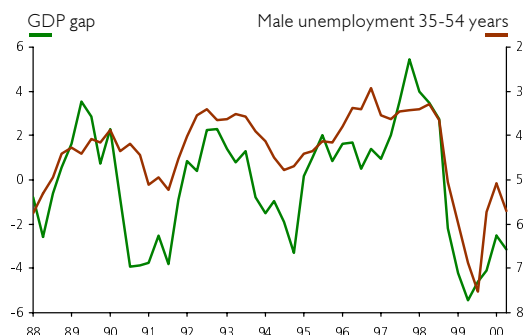
The most recent figures lead to the conclusion that productive resources are still being significantly underused, thus continuing to contribute to moderating future inflationary pressures. This is apparent in both potential GDP estimates and the unemployment rate.

During this year, total unemployment has persistently remained at high levels. The same conclusion emerges from examining the unemployment rate for men 35-54 years old, a measurement that is less affected by cyclical fluctuations in the workforce. This is also above its historical level and shows a high correlation with the output gap as calculated using statistical methods (Figure IV.25). Moreover, this measure rose during the second quarter, like unemployment as a whole. However, it is necessary to consider that special municipal employment programs affect shifts in unemployment as measured by INE. These absorbed almost 100,000 jobs in late 1999 and during the second quarter reached on average more than 50,000 people, about 0.8% of the workforce. To the degree that those registered with these employment programs are genuinely available to join the labor market, real unused capacity is somewhat higher than the open unemployment rate indicates.

*There is still significant unused capacity in the job market.*

In addition to the current level of unused capacity, it is of interest to project its future behavior and thus evaluate the possible resurgence of

**Figure IV.25**  
Seasonally-adjusted output gap (1) and employment (percent)



(1) Trend GDP calculated using Hodrick-Prescott filter. Estimate for 2000.1.

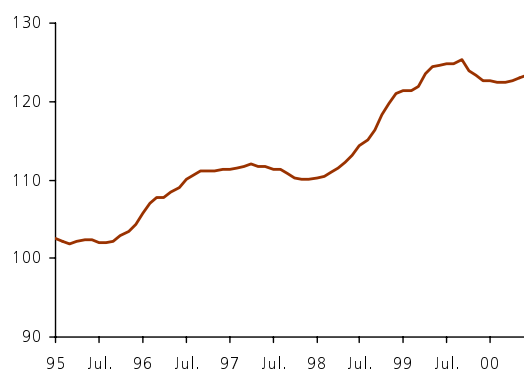
Sources: National Statistics Bureau, Central Bank of Chile.

**Figure IV.26**  
Real wage growth (percentage change over the same period of the previous year)



Source: National Statistics Bureau.

**Figure IV.27**  
Unit labor costs (1)  
(mobile quarterly average, January 1994 = 100)



(1) Seasonally-adjusted ratio of nominal private sector wage index to mean labor productivity (Imacec/employment).

Source: National Statistics Bureau, Central Bank of Chile.

inflationary pressures from demand. This requires developing trend GDP projections, which can be done using statistical methods or by relying on assumptions about productivity and capital accumulation. In the short term, both methods provide similar results, with potential GDP rising about 5% over the next two years. Beyond that, there should be a gradual recovery in trend growth, reaching about 6%, consistent with historical growth of total factor productivity and an investment rate of 29% of GDP.

These figures take into account that mining will contribute less to GDP growth this year and next, and the lower rate of fixed investment observed in 1999 and expected for 2000. Of course, alternative scenarios with lowered recovery in the medium term of total factor productivity and/or the investment rate will be compatible with somewhat lower trend GDP growth. Although there is considerable uncertainty regarding the expected performance of productive capacity, a target inflation approach is consistent with stabilizing demand growth around potential GDP growth. Therefore, if productivity and potential GDP grow more quickly than expected, inflationary prospects will tend to diminish, allowing the creation of more relaxed monetary conditions and a faster pace of demand growth, in contrast with what will occur if productivity and potential output growth falls.

In any case, over the next two years the growth in demand will find its main counterpart in the use of unused installed capacity and employment, so that this growth is not expected to be a source of inflationary pressure.

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*Current unused capacity should gradually be absorbed over the next two years, without generating inflationary pressures.*

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## Wages and unit labor costs

Since early 2000, nominal wages have grown at a steady pace of about 5% per annum, while rising inflation observed since late 1999 reduced the pace of real wage increases (1.2% for the previous 12 months as of July) and real labor costs (0.5% for the same period) (Figure IV.26).

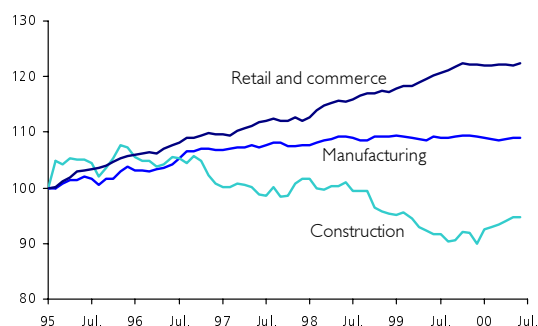
These trends have partially reverted the situation observed in 1998-1999, when real wages rose more than mean labor productivity, compressing profit margins. In effect, the recovery in productivity growth, along with the deceleration of real wages have pushed unit labor costs for the first semester to 1-2% less than one year earlier (Figure IV.27).

Stagnating employment explains the moderate increase in real wages. Real wages in the sectors most affected by the cycle, construction and manufacturing, have tightened and fallen below historical maximums. This contrasts with wages elsewhere in the economy, like services and commerce (Figure IV.28).

The second element that has momentarily influenced the slowdown in real wage growth is the increase in end prices so far this year, particularly for fuel. This is due to the fact that indexation mechanisms that affect many contracts within the economy operate with a certain lag. Therefore,

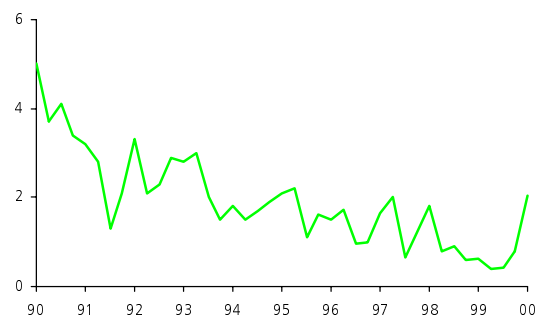


Figure IV.28  
Real wages by sector  
(January 1995 = 100)



Source: National Statistics Bureau, Central Bank of Chile.

Figure IV.29  
Wage increases from collective bargaining  
(percentage increase)



Source: Labor bureau.

in the short term, shifts in inflation slowly affect nominal wages, making it likely that during the second semester there will be some compensation for the higher inflation registered during the first semester. This behavior is apparent in some indexes, like the wage index prepared by affiliates of the *Asociación Chilena de Seguridad ACHS* (Chilean Health & Safety Association) and initial wage increases agreed upon during collective bargaining, which have partially incorporated expected inflation rates. This phenomenon is also influenced by the fall in unemployment until the first quarter of 2000 (Figure IV.29).

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*A moderate recovery in real wages is likely for the second half of the year, without pressuring costs.*

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In any case, as employment in manufacturing and construction gradually improve, current unemployment rates will likely persist, significantly limiting real wage growth in the economy.

Regarding institutional factors, the minimum wage was raised 10% in May, in contrast with the stable or declining pattern of other wages. There is no information on the policy that could be pursued in the future, but a policy of moderate real wage increases is expected, consistent with prevailing unemployment within the labor market. Year-end readjustments in the public sector should also be moderate and consistent with the fiscal policy stance announced by the Government.

Excessive increases in labor costs by way of extraordinary raises to institutional wages or other initiatives, would tend to brake recovery in employment, while the negative impact of unused capacity within the labor market on inflation would diminish.

In conclusion, the current level of employment makes cost pressures unlikely, with weaker inflationary pressures from wage costs, observed during the May report, remaining the most likely today. This will be directly influenced by the pace of wage increases during the second half and unemployment and employment trends for the rest of the year.

### Transitory supply issues

As mentioned in the previous report, normalization of hydro-electric supply has contributed positively to output growth in 2000. Agricultural and electrical power production, the second through energy generation with a larger hydro component and more distribution (thanks to the absence of rationing, which occurred the previous year) were the most benefited during the first half of 2000, contributing 0.4% during this part of the year. During the second semester, this effect will dissipate.

Storms during the first half of the year negatively affected agriculture, which will probably take its toll during the second semester.

Mining's reduced contribution compared to the previous five-year period (which saw the startup of several copper projects) will continue to make itself felt through 2000. During the first semester, mining grew 3.1% and for the year as a whole it is expected to grow at about 2% per annum.

*In summary, the recent trends within the economy and its prospects for growth during 2000 and 2001 confirm that the process of reactivating domestic spending has still not consolidated, leading to likely GDP growth of 5.8% for the next 24 months. This is due to the persistence of factors mentioned in the previous report, including less abundant external financing, unused capacity that is hampering short-term investment, and stagnating employment in recent months. This reduced use of productive factors has also led to a lower current account deficit than was expected in May. On the other hand, while the pace of growth in potential supply will be negatively affected by lower investment in recent years, demand could grow significantly over the next two years, absorbing today's gaps in productive resources. This process will take place slowly and will therefore not be a source of inflationary pressure within the projection horizon. In any case, the pace of demand recovery, and the evolution of price and wage indicators must be followed closely in order to monitor how quickly these gaps are closed and their effect on inflation.*



This section presents the Board's evaluation of the prospects for the Chilean economy over the next two years, analyzed during the Monetary Policy meeting on August 28 2000. Projections are provided for inflation and economic growth and the most significant risks are examined. These projections assume that the monetary policy rate is maintained at the rate agreed upon during that meeting of 5% (UF+) for this evaluation period. Moreover, projections are conditional to a series of events that together make up the base, or most probable scenario. New information will modify that scenario and associated projections. Forecasts are presented in the form of confidence intervals in order to reflect the risks faced by future monetary policy.

## Base scenario: main assumptions

### International scenario

The recent evolution of the world economy has been somewhat more favorable than expected last May, with the sustained growth of the US economy and improved commodity prices standing out in particular. However, the oil price rose sharply, well above the budgeted figure, leading to a decline in the terms of trade and national income during 2000 as compared to previous projections.

The projection for world output growth for this year is about 4.8% and for the next two years growth of just over 4% per annum is expected. This projection is better than last May's, as is the projection for weighted growth of Chilean export markets. At the same time, some of the negative risks are considered more limited than they were in May, and the prospects for the terms of trade during 2001 and 2002 are somewhat better than before, despite the fact that projections for this year are lower, due to the higher price for crude oil. In particular, the copper price is projected to reach 85 to 95 cents per pound over the next two years, which would improve the terms of trade by 6% over the next two years.

The difficulties in forecasting the future behavior of oil are evident, but the prospects of a reduction toward 2001 and 2002 are maintained, based on analysts' projections and futures markets. In effect, the oil price on international markets is expected to gradually fall to around US\$24/barrel toward the end of 2002, which would yield an average price for 2000 of US\$28/barrel, US\$26/barrel in 2001, and US\$25/barrel in 2002.

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*World growth over the next eight quarters is estimated to be slightly over 4% per annum.*

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The cost of international credit remains high, even though it has dropped since May as a result of declining expectations of interest rate increases in the main economies and less volatility in international financial markets. In the case of the Federal Reserve of the United States, current estimates suggest that the interest rate is most likely to remain the same, rather than an imminent rise of 25 basis points or more, as

expected in May. These developments have been accompanied by a drop in long-term international interest rates and sovereign premiums, including that for Chilean bonds.

The drop in the cost of international credit has not, however, been associated with an increase in capital flows into Chile and emerging countries in general. On the contrary, the scarcity of external financing seems more persistent given the sustained strength of the North American economy and the high US current account deficit.

Consensual projections point to a slight increase in inflation for the more industrialized economies and Asia, except Japan, in line with more dynamic demand and the increase observed in commodity prices. However, risk of a significant depreciation of the dollar on international markets is lower now than in May, thus reducing the prospects and risks of international inflation measured in dollars. Overall, there are no significant changes in price projections for imported goods, except oil and its derivatives.

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*The price of oil is expected to average US\$26 per barrel in 2001, reaching around US\$25 per barrel in 2002.*

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### **Interest rates and the exchange rate**

With regard to monetary conditions in Chile, the base scenario assumes that the monetary policy rate will remain stable for the next 24 months at the level established during the last monetary policy meeting, 5% (UF+). This is not a projection, but rather a methodological assumption that makes it possible to evaluate current monetary policy's coherence with the medium-term inflation target that serves as its guide. In fact, the market expects the policy rate to rise within this horizon. The survey of financial expectations carried out in early August, before the recent decline in the policy rate, yielded a projected rate of 6% per annum for a horizon of around 18 months.

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*The base scenario assumes that the monetary policy rate will hold stable at 5% (UF+) for the next 24 months.*

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The nominal exchange rate and international inflation together influence the prices of importable goods and conditions of external competitiveness. In the ten days prior to the monetary policy meeting, the average price for the observed dollar rose 5% compared to its May level, reaching 549 pesos (per US\$), while the multilateral exchange rate (MER) rose almost 7% over its May level to reach 120.5 (January 98=100). With the reduction in the policy rate, the peso depreciated almost 3%, but it is still hard to say exactly where the price of this variable will stabilize.

The base scenario's projection for the real exchange rate assumes it will depreciate almost 1.5% in the next eight quarters over the average for July and August of this year (before the monetary policy meeting on 28 August). Alternatively, if values from after this meeting, which have ranged from 565 to 570 pesos per dollar are used as a reference, real appreciation of 1.5% for the projection horizon could be used. This, in

spite of expectations that can be deduced from interest differentials (futures prices), corrected for the assumption of a stable monetary policy rate, would lead to a projected depreciation of the peso. However, from a long-term perspective, the likelihood of the exchange rate depreciating in the future is less than the probability of an appreciation. In any case, the expected level for the real exchange rate within the projection horizon is higher than expected last May. Of course, significant uncertainty exists about the future performance of the exchange rate, which is reflected in the size of exchange rate depreciation in the days following the August 28 meeting. This uncertainty has been incorporated into the analysis of the balance of risks in the corresponding subsection of this chapter.

### Fiscal policy

Projections incorporate the government's reiterated intentions to achieve a structural surplus in fiscal accounts of about 1% of GDP in the course of the coming year (Central Government), along with projections for growth in expenditure with macroeconomic impact deduced from the budget approved for the current year. This means that fiscal policy will remain restrictive for the projection horizon.

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*The base scenario includes the target of a 1% structural fiscal surplus toward 2001, as announced by government authorities.*

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### Potential output

Trends in the gap between demand and potential output play an important role in judging future inflationary pressures. The evaluation of the performance of productivity and potential output is based on historical trends, adjusted for elements that could generate changes in these, like variations in the investment rate.

The pace of growth of physical capital has fallen significantly in the past two years as a result of the contraction in fixed investment from 1998 to date. This situation implies a drop in the economy's potential for growth. On the other hand, total factor productivity, which fell for the past two years, has started to grow again.

If it lasts, this reactivation of productivity suggests that the economy will again experience trend growth rates of around 6% toward the end of the projection period. However, for now, aggregate supply is likely to grow more slowly while a recovery in investment is not observed. In the short-term, this reduced growth of supply should not restrict growth in demand and inflation control, because of existing unused productive resources. However, if demand recovers more quickly than expected, it could lead to productive output quickly becoming a brake on economic growth, thus pressuring inflation.

Alternatively, if the investment rate remains at low levels and productivity does not resume the pace of growth observed throughout the last decade, medium-term economic growth could drop and monetary policy and demand will have to adjust to this restriction, or else the country will face greater risks of an acceleration of inflation.

## Transitory price factors

Since last May, international developments have caused domestic fuel prices to rise more than expected, with the resulting impact on total CPI. If the price of oil remains above US\$30 per barrel, an additional increase in related domestic prices is likely later this year, including fuel, public transportation, and regulated service tariffs that include oil in their readjustment formula. In fact, in the short term, an increase is expected in electric power tariffs, as a result of the accumulated increase in oil prices and the exchange rate, and the same could occur with public transportation fares and telephone charges. Furthermore, early next year the gasoline tax will rise. However, in a longer horizon, international fuel prices are expected to go back to a level similar to that projected last May, which would at least partially reverse their direct and indirect effects on CPI. Finally, other regulated prices are expected to remain the same, as are perishable prices.

## Inflation and economic growth in the base scenario

### Economic growth

Available figures indicate that during the second quarter of this year Chile's economy expanded at a pace similar to that of the first quarter, but well below that of late 1999. Similarly, the rate of growth of domestic demand increased, but based principally on the accumulation of inventory, while its more permanent components, including fixed investment and consumption, grew more slowly.

Despite these recent trends, interannual growth rates remain high and are likely to continue to be according to isolated figures for July and August. This reflects how mistaken it can be to interpret interannual growth figures as the result of the drag from the rapid recovery observed during the second half of last year. However, as the second semester advances, this base of comparison effect will disappear and a decline in 12-month growth is foreseeable.

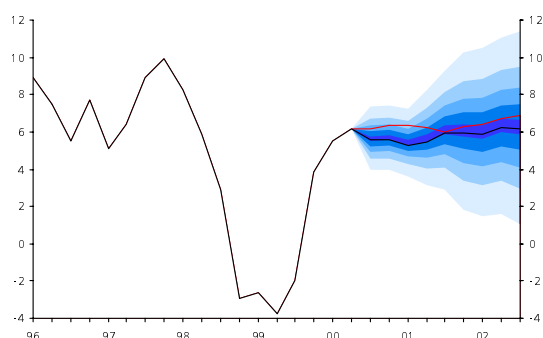
Under the current scenario a series of factors remain that tend to moderate prospects for economic growth, but whose reach is difficult to evaluate precisely. Substantially less external financing will combine with domestic consumers' and companies' levels of indebtedness, which are considerably higher than in the past, and the fiscal policy intent to revert its deficit. In addition, excess installed capacity limits the prospects for private investment to recover, particularly given the contraction in public investment budgeted for this year. Similarly, the private sector is more concerned about the degree of flexibility to be found in the future in different markets, and the consequences of this for the medium-term growth of the Chilean economy.

On the consumer side, employment has performed more poorly than expected in May. This has limited growth in job-related income and has kept unemployment rates high. Thus, the improved job security and confidence indices that accompanied reactivation during the first quarter of the year turned around during the second. This explains the deceleration in consumer spending during the same period and lower growth in more liquid monetary aggregates, like currency and M1A.

On the other hand, developments observed from May to date have generated more favorable conditions for growth in the tradable sectors of the economy. These include more dynamic external demand, improved prospects for terms of trade and a depreciated real exchange rate. Similarly, more stable international financial markets and more moderate expectations of increases in the monetary policy rate have led to lower domestic medium- and long-term interest rates, thus favoring prospects for growth in domestic demand over the coming quarters.

Finally, exogenous projections for mining, fishing and electric power generation, which in the short term have suffered significant fluctuations due to factors beyond the economic cycle, must be added to demand projections. Altogether, these factors subtract some tenths off projected GDP growth, compared to a neutral situation. For 2000, their effect on GDP growth will be about  $-0.2\%$ , with increased hydroelectric supply offsetting lower expected growth in mining, but this negative effect will rise to  $-0.3\%$  in 2001 and  $-0.4\%$  in 2002.

**Figure V.1**  
Quarterly GDP growth scenarios (1)  
(percentage change over the same quarter of  
the previous year)



(1) The figure shows the base projection (dark line) and the confidence interval for the respective time horizon (colored zone). Confidence intervals of 10%, 30%, 50%, 70% and 90% are used. These confidence intervals summarize the Central Bank's risk assessment for future economic growth, on the assumption that the monetary policy rate will remain at UF + 5.0% over the next two years. The red line indicates the projection in May 2000.

Source: Central Bank of Chile.

The aforementioned factors lead to a projection for economic growth of about 5.8% in the base scenario over the next eight quarters, that is, from the fourth quarter of this year until the third quarter of 2002. In the short term, the economy should grow 5.6% in 2000, 5.7% in 2001 and 6.3% in 2002 (Figure V.1). Domestic demand, for its part, should grow at about 8% per annum over these two years, absorbing unemployed resources and external savings. This general growth projection is less than in May, due to the reduced dynamism expected for consumption and investment. The above will also affect projections for the current account deficit, which is expected to reach 1.1% of GDP for 2000, 1.7% in 2001 and 2.2% in 2002.

The consideration of alternative scenarios for GDP is expressed as a distribution of probabilities for the future behavior of economic growth. This distribution reflects the confidence intervals that accompany the base scenario for economic growth, taking into account the historical variability of supply and demand conditions, along with the particular risks of the current situation, which are discussed below, always assuming that the policy rate remains the same. As a point of reference, the confidence interval with a 50% probability of occurrence for average growth ranges from 4.8% to 7.4% over the next 12 months, and 4.1% and 8.4% over the following 12 months. Values outside this range are possible, becoming less likely as they move away in one direction or another.<sup>1</sup>

## Inflation

The monetary policy stance determines the medium- and long-term behavior of inflation, but this relationship is less certain and more variable over the short-term, reflecting the influence of a broad range of factors. These include international inflation trends, the performance of the exchange rate, pressures from labor costs, trends in sales margins, competitive conditions within end markets, regulated service tariffs, and the probable performance of output and demand pressures.

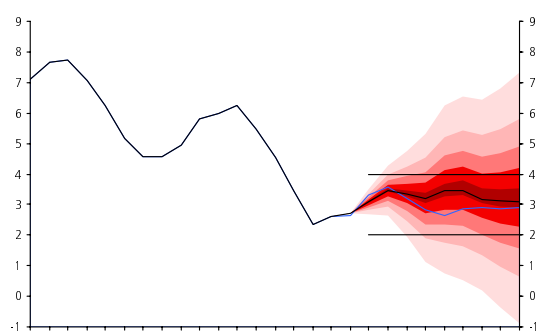
<sup>1</sup> The asymmetry of distribution around the central value reflects the inclusion of specific risks considered relevant today and which are discussed in more detail in the subsection on Balance of Risks.



Monetary aggregates have fluctuated throughout the first half of the year, accompanying trends observed in consumer spending. After significant growth during the last quarter of 1999, more liquid aggregates fell noticeably, while retail sales did likewise throughout the first semester. This trend has turned around in recent months, but not sufficiently to anticipate a significant change in this direction for consumer purchases.

Growth in nominal wages measured by INE has remained stable throughout the first semester. This trend contrasts with expectations, mentioned in May, that nominal wages could shift given the increase in inflation. Employment's slow recovery has moderated the behavior of nominal wages, offsetting the impact of automatic indexing. Similarly, the increase in mean labor productivity, although in part due to a cyclical effect, has also contributed to reducing wages' impact on inflation. This situation is likely to continue over the coming quarters.

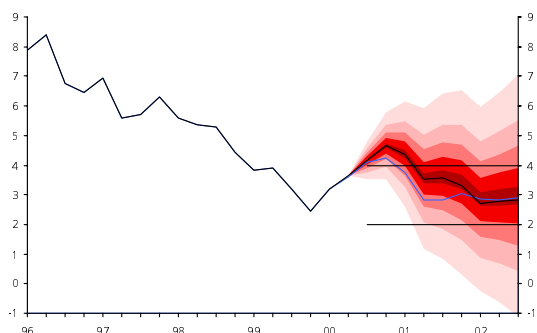
**Figure V.2**  
Underlying (CPIX) inflation projection (1)  
(percentage change over the same quarter of  
the previous year)



(1) The figure shows the base projection (dark line) and the confidence interval for the respective time horizon (colored zone). Confidence intervals of 10%, 30%, 50%, 70% and 90% are used. These confidence intervals summarize the Central Bank's risk assessment for future inflation, on the assumption that the monetary policy rate will remain at UF + 5.0% over the next two years. The blue line indicates the projection in May 2000.

Source: Central Bank of Chile.

**Figure V.3**  
CPI inflation (1)  
(percentage change over the same quarter the  
previous year)



(1) The graph shows the base scenario (dark line) and the confidence interval for the respective horizon (colored area). Confidence intervals of 10%, 30%, 50%, 70% and 90% are used. These confidence intervals summarize the Central Bank's risk assessment for future inflation, on the assumption that the monetary policy rate will remain at UF + 5.0% over the next two years. The blue line indicates the projection in May 2000.

Source: Central Bank of Chile.

Second round effects from higher fuel prices on other prices have been limited to those services that specifically consider these factors in their readjustment formulas, including public transportation fares and charges for other regulate public services. Aside from these prices, there is no sign of second round effects on the rest of the CPI basket. The opportune response of monetary policy early in the year successfully maintained the credibility of the inflation target, avoiding a chain of price and wage adjustments and higher inflation expectations. In effect, in spite of rising fuel prices, inflationary expectations remain stable and within the target range, according to a survey published monthly by the Central Bank.

Import prices and inflation of tradable goods were expected to rise in May as a result of external inflation and exchange rate depreciation being passed on to prices. However, in reality, inflation for tradable goods excluding fuel, has fallen. This could be revealing the presence of more permanent factors in the contraction of mark-ups, such as the retail sector's expanding capacity, greater productivity and stronger competitive pressures in the final stages of sales. Nonetheless, margins are likely to decompress in the coming quarters, generating additional pressure on inflation.

Given that the prospects for growth are less than those projected in May, greater unused capacity is expected in productive factor markets. This will continue to be the main factor in containing inflationary pressure for the next 24 months, offsetting exchange rate depreciation and higher oil prices. The speed of recovery of employment and demand are not expected to raise wages beyond already observed labor productivity increases, so that no inflationary pressures are expected on this front.

By combining the above elements, a projection for CPI and CPIX inflation over the next 12 months takes shape, assuming the monetary policy rate remains at 5% (UF+). The objective of price stability is defined in terms of CPI inflation, but the Board also follows CPIX inflation closely, to evaluate permanent price trends. Projections are presented as a distribution of probabilities for annual inflation over the projection horizon, that is, from the third quarter of 2000 to the third quarter of 2002. These refer to the change in each quarter's average price index over the same period the previous year (Figures V.2 and V.3).

In general terms, trend growth in prices is expected to remain stable at about 3% per annum. Projections continue to show an initial recovery in 12-month inflation, both CPI and CPIX, because the lag effect of price increases occurring from January to August and increases expected for the rest of the year. Measured inflation and trend inflation should then begin to converge toward the center of the range in the medium term. The projection for CPI inflation through the fourth quarter of 2000 is 4.6% per annum, three tenths higher than last May's projection, while the CPIX is 3.5% per annum, similar to the previous projection. However, the annual measure of CPI inflation should fall quickly during the first half of 2001, once the impact of price increases occurring from February to April of this year are no longer felt. Through the third quarter of 2001, total CPI-measured inflation and CPIX inflation are projected to reach about 3.5% per annum. For the following 12 months, CPIX inflation should remain relatively stable at about 3.1%, while the reduction in fuel prices should reduce CPI to around 2.8% per annum.

Despite the increase in fuel prices and exchange rate depreciation since May, the CPIX projection remains similar. This is due to the scarce evidence of second round effects on prices and wages, stable inflation expectations, low transfer of exchange rate pressures to prices, compressed profit margins, and modifications in the prospects for economic growth, which have increased unused capacity since May's projections. CPI-measured inflation rose more than projected in May due to developments in the fuel market, but it should fall in 2001 and 2002 as a result of the expected reduction in these prices.

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*The base scenario projects CPIX inflation of about 3.5% through the third quarter of 2001 and around 3.1% over two years. The CPI is expected to rise 3.6% and 2.8% for these same periods.*

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## Balance of risks

The *base scenario* described above corresponds to the most likely trajectory for inflation and economic growth, conditional to the supposed evolution of monetary policy and other economic and financial elements develop. However, as emphasized above, there are several risk factors that could modify this scenario and the future behavior of inflation and economic growth. This subsection examines some alternative scenarios that could be relevant for the future course of monetary policy, also comparing them to the balance of risks described in the last report.

On the external front, the main threat is the persistence of high oil prices. In effect, from May to date, the price of crude oil has risen more than the pessimistic scenario foreseen at that time, reaching over US\$30 per barrel. The base scenario contemplates a reduction in this price, but if that does not occur in 2001 and the price remains at around US\$30 per barrel, the inflation effect could amount to +0.7% for total CPI and +0.3% for CPIX for next year, all else remaining equal.

At the same time, although the United States' economy has continued to develop positively in recent months, some symptoms of imbalance persist, including low unemployment, the high price of stock assets and the high current account deficit. These situations could trigger a hard landing for the US economy. However, this scenario seems less

likely than last May, given the signs of convergence between expenditure and potential growth and the continued growth in productivity of the US economy.

Here in Chile, the main source of risk stems from the pace of recovery in domestic expenditure. It is difficult to evaluate the effects of changes in the macroeconomic scenario on future trends in domestic expenditure. The most recent information reveals a scenario in which activity, expenditure and employment are recovering more slowly than expected, a development that is consistent with the reduced supply of international capital, the adoption of a floating exchange rate system that makes the financial risks inherent in foreign currency debt more transparent, the heavier burden of financial commitments weighing on domestic firms and consumers, and the effort to consolidate the national budget, now underway. Altogether, the main result of these developments is that domestic expenditure's pace of growth over the coming years should be slower than that observed during the past decade; that the risks of accelerating inflation in the coming quarters is less; and that interest rates could remain at current levels for longer.

Nonetheless, there is a chance that improved external conditions, the lower cost of credit and the depreciation in the real exchange rate could contribute to a faster recovery in total demand. Under this scenario, unused capacity would be more quickly absorbed, generating increased inflationary pressures beyond anticipated levels.

Similarly, if the fixed investment rate does not recover as expected, aggregate supply could become a restrictive factor for growth in demand in the medium-term, and monetary policy would have to become more restrictive sooner in order to reduce the risks of higher inflation.

Overall, the balance of risks affecting growth prospects appears symmetrical. More rapid economic recovery is balanced against a scenario in which weakened domestic expenditure is more permanent.

Other relevant risk factors that could affect future inflation involve the evolution of oil prices and the real exchange rate, both notoriously volatile variables that are hard to project. Regarding oil prices, although for the one-year horizon the risk of a higher price is less likely than the risk of a decline, the price could remain high for longer. Something similar could happen with the real exchange rate: after the recent depreciation the real exchange rate could remain at these levels for longer, but a more intense appreciation than expected is also a possibility, given its historical relationship with fundamentals. In any case, these scenarios are not independent of each other. In effect, in the context of a slower recovery in expenditure a scenario with a more depreciated peso becomes more likely, and viceversa.

An evaluation of all these possible scenarios leaves no sign of a particular bias toward higher or lower risks for total inflation; therefore these are considered balanced for the next 24 months.

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*Risks related to inflation are balanced in the medium term.*

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Table V.1  
Inflation scenarios  
(percent)

	Inflation ranges			
	2% or less	2% to 3%	3% to 4%	4% or more
CPI Inflation				
2001.III	17	19	23	41
2002.III	35	16	16	34
CPIX Inflation				
2001.III	19	20	23	38
2002.III	31	15	16	38

(I) Average inflation according the change of average annual CPI.

Source: Central Bank of Chile.

The distribution of probability of the annual inflation rate for one to two years, assuming the policy rate remains the same, appears in Table V.1. This Table contains the same information as Figures V.2 and V.3, and reveals the variability surrounding the inflation projection, due to the volatility of specific prices, the exchange rate and uncertainty about the economic growth projection. In the case of CPIX-measured inflation over the next twelve months, the confidence interval with a 50% probability ranges from 2.4% to 4.6% for the third quarter of next year, and 1.4% to 5% for inflation for the following 12 months. For CPI-measured inflation, these intervals range from 2.5% to 4.8% over the next 12 months and 1.3% to 4.6% for the following twelve months. Levels beyond these ranges are possible, becoming less likely as they move away in one direction or the other.

This reveals that on average over the medium term, it is equally likely that the economy will tend to generate more or less inflationary pressure than foreseen within the base scenario, which reflects the symmetry in the balance of risks for inflation. In other words, there's a 50% likelihood that at the end of the projection horizon, annual inflation measured by the CPI or the CPIX will be over 3%.

In the short term, however, inflation projections, particularly CPI, are more likely to reach the upper half of the target range, due to the fuel effect. The distribution of probabilities of CPIX-measured inflation is somewhat more balanced for the same period.

The working assumption of a fixed monetary policy rate is fundamental to correctly interpreting the distribution of probabilities and reading the risks around the base inflation projection. In effect, this distribution reflects the probability of changes in the *inflation projection* and not real inflation, given that it ignores the impact of eventual monetary policy responses. In the event that projection revisions were substantial, monetary policy would have to be adjusted in order to stabilize the path of inflation around the medium-term target. In this sense, the probabilities do not reflect inflation's actual behavior but rather offer a risk evaluation that is relevant to the future behavior of monetary policy.

## Other projections

As an alternative to the assumption of a fixed monetary policy rate, the projection can be based on market expectations, which are expressed in the slope of the forward curve through August 23 of this year, just before the August 28 meeting when the policy rate was reduced. Until then, additional increases in the monetary policy rate were expected, reaching 5.75% (UF+) by year's end and 6% (UF+) during the first quarter of 2001. The CPI and CPIX projections based on these rates is one percentage point lower than the central projection included in the base scenario of this report, which is consistent with less dynamic domestic demand now expected during the projection horizon.

## Conclusion

In conclusion, the Board considers the current monetary policy stance coherent with maintaining inflation consistently within the 2% to 4%

annual range, while economic growth should reach 5.8% per annum over the next two years. The main scenario projects CPIX inflation of around 3.5% in twelve months and around 3% by the following twelve months.

However, it is important to emphasize the conditional nature of these projections. Currently there are some risk factors that could change the future path of inflation, but whose influence is hard to estimate using currently available information. This means that during its next meetings the Board will pay special attention to evaluating three main issues: first, the evolution of the domestic economy, in particular fiscal policy and employment, as indicators that allow the evaluation of inflationary pressures within the economy; second, trend inflation's response and inflationary expectations given specific price increases and peso depreciation; third, the development of the world economy and international financial markets, along with their impact on the Chilean economy. The ultimate purpose of monetary policy is to achieve an environment of low, stable inflation, the fundamental pillar of economic progress.

## BOX V.1: MONETARY POLICY OBJECTIVES AND TRANSMISSION MECHANISMS<sup>2</sup>

### I. Price stability and monetary policy

The Basic Constitutional Act of the Central Bank of Chile establishes that the purpose of this institution is: “to watch over the stability of the currency and the normal functioning of internal and external payments”. To fulfill this purpose, the law gives the Central Bank the authority to regulate the amount of money and credit in circulation, to carry out international exchange and credit operations, and to regulate monetary, credit, financial and exchange matters. These attributes allow the Bank to configure its main tool: monetary policy.

- The purpose of price stability and the main principles of monetary policy

Money plays a fundamental role in the correct functioning of any economy, particularly the Chilean economy. To preserve this role, the Central Bank’s monetary policy must defend the value of our currency, the peso, seeking to maintain a *low and stable* inflation. The purpose of keeping inflation low and stable, which is how the concept of *price stability* is interpreted in practice, is no mere whim of the law, but rather serves the broader goal of maintaining the country’s economy on the road to sustained growth, with full employment, and, in general, with progress and well being for Chileans.

Monetary policy can not influence long-term growth beyond this contribution of price stability. The potential consequences of this policy on economic activity and employment over the short- and medium- term arise from the different channels through which changes in monetary policy are transmitted in order, finally, to affect inflation. This is why monetary policy takes an *anti-cyclical* stance that, along with preserving price stability, seeks to avoid extreme variations in overall expenditure or domestic demand, conducive to unnecessary risks in financial markets and difficult conditions in terms of recession and unemployment. In this sense, *the focus of the Central Bank of Chile’s monetary policy is price stability over time, taking into consideration this policy’s effects on economic activity and employment in the short- and medium-term.*

- The inflation target range

To preserve price stability, the Central Bank has committed itself to a monetary policy stance that seeks to maintain annual inflation within a range of 2% to 4% per annum over time. The central value of this range, 3%, constitutes the *operational target* that guides monetary policy in the medium term.

The operative medium-term target is defined in terms of changes in the Consumer Price Index (CPI). This indicator, however, can show a relatively high degree of volatility from month to month, as a result of the variation in the prices of perishable foods (affected by seasonal and climatic factors), and fuels (associated with fluctuations in the international oil price). Therefore, to periodically interpret price information over the short term (up to 12 months), the Central Bank prefers to focus its attention on measures of *underlying or trend inflation*, such as shifts in *underlying or core CPI* (an index that excludes vegetables, fruit and fuel) maintained by the National Statistics Bureau (*Instituto Nacional de Estadísticas*, INE). To project the evolution of inflation trends over the medium term,

<sup>2</sup> For more details, please see the paper “Central Bank of Chile Monetary Policy: Objectives and Transmission”, May 2000.

between 12 and 24 months, both indicators will be used, which does not present practical or interpretative problems, given that both figures tend to coincide over this time horizon.

## II. Monetary policy transmission channels in Chile

The transmission of changes in monetary policy towards the rest of the economy takes place through several different channels and takes a relatively long and variable amount of time to materialize. Thus, for example, a more restrictive policy stance (reflected in an increase in the monetary policy rate) leads to lower private spending on investment and consumption and in this way, affects the gap between aggregate demand and potential output, and, ultimately, inflation. At the same time, an increase in the policy interest rate can also affect the exchange rate (causing the peso to appreciate), eventually reducing inflation for imported products, as well as affecting external demand and the expenditure to output gap.

The following simplified diagram shows graphically how a change in monetary policy can produce a range of effects on the economy. It highlights the existence of immediate repercussions on financial markets and asset prices, and the triggering of first and second round effects on company and individual decisions that eventually affect inflation. These aspects are explained below.

A shift in monetary policy influences individuals in different ways. Firstly, they face a new interest rate on their debts (for example, credit cards) and potential loans (for consumption, at department stores, on mortgages), as well as for their savings. Thus, peoples' disposable income changes, as do their incentives to save or to become indebted. The level of consumer purchases is also influenced by the changing interest rate's impact on consumer expectations regarding prospects for future savings and employment, as well as by the exchange rate, given the change in relative prices that go with it.

The effects of changes in the policy rate on market interest rates, asset prices and the exchange rate also influence companies. However, the size of this impact depends on the nature of the business, the size of the company and its sources of financing.

An increase in the policy interest rate and its impact on market rates will directly affect all companies using bank financing, or something similar, for their working and investment capital. An increase in rates reduces these companies' profits and increases the returns that owners demand on investment, thus reducing new project startups. Higher interest rates affect inventory costs, given that these too are often financed by bank loans. Higher financial costs also make it less likely that these companies will hire more personnel, and in fact increase the likelihood of layoffs or reduced working hours.

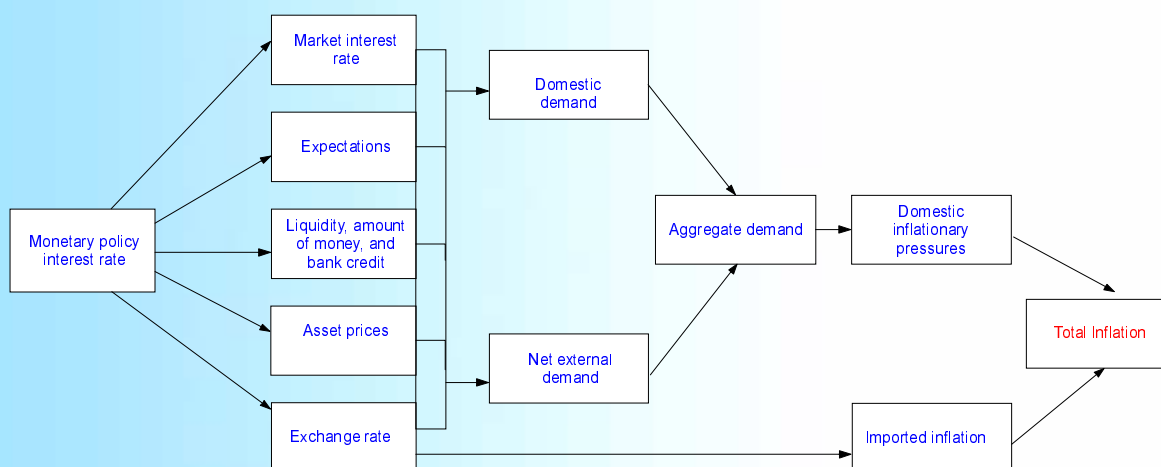
Changes in asset prices also influence companies' behavior in different ways. The loans provided by banks to firms (especially small ones) are normally backed up by assets, so a drop in the prices of these may become an obstacle to obtaining credit, due to the drop in the company's net worth. Variations in the exchange rate that may result from a shift in the policy rate also significantly affect many companies.

Thus, faced with an increase in the policy rate, companies and individuals respond by reducing spending (investment, inventories and consumption).<sup>3,4</sup> The resulting change in aggregate expenditure will have added consequences for other players (second round effects), even if these were not directly affected financially by the changes in monetary policy.

This process, from the moment the policy rate changes to the point where inflation reacts substantially along the series of transmission channels, may take from one to two years. This period of time has been defined as the “prudent period” considered by the Central Bank to be the horizon for monetary policy.

This is why actions to apply said policy are based on the expected evolution of inflation over a period of 12 to 24 months and not necessarily its current behavior. Thus, even if inflation remains within the defined target range at any given moment, it may be necessary to act preventively to avoid future deviations in trend inflation associated with this range. It is also possible that specific movements of inflation beyond this range may not require policy actions if there is a well-founded assumption that these will be very short-term and do not risk unleashing trend inflation. Similarly, it is important to underline that the 2% to 4% range, centered on 3%, defines a symmetrical target implying that, in principle, preventive action is essential regardless of whether the projection for trend inflation threatens to rise above 4% or fall below 2%.

Diagram of transmission mechanisms



<sup>3</sup> Total or aggregate domestic expenditure is by definition equal to the sum of private consumption expenditure, state consumption expenditure, and investment expenditure, including current investment in inventories. Total domestic expenditure added to the balance of trade for goods and services (net exports) reflects aggregate demand within the economy and is equal to Gross Domestic Product (GDP) at market prices.

<sup>4</sup> It is worth remembering, once again, that the higher policy rate that generates these reactions in individuals and companies is based on a Central Bank analysis that the economy is growing beyond what is prudent or beyond resources.



## BOX V.2: COMPARATIVE ANALYSIS OF SEPTEMBER 2000'S PROJECTIONS WITH THE REPORT TO THE SENATE, SEPTEMBER 1999

The projections contained in this report can be compared to projections for inflation, economic growth and the current account deficit, which the Central Bank presented in its report to the Senate, September 1999. These were based on a forecast of moderate recovery for the world economy within a context of improving external financial conditions, although more restrictive than those prevailing before the Asian crisis. At the same time, domestic demand was expected to pick up, in line with more expansive monetary conditions and the gradual recovery of indicators for confidence, employment and investment. Inside Chile, demand conditions were considered unlikely to pressure inflation, with the factor most likely to push prices upward being a recovery in mark-ups as sales grew more strongly. Finally, in the context of the approaching presidential election at that time there was more uncertainty about the future of fiscal accounts.

Projections in September 1999 for CPI-measured inflation were for about  $\pm 3.5\%$  per annum for the end of this year and ranging from 2% to 4% starting in 2001, centered on 3% per annum. The most recent CPI projection is almost one percent higher than expected in September 1999, the result of the surprising increase in oil and fuel prices over the past year. In effect, September 1999's projection assumed an average price of about US\$18 per barrel (Brent) for 2000, almost US\$10 less than the projected price today. Additionally, the Oil Stabilization Fund postponed the domestic impact of the international oil price, which began to rise in the last quarter of 1999, with most of its impact felt in 2000. Unlike the CPI, the CPIX remains lined up with the initial estimate of 3.5%, although this reflects a compensation between lower domestic inflation pressures resulting from the accumulation of greater unused capacity and lower profit recovery and higher cost pressures than those forecast one year ago. For a longer horizon, CPI and CPIX inflation projections line up with the previously established 3% per annum.

In September last year, GDP was projected to grow 5% in 2000, led by recovering domestic demand and less dynamic external demand, as a result of the recovery of imports and lower growth in copper exports. Current projections for GDP growth in 2000 are slightly above those of September 1999, although they start from a lower level, so in the end they remain rather similar. However, this development reflects improvements over and above expectations in the international economy and net external demand, which have offset less dynamic domestic demand. This is the result of a smaller supply of external financing than previously anticipated, associated to the higher degree of volatility in international financial markets during the first part of the year, a greater than expected decline in output in 1999, and a shift in fiscal policy destined to reverse the deteriorating trend in the national budget in recent years.

Finally, in September 1999, the current account deficit was expected to reach 3% to 3.5% of GDP for 2000, above the current projection of around 1% of GDP. The difference reflects less dynamic domestic demand and imports, better terms of trade than expected a year ago, and higher growth of non-traditional exports consistent with the improved international scenario.

## A. Macroeconomic projections and the Central Bank of Chile's balance

The deterioration in the fiscal balance, falling international interest rates and nominal exchange rate depreciation were decisive in determining trends and results for the Central Bank's 1999 balance. Reduced government revenues, caused by the recent negative cycle affecting the Chilean economy forced the government to withdraw some of the foreign currency funds deposited with the Central Bank, causing foreign currency reserves to fall for the second year in a row. Lower international interest rates and dollar appreciation against other currencies also caused the profitability of foreign currency reserves to fall. This was only slightly offset by the drop in the cost of domestic debt. However, given the Bank's large foreign currency holdings, recovery of the exchange rate ended up being the decisive factor in 1999's accounting results. The strong rise in the nominal exchange rate from 1998 to 1999 brought the first surplus book results since 1991 (133 billion pesos). This result is unlikely to continue, given that future fluctuations in the exchange rate are as likely to be positive as negative.

The process of exchange rate flexibilization led by the Central Bank in recent years, which involved eliminating the exchange-rate band in September 1999, conditions the operations that the Bank effects and will effect henceforth and the structure of its balance over the long term. In this context, fluctuations in the monetary base are almost exclusively the result of local currency operations, given that it is no longer necessary to offset monetary expansion or contraction resulting from the buying or selling of foreign currency. In the long term, foreign currency reserves and notes issued to sterilize the monetary effects of exchange transactions will become relatively less important. However, given the significant volume of accumulated foreign currency reserves and notes, this process of recomposition of the balance will be very gradual. In terms of results, this trend is favorable given that it means reducing the relative size of foreign currency reserves, which are less profitable than the cost of the debt on the notes financing their purchase.

Central Bank financing using notes has remained at levels that do not threaten compliance with its goals. In effect, the note to GDP ratio has remained relatively stable. Due to the fall in GDP in 1999, this ratio rose from 29.9% in late 1998 to 31.4% in late 1999.

Between 2000 and 2001 exchange transactions are limited to purchases or minor sales of foreign currency carried out by governmental departments, which do not have the administrative elements necessary to handle exchange transactions on the market. This indicates that flows translating into fluctuations in foreign currency reserves will come almost exclusively from foreign currency operations with the general government and commercial banks (debt servicing and fluctuating deposits). Changes in domestic currency, on the other hand, have as a principal counterpart debt transactions and buybacks of notes in pesos and other net credit operations in pesos. Monetary absorption stands out among the latter, and is derived from the recovery of peso-denominated credits from the state and those related to subordinate debt.

For 2001, some 549 billion pesos worth of domestic credit transactions are programmed, excluding notes. Of these, 373 billion pesos will be in foreign currency, thus increasing international reserves. These will come primarily from the recovery in the government's national budget. The remaining 176 billion pesos are in peso-denominated operations, including (as mentioned above), servicing government notes in pesos, subordinate debt, and, to a lesser degree, the recovery of long-term credits to the banking system. These 176 billion pesos, plus another 112 billion from non-inflationary currency growth, will allow the Bank to buy back 288 billion in notes (Table A.1). This should bring nominal growth of the stock of notes for 2001 to less than nominal GDP growth, thus reducing the note to GDP ratio from 31.7% at the end of 2000 to 30.3% in late 2001.

**Table A.1**  
**Central Bank cash flows**  
**(billions of Chilean pesos)**

Specification	Dec.96	Dec.97	Dec.98	Dec.99	Jun.00	Dec.00 (2)	Dec.01 (2)
I. Assets	-573	125	-9	211	-179	29	112
1. NIR (3)	247	970	-1 325	-730	-187	-442	373
2. NDA (4)	-820	-845	1 316	941	8	472	-262
2.1 Notes	-89	-307	1 603	244	-95	46	287
2.2 Other	-731	-538	-286	697	103	425	-549
II. Liabilities	-573	125	-9	211	-179	29	112
1. MLLA (5)	-647	0	0	0	0	0	0
2. Currency	74	125	-9	211	-179	30	112

(1) Change over december of the previous year.

(2) Preliminary estimate.

(3) Net international (foreign currency) reserves.

(4) Net domestic assets.

(5) Medium- and long-term liabilities abroad.

Source: Central Bank of Chile.

## B. Stability of the domestic financial system

Although domestic demand has recovered more slowly than expected, during the first half of this year growth in bank loans offers signs that some of the economy's most important indicators are going to improve in the near future. In effect, total financial system loans, which had not moved over the previous year to June 1999, showed real 12-month growth of 3.5% at the end of the first half of 2000. Growth in mortgages, the result of tax incentives created by the government in the second half of 1999, contributed significantly to this result.

**Figure B.1**  
Financial system non-performing loans  
(percentage over total loans)



Source: Superintendent of Banks and Financial Institutions.

In terms of solvency and portfolio quality indicators, the Basle indicator achieved in June 2000 stands out as it showed capitalization of 13.3% over risky assets, up from 12.8% last year. The quality of the loan portfolio declined slightly from June 1999 to June 2000, with non-performing loans rising from 1.74% to 1.89% of total loans (Figure B.1). This decline, plus the creation of larger provisions compared to the previous period, caused annualized profitability over capital to fall from 13% in June 1999 to 10% one year later.

An area worthy of special mention involves the results obtained as a result of new norms established in 1999, on maturity and interest rate matches for asset and liability transactions, which contemplated an adjustment period ending last March, in the case of maturity matches, and in June, in the case of interest rate matches. The resulting figures from financial institutions indicate they are moving towards full compliance with the regulations now in effect.

### Financial regulation

The main financial reforms established by the Central Bank of Chile for this year can be classified in three categories: those designed to continue the modernization of the financial system; those designed to streamline transactions involving bills of credit and checks from other locations; and those designed to make it easier for banks to carry out new transactions in foreign currencies.

As part of efforts to modernize the financial system, the Central Bank changed the regulations governing the matching of asset and liability transactions whose residual maturity expires in less than 30 days. This modification will allow the resulting excess between foreign currency asset and liability flows whose residual maturity is less than 30 days to be included in the measurement of the margin corresponding to domestic currency operations. The purpose of this regulatory change was to recognize that, given the depth of local financial markets, financial institutions' liquid positions in foreign currency can help ensure, if it were necessary, compliance with local currency obligations.

The Central Bank's measures adopted to streamline payment processes and financial instrument transactions involved changing the regulations governing the clearing center (*Reglamento de Cámara de Compensación*) handling checks and other securities in pesos, as well as permitting the dematerialized issue of bills of credit for their eventual deposit in the Central Security Deposit (*Depósito Central de Valores*). In the case

of the first change, beginning September 13, 2000, the process of cashing checks from other locations was reduced by one day, so users will have access to funds as of the fourth day after the check is deposited. In the case of the second change, banks and finance companies were allowed to issue bills of credit in dematerialized form. Where dematerialization precedes bills going into circulation, provisional deeds must be physically issued with the same information as the bills of credit that would have been issued for the effects of the relevant mortgage mutual. The purpose of this measure was to reduce the costs of issuing and operating with these securities, and to contribute to the current trend to dematerialize the issue of all kinds of financial instruments.

Regarding new foreign currency operations for banking firms, banks established in the country were allowed to open and maintain demand accounts in foreign currencies. One objective of this is to allow individuals and institutions residing abroad to deposit the resources necessary for paying expenses in Chile resulting, for example, from actions prior to the legal startup of economic activity in the country or to explore business possibilities. This change allows the financial system to offer a wider range of products. Banks are now allowed to offer guarantees and collateral for foreign currency commitments abroad, to the degree that these arise from foreign trade operations between third country parties, and that the respective indebted financial institution is not a subsidiary or branch of another banking firm established in the country, nor subject to ownership ties of the kind defined by the Superintendent of Banking and Financial Institutions.

The Central Bank also agreed to modify the regulations applied to savings and loan cooperatives supervised by the Bank Superintendent, allowing them to comply with Basle capital adequacy requirements and allowing them to issue and operate credit cards. The purpose of these measures was to allow savings and loans cooperatives greater solvency, to be under the supervision of the Superintendent of Banks and Financial Institutions, and to increase their operations and the services they offer, including credit cards, to potential clients with greater difficulty accessing the traditional financial market.

By virtue of its powers under Decree Law 3,500 on pension funds, the Central Bank established investment limits for Type 2 pension funds, in terms of instrument category and maximum investment allowed in specific financial instruments. It also set the value of the single multiples to be used to determine the limits on Type 2 pension fund investments in specific groups of instruments, and on the total investment of Type 1 and Type 2 funds. It set a four-year maximum average weighted term for Type 2 fund investments in debt instruments. Since these new funds have just entered into operation, the Central Bank also determined that for the first nine months from the time these modifications were introduced, their total assets may be invested in government securities, notes guaranteed by financial institutions and in term deposits, bonds and other debt papers representing loans, issued by financial institutions. For the same period, no more than 30% of the value of the fund can be invested in securities issued by a single financial institution. Investment limits were also set for variable rate instruments, for the first three years of Type 2 pension funds.

Among new regulations coming into effect in the next months, the most significant are those which liberalize credit operations in foreign currency for domestic residents. This development of financial intermediation in foreign currency has a number of advantages in an open economy like Chile's, in which foreign trade in goods and services account for more than 50% of GDP. Companies in the tradable sector with income in foreign currency will be able to finance themselves in the same currency, thus eliminating the risk of exchange rate mismatches. In particular, medium and small companies, with only limited access to foreign currency financing, should benefit. Additionally, local banks, participating in the foreign currency credit markets with local companies, may help lower margins, due to their better knowledge and familiarity with local companies. However, all operators in foreign currency must constantly keep in mind the need for adequate exchange rate risk cover. Banks will also eventually be allowed access to a greater variety of foreign currency financing.

The Central Bank may well consider gradually increasing the scope for low risk cross-border transactions related to foreign trade, and new options for financial investment abroad for banks.

In the near future it also plans to improve the efficiency, security and technological level of high-value payment systems, which will place Chile on the cutting edge in this area.

## C. Capital account liberalization

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Throughout the year the Central Bank has continued to open up the capital account, thus aiding Chile's international financial integration and the development of its derivatives market.

Among the most important recent measures is the elimination of the one-year lock-in period for investments and capital contributions made through Chapter XIV of the Manual of Foreign Exchange Regulations. In the past the restriction was justified as a way of reducing the volatility of short-term capital inflows. However, in the new macroeconomic policy context, with free and unified exchange rates and no restrictions on outward investment, it is no longer necessary.

As part of expanding local companies' access to external funding, the Central Bank has also broadened the application of Chapter XXVI of the Manual of Foreign Exchange Regulations, to allow companies to issue different kinds of instruments on foreign stock markets, and not solely ADRs on the New York stock market. Venture capital and real estate investment funds (*Fondos de Desarrollo de Empresas y de Inversión Inmobiliaria*), whose investment structure makes them the closest local equivalent of variable income funds, were authorized to issue quotas abroad. Both measures aim at helping Chilean companies gain access to new sources of finance.

The Central Bank also changed regulations on the issue of bonds abroad in UF's or pesos, to make them an accepted form of promissory note payable in foreign currency. These pay a 4% tax on interest, similar to that on traditional foreign currency bonds. The mechanism allows Chilean companies to access foreign financing but to maintain their exposure in local currency, allowing particularly those in the non-tradable sector to reduce in time, their vulnerability to exchange rate fluctuations.

To deepen the hedging market and make it more transparent, banking firms were authorized to trade forward exchange contracts in pesos or UF's with foreign counterparts. These operations can thus be handled directly by the financial institutions. The use of credit derivatives was also broadened; banks were authorized to use them for credit risk coverage in their portfolio of fixed income securities and domestic commercial loans to nationals, for both peso and foreign currency operations. These derivative products help develop the credit and fixed income instrument markets, since they cover default risk.

## D. Principal monetary and credit measures in 2000

### JANUARY

**13** By virtue of articles 45, 47 and 49 of decree law 3,500 (pension funds), modified by law 19,641, and by article 3 of the temporary dispositions of said law, the Central Bank established:

- investment limits for Type 2 pension funds, by type of instrument and for the amounts invested in specific financial instruments;
- the value of the single multiples used to determine the limits on Type 2 pension fund investments in specific groups of instruments and the total investment to be made with Type 1 and Type 2 funds;
- that for the first nine months in operation of the modifications introduced by the aforementioned law 19,641, all the resources of the new Type 2 pension funds can be invested in government paper, notes guaranteed by financial institutions, term deposits or documents representing loans issued by financial institutions. Over the same period total investment in documents of a single financial entity may not exceed 30% of the value of the corresponding fund;
- the investment limits for Type 2 pension funds for the first three years of operation of law 19,641, in instruments other than those detailed in the previous point, for the total invested in specific instruments and by issuer; and
- the maximum average weighted term for investments by Type 2 pension funds in debt instruments will be four years.

**27** The monetary policy interest rate was raised by 25 basis points, from UF + 5.0% to 5.25% per annum. Rates on the tranches of liquidity credit lines were likewise raised, bringing the first tranche to the target rate, and the second and third to UF + 7.25% and UF + 9.25% respectively. The rate on the liquidity deposit was set at UF+4.25%.

### MARCH

**16** The new promissory notes, Central Bank zero-coupon indexed bonds (*Cupones de Emision Reajustables Opcionales, CERO*), which were created in July 1999, were introduced, following the necessary changes in data processing. The new notes make it possible to split the coupons on PRCs and PRDs. CERO notes in UF and dollars can only be issued by the Central Bank upon holders' substituting and exchanging the respective PRCs and PRDs.



The Central Bank's Board of Governors raised the monetary policy rate by 25 basis points, to UF + 5.5%. Rates on the tranches of liquidity credit lines were raised to UF + 5.5%, UF + 7.5% and UF + 9.5%. The rate on the liquidity deposit increased to UF + 4.5%.

**31** The agreement approved in April 1999 on matching regulations for financial institutions in both pesos and foreign currencies came into effect. The regulation also underwent a minor technical adjustment to allow excess liquidity in foreign currency, over the same term, to be calculated within the limits set for domestic currency.

#### MAY

**25** Under the supervision of the Superintendent of Banks and Financial Institutions, savings and loans cooperatives may opt to meet Basle criteria on capital adequacy requirements, instead of existing requirements specifying the maximum ratio for current liabilities and paid-in capital and reserves. Those who choose the Basle option must show:

- i) Legal reserves no lower than the equivalent of UF400,000;
- ii) Total equity of no less than 10% of risk-weighted assets, and no less than 5% of total assets;
- iii) Compliance with Central Bank matching regulations;
- iv) The authorization of the Superintendent of Banks, which will be forthcoming providing the cooperative meets the above requirements and the authority believes the cooperative meets overall conditions of management quality and technical viability.

Savings and loan cooperatives meeting the Basle criteria, the above requirements, constituting the required technical reserves and being duly authorized by the Central Bank, may issue and operate credit cards.

#### AUGUST

**3** Regulations for the clearing center (Camara de Compensacion) for checks and other securities in national currency in Chile were modified, as of 13 September 2000. From that date, the time required to settle checks issued on banks in different geographical locations will be reduced by one day, so that funds will now be available to the user on the fourth day after the deposit date.

Banks may open demand deposit accounts in foreign currency, accruing no interest or indexing.

**10** Banks and financial entities were authorized to issue letters of credit in dematerialized form, as per the provisions of law 18,876 (on the constitution and operation of private entities for deposits and the custody of securities). The aim is to reduce the costs of issuing and trading bills of credit, and encourage the current trend towards the dematerialization of all types of financial instruments. In the case that dematerialization occurred before the letters of credit were put in circulation, provisional documents/titles must be issued, physically, to include the same reference to the bills of credit that would have been issued for the effect of the relevant mortgage bond.

The limit on overdrafts on current accounts was eliminated. Previously, the limit was 30 UF for every constituent and was applicable to banking firms whose loan portfolios had not been classified one or more times consecutively in category I by the Superintendent of Banks.

**28** The monetary policy interest rate was cut by 50 basis points, from UF + 5.5% to UF + 5.0% per annum. The rates on the tranches for liquidity credit lines were adjusted in line, with the first tranche at the target rate, and the second and third at UF + 7.0% and UF + 9.0% respectively. The rate for the liquidity deposit was set at UF + 4.0%.

## E. Principal exchange rate and foreign trade measures in 2000

### APRIL

**18** The Central Bank broadened the terms of Chapter XXVI of the Manual of Foreign Exchange Regulations, to allow companies to issue securities on foreign stock markets in instruments other than ADRs on the New York stock market. It also authorized two forms of investment funds, in venture capital and in real estate, to issue quotas abroad.

### MAY

**4** Banking firms were given broader powers to carry out foreign trade finance operations between third countries, through the granting of guarantees and collateral. The regulations stipulate that obligations carrying such guarantees/collateral cannot be made in favor or at the charge of other financial institutions based in Chile, and that the debtor institution cannot be a branch or a subsidiary of any other banking company in Chile or be linked with their owners.

The one-year stay requirement for capital contributions and investments under Chapter XIV of the Manual of Foreign Exchange Regulations was eliminated.

Banking firms and third parties were authorized to trade with foreign counterparts in forward exchange contracts involving pesos or UFs.

The use of credit derivatives was broadened, allowing banks to use such derivatives as credit risk coverage in their portfolios of fixed income and domestic commercial papers for operations in both domestic and foreign currencies. Such instruments provide coverage for default risk. The authorization allows such insurance to be acquired abroad as long as the issuers hold at least an A- credit rating.

Regulations governing the issue abroad of bonds denominated in UFs or pesos were modified to allow these to be accepted as promissory notes in foreign currency. Interest is paid on these bonds at 4%, the same rate as on traditional foreign currency bonds.

Securities traders and stockbrokers were incorporated into the formal exchange market.

### JUNE

**1** Central Bank authorities ruled that companies that have issued ADRs are not required to make a capital increase in order to have their shares quoted and traded on stock markets other than those in which they were issued.

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