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**CHILE'S MACROECONOMIC POLICIES IN THE 1990s AS SEEN FROM  
THE VANTAGE POINT OF THE CENTRAL BANK\***

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This study was prepared by Mr. Roberto Zahler, a consultant to the Development Finance Unit of the International Trade, Transport and Finance Division of ECLAC. The views expressed herein are the sole responsibility of the author and do not necessarily reflect those of the Organization. The author wishes to thank Héctor Assael, Günther Held and Andras Uthoff for their comments.



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## **ABSTRACT**

This study describes and analyses the design, implementation and results of the macroeconomic policies pursued by the Central Bank of Chile during the first half of the 1990s. An introductory section is followed by an explanation of the significance of macroeconomic equilibria from the standpoint of the Central Bank of Chile. The following section describes the objectives of the Central Bank and how it has interpreted the achievement of internal and external balances. The fourth section provides an overview of the institutional, structural and cyclical conditions which set the Chilean experience apart from those of other countries. An examination of the basic tenets underlying the design and implementation of macroeconomic policies by the Central Bank in the fifth section is followed, in the sixth, by a description and explanation of the core elements of the monetary, foreign exchange, international reserves and capital-account liberalization policies which were implemented during the period in question. The seventh and final section looks at the chief results of these policies and provides a synopsis of the study's main findings.



## EXECUTIVE SUMMARY

This study describes and analyses the core elements of Chile's macroeconomic policies during the 1990s from the perspective of the Central Bank of Chile.

These policies have revolved around two main objectives: to reduce inflation and to keep the current account deficit of the balance of payments within an *acceptable range*. The principle underlying these objectives has to do with the importance of *averting any significant disequilibria in macroeconomically sensitive areas*, whether in relation to the financial system's solvency and liquidity, the fragility of the economy's external sector, employment, saving and investment, or the trend in real wages as it relates to productivity.

The core elements in the formulation and implementation of macroeconomic policy in Chile during the 1990s have been the assignment of an increasingly important —yet not exclusive— role to the market in determining key prices in the economy; the adoption of flexible policy stances; the use of a medium- and long-term time horizon as a basis for the definition of policies; considerations of timeliness, prudence and gradualism; and emphasis on the stability and sustainability of economic growth and on the minimization of volatility and vulnerability.

At the start of this period, the Central Bank —which has been an autonomous body that functions independently of the Government since late 1989— was grappling with an overheated economy. Later on, when the economy was working at full capacity, it had to cope with an extremely plentiful supply —some might describe it as an outright glut— of foreign exchange as a consequence of the country's strong export performance, copious inflows of risk capital and heavy financial inflows.

The country's *strategy for reducing inflation* was designed to bring about a systematic, sustainable and gradual decline in inflation from its 1989-1990 annual levels of 25%-30% to *single digits by 1995-1996* and, thereafter, to continue to chip away at the rate until reaching *levels similar to those seen in industrial countries* (i.e., annual rates of between 2% and 3%). The emphasis on a *systematic* reduction grew out of the need to boost the Central Bank's credibility; the focus on the *sustainability* of the downward trend was in line with the proposition that price stability needed to have a solid foundation that would stand the test of time within a framework of general macroeconomic equilibrium; and the importance attached to ensuring a *gradual* decline was an outgrowth of the combination of Chile's history of chronic inflation and its widespread practice of indexing prices and wages on the basis of past inflation, which would have meant that any sharp or sudden reduction in inflation would be extremely costly in terms of economic activity and employment.

The Central Bank's commitment to achieving the progressively lower inflation targets that it announced each year was used as an anchor by *monetary policy-makers*, who relied chiefly on open-market operations based on the real interest rates for short-term Central Bank paper (initially for 90-day

terms, but later primarily its one-day offer rate). This approach to monetary policy, in combination with the Central Bank's management of domestic public debt (which might be likened to the implementation of a "treasury-style" policy), not only boosted policy efficiency, but also allowed the market to play an increasingly important role in determining long-term interest rates and the *yield curve* for differing maturities. It should be noted that the main reason why Chile has not used any monetary aggregate as an "anchor" or as an instrument of monetary policy is because it has been so difficult to find any aggregate that behaves in a stable, predictable manner. By the same token, monetary policy-makers have refrained from using the exchange rate as an anchor because this would almost certainly lead to an excessive appreciation of the peso and would thus interfere with efforts to lower the deficit on the balance-of-payments current account to sustainable levels.

The offer rate on short-term Central Bank paper has been used to influence the cost of credit for the private sector and thereby —considering the exogenous nature of fiscal policy— align the trend in domestic demand with the level and rate of growth of potential GDP. The Central Bank started to use this instrument in a preventive way, even before there were any signs that inflation was likely to overshoot its target level, and was therefore able to institute a tight monetary policy in time. It was also successful in heading off an oversupply in production capacity by relaxing its monetary policy at the right point in time. In order to do this, the Central Bank needed to monitor and assess a series of indicators of aggregate supply and demand on an ongoing basis, including the rate of inflation itself, "underlying" inflation, the exchange rate, wages, the unemployment rate, levels of activity in manufacturing, commerce and construction, imports, monetary aggregates, credit in the private financial system and a number of other sectoral indicators.

In contrast to the situation in the second half of the 1980s, when foreign exchange was in extremely short supply and the stated objective was to achieve and maintain a "high" real exchange rate, during the 1990s the chief objective of exchange-rate policy was to back up fiscal and monetary policies so that the external sector of the economy could be brought into equilibrium over the medium term. More specifically, the objective was to keep the real exchange rate within a range consistent with a sustainable deficit (3%-4% of GDP) on the current account of Chile's balance of payments.

A foreign-exchange regime was established under which the exchange rate was neither fixed nor totally free-floating. On the one hand, a fixed rate was rejected because it would have introduced a considerable degree of rigidity into the country's entire economic policy and would have subordinated it entirely to the maintenance of an external balance. On the other, policy-makers shied away from a free float of the currency because, in view of the importance of this key price, they felt it was better to give the market some sort of clue or signal as to the monetary authorities' best estimate of its long-term equilibrium value, which in Chile is referred to as the "agreed", or reference, exchange rate. This exchange rate was positioned at the centre of a currency band which, in time, was widened to a range of +/- 10%. The decision to broaden the band, in conjunction with the adoption of a series of measures to liberalize the foreign-exchange market, allowed the market to play an increasing yet not exclusive role in determining the rate. Meanwhile, the Chilean peso, which had traditionally been tied to the United States dollar, was instead linked to a basket of currencies that was representative of the country's foreign trade matrix in order to make monetary policy more independent and increase its degree of autonomy.

At first, an attempt was made to maintain a constant real exchange rate by correcting for (past) domestic inflation and for that component of external inflation relevant to Chile. Towards the end of 1995, however, a 2% appreciation in the trend rate for the peso was incorporated into the system in an effort to factor in the effect on the long-term real equilibrium exchange rate of the differential between

economic growth and productivity, especially in the tradable sector, between Chile and its main trading partners.

During this period it became necessary to modify the exchange-rate band on two different occasions in order to permit the peso to appreciate in response to market forces. These modifications were made only after the Central Bank had become convinced that the appreciation was necessary in order to bring the rate into line with *its equilibrium level* and that there was no sound reason for keeping the reference exchange rate out of alignment with the country's economic fundamentals. Indeed, Chile's extremely strong export performance, the low level of its current account deficit, its hefty inflows of foreign direct investment, the liberalization of capital outflows originating from residents and non-residents alike, and the steady improvement being seen in all the indicators of credit worthiness, together with a considerable build-up of international reserves, made it clear that the country's position within the international economy was undergoing a structural change which demanded an adjustment in the exchange rate. Even so, the currency's real rate of appreciation —4.3% per year in 1992-1996— was one of the slowest observed in Latin America during the period.

The Central Bank bolstered monetary and exchange policy by playing a very *active role in building up foreign-exchange reserves*. This was justified, on the one hand, by the need to have a large volume of international reserves on hand as the country went through the process of opening up to the external economy and, on the other, by the importance of preventing net capital inflows (which averaged 6.1% of GDP in 1992-1996) from generating too large of a current account deficit. At one point, the Central Bank's international reserves actually climbed to the equivalent of over 25% of GDP and nearly 15 months' worth of merchandise imports. This was attributable to a highly favourable trend in the trade balance, the reinvestment of profits and additional flows of foreign direct investment, as well as the reduction of the public sector's foreign debt and net inflows of short-term capital. Short-term inflows were attracted by interest rate spreads between Chile and industrial countries, especially when they coincided with international rating agencies' progressive upgradings of Chile's country-risk rating and widespread expectations of an appreciation of the Chilean peso.

The sharp rise in reserves permitted the country to prepay the whole of the external debt it had renegotiated in the wake of the crisis of the early 1980s as well as its entire debt with the International Monetary Fund (IMF). It is important to point out, however, that this build-up in reserves can only go so far, since it results in substantial losses for the Central Bank. These losses are generated by the differential between the interest rate at which these reserves are placed on the international market (in foreign currency) and the rate that the Central Bank has to pay on paper that it floats on the domestic market (in real pesos) in order to sterilize the monetary impact of that build-up.

The central dilemma facing macroeconomic policy-makers in the 1990s has been that, on the one hand, local interest rates have to be substantially higher than those of industrial countries in order to keep the domestic economy in equilibrium, while, on the other, Chile's country risk has been steadily declining, and expectations of a revaluation of the Chilean peso have been rampant. In view of the fact that the public sector has posted an average annual surplus of 1.8%, that the increase in reserves has a significant quasi-fiscal cost, that capital outflows have been liberalized very rapidly and that the peso has been appreciating at over 4% per year in real terms (despite the Central Bank's efforts to counter this trend), macroeconomic policy-makers have had to choose between allowing domestic interest rates to fall into line with rates on the international market or closing —or at least narrowing— that gap. The first option would conflict with the overall strategy and might lead to excessive expenditure, higher inflation and/or a further appreciation of the peso and a larger deficit on the balance-of-payments current account,



thereby heightening the economy's external vulnerability. Accordingly, the chosen policy path has been to narrow the interest-rate gap by moderating the pace of foreign borrowing by firms in Chile and discouraging short-term capital inflows by raising their cost.

Thus, as a *complement* to fiscal, monetary, foreign exchange and international reserves policies, the fifth component of the overall macroeconomic policy strategy relates to the opening of *the capital account*. In this sphere, too, the strategy has called for a gradual and selective liberalization process.

On the one hand, capital outflows have been liberalized to a significant degree for both residents and non-residents alike. Exporters are free to dispose of their foreign exchange, in Chile or elsewhere, as they please. Foreign investments by private individuals and business firms have been completely liberalized as well, but the liberalization process for the banking system, pension funds, insurance companies and mutual funds has moved ahead more slowly both because of legal restrictions and as a consequence of prudential considerations. As a result, overseas investment by Chileans has gained a great deal of momentum and has come to constitute a highly significant and growing presence in quantitative terms, particularly in some countries within the region, where Chilean investment funds have been channeled into a wide range of activities. Restrictions on capital outflows originating from non-residents have also been eased: the lock-in period required prior to the repatriation of foreign investment capital has been shortened from three years to one; restrictions on outflows of investment capital brought into the country in the course of external debt swaps (in the aftermath of the crisis of the early 1980s) have been eliminated entirely, and regulations have been relaxed with regard to the prepayment of foreign debts as well as the minimum percentage of external credit that must accompany inbound foreign direct investment. As for the situation with regard to *capital inflows*, a steep increase has been seen in foreign direct investment, and new mechanisms for attracting external funds (ADRs, convertible bonds and other securities whose terms and conditions have also been liberalized as time has passed) have been authorized and developed.

This approach to the liberalization of the capital account has enabled the Chilean economy to establish an increasingly solid position for itself in international capital markets without heightening its external vulnerability or jeopardizing the autonomy of its monetary policy. The gradual and selective nature of the liberalization process as applied to the capital account has discouraged inflows to the stock market (owing to the existence of a one-year lock-in period) and has thus warded off an asset price bubble. Furthermore, Chilean companies hoping to attract international capital have had to do so gradually, and this has helped to prevent a traumatic appreciation of the Chilean peso.

The other component of the policy applied to the capital account was the establishment of a one-year non-interest-bearing reserve requirement on most types of external credits and other sources of foreign-currency finance. This discouraged short-term external borrowing by directly raising its cost and helped to ensure that economic agents would all be dealing with the same interest rate (set by the Central Bank) as the domestic economy moved towards equilibrium.

From a more general perspective, the policy package used to carry out this gradual, selective financial opening made it possible to change the structure or composition of foreign financial claims on Chile by increasing the proportion of risk capital relative to overseas borrowing and, within the latter, the proportion of long-term funds relative to short-term capital. This helped to make the Chilean economy much less vulnerable to the vagaries of the world economy and to changes in the expectations of international economic agents.

Although some of the other countries in the region have implemented what, on the face of it, appear to be more ambitious liberalization policies for their balance-of-payments capital accounts than those implemented by Chile, they have also had higher domestic interest rates than Chile has, as well as wider spreads between domestic and international rates. This situation, which should theoretically have been just the reverse, is mainly a reflection of higher levels of country risk or the expectation of steeper devaluations in those countries than in Chile. Thus, it is not a foregone conclusion that a country that carries out a swiftly-paced, comprehensive liberalization of its financial sector will necessarily achieve a solid or permanent form of integration into international capital markets. It is often said that Chile's strong macroeconomic performance during the early 1990s was chiefly attributable to its high domestic savings rate rather than to its macroeconomic strategy. It should be noted, however, that domestic saving is not a constant that functions independently of macroeconomic strategy in general or of external finance strategies in particular. Empirical studies and experience both suggest that "naïve" policies regarding inflows of external finance usually lead to a situation in which external savings (which are often primarily composed of very short-term funds) end up financing excessive expenditure on domestic consumption and reducing domestic saving.

A final consideration is the favourable environment (except when the economy began to overheat in 1989-1990) that existed for Chile's macroeconomy during the first half of the 1990s. Major structural reforms—which had not been implemented in a linear fashion but were instead the outcome of a costly process of trial and error—had been in place for quite a long time by then and were beginning to bear fruit. Another important factor—above and beyond the controversy as to the growth rate of public expenditure and its impact on the fiscal and monetary policy mix—was the effort made to coordinate the work of the Central Bank and the Ministry of Finance in designing and executing macroeconomic policy in the first half of the decade.

GDP grew at an average annual rate of 7.5% in 1992-1996, and unemployment stood at 7%. Real wages rose in step with average labour productivity (4.7% per year); gross fixed capital formation surged upward at an annual rate of 14.2% (nearly twice as fast as GDP growth); and domestic saving averaged 25.1% of GDP. The fiscal surplus amounted to 1.8% of GDP and fiscal saving totalled 5.1% of GDP. The real annual interest rate on bank loans for terms of between 90 days and one year averaged 8.9%. The domestic public debt (of the Central Bank) was lower than in the past, declining to 33.6% of GDP, while its maturity profile lengthened from year to year, reaching an average of 3.2 years for the five-year period. Annual inflation averaged 9.7% (Chile's lowest mean rate for any five-year period in over 50 years), slipping from 27.3% in 1990 to 18.7% in 1991 and then continuing to descend at rates quite similar to the Central Bank's yearly inflation targets, reaching 6.6% by the end of 1996. The Chilean peso appreciated at a real annual rate of 4.3% while exports grew by 10.4% per year in real terms (50% faster than GDP growth). The average annual deficit on the current account of the balance of payments amounted to 2.2% of GDP. Both inbound and outbound foreign direct investment hit record levels. Capital inflows represented 6% of GDP and net international reserves, which jumped by over US\$ 12 billion during the period in question, were equivalent to 22.4% of GDP and to one year's worth of merchandise imports. The external debt totalled an average of 38.1% of GDP (15.7% net of international reserves).

In sum, the country's macroeconomic results for 1992-1996 were highly satisfactory. Economic activity and employment, domestic saving and investment, and real wages and productivity all rose at a brisk pace. At the same time, inflation slowed significantly and was heading towards industrialized-country levels. Last and most importantly, all this was achieved without jeopardizing the Chilean economy's external equilibrium; on the contrary, Chile's position within the international economy was

strengthened as its external credit standing improved and its vulnerability diminished. Equally importantly, none of the other key areas of the economy were thrown out of balance, all of which provides grounds for an optimistic view of the prospects for the further progress and consolidation of Chile's economic development process.

## I. INTRODUCTION

Chile's macroeconomic policies during the 1990s have a number of characteristics that make them a highly interesting topic of analysis. On the one hand, the end of 1989 marked the conclusion of a long and complex phase in the country's political cycle during which Chile made the transition from an authoritarian military government, which had lasted more than 16 years, to a democratic system. Furthermore, the new Administration —headed by a centre-left coalition known as the *Concertación*, which took office in March 1990— had a support base and economic programme that clearly differentiated it from the parties that positioned themselves as the heirs of the military regime's legacy. Consequently, economic policy-makers were faced with a number of challenges, beginning with the question of how to design and implement suitable policies, and continuing on with the problem of how to generate the necessary confidence and how to send out the right signals to encourage the formation of appropriate expectations on the part of international and national economic agents and, within the latter, of labour and entrepreneurial sectors.

On the other hand, the country was coming out of the expansionary phase associated with the 1985-1989 economic reactivation (after the economy had plunged into a deep recession in 1983-1984) and, with expenditure overheating in 1989, it clearly needed to carry out an adjustment to restore its basic macroeconomic equilibria and thus provide a foundation for a solid and stable economic growth. This had to be done at a particularly complicated and delicate juncture, as a changeover was being made from one very different type of political system to another at the same time as a change of Administration was taking place and as domestic and international support had to be mustered for the new economic policy and economic team being set up by the new democratic government.

This was the point in time —in December 1989, just a few days before the first presidential election to be held in Chile in over 19 years— at which the Central Bank of Chile stepped into its new role as a fully autonomous and independent agency. In this novel institutional guise —which represented an innovation not only for Chile and Latin America but also for many industrial countries— the Central Bank of Chile was called upon to play a decisive role on a number of different fronts:

(a) As one of its immediate tasks, it had to design and implement a large portion of the **1990 adjustment programme** within a complex political, institutional and economic context of a sort previously unknown in Chile;

(b) At the same time, it was called upon to initiate, pursue and consolidate its functions as an **autonomous** entity. This represented a completely new and very difficult assignment, given the initial doubts raised as to the legitimacy (primarily on grounds of its originating authority) of an independent and autonomous Central Bank.<sup>1</sup> It was also necessary to define, or re-define, how the Central Bank was

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<sup>1</sup> These types of questions were raised primarily by political leaders and economists, including members of the Central Bank's governing council who belonged to the democratic government coalition.

to work and coordinate its efforts with the Ministry of Finance, what sorts of links were to be maintained with the Legislature, and how it was to interact with employers' associations and labour unions, with international banks and financial institutions, and with the press and the general public;

(c) What was perhaps the greatest challenge for the Central Bank—one that was connected with the tasks mentioned in the preceding subparagraph— was to conduct its work with such a degree of professionalism, dedication and responsibility that its *main asset* in relation to both national and international political and economic agents would be its *credibility*;

(d) In addition, the Central Bank was called upon to design and implement monetary, financial, foreign exchange, international reserves and external borrowing and finance policies. These traditional responsibilities of the Central Bank involved some special characteristics in this case that warrant discussion. On the one hand, the Central Bank of Chile's charter laid down its objectives, delineated them quite specifically, and assigned priority to controlling inflation and ensuring the regular flow of external and domestic payments; consequently, policy measures had to be designed on the basis of these new objectives of the Central Bank as defined by law. Nonetheless, the *time horizon* and the institution's work and its degree of commitment to *policy sustainability* had yet to be defined.

In pursuing these tasks, the Central Bank was faced with significant challenges. On the domestic front, as 1989 drew to a close the Chilean economy was working at its full potential, with *very little latitude in terms of idle production or labour capacity and with a high rate of inflation* (a 12-month rate of 21.4% as of end-1989,<sup>2</sup> which was equivalent—if calculated on the basis of the rate of inflation for the final quarter of the year— to an annual rate of over 30%). On the international front, the situation in the economy as a whole and especially in world financial markets was to some extent reminiscent of the late 1970s, in that increasing amounts of external finance were being made available to the region as a whole and to Chile in particular. This, in combination with a strong export performance, played a crucial role in ensuring that—unlike the situation in the second half of the 1980s— the country was not only free of external constraints but had a copious inflow of foreign exchange at its disposal. *This profusion of foreign exchange made it much more difficult to design and implement monetary and exchange policy than it would otherwise have been*, especially since the idea was to integrate them into a comprehensive policy approach aimed at the achievement, maintenance and sustainability of macroeconomic equilibria over the medium and long terms.

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<sup>2</sup> At the end of 1988, inflation had amounted to 12.7%.

## II. BASIC MACROECONOMIC EQUILIBRIA

One of the most vital factors in designing economic policy is the role of *macroeconomic equilibria* in the economic growth process. Fiscal, monetary, exchange-rate, wage and financial policies are key factors in attaining and preserving the economy's fundamental macro-equilibria, both internally (employment, price stability and the payments system) and externally.

In order to strike an *internal balance*, a country needs to achieve a level of productive resource use that does not generate more inflationary pressures than planned. In order for such a level to be achieved, macroeconomic policy —particularly its monetary and fiscal components— must be directed, first and foremost, *towards aligning aggregate domestic demand with the economy's production potential (aggregate supply)*.

While it is true that the trend growth path of total expenditure should not exceed potential GDP growth<sup>3</sup> —estimated at an annual rate of around 6.5% in real terms for the Chilean economy during the first half of the 1990s<sup>4</sup>— it may be both possible and desirable to supplement domestic savings with external funds in order to finance investment. This makes it advisable for the level of domestic expenditure to exceed national income by a certain margin, with the size of that margin depending on the amount, nature and sustainability of the sources of external finance in question. In the case of the Chilean economy, it has been estimated that the preservation of an *external equilibrium* allows for a *trend-level deficit on the balance-of-payments current account on the order of 3%-4% of GDP*.<sup>5</sup>

Inflation must be low if a country is to set itself ambitious goals in the areas of economic growth, investment, employment and poverty reduction. Since *the Central Bank has no direct instruments* at its disposal for achieving these objectives, it has to focus its efforts on lowering inflation and on moving towards greater price stability. This is the only way in which the Central Bank can play an effective role in fulfilling such aims and thereby contribute to the country's development. It should be borne in mind that achieving price stability is by no means an easy task, especially in a country (such as Chile) that has a history of chronic inflation and a broad-ranging, decades-old system of price indexation. Moreover, during the first half of the 1990s the Chilean economy was, for all intents and purposes, operating at full capacity with full employment.

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<sup>3</sup> Strictly speaking, this statement is valid when the economy is *on* its production frontier. When it is behind the frontier, it can grow faster (external constraints permitting), but when the economy is overheated, the *levels* of activity have to be adjusted and therefore, during this adjustment period, the growth of expenditure should be *slower* than the growth of potential GDP.

<sup>4</sup> See P. Rojas, E. López and S. Jiménez, "Determinantes del crecimiento del producto potencial de Chile: el rol del comercio", at press, April 1997.

<sup>5</sup> See N. Eyzaguirre and P. Rojas, "Las políticas monetaria y cambiaria en Chile durante los noventa", unpublished, Central Bank of Chile, January 1995.

*A macroeconomic environment in which it is assured that inflation can, first, be brought under control, then reduced and, finally, stabilized at a low level is a prerequisite for achieving high rates of investment and steadily increasing employment and factor productivity.* Experience has shown, however, that reducing inflation from very high levels to moderately low ones is the easiest part of the stabilization process. The truly difficult part of the task is to achieve convergence with the industrialized countries' rates of inflation. This calls for an ongoing effort to create the necessary conditions for a *sustained downward trend in inflation* while at the same time *minimizing any distortions that could trigger significant fluctuations or even reverse the process altogether.* These necessary conditions include, among others, keeping a firm hold on public finances in order to forestall any amplification of the expenditure cycle; a monetary policy that permits the alignment of real interest rates with the long-term productivity of capital; a real exchange rate that gives the tradables sector an adequate level of competitiveness while at the same time allowing external savings to be used in a way that is consistent with a viable balance-of-payments position in the medium term; and a financial policy that ensures the stability and solvency of the financial system as a means of averting any malfunctions, fragility or crises in the system or, failing that, of heading off their macroeconomic repercussions.

It would clearly be an exaggeration to claim that macroeconomic stability *is in and of itself a sufficient condition* for the achievement of rapid, sustained growth. Other more structural elements relating to the competitive, flexible operation of the market, especially in the case of factors of production, as well as the policies governing the structure and workings of certain key markets (e.g., the financial market or monopolies) and the policies influencing saving and investment, human capital formation, and scientific and technological research are also decisive in generating and galvanizing economic growth.

The criteria specified in this definition of the macroeconomic environment do not lend themselves to measurement. Consequently, there is usually some controversy as to whether or not interest rates, the exchange rate or the current account balance are at appropriate levels during any given period, and it therefore becomes quite difficult to decide whether or not they are deviating from their medium-term macroeconomic equilibrium levels. The more stable an economy is and the more ambitious its inflation-reduction targets are, the more complex this diagnostic problem becomes. The types of macroeconomic instability that generate annual rates of inflation of 30% or more are easily identifiable, but those that represent marginal deviations from a low inflation target (such as Chile's as it moved into the mid-1990s) is a matter of discussion and controversy. Prudence, good judgement, careful observation, comparisons with other countries and independent thinking are highly important tools when carrying out a macroeconomic diagnosis under such circumstances.

Precisely because it is so difficult to determine exactly what kind of environment is the most conducive to macroeconomic stability, the inflation rate acts as one of the main indicators of how much success the economic authorities are having in shaping that environment.

But the inflation rate at any given point in time is not the only important consideration. Its *sustainability over time* is also a highly significant factor. Obviously, if the authorities repeatedly allow inflation to reach elevated rates, then they do not have the economic situation under control, since economic agents will eventually incorporate a lack of confidence and an element of uncertainty into their behaviour patterns and will come to the conclusion that sooner or later they will have to find some way to adjust their levels of expenditure. There may also, however, be cases in which inflation is low yet economic policy is still not sustainable. These types of situations, which are usually associated with sizeable fiscal or current account deficits, give way to sudden outbreaks of what had been latent

inflationary problems.<sup>6</sup> In such instances, fiscal and current account deficits are usually a sign that low rates of inflation will not prove to be sustainable over time.

Only in those cases where the Central Bank and the Government's economic team manage to create a *sustained climate of low inflation* —in terms of its level or trend— have they been successful in cultivating expectations that the existing macroeconomic policies will be maintained or, at the most, modified gradually if adjustments should become necessary.

In sum, positive results in terms of inflation levels and the implementation of policies geared to the associated targets are fundamental in building up the *credibility of economic policy*. Such credibility, in turn, stimulates saving and encourages investment, initiative and entrepreneurial innovation, all of which has a clearly positive impact on job creation and economic growth.

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<sup>6</sup> It should be noted that there are some cases in which moderate fiscal deficits —when they arise in countries with deep, highly developed capital markets— are not necessarily a source of inflationary pressures.





### III. POLICY OBJECTIVES

The main objectives set forth in the Central Bank of Chile's charter are to maintain the stability of the currency and to ensure the smooth operation of the internal and external payments systems. The charter also states that in adopting decisions and agreements, the Central Bank shall bear in mind the Government's general line of economic policy. During the 1990s, the Central Bank has focused its efforts on lowering the inflation rate in a gradual, systematic and sustainable manner, defining an allowable range for the deficit on the balance-of-payments current account and creating the necessary conditions to guarantee the stability and soundness of the domestic financial system.<sup>7</sup>

Accordingly, the Central Bank's policy-design and implementation functions are not *directly* aimed at the achievement of other government economic policy objectives, such as spurring economic growth, boosting saving and employment, or improving income distribution. There are three reasons for this: first, its objectives are delimited by law; second, the policy tools at the Central Bank's command are so limited that, in the opinion of some experts, it simply does not have the necessary capabilities even to fulfil the three objectives established for it by law; and third, efforts to achieve these objectives have been undertaken in a way intended to serve the purposes of the Government's overall development strategy of combining economic growth with social equity.

The steps taken to fulfil the legally-stipulated objectives of the Central Bank have been based on the understanding that the relevant time horizon is a protracted one, and that the achievement of these aims is therefore to be accomplished in a gradual and sustainable manner. *The prevailing belief has been that this would establish macroeconomic policy's credibility and would impart stability and sustainable forward momentum to the development process.* What is more, a fundamental element in the Central Bank's thinking with regard to these objectives is that they are to be achieved within a balanced framework, without creating any shocks in other key areas of the economy. Nor has it been seen as necessary—or even desirable—to come up with any spectacular achievements right away. On the contrary, *the emphasis has been on persistence, systematic action, soundness, stability and credibility, together with overall macroeconomic equilibrium and all the positive impacts these attributes have in terms of saving and investment decisions, employment and wages, all of which combine to set up what*

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<sup>7</sup> This study examines the Central Bank of Chile's experiences with regard to the first two objectives only, namely, controlling inflation and maintaining the external equilibrium of the Chilean economy. Much of its success in achieving these two objectives, however, is attributable to the steps taken to create conditions conducive to the continued solvency of the domestic financial system and to safeguard and monitor its financial position. Although an in-depth discussion of the issue goes beyond the bounds of this study, it should be noted that the "financial development" option (which, in addition to the banking system, encompasses non-bank financial intermediaries along with appropriate supervision and regulation) has played a much more important role than the more naïve types of "financial liberalization" policies have in creating the kind of macroeconomic and institutional framework that constitutes a favourable environment for coherent economic policies.

might be referred to as the “virtuous” circle of the economic development process. The alternative would be to produce some apparently rapid and highly successful —if not spectacular— accomplishments with regard to a limited number of objectives, but this could only be done at the cost of major imbalances in other key areas of the economy or society. Experience shows that in such cases the achievements in question are fragile and short-lived, and eventually this makes it necessary to check, or even reverse, the reform and policy implementation process, thereby undermining economic agents’ confidence as well as the macroeconomic programme’s effectiveness.

## 1. Combating inflation

Article three of the charter of the Central Bank of Chile states that one of the Bank’s objectives is to safeguard the stability of the currency. In other words, the law stipulates that price stability is an objective. During the first half of the 1990s, this was interpreted as *requiring a systematic, sustainable reduction of inflation and the achievement of single-digit rates*.<sup>8</sup>

The wisdom of assigning a high priority to the objective of price stability has often been questioned; it is argued that economic development is what truly matters and that monetary policy should therefore be subordinated to that goal. This type of criticism becomes more frequent when efforts to combat inflation lead to what are regarded as “tight” monetary policies that slow the pace of economic growth.

Nevertheless, evidence uncovered by empirical studies on the relationship between inflation and growth in developing countries suggests that, all other things being equal, a higher rate of inflation is associated with a lower long-term growth rate. This relationship turns out to be especially strong in countries with moderate or high rates of inflation. By the same token, these same empirical studies have also demonstrated that in countries with low (single-digit) stable inflation, fluctuations in the rate of inflation do not appear to have a serious impact on the rate of economic growth.

The objective of price stability —which, what is more, is shared by virtually all central banks everywhere and certainly by all those that are independent entities, as in the case of Chile— is not an end in and of itself. The overriding objective of the economic authorities as a whole is to advance the country’s development and improve its population’s living standards and quality of life, which is impossible to do without a rapid pace of economic growth. This does not stand in the way of a reduction in inflation, however. On the contrary, *it has been demonstrated both theoretically and empirically that price stability has a positive influence on economic growth in the medium and long terms*. The United States Federal Reserve Bank, for example, recently published a study which demonstrates that a decrease in inflation enhances an economy’s productivity. Furthermore, inflation is actually a regressive (unlegislated) tax, since it has a stronger impact on poor people, who are the ones least able to defend themselves against its effects. Price stability therefore has a positive impact in terms of income distribution as well and helps to lead us in the direction of a society that will offer greater opportunities to its members. Thus, *an institution such as the Central Bank, which strives to lower inflation, is collaborating in and contributing to its country’s medium- and long-term economic development*.

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<sup>8</sup> The Central Bank’s objective was to bring the rate down to the levels seen in industrial countries (between 2% and 3% per year). In order to attain this type of level, however, it was felt that inflation first had to be brought down to single-digit rates by around 1995-1996, and that thereafter it could gradually be brought closer and closer to the 2%-3% range.

During the 1990s, the Central Bank of Chile has maintained the position that price stability is a necessary condition for rapid, sustained economic progress and that the experiences of countries around the world corroborates this assertion. Seen from this vantage point, price stability is only a means to a greater end: a healthier economy. An ambitious —yet attainable and reasonable— objective in the case of the Chilean economy is to work towards the achievement of low, stable inflation rates on a par with those of developed countries. Obviously, the ideal situation would be to live in an inflation-free world. The rigidities that exist in the real world, however, may make it necessary for price levels to rise somewhat (albeit very slowly) in order to allow adjustments to be made in the relative price structure. Improvements in the quality of goods and services also tend to produce a statistical ascent of price levels. Nevertheless, stable annual inflation rates of the same order of magnitude as those seen in industrial countries can, without risk of exaggeration, be pronounced harmless, since the serious problems associated with inflation tend to evaporate as it descends into the industrial-country range.

A further justification for the objective of bringing inflation down to developed-country levels is that *the Chilean economy's internationalization strategy becomes much more efficient in the presence of domestic price stability*. What is more, since the consolidated public sector (including the Central Bank) is not running a deficit and in view of Chile's increasingly solid macroeconomic performance, there is no reason for inflation to be above international rates. It should, however, be pointed out that, given the widespread indexation of the Chilean economy on the basis of past inflation, the country's move towards price stability should be a **gradual** process in order to minimize the price stabilization policy's short-term costs in terms of economic activity and employment while allowing the economic authorities to build up their credibility. This will tend to enhance the legitimacy of the anti-inflationary policy and to give the authorities time to refine monetary policy and make it more efficient without necessarily having to sacrifice other economic policy objectives.

## 2. Striking an external balance

Article three of the charter of the Central Bank of Chile states that another of the Bank's objectives is to ensure the normal flow of external payments. In other words, the law defines the achievement of an external equilibrium as an objective, and this has been interpreted as meaning that *the deficit on the balance-of-payments current account matters and that it needs to be kept within a pre-determined range.*<sup>9</sup>

The wisdom of macroeconomic policy-makers' practice of attributing so much importance to the current account deficit of the balance of payments is often questioned. Many experts argue that developing countries need to draw on external savings in order to fund investment. By the same token, the deficit would not be so important if net "private" and "voluntary" capital inflows served as the main source of investment financing. Another argument is that the deficit should not be a cause of concern in

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<sup>9</sup> In Chile's case, this range was determined on the basis of two considerations. The first was that the annual growth rate for potential GDP (in dollars, at a constant real exchange rate) was estimated at around 8%. The second was that, since in the early 1990s the external debt was equivalent to slightly over 50% of GDP, a deficit on the balance-of-payments current account equal to 4% of GDP (as a maximum) would enable the authorities to maintain a constant external debt/GDP ratio. The range that was ultimately specified (3%-4% of GDP) signalled that the authorities were not willing to allow the country's external debt to rise beyond 50% of GDP but also felt that its reduction needed to be gradual. This was, in fact, what occurred.

cases where the bulk of excess imports are capital goods, especially if most of them are to be used to boost the production capacity of the tradables sector of the economy.

While the above arguments have some validity, their significance pales in comparison to that of the true crux of the problem: the tolerances that exist in terms of both the size and duration of the balance-of-payments current account deficit. The importance attributed to this deficit (which is actually nothing more than a reflection of the excess of domestic expenditure over the economy's income) and, more specifically, the emphasis placed on *controlling the trend deficit of the balance-of-payments current account*, are justified in view of the decisive role traditionally played by such external constraints as the impacts of changes in the terms of trade and international interest rates — to name only a few of the factors associated with Chile's position within the international economy— in terms of the *vulnerability of the Chilean economy*.

In addition, focusing on the trend in the current account deficit is another way of helping to ensure that *external saving complements domestic saving, rather than taking its place*, and that the latter finances a substantial portion of domestic investment, since this is a decisive factor in achieving *stable and sustainable economic growth*.

The fact that *the Central Bank consistently resisted the "temptation" to relax monetary policy too soon, despite the ample maneuvering room available to it in the external sector*, was of the utmost importance in the design and implementation of macroeconomic policy during the first half of the 1990s. This breathing space was created by a very strong export performance (the volume of exports climbed at an average rate of 10% per year) and sizeable net inflows of foreign capital (averaging 6% of GDP). Indeed, the Central Bank was under strong pressure to loosen up monetary policy (by lowering domestic interest rates) and to modify —if not eliminate altogether— its policies on the exchange-rate band, international reserves and short-term flows of external finance, all of which would have caused the Chilean peso to climb much more sharply than it actually did during this period. *One of the hallmarks of macroeconomic policy during those years was a clear-cut definition and stalwart defense of the overall strategy, with monetary policy-makers taking a methodical, carefully planned approach and maintaining their control over all the policy tools they would need to curb inflation by refusing to permit the current account deficit to overshoot its target level*. By proceeding in this manner, the Central Bank helped to consolidate Chile's rapid pace of economic growth, which was financed primarily with domestic savings, and in the process ensured a gradual but also credible, sustained and sustainable decline in inflation without jeopardizing the Chilean economy's medium- or long-term external equilibrium.

Hence, regardless of whether the public or private sector was *responsible* for the excessive level of domestic expenditure, regardless of whether it was *financed* with voluntary inflows of external capital or through an expansion of domestic credit, regardless of whether these imports were *primarily* consumer or capital goods, and regardless of whether capital-goods imports were used to increase the production capacity of the tradables or non-tradables sector of the economy, the paramount challenge for Chile's macroeconomic policy-makers during the first half of the 1990s was to create the necessary conditions to prevent the current account deficit from reaching a level that would cast doubt upon the sustainability or credibility of macroeconomic policy.

It is difficult to determine exactly what level a developing country's current account deficit should be permitted to reach, and the allowable size of the deficit may differ from country to country or, within a single country, may vary over time. This having been said, the range of 3%-4% of GDP that was set for Chile in the early 1990s was based on three guiding principles.

First, a *trend* deficit of this size on the balance-of-payments current account would make it possible to hold the usual indicators of external solvency and creditworthiness (e.g., the external debt as a percentage of GDP or of exports of goods and services) *at a constant level or even to improve them slightly*.

Second, assuming a desirable level of net international reserves, a current account deficit of this order of magnitude would tally with *the projected net supply of medium- and long-term external financing available to Chile*.

Finally, even if significantly larger current account deficits could be financed for some time, tolerating those higher deficits would leave the economy *exposed or vulnerable* to changes in liquidity or in expectations on international financial markets. Changes in such factors may, for example, occur quite suddenly as a result of various sorts of shocks, whether political in nature or in the form of sharp downturns in the terms of trade of economies in the region and/or a spike in interest rates in industrial countries.



#### IV. BASELINE CONDITIONS

Some of the economy's *structural characteristics*, as well as the *baseline cyclical conditions* and the *institutional context* in which macroeconomic policy has been implemented in the 1990s, have been extremely important factors because they demarcate some of the traits specific to Chile which had to be addressed by macroeconomic policy.

(a) By the early 1990s, *Chile's economy had already been operating for several years on the basis of a scheme which had included a variety of structural reforms*, including tariff reductions and the streamlining of the tariff regime, the privatization and complete overhaul of the social security system, the liberalization of the banking system in combination with the passage of new banking laws, fiscal reforms and the privatization of a large number of State-owned firms. Many of these reform efforts experienced setbacks as time went on but, for the most part, when this happened the tendency was to redesign and refine them rather than to discontinue them.

(b) The Chilean economy is *small and quite open to international trade and finance*.

During the first half of the 1990s, it became even more so. In fact, exports of goods and services increased to over 35% of GDP; tariffs were lowered from 15% to 11%; Chilean exporters were allowed to dispose freely of their foreign exchange; and a number of bilateral free trade agreements entered into force.

The financial system was also opened up to the international economy, with liberalization measures being applied to both inward and outward capital flows. Overseas investment by Chileans was entirely decontrolled except in the case of banks, pension funds, insurance companies and mutual funds. The liberalization process for these institutions was more gradual and selective, thanks to the legal and other prudential restrictions that had been adopted, primarily on the initiative of the Central Bank. Outward remittances by non-residents were also liberalized. For example, the waiting period for the repatriation of capital by foreign investors was shortened from three years to one, the restrictions on capital remittances contained in chapter 19 of the Central Bank's Compendium of Foreign Exchange Regulations were eliminated entirely (a scheme for debt-equity swaps that was set up in response to the crisis of the early 1980s), and regulations governing prepayments on foreign debt were eased, as were the requirements regarding the minimum percentage of external credit which must accompany foreign direct investments.

A significant increase was seen in incoming foreign direct investment, and a number of new mechanisms (ADRs, convertible bonds) were authorized, developed and subsequently liberalized. The negative impact which excessive inflows of short-term foreign capital were having on monetary and exchange policy were countered by slowing down these inflows and raising the cost of this type of financing. This was accomplished by establishing a one-year non-interest-bearing reserve requirement on



most foreign credits and other sources of foreign-currency finance which amounted to a levy whose size varied in inverse proportion to the length of the term involved.

(c) Another significant trait of the Chilean economy of the early 1990s was its *high domestic savings rate*. Whereas this rate was below 10% of GDP during the first half of the 1980s, in the second half it jumped to over 16% and by 1989 was nearly 24% of GDP. The rate for 1992-1996 topped 25%. It should be noted that the level of domestic saving depends on a country's attitude and its policies on external saving, since there is a wealth of empirical evidence regarding the frequency of cases in which external saving acts as a substitute for domestic saving; this generally occurs when, under certain circumstances, a country indiscriminately accepts an "excessive" inflow of external finance, especially if it is primarily made up of short-term funds.

(d) The *development of Chile's capital market* has been an extremely important event because it has paved the way for the deepening of the financial system. In particular, the demand for Central Bank paper on the part of banks and of pension funds and insurance companies has not only contributed to the development of a long-term capital market but has also helped expedite open-market operations, which have come to serve as an effective tool of monetary policy.

(e) The *fiscal budget has invariably been in surplus*, and this permitted a reduction to be made, in relative terms, in both the foreign and domestic fiscal debt. The most salient aspect of this situation, however, is that the Government had to have this surplus if it wanted to offset the hefty quasi-fiscal deficit run up by the Central Bank as a consequence of its bail-out of the private financial system in the early 1980s and the heavy losses it sustained as a result of the steep build-up of international reserves during the 1990s.

(f) It is important to understand that, in *1985-1989*, the most serious macroeconomic constraint affecting the country was the shortage of foreign exchange caused by an overvalued peso in the late 1970s and early 1980s and the ensuing balance-of-payment and foreign debt crises, along with their after-effects. Furthermore, the rapid GDP growth seen during this period—an average annual rate of 6.6%—was in large part due to the fact that it was rebounding from its steep drop-off of 1982 and 1983 (when it plummeted by 14.1% and 0.7%, respectively); consequently, the actual level of GDP during that five-year period was far below the potential GDP trend level (except in 1989).

During the period from *1992 to 1996*, on the other hand, the economy had virtually no breathing space, either in terms of idle production capacity or in the labour market, and the shortage of foreign exchange came to an end thanks to the steep increase in exports and the large volume of foreign direct investment and international finance flowing into the country during those years. What is more, with the economy overheating in 1989 and the subsequent changes seen in domestic spending, GDP growth in the 1990s has been hugging the production frontier, or, to put it another way, there has been a close *match between the actual and potential levels of GDP*.

The *state of the economy at the close of 1989* was heavily influenced by the events of the preceding five years, during which the level of activity had been driven up sharply by the growth of gross fixed capital formation and exports. Against this backdrop, with GDP growing by 9.9% in 1989, it was obvious that the level of spending was too high, and this led not only to an unsustainable pace of economic growth, but also to a surge in the inflation rate and an excessive expansion of imports. This situation made it necessary to embark on an adjustment process in 1990 that entailed the implementation of strict fiscal and monetary policies.

(g) *Widespread price indexation* is another trait of the Chilean economy. As a consequence of Chile's chronic inflation, steep price increases and sharp price swings, Chilean society learned to "live with inflation" while providing partial protection from its harmful effects through the introduction of provisions for readjusting prices on the basis of past inflation. Using this mechanism, key prices such as the exchange rate, interest rates, wages, property rents and taxes have been heavily indexed. This has mitigated the problems caused by inflation and has helped to boost financial saving, but it has also affected the design and implementation of fiscal, monetary, exchange-rate and wage policies.

(h) Chile's *domestic fiscal debt* is negligible, but its place has been taken by the Central Bank's domestic debt. This changeover occurred when, in the wake of the bail-out of much of the private banking system following the financial crunch of the early 1980s, the Central Bank assumed, by direct and indirect means, the burden of warding off the effects of the monetization of that bail-out by issuing domestic debt, mostly in "readjustable" pesos. Then, in the 1990s, the Central Bank assumed the responsibility and cost of blocking the monetary impact of a sharp build-up in international reserves by issuing its own debt. Thus, in practice the Central Bank has become responsible not only for managing monetary policy but also for doing the "Treasury's job", i.e., managing the public-sector's domestic debt.

(i) Another significant feature is the Central Bank's relatively recent status as an autonomous institution, which has had a decisive influence on macroeconomic policy as well as in terms of the Bank's determination to combat inflation and its credibility in that regard, along with the impact these factors have on fiscal policy and the expectations of economic agents.

(j) Last but not least, there is the fact that the Government and the Central Bank have been pursuing the same objectives. Minor differences of opinion or emphasis aside, the *fiscal and monetary authorities have worked together* and have coordinated their efforts in keeping with the broad lines of macroeconomic policy, all of which has certainly contributed to the effectiveness of its design, formulation, implementation and results.



## V. THE CRITERIA USED IN MACROECONOMIC POLICY-MAKING AND IMPLEMENTATION

Taking into consideration the existing state of affairs in the Chilean economy as of the late 1980s in terms of its structural, institutional and cyclical features, the Central Bank defined four basic criteria or tenets which guided its actions during the first half of the 1990s.

### 1. Overall macroeconomic equilibrium

One of the central tenets of the Central Bank's anti-inflation policy was that it must *not generate any major imbalances in other key areas of the economy*. In other words, reductions in inflation must not be achieved at the cost of sharp increases in unemployment or idle capacity, imbalances in financial markets or an untenable deterioration in external accounts. Domestic and/or external disequilibria of these sorts not only are very costly in and of themselves but also undermine the credibility of stabilization initiatives, call their sustainability into question, delay their effects and are ultimately counterproductive if they cause such initiatives to be aborted.

### 2. A medium- and long-term horizon

A second principle underlying the actions of the Central Bank of Chile in the first half of the 1990s was the *time horizon* used by the Bank's policy-makers. The priority consideration behind all of the Bank's decisions was the stability and soundness of the economy, and it therefore employed what was primarily a *medium- and long-term* horizon; in other words, its policies were intended to transcend day-to-day events in the economy.

The short-term economic situation should, of course, be watched closely, since it influences the future trend of economic variables. Nevertheless, the fact remains that a medium- and long-term perspective is the proper one for the Central Bank's decision-makers to take, since the ultimate aim is to ensure the *stability* of the main macroeconomic variables and to avoid generating short-lived booms or spikes that must then be reversed. This is important because these about-turns hurt the economy by magnifying the ups and downs of the economic cycle and inject a greater degree of uncertainty into economic agents' decision-making functions.

There are a number of reasons why so much importance has been placed on the Central Bank's use of a medium- and long-term time horizon for decision-making.

First, there is an ongoing debate concerning the short-term trade-offs involved. Under certain circumstances, economic growth can be galvanized —temporarily— by a more relaxed monetary policy. However, such a course of action would clearly be based on a short-term perspective, since in most cases it would *hurt the country's long-term growth prospects*. What is more, there is no question about the fact that such a policy stance will sooner or later make an adjustment policy necessary, which would mean reinstating a tighter monetary policy. This conflict between the short and long terms is what has prompted many countries to give their central banks autonomy and to set them the task, as their prime objective, of reducing inflation. This places monetary policy on a longer time horizon because of the need to avoid the use of a short-term perspective in its implementation; when such a perspective is employed, monetary policy-makers tend to take, at best, hasty and, at worst, ill-advised decisions whenever economic indicators show any signs of weakness.

Second, during this period the Central Bank of Chile was criticized on several occasions (perhaps because the sources of the criticism were not aware of the fact that its actions were based on a medium- and long-term perspective) for not having made greater headway in its efforts to achieve price stability. *The Bank's critics argued that progress was too slow and cited the experiences of other countries in the region which appeared to be achieving faster-acting and/or more spectacular results than Chile in reducing inflation.* This criticism is open to dispute, however, since notable gains were in fact made in controlling and curbing inflation. Indeed, *after reaching 27.3% in 1990, the rate of price increases began to fall steadily by almost exactly the percentages that were required to meet the country's targeted inflation rates.* By 1996, inflation had subsided to 6.6%, which was very close to the year-end target rate of 6.5%. Another consideration here is that indexation, which, as noted earlier, does have some advantages, *makes it too costly—in terms of output and employment—to lower inflation abruptly.* This is why the Bank chose a cautious strategy for combating inflation on a consistent, gradual basis. Another important point is that in Chile the exchange rate has not been used as a weapon in the fight against inflation. Certainly, if it had been used in that way, inflation could have been brought down more quickly, but the short-term benefits of such a strategy would most likely have been counteracted by its costs in the long run. The painful experience of the early 1980s is not something that the Central Bank of Chile was willing to repeat. As soon became clear at the time, using the exchange rate to make faster progress in reducing inflation is a policy that will, in most cases, eventually backfire. Sooner or later the appreciation of the currency will no longer be sustainable; when this point is reached, costly and complicated side-effects begin to be felt in other key areas of the economy (e.g., declining competitiveness and a deterioration of the banking system) and/or a devaluation supervenes which entirely wipes out the progress made in reducing inflation.

Third, experience has shown that *monetary policy has a delayed effect* on the economy; for a country such as Chile, monetary measures should be taken with a view to what kinds of effects they are likely to have over the next 6-18 months.

Finally, *the actions of economic agents that are using a very short time horizon are sometimes at variance with the elements required for medium- and long-term equilibrium and development.* For example, a “financial rationale”, which more often than not uses an extremely short-term perspective, may send out signals and set prices that lead to poor investment and resource-allocation decisions in the tradables sector of the economy. The short time horizons typical of some opinion-makers and/or specific sectors of activity may influence expectations and investment decisions, and even government policy options, by sending signals and setting prices that are incorrect from a medium- and long-term development perspective. Here again, the medium- and long-term perspective of the Central Bank is

vindicated, inasmuch as it helps to rectify, or at least to limit, the distortions created by some economic agents' over-emphasis on short-term considerations.

### 3. Prudence and gradualism

The Central Bank is an institution which by the very nature of its objectives —to safeguard the stability of the currency and ensure the smooth operation of the internal and external payments systems— must be extremely *prudent*. Any rash decisions on its part can and usually do have very harmful effects on the economy.

A medium-term perspective on the overall situation will also demonstrate that prudence is called for when reacting to short-term changes in individual indicators. *Monetary and exchange policy decisions must be based on trends in a broad range of indicators, rather than specific figures covering a period of one or two months.* In more concrete terms, the policy measures adopted by the Central Bank were not impulsive reactions to indicators spanning a single month or some other specific period, nor were they based on isolated figures, no matter how striking. It is important to emphasize that monthly fluctuations in such indicators as IMACEC (the monthly index of economic activity) or even the consumer price index (CPI) itself are nothing more than a few additional pieces of information or evidence; they only become truly significant when they are considered in terms of their overall trend and in conjunction with supplementary indicators of movements in other variables, such as employment, wages, the exchange rate, expenditure, the trade balance and the balance of payments, rather than in isolation.<sup>10</sup>

This principle requires the Central Bank to make sure its decisions are soundly based before moving ahead, but it does not mean that it should respond belatedly. On the contrary, an aspect of the utmost importance in the Bank's decisions has been that it has always sought *to forestall* increases in inflation rather than waiting for them to occur. Since inflation is a lagged phenomenon, the Central Bank must be alert to signs of *incipient inflationary pressures* and must take firm action to prevent or neutralize them as speedily as possible. Indeed, it would be neither prudent nor efficient to postpone certain types of adjustments until imbalances are manifested in the inflation rate. By that time, the momentum generated by nominal wage and price adjustments, together with the authorities' loss of credibility as inflation fighters, will make it necessary to carry out a much more severe adjustment to achieve the same results; what is more, under these circumstances the costs of bringing inflation under control will be considerably higher in terms of employment and economic activity.

Hence, the country's monetary authorities must not react precipitately, but they must respond promptly. On some occasions the Central Bank has been criticized for failing to take immediate action in response to certain market signals. Actually, however, in most of these cases it would have been a mistake for the Central Bank to react to a short-term phenomenon that might well reverse itself in the future. If the Bank were to proceed in such a manner, it would soon find it necessary to counter the measures it had adopted by moving back in the opposite direction; ultimately, all this would simply increase the amount of "noise" in the economy while dampening economic activity and undermining investment and employment.

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<sup>10</sup> The principles of prudence and gradualism are useful not only in understanding the monetary and exchange-rate policies of the Central Bank of Chile during the 1990s but also in comprehending its strategy for opening up the capital account.

Chile's past experiences, like those of a number of other Latin American countries, indicate that drastic measures or shock techniques primarily work in certain very specific types of situations, such as when inflation is spiraling out of control and the fiscal deficit is rising or when it is necessary to turn expectations around. Nevertheless, the Central Bank's policies have such a great impact and so many implications for so many different sectors of the economy that, as a rule, it needs to be very prudent and to take a very gradual approach when performing its policy-making functions. By the same token, it needs to evaluate the direct impacts and spillovers of those policies on a systematic basis. Thus, gradualism and prudence are valuable guidelines for decision-makers which, if observed, will allow them to remedy undesirable situations in a non-traumatic manner. More specifically, the Central Bank should not seek to conjure up spectacular results that may evaporate at the first sign of trouble. Instead, it would seem wiser to move ahead more slowly but on a firm footing, so that whatever ground is won will stay won.

It is important to underscore the need for gradualism in relation to anti-inflation policies, since larger reductions and more rapid progress in this respect might at first seem preferable. The problem is that these more striking advances may come at too high a cost in terms of employment and production, especially in economies such as Chile's, where backward-looking indexation mechanisms are applied to transactions of all sorts. This is why, as in other areas of policy, the Central Bank has placed such importance on a *gradual strategy that focuses on solid, steady progress* in reducing inflation. Accordingly, its gains in this respect have been perceived as sound and unlikely to be reversed in the future. Furthermore, since its anti-inflation strategy has been governed by the principle that the overall macroeconomic equilibrium must be maintained, the Chilean economy has not experienced any major imbalance that might raise the spectre of impending inflationary surges. Thanks to this policy emphasis on a gradual, steady decline in inflation, as the Central Bank continues to gain credibility, contracts and expectations begin to incorporate its descending inflation targets, thereby minimizing the chances that imbalances will arise in other markets while at the same time ensuring that the advances already achieved will be lasting ones.

This gradual approach has accomplished something very important: it has *consolidated a lower rate of inflation than Chile had seen in decades*. On the other two occasions when the country achieved similar rates of inflation (although they were still somewhat higher than the rates registered in the mid-1990s), so many imbalances arose that all the ground that had been gained was lost again in a matter of months. One of these episodes was in 1981, when annual inflation fell to 9.5% following the establishment of a fixed exchange rate. The external imbalance was so great on that occasion, however, that the following year the peso had to be devalued and inflation jumped to over 20%. The other, more recent, episode occurred in the late 1980s, when, after dropping below 13% in 1988, inflation rebounded in 1989 owing to the steep increase in expenditure that had been building up for several years. Hence, the main point is to make steady, lasting reductions in inflation, rather than to lower it for one or two years, only to have it speed up again thereafter. *In the period from 1992 to 1996, the annual rate of inflation averaged 9.7%, which was the lowest rate that Chile had registered for any five-year period in over half a century. Moreover, this was achieved during a period marked by rapid (but sustainable) growth in economic activity and a solid external accounts position.*

The principle of gradualism, together with the emphasis on a medium- and long-term time horizon, is also reflected in the Bank's strategy for opening up the capital account. As will be discussed in more detail later on, the Central Bank has made a great deal of headway in this connection in recent years. However, some analysts argue that the Bank should have moved ahead even more swiftly in this area, and some even suggest that the financial sector should be fully liberalized immediately and

indiscriminately. The problem with a hurried liberalization process is that it usually generates serious disturbances in the economy, such as sharp swings in the real exchange rate or problems in the financial sector. Examples that come immediately to mind include the indiscriminate opening of the capital account carried out by a number of Latin American countries in the late 1970s and, more recently, by others prior to the Mexican crisis in late 1994. In the vast majority of these cases, these programmes were resounding failures and their end result was a capital account which, in practice, was more tightly closed than before.

The main point here is that, while an increasingly solid position in international financial markets is certainly desirable, the success of such initiatives largely depends upon the modality, speed and selectivity of the approach taken. Financial liberalization must be accomplished in a way that does not create major disturbances in the economy, and the process must therefore be a prudent, cautious and gradual one.

#### 4. The role of the market in the determination of key prices

It is very important for certain key prices in the economy to be determined correctly, i.e., to be set at levels that accurately reflect supply and demand. The main such prices are wages, interest rates, exchange rates and those of certain assets, particularly some equities, and real estate prices. The two key prices over which the Central Bank has the greatest influence are the exchange rate and interest rates. *A misalignment between these prices and their fundamentals generally has an extremely harmful effect in terms of the financial system and the maintenance of basic macroeconomic equilibria.*

There are many examples, especially in Latin America, of situations in which distortions in key prices have ultimately triggered severe crises, and the financial sector is usually one of the first to feel their effects. For example, unsuitable financial statutes, supervisory systems or regulations have led to the problems known as “moral hazard” and “agency risk”, which help to keep interest rates abnormally high. Although these are “market” rates, they are not equilibrium rates nor are they sustainable over time; in fact, these “outlier” rates will eventually undermine the ability to pay of the financial system’s debtors. The situation in Chile during the second half of the 1970s provides a good illustration. Many experts attribute the financial crisis that occurred at that time to the country’s extraordinarily high real interest rates, which the system could not tolerate indefinitely even though they were, in fact, “market” rates. *In such cases monetary policy becomes extremely inefficient and the banking system becomes more fragile than ever, thereby jeopardizing the country’s macroeconomic gains.*

Much the same thing can happen with the other key price we mentioned earlier: the exchange rate. Setting the exchange rate too low or opening up the capital account indiscriminately or too rapidly often results in a ballooning foreign debt (usually short-term) and an overpriced local currency. When the situation has to be turned around —so that the country will be able to service that debt— the often traumatic effects may include plummeting real wages and employment levels and/or liquidity problems and threats to the solvency of the financial system, all of which jeopardizes macroeconomic balances. In addition, the effects of an overpriced local currency on the balance-of-payments current account may make the country highly vulnerable to external shocks or to changes in the expectations of international creditors and investors.

*In short, distorted key prices may plunge the financial system into a severe crisis and seriously disrupt macroeconomic equilibria.*



This does not mean that the authorities should continually be intervening in these markets. In fact, quite the opposite should be done; government intervention should be kept to an absolute minimum, or should be limited to those instances in which a major short-term disequilibrium has arisen, and the necessary regulatory and supervisory mechanisms should be set up to allow the market to operate freely and efficiently.

Bearing this in mind, it should be noted that one of the Central Bank's explicit objectives has been to *give the market an increasing role in the determination of these key macroeconomic prices*. This is a real possibility because as Chile's financial and exchange markets become more developed, deeper and more sophisticated, fewer market failures in the determination of those prices will occur. As part of its efforts to achieve this goal the Central Bank has, for example, widened the exchange-rate band, relaxed restrictions on what types of foreign exchange operations can be conducted by banks, paved the way for the development of private mechanisms for hedging against currency risk and, in the monetary/financial sphere, expanded its auction sales of promissory notes. Thus, in terms of its monetary policy-making functions, the Central Bank relies heavily on the direct management of the interest rate on overnight funds, while the market is playing an increasingly preponderant role in setting long-term interest rates.

## VI. POLICY

This section will provide a brief overview of the main components of Chile's macroeconomic policy during the first half of the 1990s.

### 1. Fiscal policy

Controlling aggregate demand —the lynchpin of macroeconomic stability— is impossible unless *fiscal and monetary policy are coordinated*.

The practice of financing public deficits through money creation has been the main cause of high inflation in the Latin American countries, since the use of high-powered money to fund such deficits fuels the growth of monetary aggregates, thereby generating inflationary pressures. One of the reasons for the decision to give the Central Bank autonomy and allow it to manage monetary policy independently was to halt the monetization of the fiscal deficit. However, while the prevention of monetization is a necessary step in eliminating inflation, it is not sufficient in and of itself, since public deficits can be financed, albeit temporarily, by other means. To keep inflation down, the Central Bank's monetary policy needs to be backed up by an actively anti-inflationary fiscal policy. *In addition to making policy coordination more necessary than ever, this calls for a form of coordination which not only prevents the monetization of public deficits but also provides for a way of controlling the growth of public expenditure over the medium term and for the design of explicitly counter-cyclical fiscal and tax policies.* Otherwise, if the authorities attempt to counterbalance an expansionary fiscal policy with a restrictive monetary policy, they may push real interest rates up to extremely costly levels. By hurting investment, high interest rates may trigger a deeper recession than is actually necessary, which will in turn put political pressure on the Central Bank to abandon its inflation-cutting objective. Furthermore, as the economy's financial integration with the rest of the world increases, high interest rates will attract external capital, thus causing the domestic currency to appreciate. Although this will help to divert the pressure for greater expenditure towards the external economy, it will eventually undermine the competitive position of the tradables sector of the economy.

In Chile, fiscal policy being what it was, monetary policy-makers sought to bring market interest rates into a range that would be consistent with the above-mentioned objectives in terms of domestic and external equilibria. Fiscal policy was aimed at generating an overall surplus in the public treasury's accounts. From a macroeconomic standpoint, this surplus was essential in order to offset the quasi-fiscal deficit which the Central Bank had run up when it came to the financial sector's rescue in the early 1980s and when it moved to sterilize exchange operations and the build-up of international reserves during the 1990s.

As noted earlier, the macroeconomic impact of fiscal policy outweighs its role in helping to balance the consolidated public sector's budget. First, policies on fiscal spending may be of great importance in attaining the objective of blocking any additional inflationary pressures if the growth of public-sector absorption does not outstrip potential GDP growth. Furthermore, fiscal policy can help to smooth out the cycle of economic activity and inflation by limiting and stabilizing its annual growth rate, as will be discussed later on. Second, so long as public-sector wage increases are tied to that sector's productivity gains and expectations of future inflation, in line with the declining inflation targets of the Central Bank, then no added pressure will be put on the equilibrium of the domestic economy. This will help to keep public spending under control and to forestall any greater cost pressures by sending coherent signals to private-sector labour negotiations.

On the other hand, in a financially open economy the task of monetary policy-makers is not an easy one, since the effects of capital flows tend to work against the achievement of the monetary authorities' objectives. It is in this sort of situation that fiscal policy takes on increasing importance and that its performance plays a fundamental role in the attainment of macroeconomic objectives. It is particularly important to bear in mind that balancing a country's fiscal accounts at any given point in time is not enough in and of itself to bring inflation down to industrialized-country levels. One of the things that must be done in order for this to be accomplished is to eliminate the public deficit—which includes both the fiscal and quasi-fiscal deficits—throughout the entire economic cycle.

When the economic cycle is on the upswing, a public-sector surplus does not necessarily mean that fiscal policy is having a stabilizing effect, since the high tax revenues associated with this phase of the cycle are, by definition, a temporary phenomenon. Expenditure commitments, on the other hand, tend to be more rigid, and if the surplus during the ascendant phase of the cycle is not large enough, then the public sector will tend to run a deficit when the cycle is on the downswing. To counteract this tendency, adjustments will have to be made in public spending or taxation precisely at the point in time when it is both politically and economically hardest to do so. *These types of considerations point up the advisability of implementing a counter-cyclical fiscal policy.* This could be done, for example, by maintaining a constant public-expenditure growth rate equal to or less than potential GDP growth in order to avoid exerting steady pressure on aggregate demand. Thus, during economic booms, public expenditure would increase less than GDP and vice versa. It would also be important for the tax system to contain counter-cyclical components.<sup>11</sup>

The foregoing underscores the importance of having fast-acting adjustment mechanisms for dealing with adverse shocks. In such cases, *initiative and flexibility* in adjusting the economy to deal with such shocks are crucial in order to keep the economy on a steady growth path. Rigidities and delays in making the necessary corrections end up magnifying the spending/adjustment cycle, which hurts output and employment, fuels inflation and leads to an overvalued domestic currency and balance-of-payment problems. All these forms of macroeconomic instability translate into lower and less productive investments and, consequently, a lower long-term economic growth rate. Hence the need, as noted earlier, for mechanisms that allow the introduction of *more flexible tools of economic policy, and*

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<sup>11</sup> For example, a flexible indirect tax may be a highly effective fiscal policy tool for curbing the expansion of private expenditure in the short run. The important point is that the additional revenues which such a tax would provide should be saved rather than spent so as to offset the pressure of private spending. A flexible handling of indirect taxes may also be used to offset private expenditure cycles without affecting long-term fiscal programmes, which, in countries such as Chile, contain a major social or infrastructure development component.

*particularly of fiscal policy*, in order to increase the economic authorities' operational response capacity within the context of an open economy in today's ever-changing world.

This discussion of the importance of fiscal policy should not be construed as meaning that monetary policy is somehow less important or that fiscal authorities must shoulder the entire burden in this respect. On the contrary, monetary policy continues to place a decisive role in ensuring macroeconomic stability. The point here, simply stated, is that *fiscal policy complementarity and coordination with monetary policy is essential in ensuring that macroeconomic policy as a whole makes up an internally-consistent policy package.*

It should also be pointed out that fluctuations in public expenditure are not the only possible source of macroeconomic instability. The private sector, too (especially in the Chile of the 1990s), has played a role in creating instability and magnifying the economy's expenditure/output cycle. Periods of great optimism as to the country's economic prospects and the outlook in terms of future earnings have sparked upswings that have raised private spending to unsustainable levels. In these instances, private expenditure's deviation from its trend rate of growth should be counteracted in order to prevent it from destabilizing key prices and economic activity and from generating price bubbles in asset markets. This should be accomplished by means of a suitable policy mix for curbing aggregate demand. An optimum mix designed to avoid undesirable side-effects would include both monetary and fiscal policy initiatives, since adjustments of the interest rate—although essentially effective—may have unwonted externalities. These may include a surge in the Central Bank's quasi-fiscal deficit, which in and of itself exerts additional pressure on expenditure that diminishes the effectiveness of monetary policy. In addition, an increase in interest rates may reduce expenditure on investment more than spending on consumption, thus hurting the outlook for growth over the medium term. Finally, in an economy that is financially integrated with the rest of the world, tight monetary policy measures contribute to an appreciation of the currency by attracting foreign finance.<sup>12</sup>

## 2. Monetary policy

*The Central Bank of Chile's monetary policy was based on the control of real short-term interest rates<sup>13</sup> to keep them in line with the targeted level of inflation. The rationale for this policy focused on how interest rates influence the growth rate of aggregate spending.*

In order to achieve a nominal objective in terms of price stability, monetary policy requires some sort of nominal "anchor". Two of the most commonly used anchors are the control of some sort of monetary variable and the nominal exchange rate. In Chile, the first possibility was ruled out because no stable, predictable link could be found between nominal monetary aggregates and nominal expenditure or income, chiefly because of the instability of short-term money demand. Under such circumstances, setting fixed intermediate goals would be inefficient in terms of the achievement of a given objective and would, moreover, create sharp swings in interest rates, which would hurt investment and economic activity. The use of the nominal exchange rate as a monetary anchor has, in various cases around the

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<sup>12</sup> These factors underscore the need for good information systems and mechanisms for monitoring private-sector borrowing (by individuals and business firms) both within the financial system and elsewhere in order to pave the way for an appropriate regulation of risk-taking and to avoid possible overborrowing.

<sup>13</sup> Due to the indexation of the Chilean economy, real interest rates (i.e., rates adjusted for inflation) have been used.

world, proved to be a highly risky course of action because it is usually associated with heavy costs in terms of employment and losses of external competitiveness. Generally speaking, reductions in inflation achieved through the use of this tool are short-lived, as proved to be the case in Chile in the early 1980s, because the over-appreciation of the local currency militates against the achievement of external equilibrium, thereby leading to a devaluation that eventually wipes out—or actually reverses—the progress made earlier in lowering inflation. Furthermore, *an anchor of this type leads to an excessive degree of rigidity in the design and formulation of economic policy in general.*

The instability marking the relationship between these intermediate objectives and the end objective of bringing inflation under control prompted the Central Bank to focus directly on the *ultimate objective, i.e., the targeted level of inflation.* Thus, in effect, *the nominal anchor used by monetary policy-makers was the explicitly-stated target figure for inflation, which the Central Bank announces each year in its report to the Senate.* The annual time path for this inflation target was downward, and it was set by agreement with the Ministry of Finance. The focus was on moving towards price stability, but not at the expense of economic activity, employment or other key macroeconomic variables, such as saving and investment, external equilibrium or the soundness of the financial system. It should be noted that this kind of policy obliges the monetary authorities, when confronted with an unexpected shock and/or when the rate of inflation diverges significantly from its target level, to make the necessary changes on a timely basis and with the appropriate intensity, so as to deal with the situation and reach that target.

The role played by this inflation target as a unifying policy element enabled the Central Bank to take well-timed preventive action based on all the available information and to fine-tune it in direct response to any changes or movement in underlying or core inflation. *The trade-off associated with the flexibility afforded by the strategy of focusing on the ultimate target level of inflation and of dispensing with intermediate monetary policy objectives is that the corresponding policies must have a very high degree of credibility.*

It should be noted, however, that although the Central Bank did not set any explicit intermediate objectives, it was always on the watch for any signs of emerging macroeconomic disequilibria, and particularly for any imbalances in either the level or growth rate between domestic spending and actual GDP and between actual and potential GDP.

*A gap between the growth rates for domestic spending and GDP is a signal of future trends in a country's external accounts.* A faster growth rate for expenditure is a harbinger of an impending increase in the deficit on the current account of the balance of payments. Depending on the initial point of departure, the evolution of the terms of trade and the objective of external equilibrium, this deterioration in the situation may not be a major cause of concern. A significant, lasting discrepancy, on the other hand, is a clear warning sign of a failure to attain the objective of external balance and of the need to make an adjustment.

*A gap between actual and potential GDP heralds a reversal or fluctuations in the domestic component of inflation,* even if the lag and level of this ratio is variable. Of course, in order to identify such a gap, there must be some way of estimating potential GDP. To accomplish this, policy-makers can estimate a production function in which the physical stock of capital is unquestionably an important component and reflects the existence of a close correlation between economic growth and the rate of investment. This does not mean we are postulating a direct linear relationship between growth and investment, nor that we are overlooking the other terms to be found in that function, such as technology,

labour and work skills. Nor can we ignore the contribution made by certain other conditions in ensuring that a market economy functions properly and in raising productivity.<sup>14</sup>

It is important, however, not to lose sight of the fact that the output gap *is not the only determinant of inflation*. What is more, it is necessary to *make the distinction between growth rates and levels of GDP*. *Inflation is influenced primarily by levels of GDP; in other words, the difference between actual and potential GDP is what actually puts pressure on prices*. This is quite important, because even if, at a given point in time, a country's actual GDP is substantially below its potential level, it may be growing faster than potential GDP—which means that the output gap is narrowing—and would thus not cause any major problems in terms of inflation.<sup>15</sup>

In terms of the implementation of monetary policy, the output gap has been one of many indicators, but of no less importance than any other. Nonetheless, it is true that a number of other indicators also need to be assessed when taking decisions regarding monetary policy. In Chile's case, use has been made of indicators dealing with the labour market (nominal and real increases in wages, the tightness of the market, etc.), trends in monetary aggregates (growth rates for M1, M2, etc.), credit information (growth rates for consumer loans, mortgages, total private-sector credit, etc.), indicators of total spending (industrial sales, imports, private consumption), the trend in inflation and trends in certain prices (the exchange rate, prices of non-tradables, etc.). Thus, if, for example, a country were to lapse into recession but wage demands were rising at the same time, monetary policy should not be relaxed until these cost-push pressures have faded. The same is true in cases where other indicators, such as those mentioned above, are not aligned with the Central Bank's price stability objectives. In short, the important point here is that the output gap is not the only cause of inflation.

A problem with this approach arises, however, when economic signals are mixed. Theoretically, a widening output gap should be accompanied by other elements that would also herald an easing of inflationary pressures, since a sluggish rate of economic growth can be expected to dampen the rate of increase in demand for both money and credit. Furthermore, since labour demand will slacken, wage pressure ought to subside as well. This is, in theory, what we should expect, with clear signals for both the short and long terms. In practice, however, monetary policy is a good deal more complex than that, and we cannot afford to wait around for unequivocal signals to emerge. What is more, mixed signals are the rule rather than the exception. For example, an economy may be on the verge of a recovery without any sign at all of this imminent reactivation being reflected in GDP or other measurements of economic activity. In such cases, if the monetary authorities overreact to the output gap, they may be setting the economy up for a future bout of inflation. Hence, although the output gap is an important indicator, its significance should not be exaggerated and it would be an even greater mistake to regard its elimination as the ultimate objective of monetary policy. In other words, *here again, the main thing that is at stake is the Central Bank's credibility. If it is to be maintained, then it is essential for the Bank to show a firm commitment to its primary aim: price stability*.

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<sup>14</sup> As is well known, the existence of prices that accurately reflect conditions of relative scarcity, competition, an open economy, etc., are important factors which, along with other elements, make it possible to boost productivity and therefore raise the level—and probably the growth rate—of potential GDP.

<sup>15</sup> This is one of the factors that helps to account for what happened in Chile during the second half of the 1980s, when the starting point for GDP was very low due to the deep recession that had hit the country at the start of that decade.

Some remarks are called for at this point regarding the much-discussed subject of the timing of monetary policy. We have just pointed out some of the reasons why attributing too much importance to the output gap may be a mistake in terms of the objective of price stability. Another reason why this is so has to do with the question of timing. Significant lags exist in the information available on economic activity, and leading indicators' limitations are well known. Furthermore, there is some delay between the adoption of a monetary policy measure and the point in time when its effects are felt. Consequently, monetary authorities always run the risk of overreacting—during a recession, for example— if they see no signs of improvement. In such cases, it is wise to use a number of other indicators to help determine whether or not an economic recovery is in the making. Impatience on the part of the Central Bank under such circumstances (as reflected in the introduction of additional monetary stimuli) could eventually lead to increased inflationary pressures. Just the opposite can occur during economic booms: if a slowdown has already been induced, any further tightening of the money supply may slow down the economy too much. In short, *it is essential for monetary policy-makers to try to anticipate events and apply preventive measures; at the same time, monetary authorities must always be aware of the existence of lags and of the fact that belated action may end up amplifying the economic cycle rather than smoothing it out.*

In mid-1995 the authorities changed the way in which they had been implementing monetary policy for more than a decade. With a view to the use of more flexible, efficient policy instruments, the Central Bank relinquished its direct role in setting the rate for 90-day Central Bank paper and instead focused its policy action on the overnight interest rate.<sup>16</sup> The purpose of these measures was, first of all, *to give the market a greater role in determining the price of all Central Bank paper, not just the rate on medium- and long-term securities. A second objective was to regulate liquidity better and keep expectations concerning any changes in the interest rate on longer-term Central Bank securities from distorting interbank operations.* In fact, the use of the overnight interest rate as the main instrument of monetary policy has been proven to be an effective way of minimizing the influence exerted by expectations of capital gains or losses and to be an efficient tool for countries with relatively well developed financial markets. This measure also fits in with the Chilean economy's growing degree of financial integration by *providing monetary policy-makers with greater flexibility.* Clearly, given the interrelationship between domestic and external interest rates, it is advisable to eliminate rigidities that encourage undesired financial movements and prevent policy-makers from designing adjustment measures so as to generate a more balanced and shared response between the exchange rate and interest rates, which is a *less complicated and more efficient way of managing monetary policy.*

In sum, this new type of monetary policy is more effective because it *enables the Central Bank to exercise greater initiative and flexibility as well as allowing for more frequent changes in short-term interest rates,* which in turn influence the other (increasingly market-determined) rates. This gives policy-makers more control over liquidity and, hence, a greater ability to influence trends in aggregate spending and inflation. Under these conditions, *shocks to the Chilean economy and the resulting volatility are evenly spread out among movements in interest rates, international reserves, the reshuffling of portfolios and the foreign-exchange market.*

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<sup>16</sup> As a complement to its interest rate policy, the Central Bank made a major change in the way the economy's level of liquidity is determined by permitting the market to play an increasingly important role in setting medium- and long-term interest rates and by lengthening the term of the public domestic debt.

### 3. Exchange-rate policy

Chile regained access to voluntary external credit in the 1990s, but the economic authorities' experiences in the early 1980s had taught them to *avoid basing their anti-inflation strategy on a single instrument, such as the exchange rate*, since such a practice can lead to severe macroeconomic disequilibria and, hence, to failure. Experience has also shown that an effort to force up the real value of the currency is doomed to failure unless exchange-rate policy is coupled with extremely austere macroeconomic policies, which would have major implications in terms of the forfeiture of future growth, given the adverse impact that this usually has on investment.<sup>17</sup> By the same token, an *artificially* high real exchange rate doesn't make sense either, except at critical economic junctures. Consequently, *during the first half of the 1990s exchange-rate policy sought to avert any major deviations that might push the market exchange rate away from its medium- and long-term equilibrium path.*<sup>18</sup>

During the 1990s the Chilean economy has been going through a different type of development phase than in preceding decades. Its re-establishment of structural linkages with the international economy in the spheres of both finance and merchandise trade has been increasingly evident. The export sector has been diversifying and significantly increasing its product and market coverage. The economy has become substantially more open, and tariffs have continued to descend. Chile's incoming and outgoing foreign investment has climbed to very high levels. What is more, all its external solvency indicators have improved markedly, at the same time that its country-risk and external vulnerability have been significantly reduced. Thus, given this new environment, exchange-rate policy has had to adapt as well.

Thus, during the first half of the 1990s the design and implementation of exchange-rate policy was primarily aimed at backing up the country's fiscal and monetary policies in order to bring the external sector of the economy into equilibrium over the medium term. To this end, policy-makers sought to make room for a flow of external savings to supplement domestic sources of investment financing, which entailed running a structural or trend deficit on the balance-of-payments current account of between 3% and 4% of GDP as a way of operationalizing the mandated objective of ensuring a normal flow of external payments.<sup>19</sup> The reason for specifying this range is, on the one hand, that a lower level

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<sup>17</sup> In the wake of the 1982 crisis, Chile was faced with severe external constraints owing, primarily, to the suspension of voluntary capital inflows. This made it absolutely essential for the real exchange rate to be high enough to stimulate exports and import-substitution activities, so that the necessary foreign exchange could be generated. The fiscal and monetary policies of the time were aimed chiefly at achieving a "high" real exchange rate. This was accomplished, in large part, because of the country's high unemployment levels, which made it possible to lower real wages. On the other hand, although expenditure was held to moderate levels in order to avoid the inflationary spiral that could have been triggered by devaluation, no progress was made in reducing inflation.

<sup>18</sup> There is no way, of course, that the Central Bank could actually set the real exchange rate in an economy such as the Chilean economy of the 1990s. As a result of the country's growing trade and financial integration, the volatility of its terms of trade, changes in its country-risk rating, investment in the production of tradables and the discrepancy between the level of technological development of its tradables and non-tradables sectors, the real equilibrium exchange rate may vary. This means that as these structural changes occur, the real exchange rate that will ensure external equilibrium will also change, and the Central Bank must allow the necessary adjustments to be made.

<sup>19</sup> This range (3%-4% of GDP) should not, of course, be regarded as a hard-and-fast rule that can never be violated under any circumstances. On the contrary, at different points in time temporary situations may arise that will cause the deficit to fall outside that range. In fact, in 1992 and 1994 the balance-of-payments current account deficit was far below 3%, and in 1991 and 1995 the country actually posted a small surplus on this account. On the other



of external savings is insufficient for a country such as Chile, which needs external funds to supplement its domestic savings in order to finance a high investment rate and, on the other, that running current account deficits any higher than the ceiling figure on a regular basis would endanger Chile's creditworthiness. In short, the idea was to prevent the economy's level of external indebtedness from rising to levels that might make it more vulnerable to unexpected shocks.<sup>20</sup>

Another objective of exchange policy *was to cope with short-term fluctuations in the exchange rate* in order to help offset the effect of speculative capital flows, which can jeopardize an economy's achievement of domestic as well as external equilibrium.

At the same time, the policy that was implemented *allowed the economy to adapt gradually to the growing strength of the Chilean peso*—and thus to avoid traumatic adjustments— by giving the business sector time to boost its productivity and to become acclimatized to the new situation; this, in turn, enabled the export sector to maintain its momentum.

This exchange-rate policy included three fundamental components: (i) the existence of a *wide, pre-announced flotation band*; (ii) the linkage of the axis or centre of the band to a *currency basket*, to the differential between domestic and international inflation and, later, to an upward trend in the Chilean peso; and (iii) the possibility of the Central Bank intervening within the band through a *"dirty float"*.<sup>21</sup>

This exchange-rate policy was implemented through the use of a pre-announced currency band for the market rate. The width of the band was increased to +/- 10% around a central parity. This central reference (or "agreed") exchange rate is determined on the basis of a currency basket<sup>22</sup> whose weightings reflect the relative shares of the United States dollar, the deutsche mark and the Japanese yen in Chile's external trade transactions. The central parity is adjusted daily on the basis of the domestic inflation rate for the preceding month, less an estimate of the international inflation rate relevant to Chile.<sup>23</sup> Late in

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hand, in 1993 and 1996, the adverse price shocks sustained by the country's main export products were so strong that the current account deficit exceeded the ceiling figure of 4% of GDP by a slight amount. Hence, the important thing is not the figure recorded for any given year, but rather the overall trend. It bears repeating that the equilibrium level of the real exchange rate is the level that will permit current-account objectives to be achieved over the medium and long terms. Here again, it is important to note that the focus is on the medium and long terms, as was so often the case in the strategy of the Central Bank of Chile during the first half of the 1990s.

<sup>20</sup> The economy's vulnerability has been substantially reduced. For example, even though 1993 was a very bad year in terms of the prices fetched by Chile's exports, the economy grew by over 6% without generating inflationary pressures or the need for any devaluations. It should be pointed out that, historically, the Chilean economy has become used to being overtaken by severe recessions, coupled with devaluations and rising inflation, every time it has been hit by a negative external shock of any significance.

<sup>21</sup> The purpose of this type of intervention was to heighten or diminish temporary fluctuations in the exchange rate, not to change its trend path.

<sup>22</sup> Linking the peso to a basket of currencies rather than only to the dollar made Chilean monetary policy more independent of United States policy and introduced greater short-term uncertainty as to the peso/dollar exchange rate (as opposed to the peso/currency basket exchange rate), which served to discourage interest-rate arbitrage.

<sup>23</sup> Accordingly, the central parity for the currency basket is announced a month ahead of time for each day of the following month, while the central parities for the peso/dollar, peso/deutsche mark and peso/yen are announced on a daily basis as the exchange rates for the major currencies on international markets become known.

1995 an additional 2% annual discount in the reference rate was incorporated into the formula in order to reflect productivity differentials between Chile and its main trading partners.<sup>24</sup>

The reason for using an exchange-rate band extending a specified percentage above and below a central reference rate is that the long-term equilibrium exchange rate is regarded as a dynamic concept that requires a certain degree of flexibility; in addition, economic agents do not always have sufficient information to determine the real equilibrium exchange rate. This view implies that some sort of guidance is required from the economic authorities regarding the level of the real exchange rate that is thought to be in line with the economy's external equilibrium over the medium term. There are two main reasons for this. First, especially when there is a very large volume of short-term financial flows, the market may tend towards a real exchange rate that is quite far away from the medium- and long-term equilibrium rate (an outlier). Second, it is posited that if an economy remains far away from its real equilibrium exchange rate for a long time, major imbalances will tend to arise that will prevent the economy from functioning correctly and will hurt its performance.

Another objective was to *provide the export sector with a certain degree of exchange-rate stability*. The difficulty of accurately predicting what the real equilibrium exchange rate will be and of *reducing the chances that it will drift out of alignment with the "fundamentals"*, together with the need to give *monetary policy-makers more autonomy and flexibility* (especially in view of the Chilean economy's increasingly strong linkages with international financial markets), *clearly justifies the use of a wide currency band*. This also makes it possible, within certain parameters, for *the market to play a greater role in determining the exchange rate's position* within the band.

During the period under review, the exchange band was altered twice to permit the reference rate to settle to a lower level. This was necessary in order to allow the *reference value of the medium- and long-term equilibrium exchange rate to adapt to the new structural conditions confronting the Chilean economy*. Thus, when faced with a mounting inflow of foreign exchange as a result of a very strong export performance and significant volumes of inbound foreign investment and international finance, the Central Bank acted prudently, modifying the central value and width of the band *only once it was convinced that the long-term equilibrium value of the exchange rate was not being properly reflected in the prevailing reference rate*. The main factors that led to the decision to permit a gradual appreciation of the Chilean peso included the recorded and projected performance of non-traditional exports, the size of the deficit on the current account of the balance of payments, the increased levels of both inward and outward foreign investment, the progressive unification of foreign exchange markets, the liberalization of capital outflows, the improvement in indicators of creditworthiness and the deepening of Chile's foreign exchange market.<sup>25</sup>

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<sup>24</sup> Between 1990 and 1996, Chile's level of economic activity rose at an average annual rate of 6.8%, whereas, worldwide, output expanded at an annual rate of 3.1%. During this same period, Chile's average labour productivity climbed at an annual rate of around 4.7%, while total factor productivity grew at about 2.3% per year. This sharper increase in productivity boosted Chile's international competitiveness, which in concrete terms translated into export growth and a stronger Chilean peso.

<sup>25</sup> It should be mentioned, however, that during the 1990s a widespread tendency for the currencies of the major Latin American economies to appreciate has been observed; a number of Central and Eastern European countries have also exhibited this trend due to causes of an international nature. These factors include fairly low interest rates in the industrial countries, the reduction in the country-risk of those economies that have carried out structural reforms, and the decision of major institutional investors in developed countries to diversify their portfolios internationally. This has boosted foreign direct investment in production sectors and portfolio investment as well as inflows of short-term external finance to the countries of the region, all of which has contributed to the appreciation of Latin American currencies (with a relatively brief hiatus following the Mexican crisis of late 1994).

*The appreciation of the currency during the first half of the 1990s was allowed to occur only after it became evident that this adjustment would bring the rate closer to its equilibrium level and only after the Central Bank had made a significant effort to contain it.*<sup>26</sup>

Chile's re-establishment of linkages with the international economy, its export performance and its current account results, in conjunction with the sharp increases seen in its productivity differentials (especially in the tradables sector) with its main trading partners and the fact that its exchange rate had been over-depreciated during the second half of the 1980s (in order to deal with the severe shortage of foreign exchange existing during that period), all pointed to the need to allow the peso to strengthen.

Faced with this necessity, the Central Bank authorities argued that the appreciation of the peso constitutes an acknowledgement of the fact that a number of structural changes have taken firm hold in the Chilean economy in recent years and that, because of these changes, the equilibrium level of the exchange rate is lower than the prevailing reference rate. In more general terms, *the changes that have taken place in Chile's trade and financial linkages with the international economy justify a modification of the medium- and long-term equilibrium rate.* The structural changes mentioned by the Central Bank as being significant factors in this regard include the decrease in the external debt (which has been reduced from an average of 106% of GDP in 1985-1987 to 35% in 1994-1996); the increase in the level of international reserves, which, when measured as a percentage of imports of goods and services, was twice as high in 1994-1996 as it was in 1985-1987 and now amounts to the equivalent of more than 15 months' worth of imports; the steady growth of exports, which posted an average annual increase of 11.6% in real terms during 1994-1996, thus surpassing the already high rate (9%) registered in 1985-1987; and the moderate level of external savings required by the Chilean economy (1.7% of GDP in 1994-1996), which was below the minimum level of the established range and far below the 6.3% deficit on the balance-of-payments current account recorded in 1985-1987.

Finally, it must be understood that the Central Bank used a variety of measures to counter the downward pressure on the price of the dollar, including *large-scale purchases of international reserves*, which will be analysed in the following section.

#### 4. The policy on international reserves

The policy on international reserves applied by the Central Bank during the first five years of the 1990s had two main objectives:<sup>27</sup> first, to *enable Chile to become increasingly integrated into the world economy* without occasioning any major increase in its exposure to the impact of changes in the main industrial economies or to the volatility often associated with the behaviour of some international

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<sup>26</sup> International comparisons with the real appreciation of the Chilean peso demonstrate that Chile's real exchange rate has been one of the most stable and least depreciated in Latin America, despite the uncommonly large capital inflows received by the entire region during the first half of the 1990s (until the Mexican crisis). In fact, according to the standard IMF methodology, the real appreciation of the currency for the period 1990-1994 amounted to 13% in Chile, 63% in Argentina, 21% in Colombia, 18% in Mexico and 17% in Brazil.

<sup>27</sup> A great deal of progress was also made in managing international assets and liabilities in such a way as to improve the Central Bank's net financial position.

creditors;<sup>28</sup> and second, through the purchase or sale of foreign exchange, to *help offset the short-term impacts of capital inflows and outflows on the exchange rate.*

The first objective was achieved, in part, because of Chile's voluminous international reserves, since those reserves were one of the factors that played a crucial role in the decision to award it an investment-grade risk rating, which has stimulated foreign direct investment in the country and lowered the cost to it of external finance. In addition, the strong build-up of reserves by the Central Bank during those years<sup>29</sup> endowed Chile with a great deal of external strength, as was to become particularly clear in early 1995, when the Chilean economy was affected to no more than a very slight degree<sup>30</sup> and for a very brief time by the turmoil in international financial markets triggered by the Mexican currency crisis of late 1994. In addition, because Chile had such a high level of international reserves it was able —without jeopardizing its liquidity, much less its external solvency— to prepay the whole of the external debt it had refinanced in the aftermath of the debt crisis of the early 1980s, as well as its entire debt with the IMF.<sup>31</sup>

The Central Bank accomplished the second objective by purchasing and selling foreign exchange and by coupling these transactions with open-market operations that neutralized the monetary effects of the exchange transactions or, in other words, by sterilizing their impact on the exchange market. Conditions in this portion of the decade being what they were, most of the time the exchange rate was quite near or actually on the floor of the band. Apart from the purchases of hard currencies required by the workings of the exchange-rate band itself, the Central Bank's policy was to wait a reasonable amount of time so that it could determine whether an inflow of foreign exchange was a fairly permanent or a temporary phenomenon. If it appeared to be temporary, then the Central Bank countered short-term capital inflows, which could reverse direction at any time, by buying up that foreign exchange, thereby building up its international reserves as a means of reducing the exchange rate's volatility. Just the opposite was done in the case of a temporary outflow of capital. If the inflow or outflow of capital appeared to be of a more permanent nature, the Central Bank would still, on many occasions, buy or sell hard currencies on the exchange market, but in these cases its purpose in doing so was not to thwart market forces (an effort which it would not, in any case, be able to keep up indefinitely), but rather to

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<sup>28</sup> A high level of international reserves is essential if a small country is to establish a solid, effective position for itself in the international economy, and part of the cost of such a build-up can be interpreted as the "insurance premium" that must be paid in order to ensure that its integration into the world economy will be effective and will not give rise to major disturbances.

<sup>29</sup> Whereas international reserves amounted to the equivalent of five months' worth of imports in the late 1980s, in 1994 they represented the equivalent of 15 months' worth. Furthermore, in 1989 net international reserves totalled 10.5% of GDP, but in 1995 they added up to slightly over 26% of GDP. It is important to note that, in the aggregate, neither the public nor the non-financial private sector had a sizeable level of short-term obligations, and the banking system's net short-term external commitments were around 4% of GDP; consequently, the country's net position in terms of liquid international assets was very solid indeed.

<sup>30</sup> Although the Central Bank made a great effort to increase the profitability of its international reserves, it should be remembered that reserves are not held for the sole purpose of turning a profit. They are also a precautionary measure to counter unexpected external shocks, since having a sufficient level of international liquidity allows a country to cope with such shocks successfully.

<sup>31</sup> These external debt prepayments helped to lower the deficit associated with the existence of an interest-rate differential between the country's international reserves and its external debt, as well as to further enhance its creditworthiness, thereby reducing its country-risk and improving the terms available to the country's private-sector borrowers on international credit markets.

*spread out the adjustment of relative prices that would probably be required over time and thus make that adjustment more gradual.*

It bears repeating that *the real appreciation of the peso during this portion of the 1990s (about 4.5% per annum) was the result of a shift towards equilibrium brought about by recent structural changes in the Chilean economy, not of any manipulation of the exchange rate aimed at dampening inflation artificially.* On the contrary, one of the top-priority objectives of the economic policies implemented during this period was precisely to avoid an artificial appreciation of the peso. Within the framework of the continued application of a wide flotation band, exchange-rate policy sought to head the market in the direction of the medium-term equilibrium level of the exchange rate —any short-term fluctuations within the band notwithstanding. The two modifications made in the band in the first half of the 1990s were not undertaken in response to short-term pressures; quite to the contrary, they were implemented only once the Bank had become convinced that it was witnessing more or less permanent changes in the medium- and long-term equilibrium levels of the exchange rate.

It is important to realize *just how great an effort the Central Bank actually made to build up its international reserves: between 1990 and 1996, the country's stock of international reserves swelled by US\$ 9.45 billion, or slightly less than 4% of GDP per year.* This stock of international reserves, which in relative terms was among the largest in the world, was amassed at a significant cost to the Central Bank,<sup>32</sup> but it clearly helped to make Chile's integration into the international economy more efficient and smoother than would otherwise have been possible, as well as helping to slow down the peso's rate of appreciation and, as part of the above-mentioned policy of smoothing out adjustments, contributing to a relatively untraumatic adjustment in the prices of tradable goods relative to those of non-tradables in the Chilean economy.

## 5. The policy on the balance-of-payments capital account

For a small, open economy such as Chile's, greater financial integration with the rest of the world offers significant opportunities which should not be disregarded. These include the possibility of using external savings to finance investment, the chance to deflect temporary terms-of-trade shocks and the ability to diversify risk and sources of national income, all of which makes it possible to smooth out trends in consumption and utilize comparative advantages more fully through a further integration of the country's role into the international economy.

Greater financial openness also entails risks that need to be considered, however. There are both permanent and transitional costs. *The loss of degrees of freedom in the management of monetary policy and the destabilizing effects* that capital movements can have in a small economy are some of the permanent costs of increased financial openness. *The risks associated with the adjustment* involved in

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<sup>32</sup> The Central Bank's sterilization operations have cost it a great deal, since the interest rate it must pay on the domestic debt instruments it issues is higher than the rate paid on its international reserves. In addition, the real appreciation of the peso has eroded the real value of these foreign-currency assets, including the credit provided to the Treasury, in relation to the Central Bank's domestic liabilities. Thus, this policy has had the effect of adding to the Central Bank's quasi-fiscal deficit, although that deficit has been counterbalanced by the corresponding fiscal surplus.

switching from what has traditionally<sup>33</sup> been a closed capital account to an open one, on the other hand, are transitional costs.

The region's access to external finance, which had become extremely limited after the debt crisis of the 1980s, has changed dramatically in the 1990s. The perception of a lower level of country-risk, low interest rates in industrialized countries and a widespread increase in financial flows to emerging economies have significantly increased the available supply of external funds. Within this context, during the first half of the 1990s countries such as Chile suddenly found themselves in a situation in which, *after adjusting for country-risk<sup>34</sup> and for changes in exchange-rate expectations, the domestic return on capital exceeded the external cost of funds.*

In the past, that situation could either not be altered at all or would take quite a long time to change, because perceived country-risk and a lack of confidence in local currencies limited international arbitrage. In the early 1990s, however, *an unrestrained openness of the financial market would have attracted a voluminous inflow of short-term finance in a very short period of time, which would have destabilized domestic spending, asset prices and key prices such as wages, the real exchange rate and the interest rate itself.*<sup>35</sup> The path that the economy would take if this trend were to continue is well known. Given the size of these flows, the first stage of the transfer process is an economic boom; asset prices and wages rise, consumption and investment increase, the exchange rate appreciates and imports become cheaper. This stage is a difficult one in terms of its macroeconomic management, since the inflationary pressures generated in domestic markets have to be curbed and policy-makers have to be on guard in order to head off financial bubbles, which accentuate the movement of prices away from equilibrium levels, and to forestall the arrival of even greater amounts of financing. This expansionary phase of the cycle sows the seeds for a subsequent contractionary phase, however. As the balance-of-payments current account deficit grows and external liabilities accumulate, the perceived level of country-risk begins to rise,<sup>36</sup> the supply of external funds starts to shrink, the volume of external transfers decreases and, as a result, prices and expenditure start moving back in the direction they had come from.

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<sup>33</sup> In the past, capital flows to and from Chile were tightly controlled. When the currency-convertibility policy was abandoned, harsh controls were placed on capital outflows. Although as time passed these controls were modified, their spirit was maintained except for intermittent periods of more liberal policies. Capital inflows, for their part, were subject to the natural restrictions inherent in the country's relative lack of access to external finance. In fact, it was not until the 1970s that developing economies such as Chile's were able to regain the access to large volumes of external finance that they had enjoyed before the Great Depression. In Chile's case, however, this only lasted for a short time, since its access to international finance was cut off again as a result of the international debt crisis of the 1980s and the huge external debt that the country accumulated during that brief period.

<sup>34</sup> This differential in rates of return is the result of historical circumstances and structural reforms affecting the productivity of the Chilean economy that have little to do with monetary policy. Given the relative endowment of capital and human resources in Chile, the limited access to external financing that the economy had until recently and its traditionally low rates of domestic saving and investment, it is only natural that the domestic rate of return on productive capital (as distinguished from the rate of return on financial capital) will tend to be higher than it is in industrialized economies.

<sup>35</sup> What is more, in the case of financial institutions, if the market is opened up too hastily, without waiting for suitable regulatory and oversight systems to be developed (by financial agents themselves and/by the relevant authorities), serious problems can and usually do arise. Chile has had prior experience with this kind of situation, since on a number of occasions when such regulatory systems have been lacking, perverse incentives have been created in the financial sector which have then been transmitted to the rest of the economy. It should be remembered that there are systemic risks involved in this sector and it is therefore all the more important to take a prudent approach to the adoption of measures affecting it.

<sup>36</sup> In the past, this process has taken quite some time to occur.

Ideally, incoming flows are gradually reversed and adjustments in key prices are accomplished smoothly, without generating any major disequilibria in the economy's performance. The most likely and realistic scenario, however, is one in which capital inflows come to a halt and may even reverse direction suddenly, thereby triggering a traumatic adjustment. An economy is in a very vulnerable position when it has a high level of indebtedness and a large current account deficit, and this is all the more true if its external financing is short term. Increases in international interest rates, a deterioration in the terms of trade, or simply a change in external and/or domestic expectations can set off a sudden confidence crisis that puts an abrupt halt to the external transfer of resources. The external debt crisis that overtook the region in the 1980s and the turbulence that arose in international financial markets in late 1994 and in 1995 clearly illustrate these risks.

In this latter scenario, the necessary adjustment involves a dangerous mix of high domestic interest rates, a downswing in domestic asset prices and a steep depreciation of the real exchange rate, which will inevitably cause serious problems in domestic financial markets and create greater inflationary pressures; in addition, and no less importantly, a significant increase in unemployment and a decline in the level of economic activity are to be expected as a consequence of the friction generated in financial and labour markets, along with a sharp drop in expenditure. The experiences of Chile and other countries of the region in the early 1980s have demonstrated that this pessimistic scenario is not only highly probable but that it also usually entails considerable long-lasting costs. This is why, in the 1990s, *in order to uphold and consolidate the country's macroeconomic discipline and external equilibrium, the decision was taken to undertake a prudent liberalization of the capital account* in order to minimize the risk of an undesirable type of adjustment that would jeopardize the progress that had already been made.

From the standpoint of domestic equilibrium, the role of the interest rate and how it influenced the mode and speed of a financial liberalization process was an important consideration. In order for the level and growth rate of domestic spending to be compatible not only with a prudent use of external savings but also with the production potential of the Chilean economy, *it was necessary for domestic interest rates to be higher than the interest rates prevailing in the main industrialized economies during the first half of the 1990s.*<sup>37</sup>

In other words, given Chile's low country-risk and the absence of expectations of a devaluation (or, to be more precise, the existence of expectations of a revaluation) of the Chilean peso, the international interest rate, adjusted for both effects, was far lower than the domestic interest rate required to maintain internal and external macroeconomic equilibrium. *The dilemma faced by the Central Bank was how to close that gap in order to avert the generation of additional inflationary pressures over and above the programmed level and/or pressures on the balance-of-payments current account deficit. What is more, this dilemma had to be confronted at a time when fiscal saving was positive, the public sector was running a surplus, international reserves were climbing quite rapidly (and thus generating a considerable quasi-fiscal deficit) and the Chilean peso was appreciating sharply.*

In view of the above, *the policy objective with regard to the capital account was to back up existing fiscal, monetary, exchange-rate and international reserves policies in order to prevent an "excessive" inflow of foreign exchange from undermining domestic or external equilibria.* To put it

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<sup>37</sup> The interest rate needs to be fairly consistent with the rate of return on productive capital. In time, high investment rates such as those being seen in Chile and further increases in domestic saving ought to make it possible to gradually close the gap in interest rates.

another way, if the fiscal, monetary, exchange-rate and international reserve policies were well designed and properly implemented, and short-term foreign financial funds<sup>38</sup> nevertheless continued to flow into the country, then it was essential to slow down the net inflow of capital in order to ward off higher inflation and/or a larger deficit on the current account of the balance of payments. *Thus, the decision was taken to move towards greater financial integration with the rest of the world but to do so prudently, selectively and at a pace in keeping with that objective.*

A variety of mechanisms were employed in the implementation of this policy. On the one hand, during the first half of the 1990s *capital outflows were liberalized a great deal.*<sup>39</sup> Not only were exporters allowed to dispose of the whole of their foreign-exchange earnings as they saw fit and were freed of any obligation to bring them into the country, but liberalization measures were adopted in a variety of other areas as well.<sup>40</sup> For example, the minimum amount of time that must elapse before capital brought into the country by non-residents is eligible for repatriation was reduced from three years to one, and the issuance of bonds and equities abroad (American Depository Receipts, or ADRs) was authorized, with the requirements in this respect gradually being relaxed as time went by. In addition, all restrictions on outflows of investment funds originating from external debt swaps (a mechanism linked to the debt crisis of the early 1980s) were lifted, and liberalization measures were implemented regarding the prepayment of external debts and the minimum percentage of external credit that has to accompany any foreign direct investment.

A complementary measure of the utmost importance was the complete liberalization of foreign investments made by Chilean individuals and firms, which made it possible for investors to diversify their risks more fully. Steps were also taken to encourage national (especially institutional) investors to increase the international diversification of their portfolios. The latter provisions were the only exceptions to this otherwise complete liberalization, but they were only one of an increasingly wider array of options in outside markets. In fact, the liberalization of foreign operations on the part of banks, pension funds, insurance companies and mutual funds was also pursued, although less rapidly than in the case of all other economic agents, partly due to *legal restrictions* and, partly (except for mutual funds) because of *prudential considerations* having to do with levels of systemic risk and contingent fiscal liabilities.

*The liberalization of capital inflows was carried forward on a gradual, selective basis and was combined with efforts to discourage inflows of shorter-term financial capital.* This gradual policy approach was chosen not only in order to avoid creating any major external disequilibria but also in order to permit changes in relative prices to take place in such a way as to allow the various sectors to adjust to changed conditions over time in a non-traumatic manner. This type of selective liberalization may entail, if necessary, the implementation of certain specific controls. *Although the general tendency was to*

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<sup>38</sup> A distinction should be drawn between foreign-exchange inflows prompted by a strong export performance and net medium- and long-term foreign direct investment, which would cause an equilibrium and appreciation of the peso, and short-term external financial inflows, whose main motivation is interest-rate arbitrage.

<sup>39</sup> The increasing liberalization of capital outflows was part of the country's overall development strategy and of its strategy for deepening its integration in the international economy. It was not intended as a means of increasing the value of the dollar and, indeed, could well have had just the opposite effect.

<sup>40</sup> In addition to liberalizing the use of export earnings completely, a series of steps were taken in relation to the balance-of-payments current account, including a significant reduction in tariffs (from 15% to 11%) and the conclusion of a number of free trade and other agreements aimed at promoting a progressive integration of the formal and informal currency markets, all of which helped to deepen Chile's trade and financial integration into the world economy during the period in question.



*gradually relax measures intended to act as disincentives to capital inflows, steps were also taken to screen capital inflows more carefully in order to reduce the economy's exposure to the volatility associated with short-term financial flows, to give monetary policy-makers more autonomy and to check the formation of bubbles in the stock market.* These measures were intended to make it more expensive for foreign financing (especially short-term funds) to enter the country, to limit the total volume of external inflows and to improve the "quality" and lengthen the maturities of Chile's external financing.

First, the one-year *time requirement for the repatriation of direct investment capital*<sup>41</sup> acted as a disincentive for inflows into equity markets and thereby helped to prevent a price bubble on the stock exchange.

Second, *it began to take longer for Chilean firms to obtain credit or capital on foreign markets.* This was because of the minimum amounts and certain other requirements stipulated by international rating agencies which had to be met before a firm could place bonds or equities on foreign markets. These requirements varied depending on the credit standing of the firms or the ratings of the instruments they wished to place on international markets.<sup>42</sup> This served to limit the number of firms and the speed with which they could obtain financing on international markets and thereby helped to avoid excessive inflows of foreign exchange.<sup>43</sup>

Third, *a non-interest-bearing reserve requirement covering the first year that foreign credits and other forms of external finance are held in the country was established* as a way of raising the cost of bringing in short-term capital. This provision was a direct means of giving monetary policy-makers more scope and autonomy so that, ideally, all economic agents would have access to the same interest rate, to be set by the Central Bank with a view to domestic equilibrium. The requirement was also intended to curb speculation and the volatility inherent in so-called "golondrina" capital and to reduce opportunities for interest-rate arbitrage.

From a more general standpoint, this package of gradual, selective foreign financial liberalization policies made it possible *to change the structure or composition of external claims on Chile by increasing the share of risk capital relative to external borrowing and, within the latter, the share of long-term indebtedness relative to short-term debt.* This helped to reduce the Chilean economy's vulnerability to the vagaries of the world economy, to the procyclical behaviour usually found among external creditors and to changes in the expectations of international economic agents.

Although there were other countries in the region that implemented policies regarding the balance-of-payments capital account which were, on the face of it, more "liberal or openness-oriented" than Chile's, their domestic interest rates were also higher than Chile's and the spreads between them and international rates were wider. This apparently paradoxical situation is chiefly accounted for by the fact that these countries had higher levels of country- and/or devaluation risk than Chile. Thus, it is not a

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<sup>41</sup> As noted earlier, the reduction of the time requirement for repatriation of foreign direct investment from three years to one year constituted a step towards liberalization in relation to the situation existing in the late 1980s.

<sup>42</sup> These minimum amounts and other requirements have also gradually been relaxed but have not been entirely eliminated.

<sup>43</sup> Another advantage of this strategy—considering the fact that before 1990 no Chilean firms were trading on international bond or equity markets— was that the solvency and stature of the first companies to venture into these markets created a positive externality for those that came after them. A disadvantage of this measure is that, in practice, it favours large firms rather than small businesses or individuals.

foregone conclusion that just because a country carries out a complete, swiftly-paced financial liberalization programme it is necessarily going to establish a solid, permanent place for itself in international capital markets. In sum, *the extent to which a country is "more fully integrated" into the international economy does not depend on how "liberal" it is but rather on the quantity, cost, quality and continuity of the capital transfers actually available to it, all of which is usually linked to how much confidence the rest of the world has in that economy.*<sup>44</sup>

Finally, there are those who argue that Chile's strong macroeconomic performance in the early 1990s was due more to its high level of domestic saving than to its macroeconomic strategy. It should be noted, however, that domestic saving is not a constant which is independent of that strategy. Empirical studies and experience both suggest that "naïve" policies concerning inflows of external financing usually lead to situations in which external savings (often primarily composed of very short-term funds) are used to finance excessive levels of domestic consumer spending and to take the place of domestic saving.<sup>45</sup>

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<sup>44</sup> From a macroeconomic perspective, it might seem easier and, probably, more necessary, to be more "liberal" when the international market perceives a nation's country-risk as being high. Under such conditions, the naturally occurring spread between domestic and international interest rates, adjusted for country-risk and devaluation expectations, provides enough manoeuvring room to pursue an independent monetary policy and to avoid the destabilizing effects described earlier. It would be absurd, of course, to draw the conclusion that it is better for a nation's perceived country-risk to be higher, since it is greatly to a country's advantage to be reliable and credible and, consequently, to have access to an abundant, inexpensive supply of external financing.

<sup>45</sup> It would be a mistake to think that the Chilean economy has emerged virtually unscathed from the most recent episode of financial turbulence solely because of the disincentives it has devised to curb short-term capital inflows. Its main strengths lie in factors of a more structural nature, such as high domestic savings rates and the coherence of the design and implementation of fiscal, monetary, exchange-rate and international reserves policies. The reserve requirements and restrictions on short-term capital inflows that remain play an important role in facilitating that coherence. They are, in other words, an important link in an internally-consistent chain.



## VII. CONCLUSIONS

The chief macroeconomic results of the five-year period starting in 1992 and ending in 1996 are summarized below.

GDP grew at an average annual rate of 7.5%, and unemployment stood at 7%. Real wages kept pace with average labour productivity, with an annual growth rate of 4.7% being recorded for each of these variables. Gross fixed capital formation rose by 14.2% per year, which was nearly twice as high as GDP growth, and domestic saving averaged 25.1% of GDP. The fiscal surplus amounted to 1.8% of GDP while fiscal savings totalled 5.1% of GDP. The real annual interest rate on bank loans for terms of from 90 days to one year averaged 8.9%. The public domestic debt (of the Central Bank) was equivalent to 33.6% of GDP, which was lower than it had been in the preceding years, and its maturity structure lengthened from year to year, averaging 3.2 years for the period. The average annual inflation rate was 9.7% —the lowest rate recorded in Chile for any five-year period in more than 50 years— while the yearly levels fell from 27.3% in 1990 and 18.7% in 1991 to lower rates quite close to the Central Bank's annual inflation targets, reaching 6.6% by the end of 1996. The Chilean peso appreciated at a real annual rate of 4.3% while exports grew at a real annual rate of 10.4% (50% faster than GDP). The average annual deficit on the balance-of-payments current account was 2.2% of GDP. Inward and outward foreign direct investment reached record highs. Capital inflows represented 6% of GDP; net international reserves were equivalent to 22.4% of GDP and to a year's worth of merchandise imports. The external debt amounted to an average of 38.1% of GDP, and net international reserves to 15.7% of GDP.

These figures attest to Chile's success during this period in combining economic growth with rising employment, productivity, wages and saving and investment rates while at the same time making a great deal of headway towards its goal of price stability. Moreover, while it has been doing all of this, not only has it avoided endangering the equilibria of the rest of the economy but it has actually strengthened and consolidated those equilibria, especially in the case of what has traditionally been the Chilean economy's Achilles heel: the equilibrium of the external sector.

It is not by mere chance that these achievements have all come at the same time, however, since they are interrelated and reinforce one another. In fact, they can be seen as forming a "virtuous circle" of macroeconomic stability and sustained growth. Growth brings stability, and stability brings growth.

Growth and stability are interrelated in a number of different ways. For example, the consolidation of the improvement in public finances, prudential regulation and strict supervision of the banking system, together with a more efficient allocation of financial resources (thanks, in part, to the absence of distortions in key macroeconomic prices), have played a significant role in helping to boost financial saving and to channel it into investment, thus preventing the formation of a financial bubble, while at the same time contributing to the stability and solvency of the domestic banking system. By the same token, the development and deepening of the capital market have also played an important role in providing the necessary long-term domestic financing to permit an increase in investment.

Maintaining macroeconomic discipline and keeping inflation in check also help to create an environment in which economic agents can work with long-term planning horizons, and this in turn helps to push up investment rates and encourage the introduction of new technologies, which ultimately fuel growth. Similarly, keeping the economy on a sustained growth path ensures that new investments will be profitable and facilitates fiscal and monetary discipline. From the standpoint of the Government, budgetary pressures ease up when employment, wages and corporate profits are on the rise, and the resulting upturn in tax revenues allows it to meet the most pressing needs of the population without jeopardizing its fiscal equilibrium. From the standpoint of the Central Bank, it is also easier to keep inflation under control when the economy is growing steadily and unemployment is low, since, should it become necessary, the application of contractionary measures will meet with greater acceptance, which in turn will permit an adjustment to be made more rapidly and efficiently.

It has been demonstrated empirically that a correlation exists between increased economic growth and higher national savings rates, although the exact reasons for this are not entirely clear. In turn, a higher domestic savings rate leads to greater stability by making the economy less vulnerable to external shocks. In effect, the maintenance of a moderate deficit on current account together with a good credit rating in external markets will ensure ready access to external financing when it is most needed, such as when the country's terms of trade take a turn for the worse. This reduces the likelihood of being overtaken by an external crisis or having to drive down the economy's growth rate sharply. A high domestic savings rate also cushions the economy from turbulence in international financial markets, such as that faced by a large part of the region in 1995 following the Mexican crisis.

Virtuous circles are somewhat "magical" in the sense that the whole is greater than the sum of its parts because those parts reinforce one another. There is a pitfall, however, since when the trend moves in the opposite direction, virtuous circles may turn vicious. This is why it is so vital to increase saving and investment, maintain an external equilibrium and, above all, to maintain macroeconomic discipline among all the agents involved.

The specificity of Chile's experiences during the 1990s notwithstanding (since in the realm of economic policy there is no such thing as an "exportable" model), a number of the factors underlying its achievements can be identified.

One of the factors that stands out is the importance of having balanced fiscal accounts, along with a suitable coordination of fiscal, monetary, exchange-rate and wage policies. It is essential for aggregate demand to be monitored and controlled (in terms of both its level and the exchange rate) in order to enable an economy to strike internal and external balances efficiently.

In addition, cost-push inflationary pressures eased substantially because workers and employers gradually incorporated the projected reduction in inflation, as reflected in the Central Bank's declining inflation targets, into labour negotiations and price determination. The Central Bank's growing credibility also played a crucial role in this respect.

The efforts made to smooth out the economic cycle by adopting appropriate macroeconomic policy measures ahead of time in order to avert impending overages in expenditure or supply have also contributed to the country's success. Chile's experiences in this respect underscore the advantages of introducing a suitable degree of flexibility into the formulation and implementation of economic policy so that the repercussions of domestic and/or external shocks can be dealt with promptly and efficiently. This flexibility was a crucial element in spreading out the positive and negative effects of such shocks

across a number of different markets, which helped to ensure a more balanced and sustainable adjustment of the economy. The advisability of using this more balanced means of readjusting the various markets was validated by the fact that key macroeconomic prices have not diverged from their medium- and long-term equilibrium values but have instead remained in the neighbourhood of those levels for a protracted period of time. This has been a decisive factor in ensuring the stability and sustainability of Chile's economic growth and development.

A related element which is also suggested by Chile's experiences is the advisability of giving the market a gradually increasing role in the determination of key prices such as interest and exchange rates, starting with the long-term segment of the market and, as the markets' depth, transparency and competitiveness increase, allowing the private sector to take part in short-term price formation as well.

A careful management of the deficit on the balance-of-payments current account (the pillar of macroeconomic strategy) and a gradual yet steady decline in inflation targets have constituted the guiding operational principles of Chile's macroeconomic policy. Perhaps the greatest challenge facing the Central Bank during the first half of the 1990s was the task of coping with the massive inflows of foreign exchange that marked that period by ensuring that both the level and rate of increase in absorption (domestic expenditure) were compatible with a systematic and substantial reduction in inflation and with the goal of keeping the deficit on the balance-of-payments current account within reasonable limits. The latter was a decisive factor in sustaining the upward trend in domestic saving so that it could serve as the major source of investment financing and so that the Chilean economy could become more fully integrated into the international economy in terms of both its trade flows and financial activity on a more solid and less vulnerable basis.

In sum, Chile's macroeconomic results for the period 1992-1996 were highly satisfactory, with high growth rates being recorded for economic activity, employment, domestic saving, investment, real wages and productivity. At the same time, inflation was reduced significantly and was well on its way towards reaching industrialized-country levels. Most importantly, all this was achieved without jeopardizing the Chilean economy's external equilibrium. On the contrary, Chile's position within the international economy was strengthened, with its external accounts being placed on a sounder footing, its creditworthiness in external markets improving and its degree of vulnerability declining. Just as importantly, this was done without creating disequilibria in any other key area of the economy, and the outlook for Chile's continued progress and economic development is therefore a bright one.