

## **Macroeconomic Stability and Income Inequality in Chile**

Arturo Rodrigo settled into his new office as economic advisor to President Aylwin. He had waited a long time to be part of a democratic government. Sixteen years ago Arturo was among those Chilean centrists who welcomed the coup, as the overthrown leftist government was incompetent. He had not, however, welcomed the long military dictatorship that followed. Sixteen years of military rule under General Augusto Pinochet had produced many changes in the economic picture of Chile: some were for the better, some were not. Now, sixteen years after the military ousted the last populist government in Chile, Arturo was once again in a position to influence economic policies.

Chile had changed since the military takeover in 1973. After some rough economic times, the economy posted strong gains in the late 1980s. Real GDP growth had averaged 6.2 percent per year, unemployment fell to 6.3 percent from a peak of 30 percent in 1982, and export growth surged. However, sixteen years of conservative economic policies and authoritarian rule had taken their toll on the working class: almost half of the population was living below the poverty line, and real wages remained 19 percent below their 1970 level. Income inequality had worsened, especially in the first decade of the Pinochet regime, when the poor had seen their wages stagnate while social spending had fallen drastically.

It is now 1990 and President Patricio Aylwin, a centrist, is the head of a center-left coalition known as "Concertacion". Chileans, while satisfied with recent macroeconomic successes, have become concerned about poverty; in fact, the poverty issue and low income levels were critical in compelling Pinochet to allow the plebiscite of October 1988 that cleared the way for the Presidential and Congressional elections in December 1989. As Chile's first democratically elected President in sixteen years, Aylwin must deliver to those treated worst during the prolonged adjustment process of the 1980s. At the same time he must tread carefully -- he has a diverse coalition, the right still controls enough seats in the Senate to block policy changes, and General Pinochet has refused to relinquish control of the military.

Arturo's task, as President Aylwin's advisor, is to devise a strategy to reduce income inequality rapidly without sacrificing the macroeconomic gains of the military regime.

### **A country of islanders.**

Chile, a country stretching along 2600 miles of the Pacific coast of South America, is abundantly endowed with natural resources. It is the world's largest producer and exporter of copper: it produces 24 percent of world output of copper ore and CODELCO, the state-owned copper corporation, holds about 20 percent of the world's known copper reserves. There are also substantial deposits of nitrates and of iron. Arable land is appropriate for the production of fruits, vegetables and wine, while there are as well substantial forested areas for timber exploitation. With a population of just over 13 million, its resources in these areas have been in excess of domestic needs -- Chile has as a consequence been oriented from the beginning toward foreign trade and

international markets. As political scientist Federico Gil states, "the Chilean people ... are in reality islanders". This international dependence is heightened by the relative shortage of crude oil deposits within Chile.

In 1970 Salvador Allende was elected President on a populist platform. His Unidad Popular coalition had the goal of transforming Chile into a socialist society. The socialist experiment was marked by property confiscations, economic mismanagement and general chaos, and ended with Allende's death during the 1973 military takeover led by General Augusto Pinochet. Pinochet liberalized the economy to increase the role of markets and privatized many of the firms taken over by the Allende government. In 1989, Pinochet, after losing a plebiscite, allowed free elections to be held. Patricio Aylwin, a centrist who welcomed the 1973 coup -- he was from the first a determined enemy of Allende's socialist policies -- was elected President. Aylwin heads a coalition of 15 center-left parties, has cabinet members who took part in Allende's government, and recognizes the need to include the right in the governing process.

### **The Economy under Allende: 1970-1973**

Unequal income distribution is not a new issue for Chilean democrats: in 1970, Allende's economic advisors considered it to be the most serious problem faced by the country. Their solution involved revolutionary reforms -- the nationalization of the mining, banking and agricultural sectors and much of the manufacturing sector -- along with a policy of expansionary aggregate demand. It was thought at the time that there was sufficient excess capacity in the economy that aggregate demand could be increased without sparking inflation. In 1971 there were generalized wage increases, higher rates of money creation and significantly higher government expenditure.

Under Allende the government's payroll swelled -- between 1970 and 1972 public sector employment grew at an average of 11.4 percent per year. Unions were very powerful and able to negotiate wages for entire industries. Labor law was highly protective during Allende's regime: it was difficult to lay off workers, severance costs were high, and strikes could continue indefinitely. Also, wages were generally adjusted 100 percent to past inflation.

The populist policies did spur growth in 1971: real GDP grew at 7.7 percent, unemployment fell to 4 percent and real wages increased 23 percent. This growth was short-lived. By 1972 real GDP was declining, and continued massive government spending increased the fiscal deficit to over 30 percent in 1973. To finance the enormous deficit the government "sold" loans to Banco Central, which subsequently printed money: Banco Central's claims on the central government increased tenfold from 1970 to 1972, helping inflation reach a 600-percent annual rate (see Table A2). Black markets developed and widespread price controls and commodity rationing were enforced. Real wages fell 25 percent in 1972 -- an omen of hard times to come for the working class.

Even before being nationalized by Allende, the financial sector was under substantial government control. Interest rates were controlled and lending was largely directed by the government. Family-run *grupos*, conglomerates of relatively conservative business firms, typically included a bank to secure access to scarce loans at negative real interest rates.

In October of 1972 members of opposition parties took part in a national strike as a protest to

what some considered erroneous government economic and educational policies. Toward mid-1973 the opposition parties were demanding the resignation of President Allende and the UP coalition was disintegrating. On 11 September 1973, the populist experiment came to an abrupt end as the armed forces staged a coup. At that time, the country was politically divided and the economy was in shambles.

### **The Pinochet-era economic reforms.**

Policies changed dramatically under the military government of General Augusto Pinochet. The military regime had three main economic objectives: (i) liberalization of the economy to increase the role of markets, (ii) privatization to return firms to the private sector and restructure the public sector, and (iii) stabilization of inflation and avoidance of a balance of payments crisis.

Liberalization began with the freeing of most controlled prices in late 1973, followed by sweeping deregulation of domestic financial markets and the beginning of extensive trade liberalization: trade tariffs were reduced from an average of 105 percent to a uniform 10 percent *ad valorem* rate by 1979. The privatization effort was centered on the sale of most of the real assets that had been transferred to the state during the Allende administration. Partially as a result of this privatization process very large, highly leveraged *grupos* – much different than the conservative, family-run *grupos* of the pre-military era – emerged.

Stabilization was initially concerned with reducing inflation, but the government initially took an ineffective approach with both annual money growth and inflation remaining at about 300 percent. At the end of 1974 and during 1975, government macroeconomic policy focused on correcting the balance-of-payments deficit provoked by the collapse in the world price of copper and the tripling of oil prices. In April 1975 the Banco Central introduced a contractionary monetary policy, and the government eliminated the fiscal deficit by 1976 through a reduction in government spending. The initial impact of this program was a GDP fall of 12.9 percent in 1975 and an abrupt increase in unemployment (see Table A1). By 1977, economic growth returned to Chile and the annual inflation rate fell to 84 percent.

In early 1978, the fiscal accounts were balanced, money growth was low, but inflation remained at an 80 percent annual rate. In January 1978 Chile introduced the preannouncement of the rate of exchange rate devaluation as the main anti-inflation measure. In 1979 the devaluation was replaced by a fixed exchange rate. General Pinochet publicly announced that “not even the devil” could induce the government to revalue the currency.

The Pinochet government eliminated the bargaining power of workers by suspending collective bargaining and prohibiting union activity. Wage readjustments were decreed by the government. These adjustments were based on partial indexation to past inflation in 1974-75, and on total indexation beginning in 1976. Total indexation to past inflation combined with declining inflation resulted in rising real wages. Employment growth was sluggish in the mid-1970s, and the government’s main solution was a program in which the unemployed performed public works for reduced wages.

This was a paradoxical time in Chile’s economic history, a time that some Chileans referred to as the “boom”. Output growth averaged 7.9 percent per year from 1977 to 1981, the availability of

imported goods increased dramatically, and inflation finally fell to 9 percent in 1981 (see Tables A1 through A3). But not all Chileans were taking part in this “boom”: unemployment remained stubbornly high at 15 percent, real wages were still 27 percent below their 1971 level, and income inequality was worsening as the richest 20 percent were gaining an ever-larger share of income.

The Labor Plan of 1979 of Labor Minister Jose Pinera did little to cheer the working class. The new labor law greatly reduced workers’ bargaining power by further repressing labor unions, restricting collective bargaining to the firm level, allowing for termination with loss of severance pay when strikes continued for 60 days, and allowing for arbitrary dismissals. General Pinochet, however, stated proudly that the new labor law “assures workers an increase in remuneration of at least 100 percent of the increase in the cost of living” through its mandatory 100 percent indexation of wages to past inflation.

Financial liberalization begun in 1974 with privatization, the removal of credit and interest rate ceilings, and a drastic reduction in reserve requirements (from 85 percent to 10 percent on demand deposits) was completed in April 1980 with the removal of controls on foreign borrowing by banks. (see Table A9 for measures of savings.) The large *Grupos* had benefited greatly from the government regulations on private capital mobility as they did have access through their banks to private foreign lending. Since the *grupos* were able to borrow at relatively low international interest rates and lend at high Chilean lending rates, they were able to earn large arbitrage profits.

The *grupos* practiced unbridled self-lending (for example, in 1982 Banco Santiago granted 42 percent of its loans to its *grupo*) to expand into the export sector, getting heavily involved in timber, mining, paper and fishing. However, as prices in Chile rose relative to those in foreign markets, export profitability declined substantially. In late 1980 a number of *grupo*-related firms started to face serious financial trouble, but were kept afloat thanks to the refinancing of bad loans. In April 1981 the *grupos’* financial fragility became apparent not only to the Chilean authorities but also to international lenders as the Crav *grupo* declared bankruptcy.

The abundance of foreign credit in the early 1980s provided the financing necessary for the unsustainable explosion in private expenditures at the time of the boom. By the end of 1981 Chile was burdened by a large foreign debt and an insolvent domestic financial system (see Table A8). The fixed exchange rate combined with backward wage indexation and the massive capital inflows to lead to a 35 percent real appreciation, which greatly reduced the competitiveness of the export sector.

In 1982 the bubble burst: real output collapsed 15 percent and the unemployment rate shot up to 30 percent. Real interest rates rose, the currency was devalued sharply, and roll-over of domestic debt was curbed. In 1982 over 800 firms declared bankruptcy, and in 1983 regulators had to reassume control of the five largest private banks.

### **The Last Years of the Military Regime**

The economic advisors to Pinochet learned many lessons from the 1982-83 crisis. In 1985 Hernan Buchi (pronounced Bee Hee) became Finance Minister and initiated a long-term economic reform strategy that emphasized three main areas: (i) the promotion of non-copper

exports, (ii) the enhancement of domestic savings and investment, and (iii) the strengthening of the corporate and financial sectors.

At the beginning of 1985 a series of actions were taken to improve export incentives: stamp taxes and value added taxes on exports were eliminated, a 10 percent rebate on import duties for minor exports was put into effect, and commercial bank reserves against export lending were reduced. Import tariffs, raised during the crisis in 1984, were also reduced from 35 percent to 15 percent in three steps. Exports responded to the new incentives and, aided by the real depreciation of the peso, grew at an average annual rate of 10.5 percent from 1985 to 1989 (see Table A4). Exports were diversified as well: in the early 1970s copper represented about 70 percent of Chile's exports; in 1990 it accounts for 45 percent of total export earnings. At the same time the destination of Chilean exports became more diversified: Asia, Latin America, and North America now account each for about 20 percent of Chile's exports, and Europe for 30 percent. Chile was the beneficiary of favorable world price trends as well, as copper prices doubled from 1985 to 1989 (see Figure 1).

Copper exports by the state-owned CODELCO accounted for 20 percent of fiscal revenues. The fluctuations in CODELCO's contribution due to variations in the international copper price were enormous: its fiscal contributions increased fivefold in real terms between 1986 (US\$350 million) and 1989 (US\$1.728 billion). The Chilean government, however, did not rely on this bonanza in copper revenue to balance the budget. In 1987 public finances were delinked from volatile copper prices through the establishment of the Copper Stabilization Fund. The Fund accumulates resources when copper prices are above their long-term trend. The government relied upon the Fund's resources to pay its enormous debt with the Banco Central from the 1982-83 crisis.

Monetary and fiscal policies were contractionary in the late 1980s. The authorities maintained fiscal balance (Table A5), and thus the Banco Central did not monetize large fiscal deficits as occurred in the early 1970s (Table A2). At the same time the monetary authorities increased incentives for private domestic saving and investment by cutting taxes on income and corporate earnings. Gross investment increased steadily in the late 1980s, from 12.4 percent of GDP in 1984 to 23.0 percent by 1989 (Table A7). Instead of relying on the copper bonanza, the government cut spending from 30 percent of GDP in 1985 to 20 percent of GDP in 1989 (Table A6). Among other spending cuts, wage adjustments in the public sector were set systematically below inflation and social security disbursements ceased to be adjusted automatically to lagged inflation. The composition of government spending also shifted from government consumption towards public investment.

Chile's international debt reached US\$19.4 billion in 1985 (see Table A8). In that year the government introduced two major debt reduction schemes: a debt conversion scheme for Chileans to repatriate foreign debts and a debt-equity swap program that enabled foreign investors to buy Chilean private debt at a discount and convert into internal debt that could be sold. The debt-equity program amounted to a substantial subsidy to foreign investors, estimated at 30 percent by Edwards and Edwards (1991). Through these schemes, Chile retired more than US\$9 billion of international debt between 1985 and February 1990.

The financial sector recovered from its 1982-83 crisis with the help of the government. Banco Central provided loans at subsidized rates and extended exchange rate subsidies to debtors in foreign currency. The public sector losses from these operations were a staggering US\$6 billion,

or 35 percent of 1986 GDP. In an attempt to avoid the mistakes of the earlier financial liberalization, bank regulations were strengthened, and the regulatory powers of the Superintendency of Banks and Financial Institutions were enhanced. By mid-1985, the authorities started a major recapitalization program for private banks. In the late 1980s, most of the financial institutions that had been nationalized in 1983 were reprivatized -- but to new owners, not to the original *grupos*.

In 1982 mandatory indexation of private collective contracts was abolished. Any remaining indexation in the labor market had a smaller effect on real wages as inflation was much lower than in the 1970s. From mid-1982 the government regulated only the minimum wage, which it allowed to lag behind other wages in order to spur employment and cut inflation. In fact, as production recovered in 1984 the unemployment rate began a steady decline, reaching 6 percent in 1989.

### **The economic situation facing the Aylwin government in 1990.**

Despite the success of the structural reform and stabilization policies, not all is rosy. A high proportion of Chileans -- estimated at around 45 percent by Torche (1987) -- were living below the poverty line in the mid-1980s. Income inequality worsened through the crisis of 1982-83 before recovering somewhat: Table 1 shows that the share in national income of the highest quintile increased steadily from 1970 to 1989, while the income share of the poorest two quintiles declined from 1970 to 1982-83 before rising in the late 1980s. While unemployment fell substantially in the late 1980s, real wages remain 22 percent below their 1970 level. Social spending suffered great cutbacks in the wake of the 1982-83 economic crisis: per capita health, housing and education budgets declined more than 20 percent.

Most analysts believe in 1990 that the economy has hit its capacity to grow. With the unemployment rate at 6 percent -- its lowest level in two decades -- and substantial capital inflows from abroad, investment is now seen as the constraint on growth. While capital formation has increased steadily after the structural reforms of the mid-1980s (Table A7), it is still well below the efforts that propelled countries like Korea and Singapore to high sustained growth, and real interest rates remain quite high at over 10 percent. The financial system is in sound shape, due to prudential supervision of the banks and five years of strong economic growth. Chilean financial markets are relatively well-developed, due in part to the reform of the pension system: pension funds are majority participants in the markets for mortgage bills, corporate bonds and Treasury securities, and purchase a significant proportion of Banco Central notes.

**Table 1. Income Distribution in Chile: Selected Years, 1970-1989.**

Years	Share of Income			Real Wage Index, Dec. 1982=100	Unemployment Rate
	Lowest 40 percent	Middle 40 percent	Highest 20 percent		
1970	11.5	32.7	55.8	113.1	5.7
1979-81	11.1	31.3	57.6	94.4	16.5
1982-83	10.0	30.5	59.5	101.4	27.4
1989	12.6	27.9	59.5	92.0	6.3

Source: Instituto Nacional de Estadísticas. Monthly Report. As presented in Laban and Larrain (1995) and Romaguera, Echevarria, and Gonzalez (1995).

The newly independent Banco Central is concerned about two main issues. First, the country is at risk of an inflationary outburst. Real GDP has grown explosively the past two years (7.4 percent and 10 percent) and in the last quarter of 1989 the annualized rate of inflation is 30 percent (Table A1). Second, massive capital inflows -- much of it foreign short-term and portfolio investment in Chilean financial assets, although foreign direct investment is increasing as well -- are putting substantial pressure on the exchange rate to appreciate. Fiscal policy has, at least until now, helped in the fight against inflation and real exchange rate appreciation with its public sector surpluses.

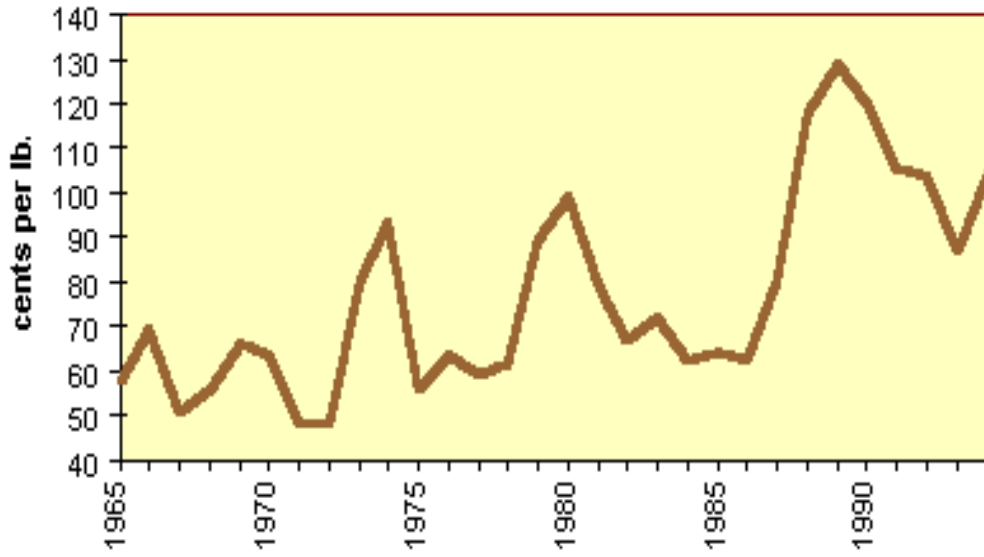
### **Policy decision.**

As Chile's first democratically elected President in sixteen years, and as head of a diverse coalition of center and left parties, Aylwin must address the concerns of organized labor and those that were hit hardest during the adjustment process in the Pinochet era. All parties learned from Salvador Allende's fateful mistakes in the early 1970s of trying to do too much too quickly without sufficient public support. But even the right recognized the necessity to meet the social problems -- in health and education in particular -- left behind by the Pinochet government. Meeting those problems without yielding to what Edgardo Boeniger, Aylwin's Secretary General, calls the "populist temptation" of over-spending, debt and inflation will severely test the new Chilean consensus.

As an economic advisor to President Aylwin, Arturo Rodrigo must design a strategy to improve the situation of the poor immediately. Aylwin, knowing that the remaining representatives of the Pinochet regime in the Senate can block anything deemed too leftist, will need a complete analysis of the costs and benefits of all policy options. Arturo must have his plan ready for a meeting tomorrow with Aylwin and the leader of the rightist Renovacion Nacional party, Andres Allamand. If Aylwin can get Allamand's blessing, Arturo's economic plan has a good chance of Senate approval.

Figure 1  
**Copper Prices on the World Market**

### Copper Price



**Table A1. Selected Macroeconomic Indicators in Chile, 1970-1990**

Year	Real GDP Growth (%)	Unemployment Rate (%)	Real Wages (%)
1970-73	0.7	4.4	99.7
1974	1.0	9.2	64.0
1975	-12.9	16.4	64.7
1976	3.5	19.9	75.6
1977	9.9	18.6	78.8
1978	8.2	17.9	81.5
1979	8.3	17.7	87.3
1980	7.8	15.7	93.8
1981	5.5	15.6	102.2
1982	-14.1	26.4	109.0
1983	-0.7	30.4	93.8
1984	6.3	24.4	94.4
1985	2.4	21.4	89.0
1986	5.7	16.0	85.9
1987	5.7	12.2	83.2
1988	7.4	9.0	90.5
1989	10.0	6.3	92.0

*Sources:* GDP and Inflation data from Banco Central de Chile; Unemployment data from ODEPLAN and Instituto Nacional de Estadísticas (INE); Real Wages from INE.

*Notes:* Unemployment includes emergency unemployment programs.  
Real wage index is as reported in Romaguera et al (1995) based on INE data.

**Table A2. Monetization and Inflation**

Year	Monetization (%)	CPI Inflation Rate (%)
1971	312	
1972	295	
1973	862	204.3 <sup>a</sup>
1974	492	369.2
1975	501	343.3
1976	212	197.9
1977	222	84.2
1978	105	37.2
1979	127	38.9
1980	93	31.2
1981	53	9.5
1982	92	20.7
1983	305	23.1
1984	261	23.0
1985	265	26.4
1986	134	17.4
1987	124	21.5
1988	116	12.7
1989	101	21.4
1990	127	27.3

*Source:* IFS 1995 Yearbook

*Notes:* Monetization rate is the annual percentage change of central bank claims on the central government.

<sup>a</sup> Average annual inflation for 1970 to 1973.

**Table A3. Summary of Chile's Balance of Payments, 1970-1990**

Year	Current Account Deficit		Capital Account (Net Inflows)		Errors and Omissions	Accumulation of Reserves
	(Mil. US\$)	(% of GDP)	(Mil. US\$)	(% of GDP)	(Mil. US\$)	(Mil. US\$)
1970-73		2.4				
1974		0.5				
1975	490	5.2	373	4.0	-109	-226
1976	-148	-1.7	65	0.7	69	282
1977	551	3.7	568	3.8	114	131
1978	1088	5.2	1946	9.3	-128	730
1979	1189	5.7	2248	10.8	-11	1048
1980	1971	7.2	3164	11.5	51	1244
1981	4733	14.5	4698	14.4	102	67
1982	2304	9.5	1215	5.0	-69	-1158
1983	1117	5.7	508	2.6	68	-541
1984	2111	11.0	1940	10.1	190	19
1985	1413	8.6	1384	8.4	-69	-98
1986	1192	6.7	741	4.2	224	-227
1987	735	3.5	936	4.5	-143	58
1988	234	1	1084	4.5	-117	733
1989	705	2.5	1264	4.5	-119	440
1990	536	1.8	3048	10.0	-144	2368

*Source:* IFS Yearbook 1995.

*Notes:* Capital Account measures net capital inflows and equals accumulation of reserves plus current account deficit minus errors and omissions.

**Table A4. Evolution of Imports, Exports, and the Real Exchange Rate, 1980-1990**

Year	Import Volume		Export Volume		Real Exchange Rate
	% of Real GDP	Annual Rate of Change	% of Real GDP	Annual Rate of Change	1980=100
1980	30.3		23.6		100.0
1981	33.1	15.7	20.3	-9.0	87.0
1982	24.7	-35.3	24.6	4.7	97.0
1983	20.9	-17.9	25.3	0.1	116.4
1984	22.3	13.2	24.4	2.3	121.7
1985	19.6	-10.3	26.9	12.3	149.5
1986	20.9	14.1	27.5	9.7	164.5
1987	23.1	17.0	28.3	8.8	171.5
1988	24.1	12.1	27.9	6.1	182.9
1989	27.4	25.3	29.4	15.7	178.6
1990	27.0	0.6	31.0	7.6	185.4

*Sources:* Imports and exports of goods and services are in 1977 pesos from National Accounts, Banco Central de Chile. Effective real exchange rate is from the Banco Central de Chile.

**Table A5. Government Sector Surplus, Revenues and Expenditures, 1970-1989**  
(% of GDP)

Year	Surplus	Revenues	Expenditures
1970-73	-7.7	23.3	30.5
1974	-5.4	27.7	33.1
1975	0.1	32.3	34.3
1976	1.4	30.5	30.1
1977	-1.1	30.5	32.0
1978	-0.1	30.9	31.8
1979	4.8	32.6	28.7
1980	5.4	32.8	28.0
1981	2.6	31.5	29.5
1982	-1.0	29.5	34.1
1983	-2.6	27.4	31.9
1984	-3.0	28.9	32.6
1985	-2.3	28.4	30.4
1986	-0.9	26.9	28.4
1987	0.4	26.5	26.8
1988	-0.2	26.2	27.4
1989	1.8	21.4	20.9

*Source:* IFS Yearbook, 1995.

**Table A6. Nonfinancial Public Sector Revenue and Expenditure, Selected Years 1974-88.**  
*(% of GDP)*

	1974	1976	1978	1980	1982	1984	1986	1988
General government								
Current revenues	30.3	37.4	33.2	32.9	29.9	28.7	28.2	28.7
tax	20.4	23.6	21.8	20.7	19.6	21.0	20.9	22.1
non-tax	9.9	13.7	11.4	12.2	10.5	7.8	7.4	6.6
Current expenditures <i>(of which)</i>	26.4	31.0	26.8	24.5	31.9	30.7	27.4	23.2
wages	10.0	8.9	10.0	9.1	10.3	8.5	7.4	6.2
transfers	6.4	12.3	9.8	10.9	17.3	16.2	14.3	11.2
interest	1.3	2.2	1.6	0.5	0.5	2.4	2.3	3.1

*Source:* Budget Office, Ministry of Finance, Chile. As presented in Marshall and Schmidt-Hebbel (1994).

**Table A7. Private Consumption and Gross Fixed Capital Formation, 1970-1989**  
(% of GDP)

Year	Private Consumption	Gross Fixed Capital Formation
1970-73	74.4	13.9
1974	62.4	16.9
1975	73.2	17.7
1976	68.9	13.3
1977	72.9	13.2
1978	71.1	14.7
1979	70.7	14.9
1980	70.7	16.7
1981	74.5	18.6
1982	75.3	14.6
1983	73.3	12.0
1984	73.0	12.4
1985	67.0	16.9
1986	65.5	17.1
1987	64.0	19.4
1988	59.9	20.3
1989	60.1	23.0

*Source:* IFS Yearbook 1995.

**Table A8. International Debt of Chile, 1973-1989.**

Year	Total Debt (Mil. US\$)
1973	3667
1974	4435
1975	4854
1976	4720
1977	5201
1978	6664
1979	8484
1980	11084
1981	15542
1982	17153
1983	17431
1984	18877
1985	19444
1986	19501
1987	19208
1988	17649
1989	16250

*Source:* Edwards and Edwards (1991).

**Table A9. Money and Time Deposits, Selected Years (%)**

Year	M1 / GDP	TD / GDP	TD / M1
1970	10.2	5.1	49.6
1973	22.2	8.1	40.7
1975	8.7	6.3	74.5
1980	7.3	16.8	207.6
1985	5.6	23.6	422.2
1989	5.9	34.6	590.5

*Source:* IFS 1995 Yearbook.

*Note:* TD consists of time, savings and foreign currency deposits, line 25 in the IFS table.

## Bibliography

- Basch, Miguel and Eduardo Engel, "Temporary Shocks and Stabilization Mechanisms: The Chilean Case," in Engel and Patricio Meller, eds., External Shocks and Stabilization Mechanisms, IDB, 1993.
- Edwards, Sebastian and Alejandra Cox-Edwards, Monetarism and Liberalization: The Chilean Experiment, University of Chicago Press, 1991.
- Ffrench-Davis, Ricardo, Manuel Agosin and Andras Uthoff, "Capital Movements, Export Strategy, and Macroeconomic Stability in Chile," in Ffrench-Davis and Stephany Griffith-Jones, eds Coping With Capital Surges: The Return of Finance to Latin America, IDRC, 1995.
- Gil, Frederico, The Political System of Chile, Houghton-Mifflin, 1966.
- Laban, Raul and Felipe Larrain, "Continuity, Change, and the Political Economy of Transition in Chile," in Dornbusch and Edwards, eds., Reform, Recovery and Growth, NBER, 1995.
- Marshall, Jorge and Klaus Schmidt-Hebbel, "Chile: Fiscal Adjustment and Successful Performance," in William Easterly, Carlos Alfredo Rodriguez and Schmidt-Hebbel, eds., Public Sector Deficits and Macroeconomic Performance, World Bank 1994.
- Romaguera, Pilar, Cristian Echevarria and Pablo Gonzalez, "Chile," in Gustavo Marquez, ed., Reforming the Labor Markets in a Liberalized Economy, IDB 1995.
- Torche, A., "Distribuir el Ingreso para Satisfacer las Necesidades Basicas" in F. Larrain, ed., Desarrollo Economico en Democracia, Ediciones Universidad Catolica 1987.

## Sources

Arturo Rodrigo is a creation of the authors, but the other details of the Chilean history are factual. Rather than interrupt the narrative throughout we credit in this section those sources from whom substantial information has been drawn. More detailed citations are available, when needed, from the authors.

**A country of islanders** - description of the economy is drawn from Gil (1966) with updated copper numbers from Minerals Yearbook, Volume 3 (US Bureau of Mines, US Department of the Interior, 1994). Political events taken from articles that appeared in the New York Times, with precise citations available from the authors.

**The economy under Allende** - drawn from Edwards and Edwards (1991) and Laban and Larrain (1995).

**The Pinochet-era economic reforms** - drawn mostly from Edwards and Edwards (1991) and Laban and Larrain (1995).

**The last years of the military regime** - drawn from Edwards and Edwards (1991) and Laban and Larrain (1995). Information on the Copper Stabilization Fund is from Basch and Engel (1993).

**The economic situation facing the Aylwin government in 1990** - drawn from Laban and Larrain (1995).

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