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Institution Building in a World of Free and Volatile Capital Flows: A Case Study of Chile

Central Bank of Chile Working Group for the 11th APEC Finance Ministers' Meeting

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Economic Policy Papers of the Central Bank of Chile
Huérfanos 1175, primer piso.
Teléfono: (56-2) 6702475 Fax: (56-2) 6702331

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I. INTRODUCTION

Financial integration can make major contributions to economic development, but it is not free of risks. On the positive side, free cross-border capital mobility can foster additional investment at a lower cost and expedite economic growth. Capital flows have been shown to facilitate the transfer of new technology, ease access to foreign export markets, increase competitiveness, and develop domestic capital markets. Portfolio diversification and consumption smoothing are facilitated by capital mobility. But an open capital account can also increase local vulnerability and exposure to external shocks. Well-known examples of risks from open capital accounts include economic overheating due to large current-account deficits, asset price bubbles, and excessive risk taking in the financial and corporate sectors. Since capital flows are highly volatile, recipient countries may also become more exposed to contagion and herding behavior of international investors.

To enjoy the advantages of financial integration, Chile has opened completely to capital flows, and at the same time it has built strong institutions to deal with the associated

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risks. Today the Chilean economy is much better prepared than in the past to confront the challenges of financial openness. This has been widely recognized by international financial markets, and demonstrated by its response to “real life” stress tests, such as crises in other economies in the region, and the world economic slowdown.

The institutional cornerstones of Chile’s current macroeconomic stability include its monetary regime based on inflation targeting, its fiscal policy based on a structural budget surplus rule, and a floating exchange rate. Financial stability is supported by credible institutions and effective regulations, which include technical supervisory bodies devoted to specific financial and capital-market segments. Regarding international financial integration, the Chilean economy has a high and growing degree of integration into the world economy, with a fully open capital account since 2001.

This paper describes the policy framework and institutions that are helping Chile to reap the benefits of financial integration at minimum risks, as well as key aspects of the process of building such frameworks and institutions. It is structured as follows. Section II reviews the key elements of Chile’s macroeconomic policy framework: monetary policy based on central bank independence and inflation targeting, a floating exchange rate regime, and coordination of monetary policy with a rule-based fiscal policy. Section III analyzes financial sector development, regulation, and monitoring. Section IV discusses the current open stance of the capital account. Section V explains the long process involved in building Chile’s current institutions, focusing on the opening of the capital account and its relation with other policies and institutions. Concluding remarks are in section VI.

II. MONETARY POLICY FRAMEWORK AND INSTITUTIONS

II.1. MONETARY POLICY UNDER INFLATION TARGETING

The Constitutional Organic Act of the Central Bank of Chile (*Ley Orgánica Constitucional del Banco Central de Chile*) defines the Bank’s policy objectives as “to ensure the stability of the currency and the normal functioning of domestic and external payments.” Stability of the currency is commonly understood as price stability, that is, a low and stable inflation rate. The normal functioning of internal and external payments has been interpreted as the absence of crisis in the payments system and in the balance of payments.

The above mandate is strongly associated with the Central Bank of Chile (CBC)’s autonomy, enshrined in the Constitutional Law. This law contains some important institutional aspects worth highlighting. It establishes a governance structure that fosters a long-term vision. It also prohibits the CBC from lending to the fiscal sector by acquiring any securities issued by the State, its agencies or enterprises. Finally, it grants it the freedom to determine monetary and exchange rate policies.

Of all the possible monetary regimes, the CBC opted for a full-fledged version of inflation targeting, as some industrial countries have been using for some time. This was fully implemented in 2000, when the Central Bank formally adopted this approach to monetary policy, together with procedures for regular monetary policy meetings, forecasting tools and models, and began publishing periodical inflation reports that

include explicit inflation forecasts. To complement its inflation-targeting regime, the CBC adopted a floating exchange rate regime, strengthening its anchor and its own management of monetary policy.

TABLE 1: CHILE: MAIN INDICATORS, 1990 – 2003.

| | 1990-95 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 |
|--------------------------------|---------|-------|-------|-------|------|-------|-------|-------|-------|
| CPI Inflation rate (%) | 13.5 | 6.3 | 5.5 | 3.9 | 2.7 | 4.3 | 2.3 | 2.9 | 1.0 |
| Inflat. Target rate (%) | 12.2 | 6.5 | 5.5 | 4.5 | 4.3 | 3.5 | 3.0 | 3.0 | 3.0 |
| GDP Growth rate (%) | 7.9 | 7.4 | 6.6 | 3.2 | -0.8 | 4.5 | 3.4 | 2.2 | 3.3 |
| Fiscal Balance/ GDP | 1.7 | 2.1 | 1.8 | 0.4 | -1.4 | 0.1 | -0.3 | -0.8 | -0.8 |
| Gross Domestic Investment/GDP | 26.1 | 26.4 | 27.4 | 27.0 | 22.2 | 23.2 | 23.2 | 23.0 | 23.4 |
| Unemployment rate (%) | 7.4 | 6.5 | 6.1 | 6.2 | 9.7 | 9.2 | 9.2 | 9.0 | 8.5 |
| Real Wage growth rate (%) | 6.6 | 3.2 | 1.9 | 3.8 | 2.1 | 0.9 | 3.0 | 1.1 | 2.4 |
| Interest rate (%) | 7.0 | 7.1 | 6.7 | 9.3 | 6.4 | 6.1 | 4.4 | 2.3 | 1.5 |
| (X+M)/GDP (%) | 37.9 | 43.9 | 46.5 | 46.9 | 45.4 | 46.7 | 49.4 | 48.8 | 52.0 |
| Current Account/GDP (%) | -2.3 | -4.1 | -4.4 | -4.9 | 0.1 | -1.0 | -1.7 | -0.8 | -1.2 |
| RER (Year 2000=100) | 115.6 | 98.4 | 90.9 | 90.7 | 95.7 | 100.0 | 111.3 | 113.2 | 122.5 |
| Terms of Trade (Year 2000=100) | 169.3 | 120.3 | 134.9 | 173.3 | 93.2 | 100.0 | 94.6 | 64.3 | 95.1 |
| Gross Capital Flows/GDP (%) | 3.9 | 8.0 | 9.5 | 6.9 | 15.5 | 6.3 | 8.4 | 4.3 | 6.5 |
| International Reserves/GDP (%) | 19.5 | 20.9 | 22.1 | 20.5 | 20.5 | 20.1 | 21.0 | 22.8 | 22.0 |

Source: Central Bank of Chile

Since 2001, Chile's inflation target has been defined as a 2% - 4% target range, centered on 3% annual inflation. The headline CPI variation is used as the inflation target measure over a 24-month policy horizon, based on an estimate of how long it takes for monetary policy changes to have an effect on inflation. Monetary policy responds to deviations of the Central Bank's inflation forecast (and the gap between actual and potential output) from the 3% inflation target over the 24-month policy horizon. While the ultimate policy goal is to achieve the inflation target, policy focuses on inflation forecasts. This regime is sometimes called "inflation-forecast" targeting.

The CBC's operational target is the overnight interest rate on interbank loans. Monetary policy instruments include open-market operations (OMOs), standing facilities, and legal bank reserves. OMOs are the main instrument for managing liquidity according to an operational target level determined by the Central Bank's Board. They take the form of twice-weekly auctions of Central Bank securities maturing within one year. Liquidity management is fine-tuned by complementary repurchase and reverse repurchase operations. Standing facilities are credit lines that provide liquidity at higher interest rates, to discourage use at normal times. Reserve requirements on bank deposits are not used as a monetary policy instrument and in fact have remained unchanged since 1980.

The Central Bank believes that transparency and accountability should be crucial features of monetary policy and has acted accordingly. The monthly schedule of monetary policy meetings is announced in advance and a press release and minutes are published shortly after each meeting. The four-monthly *Monetary Policy Report* is widely circulated by Board members and managers. The Bank's macroeconomic projections model, statistical data, and policy and research papers are published regularly on paper and uploaded to the Bank's website. By law, the Central Bank is accountable to the Chilean Senate. After every *Report's* release, the Central Bank Governor and Board present the analyses and projections therein to the Senate.

Monetary policy is conducted according to modern views about its power and limits. In the long term, money is neutral and hence affects only nominal variables (i.e. inflation), but not real variables. However, in the short- to medium-term, monetary policy affects economic activity, employment, and relative prices, in addition to inflation.

Monetary policy can contribute to output stabilization, as long as this is consistent with its primary objective of meeting the inflation target. This occurs when demand shocks dominate supply shocks, i.e., when output (or the output gap) is positively correlated with inflation. Under such circumstances, the Central Bank contributes actively to stabilizing both inflation and output, applying a counter-cyclical monetary policy. Since 2002 the counter-cyclical stance of monetary policy has been reinforced, as reflected by an increasingly expansionary monetary policy in response to the combination of below-target actual inflation and lower-than-potential actual output. Currently, low interest rates are in fact pushing inflation and GDP more quickly toward their target (potential) levels.

Monetary policy does not deal with volatile capital flows directly. However, when changes in their level or volatility affect other macroeconomic variables, and ultimately economic activity and inflation, monetary policy reacts, and can have an effect on capital flows. This procedure is consistent with the Central Bank's mandate and contributes to more effective and dependable monetary policy management in Chile.

II.2. THE FLOATING EXCHANGE RATE REGIME

As discussed above, the Central Bank of Chile has complemented inflation targeting with a floating exchange rate regime. This regime was implemented in 1999, at around the same time inflation targeting was consolidated, and after the Board of the Bank estimated that conditions for dealing with external shocks had improved sufficiently. These topics will be referred to in section V.

Considering Chile's floating exchange rate regime and rising creditworthiness in international capital markets, the need for holding large amounts of international reserves has been reduced. However, the declining risk premium on Chile's external liabilities has also lowered the Central Bank's cost of carrying reserves. In this context, the Central Bank is implementing a program to redeem part of its dollar-linked debt with international reserves, which is expected to reduce its current level of reserves. Still, it will continue to maintain significant international reserves for two reasons: one, because reserves contribute to reduce country-risk premium and act as a buffer against possible liquidity shocks; and two, because reserves are the means that permits monetary authorities to intervene credibly in the exchange market under exceptional circumstances.

Like most other central banks, the CBC can conduct sterilized foreign exchange interventions to counteract excessive volatility. The Central Bank acted decisively to avoid the negative consequences of the exchange rate overreacting to shocks. Acknowledging the difficulties involved in identifying "excessive" exchange rate shocks, the Central Bank's interventions aim not at maintaining a particular exchange rate level, but rather at avoiding major exchange rate volatility.

Since the flexible exchange rate regime was introduced in 1999, on two occasions has the Central Bank considered exchange rate depreciation big enough to warrant its intervention in the exchange rate market. Both times the Central Bank announced the time horizon for its sterilized interventions (August-December 2001 and October 2002-February 2003), the total amount of resources that would be used, and the form of the intervention,¹ although specific amounts and dates of each intervention were not disclosed in advance. An empirical evaluation of both intervention episodes suggests that their effects on the spot market were slight and in most cases negligible. However, the evidence also shows that the announcements themselves affected the spot exchange rate significantly; i.e. the impact of Central Bank actions on the exchange rate came mainly from the authorities' public announcement.

The current exchange rate regime provides indirect mechanisms to deal with volatile capital flows. In the first place, since the exchange rate fluctuates according to market conditions, no gains can be made from betting against the authorities, so a potential source of capital flow volatility (speculation against the currency and the currency regime) is eliminated. In this sense, a flexible exchange regime provides an effective buffer against this source of volatile capital flows. In the second place, the CBC maintains significant international reserves. Hence, the monetary authority has the means to act against any excessive (temporary) exchange rate depreciation and volatility, in the event of a large liquidity shock.

II.3. MONETARY AND FISCAL POLICY COORDINATION

The CBC's policy framework is complemented and supported by a responsible and sound fiscal stance. In fact, the Ministry of Finance has adopted a structural surplus rule. This rule—quite exceptional in the world—defines a resource envelope for fiscal policy, determined as an annual, general government's structural budget surplus equivalent to 1% of GDP. The difference between the structural and the actual budget surplus is determined by the deviation from trend levels of GDP and the price of copper, weighted by their impact on government revenue. Accordingly, the government recorded actual deficits during 2000-2003 and is expected to record a budget surplus in 2004, thus satisfying the 1%-of-GDP structural surplus rule since its inception.

Fiscal policy therefore plays a significant counter-cyclical role, complementing the Central Bank's also counter-cyclical policy framework. Counter-cyclical or stabilizing policies are only feasible when macroeconomic institutions are strong and policy rules are credible. Recent international evidence shows that countries with low risk premiums on their sovereign liabilities are more likely to adopt counter-cyclical policies.² Among these, Chile, with country risk premiums currently under 100 basis points, has applied some of the strongest counter-cyclical policies among emerging economies, contributing more effectively to stabilizing output.

¹ On both occasions, the Central Bank announced that it would intervene both directly in the spot market and through swaps between domestic currency- and foreign currency-denominated bonds issued by the Bank.

² Calderón and Schmidt-Hebbel (2003) and Calderón et al. (2004) provide evidence that shows that emerging economies with low (high) country risk premiums exhibit counter- (pro-) cyclical fiscal and monetary policies.

Institutionalization of policy rules by both the Ministry of Finance and the Central Bank has simplified policy coordination. Chile's experience illustrates that, when institutions and policy rules are strengthened, policies can be coordinated by design and involve less haggling over the best response to any given shock that affects the macro economy.

III. FINANCIAL SECTOR DEVELOPMENT, REGULATION AND MONITORING

The structure and soundness of the domestic financial sector, and the effectiveness of the local regulatory framework, help explain the differences in how financial integration and free capital flows affect economies around the globe. Developing a healthy, robust and well-regulated financial system is vital to reduce the impact of external shocks in increasingly integrated countries. Chile's sound financial system, with its effective regulation and supervision, is the result of a continuous process of reforms and modernization, and has become a valuable tool to confront adverse scenarios.

These developments help to explain Chile's ability to withstand without dramatic adjustments various real-life "stress tests" that have originated abroad. For most of the 1990s, Chile had large (considering the small size of its economy and financial sector) foreign capital inflows; toward the end of the decade it had to deal with the consequences of financial turmoil in a number of emerging markets, which stopped international financial flows to emerging markets; and in recent years some countries in Latin America have endured periods of severe financial difficulties.

Currently, the Chilean financial sector is relatively well developed, considering the size and per capita income of its economy. At the end of 2003, total bank assets amounted to US\$78.8 billion, representing 110% of GDP (see table 2). The financial system also includes an active corporate bond market, a growing foreign exchange derivatives market and a local risk-rating industry. A resilient, well-regulated and supervised banking sector provides local firms and consumers with short-term financing, while sizable institutional investors, mainly pension and mutual funds and insurance companies, offer long-term financing for projects and investments. Operations by institutions in the financial sector are supervised and regulated by specialized agencies.

Chile's banking industry is currently made up of 26 institutions, which are allowed to supply the full range of commercial banking services. Nonetheless, some provide universal financial services, while others focus on specific market segments, such as trading in fixed income instruments. Table 2 also shows that, on average, Chilean banks have a 14.1% Basel capital adequacy ratio and a 16.6% return on equity.

Regulations governing the banking system are contained in the general banking law enacted in 1986.³ This law took a conservative approach to the range of permissible commercial bank operations, to reduce moral hazard and systemic risk. However, a substantial reform in 1997 and the resolution of the subordinated debt problem of some large banks⁴ resulted in a legislation permitting a broader range of services and the internationalization of the banking sector. Further amendments to the general banking law were adopted to stimulate competition by reducing initial capital requirements for new commercial banks, provided they maintain a higher regulatory capital (the reform

³ *Ley General de Bancos, Decreto N° 3.*

⁴ Inherited from the 1982 crisis.

set the minimum capital adequacy ratio at 12% of risk-weighted assets, for institutions that enter the market with a capital equivalent to half the minimum capital required to create a bank). Bank regulation also establishes additional capital and reserve requirements in case of bank mergers that might result in a single entity holding a “significant” market share.

The supervisory agency (*Superintendencia de Bancos e Instituciones Financieras*) has the authority to regulate and oversee credit risk, and to supervise market and liquidity risks. This agency recently set forth a new risk-rating system for credit operations and loan loss provisions that distinguishes between several commercial products, broadens the risk category buckets, and gives more importance to banks’ internal risk-rating model. Banks are also required to report their ratings on a monthly basis, as opposed to the quarterly frequency required previously.

TABLE 2: CHILEAN FINANCIAL SECTOR (DECEMBER 2003)

| BANKING SECTOR | | | | | | |
|----------------|--------------|-------------|----------|------------------|---------|--------|
| | TOTAL ASSETS | TOTAL LOANS | NP LOANS | CAPITAL ADEQUACY | ROE (%) | M2 |
| US\$ million | 78,867 | 55,885 | 913 | 14.10% | 16.60% | 31,583 |
| % GDP | 109.5% | 77.5% | 1.3% | | | 43.8% |

| INSTITUTIONAL INVESTORS ASSETS | | | | |
|--------------------------------|--------------|---------------|----------------|--------|
| | MUTUAL FUNDS | PENSION FUNDS | LIFE INSURANCE | TOTAL |
| US\$ million | 8,365 | 49,224 | 16,302 | 73,891 |
| % GDP | 11.6% | 68.3% | 22.6% | 102.5% |

| CAPITAL MARKETS | | | | | |
|-----------------|----------------|--------------------|-----------------|--------------|--------|
| | TREASURY BONDS | CENTRAL BANK BONDS | CORPORATE BONDS | STOCK MARKET | M7-M1 |
| US\$ million | 363 | 21,855 | 11,144 | 85,534 | 58,642 |
| % GDP | 0.5% | 30.3% | 15.5% | 118.7% | 81.4% |

Source: Central Bank of Chile

In the early 1980s, Chile passed important legislation on the regulation and supervision of capital markets, particularly the securities market law and the publicly traded companies law.⁵ Both govern and monitor the issue and trading of securities and

⁵ *Ley de Mercado de Valores* and *Ley de Sociedades Anónimas*.

operations by stock exchanges and insurance companies. The securities market law favors competition and has helped to modernize the securities brokerage business. It also requires formal, ongoing risk-rating procedures by independent agencies for the issuing of securities seeking to be eligible for pension fund investment. Thus, the regulations encouraged the development of a local risk-rating industry, the relevant analysis of information on risks inherent in the issuers and the securities that they offer in the market.

The legal framework also provides corporate governance rules and regulations on potential conflict of interests for both pension fund managers and corporate board members and officers. Rules and procedures also govern the acquisition of controlling stakes in publicly traded companies, to protect the rights of minority shareholders and improve corporate governance rules.

As mentioned, institutional investors play a fundamental role in the Chilean financial sector. Pension and mutual funds and life insurance companies are the country's largest institutional investors, managing a combined total of US\$74 billion or 102% of GDP in assets. The pension system is based on mandatory individual savings accounts administered by private companies. These savings are invested in financial instruments, creating a continuous flow of long-run resources to be allocated to the rest of the local economy through the financial system. Operations by these investors are regulated and supervised by the Superintendent of Pension Fund Managers, the State's specialized supervisory agency. Key aspects of current regulations include a complex set of diversification requirements and five types of funds for affiliates to allocate their savings. These range from fund "A" with extensive potential exposure to variable income securities through to fund "E," characterized by low duration, fixed income securities. To allow for proper risk diversification, pension funds can invest in a wide range of instruments, including foreign securities (up to 30% of total funds).

The regulations are also intended to facilitate small and medium-sized companies' access to the capital market and address the reduced liquidity of local stock markets. Indeed, flexible rules permit the creation of a market where equity issued by "emerging" companies can be traded, and provide limited capital gains tax exemptions for investors in such companies. Also, the existing 1,2% stamp tax on credit operations can be rolled over in the case of commercial paper issuance for the purposes of financing short-term working capital. There is no income tax for foreign investors and local agents investing in high-turnover stocks. Banks, mutual funds and insurance companies, which can now open and manage voluntary individual savings accounts, have introduced additional competition. Flexible portfolio limits, rules, and regulations govern insurance companies' mutual and investment funds.⁶

An interesting feature in the evolution of Chilean capital markets was the relatively early development of a corporate bond market with maturities as long as 20 and even 30 years in some cases. The market value of corporate bonds issued is estimated at US\$11.1 billion or 15.5% of GDP (see table 2). This notable characteristic can be explained by several factors, such as the existence of pension funds and life insurance companies with long-term liabilities, a well-developed market for central bank

⁶ The regulation was introduced in 2001 as part of a major reform to the capital market, commonly known as *Capital Markets Reforms I*.

securities that provides benchmarks for the pricing of long-term debt, and the extensive use of the “*Unidad de Fomento*” (UF, a CPI-indexed unit of account) in most long-term contracts, including the issuance of financial securities.

The range of available securities-related products in the Chilean market is significant compared to elsewhere in the region, and includes increasing amounts of long-term mortgage-backed securities and mortgage bonds (mostly denominated in UF, and maturing in an average term of 12 years), shorter-term commercial paper, and structured finance. The CBC has recently issued 10-year nominal bonds with similar design characteristics to the benchmark indexed bonds issued regularly.

The growing development of a deep and liquid market for foreign exchange derivatives, mainly in the form of non-deliverable forward contracts, NDFs, is another interesting feature of the Chilean financial system. However, the use of other derivative products, such as interest rate and equity derivatives, remains very limited to date. A floating exchange rate regime increases the demand for hedging among local companies with international trade operations or foreign exchange exposure on the liabilities side of their balance sheets, while pension funds have become important counterparts due to their interest in hedging the currency exposure associated to their investments abroad.

Finally, the CBC has recently developed new initiatives that will contribute to further modernize and reduce risks in the financial system. These include modernizing the payments system, which comprises mainly the introduction and management of a real time gross settlement system, and a delivery-versus-payment (DVP) mechanism for debt and securities instruments. Also, the Central Bank launched on August 19th the first issue of its *Financial Stability Report*, a periodical publication which will monitor the strengths and vulnerabilities of the main sectors of the economy that are relevant to the stability of the internal and external payments system. Lastly, the Central Bank, jointly with the Superintendence of Banks, recently reviewed its regulation on liquidity risk and is in the process of revising regulation of market risks. These reviews involve replacing a rules-based regulatory system by a regulatory framework where the emphasis is put on the adequate measurement of these risks—coherent with international standards—and closer involvement of the boards of banking institutions on policy decisions. It also implies thorough supervisory oversight of the associated regulatory requirements, like the periodic practice of stress-testing exercises.

Despite these developments, the Chilean financial system still faces important challenges. For instance, the banking industry’s consolidation process has significantly changed the environment in which it operates and produced important efficiency gains: looking forward, it is important that the banking sector continues to modernize, further improving efficiency and keeping risks low. Also, liquidity in the equity and debt markets is still poor. Similarly, small and medium-sized companies still have limited access to long-term funding.

Some of these aspects have been addressed in a second major reform to capital market regulation that is currently being discussed in the Senate. Among other things, this reform considers new incentives for funding risky projects in the form of tax exemptions, collateralization, and the reduction of transaction costs. Recent reforms should help to overcome these issues, enhancing the financial system’s fundamental

role of intermediary between savers and investors, thus contributing to the growth and integration of the Chilean economy into the global economy.

IV. CAPITAL ACCOUNT REGIME AND FINANCIAL INTEGRATION

Chile has a fully open capital account regime since 2001. The only foreign exchange regulations that remain specify reporting requirements for statistical purposes. The information collected is used to prepare the balance of payments, the international investment position and data on the functioning of foreign exchange markets. However, some challenges remain, mainly in terms of optimizing the information gathering process by, for example, reviewing the frequency of reports and making their filing possible through the internet. By receiving feedback from economic agents, the Central Bank of Chile is also constantly assessing the need to improve the statistical information available.

In line with the above, the Free Trade Agreement with the United States establishes the general principle of free capital mobility and limited controls. In fact, the treaty does not include any balance of payments exceptions. The agreement only contains some limits on the actions that can be taken in the event of a dispute involving measures that in practice restrict capital movements.⁷

An open capital account and financial integration have contributed to an increase in Chileans' holdings of foreign assets, which has enhanced the country's financial position with regard to the rest of the world. Total assets held by Chilean residents increased from US\$35.6 billion in 1997 to US\$64.3 billion in 2003. Portfolio investments and Foreign Direct Investment (FDI) were the two asset categories that rose the most in response to measures that liberalized capital outflows and fostered integration of the Chilean economy with rest of the world. Portfolio investment grew from US\$1.2 billion in 1997 to US\$19.7 billion in 2003, while FDI went from US\$5.1 billion to US\$13.8 billion in the same period. By sectors, Chilean corporations were by far the sector that increased their foreign asset holdings the most, from US\$15.1 billion in 1997 to US\$33.0 billion in 2003. Non-banking financial institutions also increased their foreign assets, from US\$0.5 billion to US\$12.8 billion over the same period.

As a result of the faster pace of capital outflow liberalization, Chilean residents currently hold both larger amounts of and more diversified foreign assets, as the overall amount is almost evenly distributed among the various asset categories, i.e. Portfolio Investments, FDI, International Reserves and Other Investment.

However, several financial crises in the last few years have underlined the need to be well equipped to face external shocks. Crises can be very costly, and growing international commercial and financial integration can increase the probability of being hit by external shocks. Keeping this in mind, Chile has prepared its economy by

⁷ Claims under the dispute settlement mechanism can only be submitted one year after the measures have been imposed. In the case of capital outflows, no claims can be made for controls imposed for a period of less than one year if they do not interfere substantially with capital transfers abroad, and are applicable to transfers other than those associated with Foreign Direct Investment, debt payments or bonds issued abroad. Regarding inflows, no compensation can be claimed if the restrictions on capital inflows are imposed for less than one year, and do not substantially impede capital flows. However, if Chile imposes capital controls for more than one year, investors could submit a claim for the direct damages caused by the controls, a year after the controls have taken effect.

building and strengthening the institutions and policy frameworks necessary to overcome future adverse shocks.

V. CAPITAL ACCOUNT LIBERALIZATION AND INSTITUTION BUILDING

Chile nowadays has an open capital account, the result of removing the foreign exchange regulatory body's restrictions on capital flows, with the focus of foreign exchange regulations shifting away from restrictions and toward reporting requirements. This degree of openness was the result of a gradual and prudent process that took decades to consolidate. In fact, it only concluded once the Central Bank of Chile considered that the necessary conditions had been achieved.

Historically, Chile imposed capital account restrictions through most of the 20th century, starting in a context of high inflation and State intervention in the early 1930s. During the second half of the 1970s, the country began opening up its capital account, following a trade liberalization program initiated a few years earlier. The opening up of the capital account was implemented while, at the same time, a fixed exchange rate regime was established in the context of high inflation, widespread indexation and a financial sector that lacked the required prudential regulation and supervision. Despite the official position, market agents tended to operate under the assumption that the government somehow backed the soundness and creditworthiness of local financial institutions and insured the deposit base. In that environment, levels of indebtedness, maturity gaps between assets and liabilities, related-lending, and foreign currency mismatches received less attention than they deserved.

Weak institutions and macro-fundamentals added up to a fragile economic policy framework, leaving the economy vulnerable. When the 1981 international recession hit with unexpected severity, it abruptly ended efforts to open up the capital account, because of the sudden stop of capital flows to developing economies. The deep financial crisis that then unfolded led to a rapid drain of international reserves, and the fixed exchange rate regime was abandoned. The devaluation that followed provoked severe losses across all sectors of the economy.

In the aftermath of the debt crisis, in the mid-eighties the authorities focused on economic recovery and reorganized the overall macro-financial framework. Drawing on the recession experience and the subsequent financial crisis, a new banking law was enacted in 1986 that addressed *moral hazard* and *systemic risk* issues, and regulations governing financial institutions were amended to strengthen the sector. The development of a local risk-rating industry and the preparation of relevant analysis and information about the risk features of issuers and the securities they offered in the market are examples of this. The authorities focused mainly on correcting large external imbalances and low growth by boosting exports, through a highly competitive exchange rate. With this in mind, an exchange rate band was used to sustain a depreciated real exchange rate. Finally, a second wave of privatizations began.

Central Bank independence was established with the approval of a specific law (*Ley Orgánica Constitucional del Banco Central de Chile*) in 1989. The CBC's independence was established to facilitate and maintain the credibility of its policies. This has actually happened, giving the Central Bank more room to maneuver in the short-run and reducing the costs of adjusting to adverse shocks.

Given its freedom to determine monetary and exchange rate policy, and consistently with a world trend toward adopting a nominal anchor, the CBC established explicit annual inflation targets in 1991, to gradually reduce inflation. This was complemented by an exchange rate band regime. This policy mix proved very successful in reducing inflation from an initial level of 27% in 1990 to 3% at the end of the decade.

At the same time, several factors (including a successful transition to democracy, which maintained and strengthened the market economy model) favored the voluntary return of capital flows into the country. Given the macroeconomic policy framework, the authorities faced a classical monetary policy dilemma, with more policy goals than independent instruments. The level of domestic interest rates necessary to control aggregate demand gave rise to incentives for interest-arbitrage capital inflows, within a context of sharp increases in capital flows to emerging economies. The choice was either to accept an appreciation of the real exchange rate inconsistent with external balance or to reduce interest rates, in which case the risks of exchange rate appreciation would remain small, but inflationary risks would dominate the picture in a highly indexed economy.

The policy options available included allowing the exchange rate to appreciate, limiting appreciation through sterilized intervention accompanied by tight fiscal policy to offset the associated costs, or introducing controls on capital inflows, and at the same time liberalizing capital outflows. Chile's strategy was a combination of all. In this scenario, the CBC decided to open up its capital account, gradually but steadily.

In terms of capital outflows, opening the capital account went ahead relatively quickly. In 1991, the procedures for direct investment abroad were streamlined, and banks could invest up to 40% of their foreign currency deposits abroad. In 1992, the limit on banks' foreign exchange holdings doubled and export proceeds exempt from surrender requirements were increased. In 1994, restrictions on profit remittances were lifted, banks were allowed to invest up to 20% of their capital and reserves abroad, and the ceilings on institutional investors' investment abroad were raised. In 1995, the minimum required stay for foreign direct investment in Chile was reduced from three years to one. In 1998, the ceiling for banks was raised to 70% of their capital and reserves, and the ceiling for mutual funds was eliminated. Also, ceilings on investment abroad were increased for pension funds, life and general insurance companies. All these measures contributed to increase Chile's degree of international financial integration.

On capital inflows, a more gradual approach was followed during the transition to price stability, together with the implementation of an inflation targeting monetary framework and the development of a sound domestic financial system. This gradual approach involved establishing mechanisms to control capital inflows, such as the unremunerated reserve requirement (URR), in response to the surge in capital flows to Chile. Other important controls were a minimum holding period for portfolio investments and stringent requirements for issuing bonds and ADRs abroad.⁸

The objectives pursued with the URR were to favor equity over debt financing, and long-term over short-term financing, and to apply a tight monetary policy without

⁸ See Appendix 1 for further details on the URR.

incurring large current-account deficits. From a macroeconomic standpoint, the URR was expected to expand the autonomy of monetary policy and simultaneously minimize the effects on the exchange rate of the tight monetary policy needed to control aggregate demand. From a macro-prudential point of view, the URR was expected to discourage short-term capital inflows without affecting long-term foreign investments, especially FDI. This would in turn reduce the volatility of international capital flows into the country and, subsequently, exchange rate volatility.

The URR remained in effect during most of the 1990s and in the aftermath of the Asian crisis. Facing strong pressure against the peso, the CBC cut it down to 10% in late June 1998, then to zero in September 1998, although it continued to exist in the norm.

Overall, several studies suggest that the URR had the following effects on the Chilean economy (among others, Valdés and Soto (1998), Edwards (1998, 2000), De Gregorio, Edwards and Valdés (2000), Gallego, Hernández and Schmidt-Hebbel (1999), Gallego and Hernández (2002)):

- a) It created a wedge between domestic and external interest rates, allowing monetary policy more independence.
- b) It modified the composition of capital flows, raising the share of medium- and long-term inflows
- c) It did not, however, affect the real exchange rate or the overall size of capital inflows
- d) It created some discrimination in companies' access to capital, since the cost of the URR weighed more heavily on small businesses facing stricter financial restrictions and higher financing costs.
- e) Loopholes had to be constantly plugged, as some sought to avoid the regulation.
- f) It produced distortions in capital versus labor costs, redistributing income in favor of capital owners and distorting resource allocation somewhat.

At the regulatory level, the URR was removed in April 2001. At the same time, the CBC eliminated all remaining foreign exchange restrictions. The completion of the process of gradually deregulating foreign exchange markets was geared to provide businesses and individuals with more direct and efficient access to the benefits of financial and trade integration, helping to boost potential growth and better diversify the risks that threatened the Chilean economy.

Achieving the medium-term objective of completely opening up the capital account was possible once the authorities considered fundamentals and institutions were strong enough to shield the country from external shocks, and thus suitable to give Chile the full benefit of more financial integration. The elimination of the URR and all remaining foreign exchange restrictions in April 2001 took into account the following list of conditions:⁹

- a) Adopting a floating exchange rate regime with inflation targeting;

⁹ Press Release of the Central Bank of Chile of April 16th of 2001.

- b) Price stability;
- c) Improving banking regulation and supervision;
- d) Developing markets for derivative instruments to make good hedging instruments more available, to provide better coverage of exchange risk;
- e) A suitable level of international reserves;
- f) A more diversified trade structure;
- g) A solvent financial system, and
- h) A solid and prudent fiscal position, by establishing a fiscal rule based on achieving a 1% structural fiscal surplus.

Once these preconditions were met, Chile moved on to its current position, with a fully open capital account.

VI. CONCLUDING REMARKS

Today Chile has completely opened up its capital account and reduced the risks associated with volatile capital flows. The Chilean institution building process has focused on solid fundamentals, but with a high degree of built-in flexibility, in both the monetary and the fiscal policy frameworks. This is reflected in a monetary regime based on inflation targeting, a strong fiscal policy based on a structural budget surplus rule, and a floating exchange rate, all complemented by strong but evolving financial sector regulation and supervision.

This policy and institutional framework has reduced the volatility caused by internal factors, such as policy inconsistencies, one-way bets, implicit insurance or moral hazard. At the same time, it cushions the effects of volatile capital flows, as adjustments are made more through prices than through quantities, with agents internalizing risks.

Building institutions is a long-term process that can take years or even decades. Along with the initial efforts to open the economy during the second half of the 1970s and the early 1980s, an important mistake was made: restrictions on the capital account were relaxed without a consistent monetary policy framework and an adequately regulated banking sector.

The high costs of the crisis in the early 1980s gave way to a more conservative, more gradual approach. Arguably, the pace and form of the opening could have been better, but at least earlier mistakes were avoided. Today Chile is enjoying the benefits of its international financial integration with reasonable assurances against the risks associated to free and volatile capital flows. Of course, many challenges remain, among them continuing to fine-tune the monetary policy framework, consolidating the fiscal policy framework, and modernizing the financial system.

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APPENDIX 1: THE UNREMUNERATED RESERVE REQUIREMENT

This appendix provides a more detailed description of the unremunerated reserve requirement (URR). Figure 1 below illustrates how the URR worked, by identifying its main features expressed as equivalent financial cost. This cost depended on the foreign interest rate, the spread applied to the borrower, the URR rate, and the duration of the foreign investment. From the implied equivalent financial cost, we can see that for a given interest rate and spread, the shorter the investment period, the higher the implicit financial cost. Because of how it was set up, the URR favored longer-term investments with a lower implicit financial cost, and penalized shorter-term investments with a higher implicit financial cost. It aimed at deterring interest rate arbitrage on short-term maturities by filling all or part of the gap between domestic and international interest rates. In effect, the URR was intended to modify the covered interest parity condition for short maturities, since it would allow for higher domestic short-term interest rates for a given interest rate parity.

The URR was an indirect, price-based measure that operated as an asymmetric Tobin tax, since it taxed capital inflows and not outflows. It was introduced in June 1991, and initially covered all foreign loans except trade-related credits. The initial reserve rate was set at 20% on all new credits, it was held for the entire term to 90 days and one year, and denominated in the currency of the credit. Over time, URR coverage and reserve rates were increased in response to evasion and further increases in capital flows. In 1992 the reserve requirement was raised to 30% and the holding period was fixed at one year regardless of the credit's maturity. At the same time, coverage was extended to non-debt flows, which had become a channel for short-term portfolio inflows. In particular, foreign currency deposits in commercial banks became subject to the URR in 1992, as were secondary American Depository Receipts (ADRs) in 1995. While foreign direct investment was generally exempted from the URR, in 1996 foreign direct investment of a potentially speculative nature, namely foreign direct investment related credits, were also subjected to it.

FIGURE 1
URR EQUIVALENT FINANCIAL COST

