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THE RIP (TIDE) OF PRIVATISATION

LESSONS FROM CHILE

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THE (RIP)TIDE OF PRIVATIZATION: LESSONS FROM CHILE

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The so-called "tide of privatization" has so far been just a ripple in developing countries. Only in two Third World countries, Bangladesh and Chile, privatization of state-owned enterprises has been at all significant and both cases were rather atypical. In both cases the size of the state sector had been inflated recently. In Bangladesh the majority of the state-owned enterprises came under government control as being "abandoned" by fleeing owners in 1965 and 1971. The estimated 217 divestitures so far represent about 30 percent of the total state enterprise sector (Chrishty, 1985). Privatization in Bangladesh has been actually "reprivatization." In Chile the situation was more drastic. The country always had a significant state-enterprise sector which increased five-fold in the period 1970-73 by a combination of defaulting private enterprises and of nationalization of certain private companies for the purpose of promoting the socialist restructuring of the economy. Of the 500 companies that were under state ownership (majority or partial) at the time of the installation of the military government, only 19 remained under public control at the conclusion of the privatization operation in late 1970 (Foxley 1982b, CORFO, n.d.). The divestiture in Chile was almost complete. In other developing countries privatization so far has been only sporadic.

Under these circumstances, the study of privatization in Chile, the most enthusiastic practitioner, even forerunner, of the art, is likely to be rewarding. It may yield valuable insights both into the pitfalls of and the obstacles to privatization.

This paper starts with a general discussion of the main forms that privatization can take and the motives which usually inspire the privatization of public sector assets. Section 2 describes the macroeconomic setting within which privatization was enacted in Chile. Privatization in the agricultural sector was effected through the sale of public enterprises and through the partial rolling back of the land reform and the restoration to their previous owners of lands expropriated but not fully transferred to the land reform recipients. The two aspects are covered, respectively, in sections 3 and 4. Section 5 deals with privatization in the non-agricultural sector. The financing of privatization is discussed in section 6. The implications of privatization and the impact it has had on savings, investment, and economic concentration are treated in section 7. A postlude discusses briefly the situation after 1982 and the effects of the deepening crisis on the initial outcome of privatization. Finally the lessons which other developing countries on the road to privatization could draw from the Chilean experiment are summarized in section 8.

1. The Ambit and the Logic of Privatization

Privatization is a broad term which could cover a wide range of government activities. Privatization, the placement of public assets in the private sector, may refer to the sale of national forests, to the issuance of government bonds, or to disposing of the public treasure. The process was elegantly described by Harold Macmillan, Britain's conservative Prime Minister (1957-1963): "First of all the Georgian silver goes, and then all that nice furniture that used to be in the saloon. Then the Canelettos go." Such cases are closer to liquidation of public assets.

Next, privatization can mean the transfer of management, instead of ownership, to the private sector. Leases, management contracts, or contracting out the delivery of public services to the private sector fall into this category. So does, in its broadest sense, the shifting of the financing of publicly provided goods from taxpayers to consumers through user fees. Finally, privatization can mean divestiture of state-owned public enterprises through the sale of majority equity to the private sector. This aspect of privatization will be the main focus of this paper, although the liquidation of parts of the public treasure will also be mentioned briefly.

The enthusiasm of the 1950s and 1960s for the role that the public sector could play in economic development was followed in the 1970s by disenchantment at the loss-making propensity and poor service of many public enterprises. The allures of privatization seem to be many, and the logic of privatization appears strong:

(i) Privatization could help raise revenues for Third World treasuries that were effectively bankrupted by their state-owned enterprises.

(ii) In the private sector only the fit can survive. Privatization, as a result, by pushing back the frontier of the state could lead to innovative management and could promote economic efficiency. The state thus assumes its appropriate role of "subsidiarity," in the Chilean definition of its functions.

(iii) Privatization could lead to further economic democratization through increasing the participation in the ownership of the national assets.

(iv) Finally, divestiture of public enterprises can take the form of reprivatizing firms which formerly existed in the private sector. Two categories of such firms are prominent. The first category is firms that have been nationalized essentially for non-economic reasons, such as nationalism or attempts to promote a socialist economic structure. The second is enterprises that failed in the marketplace and have been taken over by the state.

The motives for privatization listed above can be classified in two basic (and partly overlapping) categories: privatization for profit, as in (i) and privatization for ideological principle, as in (ii) to (iv). The distinction is useful because, as will be pointed out below, principles are at times so compelling that they override profits and privatization takes place at considerable fiscal and social loss.

2. The Macroeconomic Setting

In the last twenty years the management of the Chilean economy has undergone such extreme changes that the country becomes an almost-ideal case for a controlled experiment in testing competing economic ideologies. Starting from a Latin American prototype of the activist government participation in the economy in the 1960s, economic dirigism was stepped up in the early 1970s by the introduction of extensive price controls, the widespread state take-over of firms and the increased tariff and non-tariff protection to economic sectors. By the early 1970s the administration of the economy was often carried out directly through the ownership of important production, distribution, and financial enterprises. It was carried out indirectly through a multitude of policy control instruments that had profound monetary, fiscal, foreign trade, and social welfare implications. Examples of such policies were:

(a) An overvalued exchange rate, supported by high levels of tariff and non-tariff protection;

(b) Interest rates at negative real levels;

(c) Price controls aimed primarily at food and other urban wage goods;

(d) Legally mandated wage adjustments intended, in varying degrees, to control inflation, protect real incomes in the face of inflation, and alter the distribution of income;

(e) High and growing levels of social benefits, financed largely by payroll taxes and government subsidies;

(f) Large public sector deficits financed in varying proportions by monetary expansion and foreign loans;

(g) Numerous exemptions from taxes, tariffs, and quantitative controls, and substantial direct subsidies in pursuit of special distributional or allocative objectives; and

(h) Direct participation of the government in production carried out through a multitute of parastatals.

Excessive regulation proliferated public administration. In agriculture, for example, a large and complex bureaucracy was created to administer various overlapping programs of price controls, subsidies, credit, tariff preferences, marketing, technical assistance, research, irrigation, roads, rural education and health, and land redistribution. The Corporacion de Fomento de la Produccion (CORFO) (Production Development Corporation of Chile) was the parastatal organization charged with fostering the development of productive activities in Chile, primarily by promoting investments through loans and guarantees to the private sector, managing its own major enterprises, conducting project research and, at times, implementing such projects directly. By 1970 CORFO held part of the equity capital of 46 companies (ranging from public utilities to fishing, construction, agro-industries, forestry, and mining) which were either set up initially as public enterprises or were the result of converting public loans into capital subscriptions for defaulting firms. Between 1970 and 1973 the number of state-owned enterprises under CORFO increased to 500 by the takeover of 259 companies and the acquisition of another 204 corporations, including the stock of 19 commercial banks. Similarly, the public agricultural sector, which in 1970 consisted of 27 independent agencies, grew rapidly in the next three years as a result of the land reform. The payroll of the Ministry of Agriculture alone grew from fewer than 11,000 employees in 1970 to more than 27,000 in 1973 (CORFO, n.d., p. 2). Total employment in the public sector grew from 280,000 in 1970 to 360,200 in 1974 (Foxley, 1982b, p. 239).

Following the military takeover in 1973, Chile began a policy of liberalization which relied to a large extent on the free market to allocate resources and which led to an attendant retrenchment in the public sector with the size and role of the government greatly reduced.1 Commodity prices were liberalized by dismantling the protection system and eliminating the widespread price controls. Financial markets were progressively liberalized until in 1980 virtually all quantitative restrictions on external capital flows were eliminated. There was a de facto deregulation of the labor market due to the trade unions' loss of power. A monetarist price stabilization program was introduced which relied heavily on eradicating chronic fiscal deficits.2 Foreign trade liberalization culminated in 1979 with the introduction of the uniform 10% nominal tariff (except for large automobiles) and the elimination of all export subsidies. In agriculture specifically, the agrarian reform, begun and accelerated under three previous governments, was ended; the government's role in providing agricultural infrastructure, training and technical assistance was sharply reduced. The state divested itself of the ownership of enterprises, including national forestlands and farm capital that had come under the control of state-sponsored cooperatives. Of the 500 enterprises controlled by CORFO in 1973, only 19 remained under public ownership in 1978 (CORFO, n.d., p. 18).

The military government's intent was to stabilize a chaotic economy and to introduce structural changes using the principles of free market competition. The policy instruments for the stabilization program were monetary control, fiscal discipline, and deregulation of prices. The structural changes included privatization of most economic and many administrative functions performed by the public sector, liberalization, and decontrol of private capital markets, and the opening up of the economy to international trade and to international capital movements. During the late 1970s and early 1980s, this liberalization process appeared to have rewarded its architects. The growth rate of GDP which averaged 4.8% per year between 1961-71, and was negative in 1972 and 1973 (-1.2 and -5.6, respectively), came to a halt in 1974, and dropped by -12.9 in 1975. But it climbed thereafter at 6.8% for the period 1976-81 (Tables 1 and 2). The public sector deficit which was as high as 21.7% of GDP in 1973 turned into a surplus. Inflation which was in three digits starting in 1972, dropped to 30% in 1980, and further declined through 1982. There was a huge inflow of capital from abroad and an increase in reserves, although the balance of trade was still negative during most of the period. Yet, the whole "miracle" started unraveling in 1982. The GDP growth rate registered -14.3% in 1984 and, in the midst of the deepest recession in 50 years, GNP per capita was back to mid-1960 levels.

Many of the measures of the liberalization period, taken singly or in conjunction, could have had beneficial effects upon the Chilean economy. All taken together and within a short period of time, added up to a deep change in the economic structure which would require some time to work itself out. In the interim period they led to more pronounced instability. This was further exacerbated by the transmission of international disturbances — a severe decline in demand with the recession of 1975-76, sharply higher commodity prices in 1974, followed by the commodity price bust after 1976, the debt crisis, and so on. These events led recently to shedding a number of the liberalization policies. Among the jetisoned liberalization policies were the trade liberalization, the opening up of the capital markets, the laissez-faire approach toward prices, and the severe limitations on government intervention in the economy.

3. Privatization in the Agricultural Sector

There is no gainsaying that by 1973 the public sector had grown out of control. The role of government had extended to the breaking point of inefficiency and the parastatal organizations had mushroomed with their tentacles extending over all the sectors of the economy. Still, the detached position that the government assumed, all of a sudden, and the privatization of certain parastatals had profound implications for the agricultural sector. In certain cases the implications were direct. In the case of land reform, which was largely rolled back, the implications were indirect but most profound.

The privatization in the agricultural sector covered cases of re-privatization of enterprises that came under the control of the public sector either because they had defaulted or because of the attempt of the Allende government to build a socialist infrastructure for the economy. It covered enterprises that were originally set in the public sector domaine because of considerations of failure in the private market; it covered also government assets that were part of the national treasure. Table 3 gives a partial list of agricultural enterprises that were privatized during the period.

The sale in auction of a large part of the national forests is an example of liquidation of the national treasure. The initial impact was for the rate of forest exploitation to increase and for forestry exports (U.S. $ values) to grow sevenfold between 1973 and 1980. A longer-term impact was that the rate of reforestation declined, which led the government to consider special interventions in order to encourage the private owners to replant.3 Moreover, as the forests closest to the transportation links were felled, the growth of forestry output declined because of the reluctance of private owners to invest in the infrastructure necessary to provide transportation.

The sugar mills and the milk-processing plants are partly examples of re-privatization and partly cases of enterprises that were initially set up in the public sector. The privatized sugar mills soon failed, which led the government to set up IANSA, the government sugar monopoly, to reacquire the sugar mills and operate them as a state monopoly exempt from the uniform tariff.

The technical education for the agricultural sector was entrusted to a private sector enterprise, CODESSER, which was developing and selling agricultural expertise, largely to the large-farm sector and especially to arboriculturists. Assistance to the small-farm sector (with holdings less than 12 irrigated hectares) was the responsibility of the Agriculture Development Institute (INDAP), which was also responsible for credit to smallholders. INDAP raised its capital by rediscounting its notes at the

Central Bank at the special 8.5% real interest rate. It made its profits by charging the maximum spread of 3.5% and loaning to smallholders at 12% real interest rates. Another source of income for INDAP was the sale of technical assistance that the farmers had to buy as a condition for obtaining the loan and which was being paid for in advance by reduction of the loanable amount. The only component of the budget of INDAP which was provided by the government was its payroll of 780 employees of which one-half were technicians. It is estimated that INDAP loaned to 40,000 small farmers out of an estimated total of 240,000 smallholders during the period.

Under legislation which became effective in 1981, Riparian water rights, previously in part a public responsibility, were transferred fully to private owners of land.4 A recipient of water rights has a right to a fraction of the available water in a canal system. Water rights thus became private assets which could in principle be bought and sold separate from the land. Locally controlled committees for each river, the Canal Owners' Associations, are responsible for the maintenance of the canals, for building new irrigation infrastructure, and for settling any conflicts between user groups on rivers. It is not surprising that the associations produced next to nothing in new irrigation infrastructure and the irrigation system worked very imperfectly.

After the privatization of the banking sector, agricultural credit became mostly the responsibility of private banks. In 1972 the Banco d'Estado de Chile was responsible for 53% of the total credit to the agricultural sector and the Central Bank, along with other parastatal organizations, for another 33%. Private banks were financing only 14% of total agriculture credit. In 1982 private banks were financing 77% of agricultural credit with the balance being the responsibility of the Banco d'Estado de Chile. Of the agricultural debt 86% was short-term, with duration of less than a year. This was probably the inevitable result of the high real interest rates that prevailed during the period. Agricultural credit became extremely concentrated. At the end of 1983 an estimated 15,000 farmers owed about $1,500,000 equivalent to the financial system, accounting for about 13% of the system's lending portfolio. One-third of such debt was incurred in foreign currency.

4. Land Reform and Counter-Reform[5]

The story of Chilean land reform becomes important in the context of privatization for two reasons: First, the partial roll-back of the land reform by the military government amounted to re-privatization. Second, the privatization-for-principle approach of the counter-reform imposed serious social costs on the economy, and accounted at least in part for the disarray of the agricultural sector through the 1970s and beyond.

Surplus labor which often provides the stimulus for land reform did not emerge in Chile until the late 1950s. Serious land reform efforts date from that period. The first land reform law was passed by the Alessandri administration in 1962. It provided for purchase by the state in cash and at full market value of lands abandoned by landlords and for the purpose of redistribution to the peasants. The 1962 law was little used.

The major effort for land reform was undertaken during the Frei administration with passage of a new law in July 1967. This law greatly broadened the criteria for expropriation of land to include for the first time excessive size per se, as well as abandonment, poor exploitation, corporate or absentee ownership, and breach of pertinent labor laws and regulations. Expropriable under the new law were landholdings in excess of 80 basic irrigated hectares (BIH).[6] During the six years of the Frei government, some 1,400 farms were expropriated, covering 3.6 million ha and involving 21,000 families.

The pace of land reform accelerated during the Allende government. With tensions rising in the rural sector, expropriations frequently spilled over the legal boundaries defined by the 1967 law. A total of 4,399 farms, covering 5.9 million ha, were expropriated from 1971 through 1973, with an estimated 40,000 affected families.

Since 1973 under the military government the policy objective became consolidation of the land reform and bringing land ownership under the discipline of the marketplace. The legal authority for land expropriation was cancelled and so were expropriations that were not legally completed by September 1973. With regard to the land that had already been subjected to reform, the government focused on clearing legal titles and organizing it on the basis of individually owned family farms. In the process of clearing legal titles, a total of 3 million ha, or 28% of the total area expropriated, was judged illegally expropriated and was returned to the previous owners.

In summary (Table 4), 43% of Chile's agricultural land, measured in terms of BIH, was expropriated before September 1973. Of the total expropriated land, 28 percent was returned to the original owners. The reformed sector retained 57 percent of the expropriated land, and this amounted to 25 percent of Chile's total agricultural area in BIH.7 The remaining 15 percent of the expropriated land initially came under the Land Reform Authority (CORA), and was eventually disposed of to the private sector: 5 percent of the total expropriated BIH was sold at auction to the highest bidder and presumably returned to large farm owners; of the remaining 10 percent the largest part was transferred to the National

Forest Corporation (CONAF), and was eventually sold with the devolution of all forestlands to private interests (Jarvis, 1985, p. 11).

The process of land reform and partial re-privatization in the quick succession of a few years was found to prolong the period of disruption in agricultural production and of decline in output. More importantly, however, even the land reform sector that was not reprivatized was seriously affected by the privatization-for-principle resulting in further disruption and decapitalization of Chilean agriculture. The explanation requires a brief digression into the structure of the agricultural sector under land reform.

Neither under the Frei, nor under the Allende land reform was title vested with the beneficiary families. In the former period the recipients were organized into cooperative settlements, the asentamientos, which conformed generally to the borders of the expropriated estate. Under Allende a more centralized system was adopted in which the expropriation and settlement process was administered on an area-wide basis in order to achieve greater control over sectoral planning and to take advantage of economies of scale in production. Regional cooperative organizations, the Agrarian Reform Centers (CERA), were formed to exercise administrative and financial control over the asentamientos and large scale, capital-intensive enterprises, such as livestock, forestry, and vineyards, were organized as state farms. The organization of the reform sector around cooperatives intended to offset the handicap of the land reform beneficiaries who, as former agricultural workers, lacked experience in farm production and management and lacked capital and agricultural implements. The cooperative was reponsible for contracting loans for the purchase of capital assets; it owned the implements and machinery for agricultural production; and it disseminated agricultural skills and extension services.

The cooperative structure of the reform sector was inconsistent with the liberalization policies introduced after 1973. The cooperatives were broken up into "agricultural family units," defined as land parcels sufficient to earn a family a certain net return (initially $1200) before amortization of land. In the course of land subdivision to title family units, the asentamiento was required to settle its outstanding debts for credit, machinery, and other inputs. In the absence of cash to settle these obligations, the government would repossess the cooperatively owned physical assets — machinery, livestock, fertilizer inventories, etc. — offering title recipients credit and first option for their repurchase. Few took advantage of the offer, and most cooperative assets were sold at public auction. Cooperative debts remaining after this liquidation became the prorated liability of the individual titleholders. This was the beginning of the Chilean agricultural debt problem.

The ideologically uncompromising privatization-for-principle during the counter-reform consisted of dismantling the producers' cooperatives built around the asentamiento and encumbering the cooperative members with their pro-rated share of the debt contracted by the cooperatives. The original intent of the producer cooperatives was to serve as a funnel for providing mechanical equipment, modern inputs, credit, and especially extension to the reform sectors that was largely composed of beneficiaries with no previous farming experience. When this support was suddenly withdrawn, the newly established family farms were thrown into the market competition, most unprepared, to sink or swim as it were, carrying the ballast of the gratuitous cooperative debt. In the midst of this situation, the restrictions imposed by the land reform law on subdivision and accumulation of land were tacitly removed in 1973 and legally lifted in

1979. Rural property became an asset essentially free from use restrictions. Faltering production and accumulated debt of the smallholder sector led to massive sales of land. By 1979 it is estimated that about one-half of the beneficiaries of land reform had found themselves obliged to sell or lease their farms to other farmers (Foxley 1982b, p. 240; Ffrench-Davis 1983, p. 908). In the period since 1978, especially, transactions in land for the purpose of land accumulation reached speculative proportions (see below). Land consolidation in the hands of large farmers that ensued further increased the agricultural debt burden and led to the decapitalization of Chilean agriculture.

5. Privatization in the Non-Agricultural Sector

The Land Reform Agency (CORA) and the National Forests Agency (CONAF) were responsible, respectively, for the privatization of 66 agroindustries and the privatization of the forestlands held by the state. By 1973 the state also held mines and mineral companies through ENAMI, and urban real estate through CORMU, plus various other holdings through government departments, such as the Copper Corporation (CODELCO) and the National Petroleum Enterprise (ENAP). The bulk of the state holdings, however, were concentrated in CORFO as shown in Table 5.

The first step in the privatization of the CORFO holdings was the reprivatization of the 259 recently requisitioned, intervened, or defaulted enterprises, the shares of which CORFO had not yet acquired. These were returned to their owners starting in September 1974.

The privatization of the banking system constituted the most far-reaching reform in the early years of the military regime. Among the enterprises that were held by CORFO by more than 50 percent ownership were also 19 banks. Of these only the Banco de Estado remained in the public domain (with a much reduced role),[8] while the 18 others were auctioned off in 1975. To complete the privatization of the banking system, the deregulation of the capital market followed. Private financial companies (financieras) were allowed to establish freely with no restriction on gearing ratios (debt-to-asset ratio) and with a maximum monthly interest rate they were allowed to change limited to 25%.[9] In October 1975 the limitation of interest charges was entirely lifted also for the commercial banks which, however, still had to maintain a debt to capital ratio of 20:1.

The privatization of financial intermediation was followed in 1980 by the privatization of the social security system. The retirement pensión scheme, hitherto financed through a distribution system, was replaced by privately capitalized social security financing societies. Every employee was obliged to contribute to either the old system or to one of the new funds. But the self-employed could only join the private system and workers opting to remain in the state system paid a higher contribution (27%, rather than 19% of taxable income). The choice between financing societies was supposed to be made by the worker within a rational expectations framework in which the expected profitability of the society to the date of an individual's retirement is the crucial variable. In fact such a prediction model proved, to say the least, underidentified: the returns to the worker consisted of profits and interest on the invested retirement funds, an appreciable proportion of which went into deposits of 30 days (rather than 30 years) with a notoriously fluctuating interest rate; the costs to the worker, on the other hand, were determined by various commissions charged, which were freely modified by each society (Ffrench-Davis 1983, p. 908). As a result, advertizing and size determined to a large extent the choice of workers, with the two largest conglomerates (grupos) acquiring control of 75% of the market within two months of the institution of the private system (Foxley 1983, p. 106).

The privatization of the rest of the enterprises held by CORFO was almost complete by 1978 with only 17 remaining under public control (Table 6). Further devolution took place subsequently so that by 1981 all but 13 of the state-owned enterprises, whether through CORFO or other entities, were in private hands (Parkin 1983, p. 105). However, 8 of those 13 state-owned enterprises are among the largest in Chile in terms of net worth. Among these are the Copper Corporation (CODELCO)10 and the National Petroleum Enterprise (ENAP).

The process and the terms of privatization varied somehow for different cases. Some companies that were in a poor financial situation (38 in total) and some that were bankrupt (9 in total) were dissolved and their assets were put up for sale. In some other cases a certain amount of restructuring the balance sheet of companies under liquidation took place by wiping out some debts. Otherwise, the liquidation proceded hurriedly and with the minimum preparation. Decree Law No. 333 of February 18, 1974, proposed to "normalize" the debts of the companies under liquidation "in some cases entailing currency adjustments" and in others not (CORFO, n.d., p. 10). In any event, the long and tedious procedure of valuing the company's assets and the net claims against assets, of determining employee's claims against the company, determining liens outstanding, and solving legal problems was seriously truncated.

The sale of the companies was by auction or by competitive bidding, although latitude was given by the law for alternative arrangements, including direct negotiations with prospective buyers. All sales were open to nationals or foreigners and the sales price could be either in local or in foreign currency. The method of settlement usually involved an initial cash payment with the balance payable in successive installments over a certain term, at interest rates ranging between 8% and 12% per annum. The cash installment ranged from 10 to 50 percent and the balance was due commonly in annual installments of 5, 10, or 12 years, in certain cases with a grace period.

The proceeds of the privatization of 197 companies in the period 1974-1978 amounted to US$585 million, of which US$219 million came from selling shares in the 19 state-owned banks (Dahse 1979, p. 178). Table 7 presents data on the book value and the sales price of 45 commercial enterprises which include also 11 banks. The sales price is on the average 60 percent of the book value listed. This implies a subsidy to the buyers of the public enterprises of 40 percent of the firms' actual worth. It is likely that even this is an underestimate and the divested companies were in fact picked up at low prices and for little equity. Several reasons lead to this conclusion: the government's commitment to privatize probably led it to drive a poor bargain. The earning power of the enterprises, on which buyers' offering prices are based, was probably at a low in the midst of monetary stringency and fiscal austerity when privatization took place. Similarly enterprise profits must have been low or negative because of a host of problems such as overstaffing, outmoded technology, outsized plant, and so on. Under these circumstances, even if the book value in Table 7 was accurate, it would still be steeply discounted by prospective buyers. Finally, in the midst of a liquidity crisis, only substantial buyers could compete for the purchase of most liquidated enterprises. This is explained below.

6. The Financing of Privatization

It has already been pointed out (Section 2) that privatization took place in a period of austerity which had led to a general decrease in profits, a large increase in unemployment and a sharp drop in investment. The timing of the sale of state assets does not appear very fortunate in such a macroeconomic environment. How was the privatization financed and what effects did such financing have for the economy?

The orthodox stabilization program of the military government was founded on monetarism that considers inflation, first, highly disruptive, and, second, a pure monetary phenomenon (Laidler and Parkin 1975; Nordhaus 1976). According to this view, the roots of inflation can be severed by tight monetary control, accompanied by the elimination of fiscal deficits and by curbing the tendency on the part of the public and the private sector to overspend through retrenchment of the former from its economic functions and through general liberalization of prices, plus trade. The liberalization of prices and of trade were put into effect, and the fiscal deficit decreased from 22% of GDP in 1973 to zero in 1978 and a surplus thereafter to 1981 through, mainly, a severe cutback of public expenditure (Table 1). Under the circumstances a neutral monetary policy followed, in the sense that expansion of domestic credit was not the cause of an increase in the money supply. Yet the money supply was expanding very rapidly throughout the period (Table 1), with foreign exchange operations being responsible for 80 percent of the cumulative change in the monetary base between 1975 and 1978 (Zahler 1980, p. 133). The official view was that the money supply was demand-determined along a monetary model of the balance of payments (McKinnon 1982). Others believed that the money supply continued to be determined by the actions of the central bank which did not exercise adequate control (Corbo 1984). Our view is that the money supply was determined by domestic demand, which, given the central bank restrictions on domestic credit creation, was financed instead through short-term capital inflow from abroad.

The economy started off in 1974 from a state of universal controls in the real and financial markets and with severely repressed demand. The controls were shed immediately and the foreign trade sector was liberalized and tariffs gradually reduced from 1975 to 1977 to a uniform 10 percent level. Effective demand for goods increased and it was satisfied mainly through imports, both because of the depressed state of the domestic economy and because of the decrease in relative prices of imported goods due to the elimination of tariffs. This is reflected in the deficit of the balance of trade, which grew steadily to US$426 in 1978 and to $2598 million in 1981 (Table 2). At the same time the rolling-back of the land reform was taking place which was forcing the reform sector to sell its assets, including land, and was enabling the expropriated owners to reacquire and consolidate their estates. The privatization of state-owned enterprises which culuminated in 1978 further contributed to excessive demand for finance.

The paradox is that the economy was depressed (the rate of growth of GDP was -13% in 1975 and only 3.5% in 1976), the rate of inflation was declining (by 50% between 1973 and 1976 to 230%) and yet a speculative rampage had overtaken both real and financial markets. Thirty million pairs of shoes were imported in just two years! The real index of stock prices septupled between December 1977 and December 1981 (Corbo 1985, p. 18). Farmland prices which had historically grown in Chile by 1.2 percent per year, more than doubled in the period 1974-78 over their 1965-70 base; they increased on the average another 25 to 50% (depending on location) in 1978; and they really took off between 1979 and 1982 (Jarvis 1985, p. 192).

A large portion of the transfer of assets that took place during the period, be they state-owned enterprises or farm land, was transacted through leveraged buy-outs in which the asset proper was used as collateral. Leveraged buy-out situations are predicated on interest rates which are expected to decline and on asset prices which are expected to keep on increasing. When neither of the conditions was satisfied, actually when the converse occurred, the big crash happened.

The behavior of interest rates has long been considered paradoxical in the Chilean puzzle (for example, Edwards 1985, pp. 238 ff., Galvez and Tybout 1985, p. 970). Real interest rates which were negative through 1975 sprang upwards with liberalization reaching a high of 65 percent (annual) in 1976 and remaining throughout the period from two to six times above the international levels. The paradox became an enigma after June 1979 with the opening of the external capital account when limits on foreign borrowing were removed.

The high real interst rate for peso loans has been explained by several observers as a credit-demand-pull phenomenon in the face of strict monetary policies applied on the domestic credit account (Cox 1983, pp. 13 ff., Zeller 1980, Ffrench-Davis and Arellano 1981, Dornbusch 1984). As mentioned earlier, the liberalization of imports with the uniform tariff, along with the extension of credit-purchases to consumer goods tapped a source of pent-up demand, increased the demand for liquidity and helped keep domestic interest rates high. So did the huge transfer of assets that took place through privatization of public enterprises and through the counter-reform in the agricultural sector. The demand for credit was further spurred by the perception of increased wealth that the transfer of assets and the access to foreign goods created and by any nagging suspicion that might be lingering that liberalization could not last forever and devaluation might become necessary. At the same time the monetary policy was not accommodating. The "passive money stance" of the monetary authorities restricted internal credit financing and by maintaining high reserve requirements on commercial banks induced a high spread between domestic lending and borrowing rates and prevented interest rate declines to anywhere close the international levels.

The change in the financial sector's structure, in preparation for handling the demands that huge transfers of assets would raise, was probably of the wrong kind. With the privatization of intermediation and decontrol of interest rates, total financial assets increased from 16% of GDP in 1973 to 39% in 1981 (Galvez and Tybout 1985, p. 972). This financial deepening might have helped the economy in a Shaw-McKinnon sense (1973). One of the reasons that it failed is certainly that deregulation had gone too far. There was almost no monitoring of portfolios and as a result the composition of the financial assets shifted toward nonmonetary holdings in banks and financieras. There was laxity of regulation and no monitoring of interlocking directorates and therefore the control of most major intermediaries fell into the hands of one of several large conglomerates. These grupos used the intermediaries to mobilize resources, especially by accessing the international credit market for their own industrial and financial endeavors.

In general the system of domestic financial intermediation worked only imperfectly at the very time that demand for liquidity and financial intermediation increased. The need for financial capital was filled by the international market as shown by the huge net capital inflow (Table 2). There were two problems, however, with foreign capital inflow: it was short-term, from 30 days to less than three months in duration; and access to it was limited. The short term of capital inflows can be explained by the concern of foreign lenders about the inevitability of devaluation. In a period of high international liquidity and relatively low real LIBOR rates external credit was easily available.11 By June 1979 it was only subject to the regulation of the overall borrowing (internal and external) limit of twenty times the capital and reserves of commercial banks. Under these circumstances access to cheap (and rationed) external credit was available only to a few large enterprises (grupos) and to the better established banks and financial institutions. In essence it proved much easier to monopolize access to foreign capital than it was to monopolize the goods import sector. As a result, the law of one price and the import discipline hypothesis which worked in the case of commodities did not work in the credit market. The divergence between domestic and foreign interest rates was maintained as a source of huge profits,12 and as an instrument for increasing concentration in the economy.

Foreign direct investment is shown in Table 2 net of foreign disinvestment. It fell short of the expectations of policymakers and of the predictions of the leading monetarist paradigm. Despite the generous incentives offered, foreign direct investment in the period 1974-79 was only 69 percent of that in the period 1964-68. Moreover, approximately one-half of foreign direct investment went into the purchase of existing assets, as opposed to new investments. Under 25 percent went into the establishment of new firms, and half of those established were in the financial sector (Parkin 1983, p. 116).

Undue emphasis has been placed on the fixing of the exchange rate in June 1979 at 39 pesos per U.S. dollar. The standard monetarist explanation is that the fixed exchange rate was the one mistake that led to the collapse of the liberalization experiment in 1982 (Corbo 1985a, 1985b;

Dornbusch 1984; Edwards 1985). A timely devaluation would have worked to forestall some of the problems that arose, but only in a partial equilibrium framework and with respect to the merchandise trade account. Devaluation would have stemmed the influx of imports, would have helped the balance of payments, and so on. So would, in a partial model, a host of other measures, such as increasing tariffs on imports, and subsidizing the cost of domestic competitive production. In a general equilibrium framework, however, where the capital account is also considered, the solution might not be that simple. In our opinion, fixing of the exchange rate was the last instrument available to policymakers for dealing with the languishing direct foreign investment in the midst of a huge inflow of short-term capital.

Prior to June 1979 the exchange was set according to different versions of a crawling peg.[13] In a monetarist open economy model the law of one price determines the evolution of domestic prices. The rate of exchange can then be used for compensating for the differential between domestic and foreign levels of inflation until such time as the two inflation rates come to converge under an open capital account and with deepening trade liberalization (McKinnon 1980). The logical conclusion of global monetarism is fixed exchange rates with harmonized national rates of inflation (McKinnon 1982). Of course, this position disregards the fact that domestic inflation has not only a tradable but also a nontradable component that assumes the greater weight the less developed the economy is. It also overlooks any structural components that the national rate of inflation might reflect (Lindbeck 1979). Still, consistent with the ruling paradigm, the Chilean policymakers can at worst be accused of displaying the enthusiasm of the neophyte by believing that jumping the gun with a fixed (over-devalued for 1979) exchange rate they would force domestic inflation down to the international levels. This is probably a pardonable transgression committed in the attempt to tie down the footloose inflow of hot short-term capital. The reluctance of foreign capital to stay long-term was interpreted as due mainly (only?) to fears of devaluation and the attending depreciation of foreign capital assets. The fixed exchange rate provided a guarantee against this fear. Unhappily, it did not work in bringing in direct foreign investment or in bringing down the rate of inflation. Failure, rather than inconsistency, was the cardinal sin of the policy!

7. The Aftermath of Privatization

A few pathological symptoms should have been evident in the Chilean economy from early on. They attracted attention only after the unravelling of the "economic miracle" started in 1982. Not all these symptoms were caused by the privatization. Privatization, however, and its implementation in many cases made a pathological situation worse. Such cases will be examined in this section.

(i) Savings and Investment

The liberalized capital markets and the high real interest rates failed to generate high levels of domestic savings and productive investment. This was the single most consequential failure of the Chilean experiment. Gross investment equalled almost 21% of GDP during the 1960s. It averaged 15% in the period 1974-82 (Table 8). Since depreciation ranged from 10 to 19% during the period, gross capital formation was barely adequate to cover the attrition of the capital stock. Consequently, little net addition to productive capacity took place during the liberalization period (Parkin 1983, pp. 115-16; Edwards 1985, pp. 237-39; Corbo 1985b, p.

18; Zahler 1980, p. 148). Parallel to the behavior of domestic investment was that of foreign direct investment which failed almost totally as we discussed earlier.

Not unlike investment, gross domestic savings did not increase. Instead they stood throughout the period at one of their lowest levels in history (Table 8).

The behavior of savings has been attributed to the increase in perceived wealth (Harberger 1982). Wild speculation led to the increase in asset prices, such as land and stocks, as explained earlier. To the extent that savings depend on the differential between actual and desired wealth, the false feeling of economic well-being might have increased consumption and decreased savings. An alternative explanation for the low level of savings is related to privatization that diverted private investor money from the purchase of securities that would finance private capital formation to the purchase of extant state assets. The government, on the other hand, used the proceeds of such sales to finance current expenditure. Thus the private savings used to acquire state enterprises were offset by negative government savings (Edwards 1985, p. 238).

(ii) Concentration of Assets and Debt

A strong motive for privatization is to promote economic democracy through broadening the participation in the ownership of the national assets. Just the converse happened in Chile where privatization increased the size-concentration of firms and further enhanced the economic power of the 20 or so major industrial and banking groups.

The mechanism of increasing concentration lay in the implementation of privatization. Given a weak capital market and the tight control of domestic credit, the sale of state-owned enterprises was financed through the inflow of foreign capital. As noted earlier the effective access to the foreign capital market was limited to a few large conglomerates and to the better-established banks and financial institutions.14 These groups used the cheap foreign credit to build up their holdings of industrial and financial enterprises.

Data on credit allocations are incomplete. Dahse (1979, pp. 191-92) reports the share of 36 conglomerates in domestic and international credit allocated to non-financial enterprises in the period through 1978. Two of these conglomerates, Cruzat-Lorrain and Javier Vial, were the recipients of 20% of the total domestic and international credit extended and all 36 grupos accounted for about 40% of total credit to non-financial enterprises. Since some of these groups controlled also their own financial enterprises (Table 7) they probably received an even greater share in total credit. Foxley (1980, p. 112) quotes evidence that 70 large enterprises used 49% of the total external credit available in the period 1976-78. Credit in the agricultural sector was also extremely concentrated among few firms. Knudsen and Yotopoulos (1985, p. 13) estimate the total amount of agricultural debt by the end of 1983 at US$1.5 billion:

> This credit concentrated among a small proportion of the farms. Of the total outstanding debt in 1984 from private banks in the agricultural and forestry sector, 38 percent was owed by 1 percent of the debtors (206 farmers) who carried an average debt over US$3 million. The majority (50 percent) of debtors (about 7,500) had only about 4 percent of the debt with an average debt of under US$10,000. Half of the debt in agriculture and forestry was concentrated among about 500 debtors; the rest was distributed between about 14,500 farmers with an average debt of about US$60,000. Of the total debt about 17 percent was in arrears distributed fairly evenly according to size of outstanding debt.

The exact correspondence between credit availability and purchases of privatized enterprises cannot be easily established. Table 7 which lists some of the most important privatized enterprises shows preponderantly conglomerate buyers. Moreover, and independently of privatization, two financial groups controlled by 1978 over 50% of the assets belonging to the 200 big corporations registered in the Stock Exchange in Chile (Foxley 1980, p. 911).

The evidence on concentration is scattered but points to the increasing economic power of the major conglomorates. The five largest conglomorates owned 46.5% of the asets of the 100 largest enterprises in 1969; they controlled 60% of these assets in 1978. In fact, the largest conglomorate, Cruzat-Lorrain, controlled only 14.6% of the total assets of the 100 largest enterprises in 1968 and had increased its share to 25.5% by late 1978 (US$507 million out of a total of $1.993 million) (Dahse 1979, pp. 194-200).

Some direct evidence on the change in industrial concentration during the period is available. Table 9 presents two indexes of concentration, the Herfindahl15 and the four-firm index computed by de Melo and Urata (1984) from the results of the 1967 and 1979 Manufacturing Census for agro-industry. The concentration indexes are calculated on sales and are defined on establishment, or plant, rather than ownership or interlocking arrangements. As a result these indexes give little insight to the degree of monopoly that might exist and at best their change over a period indicates the change in the lower limits of concentration. As shown in Table 8, plant concentration by both measures increased between the two periods. This was clearly the case for dairy, meats, fruits, baking, and sawmills while concentration of grain mills increased only slightly. The reduction in the number of firms seems to be well established, while its cause, whether it was due to eliminating inefficient producers or to increasing monopolization to which privatization might have contributed, is more difficult to determine.

Equally ambiguous as to its origin is the information on the increase in assets which might have been due to efficiency gains or to acquisitions. The data however, indicate an impressive increase in assets of industrial enterprises between 1969-78 with especially favorable results for the conglomorates. The 100 largest enterprises listed by Dahse (1979, pp. 195-197) had an average increase in assets of 52%. Moreover, 85% of the enterprises whose assets increased were controlled by one dozen largest conglomorates, while only 25% of the enterprises whose assets decreased were owned by grupos.

Table 9 also shows profit-to-cost margins for several agricultural processing industries. The data point to a decline in the margin, and hence in profitability, between 1967 and 1979. Similar lackluster conclusions on profitability emerge from the study of financial statements of industrial firms for the period 1977-81. Galvez and Tybout (1985) conclude that exportable goods producers and import-competing firms did relatively poorly while firms operating in the nontradable sector did well. The grupos, operating mainly in the exportable goods sector, suffered, although they did better than other enterprises in that sector. However, the overall return-on-equity of the grupos was excellent as a result of access to credit and to low financial costs through the banking enterprises they controlled. The average grupo-affiliated corporation in the sample had by 1981 accumulated nonoperating assets that accounted to more than 20% of its total asset stock, and at times as high as 50%. These nonoperating earnings (largely unrealized capital gains on share holdings) helped offset the relatively poor operating performance of the grupos.

8. Postlude to Privatization

By 1983 the "Chilean miracle" yielded widespread bankruptcies of financial institutions and government "interventions" and nationalizations of private enterprises. The foreign debt reached US$17 billion, or US$1450 per capita. Debt servicing rose to approximately 80% of exports; foreign capital inflows dried up. GDP declined by 14% and the country had entered its worst depression in history. It is ironic that the privatization of financial intermediation and of industrial enterprises which was initially handicapped by the unavailability of credit was de facto reversed by the ensuing debt bonanza.

The extravagant use of debt by private firms had its origins in linkages between financial intermediaries and industrial enterprises which were fostered by the concentration of assets in a few conglomorates:

> In Chile by late 1982 private firms were more indebted than state enterprises; within the private sector, extreme indebtedness was found among those that controlled banks (and that had acquired from CORFO those firms nationalized under the Allende Presidency). Between 1975 and 1982, Chile went from a financially shallow economy, where inflation had wiped out real value of debt, to an excessively financially deep economy where creditors owned a very large share of real wealth, a clear case of "too much debt and too little equity". Interpenetration of economic and financial power appears to have reached extraordinary levels. The two largest business groups in Chile by late 1982 controlled the principal insurance companies, mutual funds, brokerage houses, the largest private company pension funds and the two largest private commercial banks; about half of all private external debt was chanelled through the domestic banking system, so control of banks allowed ready access both to domestic and foreign credit. By late 1982 many banks had lent one quarter of more of their resources to affiliates (Diaz-Alejandro 1985, pp. 13-14).

By November 1981 the position of two important Chilean banks and several "financieras" had already become critical. They were "intervened" by the Central Bank. More "interventions" followed in the first half of 1982. As opposed to the harsh bankruptcy proceedings, "interventions" involved a generous expansion of credit to the private sector. By the beginning of 1983 the two biggest conglomorates, Cruzat-Larrain and Javier

Vial, and several smaller "grupos" had crashed. The government, refuge of last resort, picked up their holdings, which included a good many of the previously privatized enterprises. At the same time a massive intervention in five banks, the liquidation of another three, and the direct supervision of two more, left the government in control of a good share of the Chilean corporate sector, as well as its domestic and foreign debts. The retrenchment of the government from its economic functions, alas, did not prevent it from "...accumulating an explosive amount of contingent liabilities to both foreign and domestic agents, who held deposits in, or made loans to the rickety domestic financial sector" (Diaz-Alejandro 1985, p. 10).

But:

> The momentum has continued. Late in 1984, the government announced it would sell shares in Banco de Santiago and Banco de Chile, the biggest of the five banks it took over in the January 1983 crash; shares in two of the biggest pension funds, AFP Santa Maria and AFP Provida (likewise part of the former Cruzat-Larrain and Vial empires); and up to 30% of shares in the 15 state-run companies held by CORFO. (The Economist, December 21, 1985).

9. Conclusion

The claims made for or against privatization are surely extreme. At its best, privatization creates competition, efficiency and wealth. At its worst, it substitutes insensitive private-owned monopolies for insensitive public-owned ones and feeds corruption. Similarly, the case can be made that the government should not be in certain business to begin with — whether mining copper or making loans. And one can also make the case that the government should be in that certain business. At this general level of discourse the question whether to privatize or not to privatize revolves more around ideology than around positive analysis.

Privatization in Chile, however, took place within such an intensely ideological economic environment that its effects cannot be easily disentangled from those of other extreme economic policies. The economic ideology in Chile was radical conservative and privatization was only one of the components of the economic liberalization policies. Other components of the policy were the withdrawal of the state from its regulatory and developmental functions; the general retrenchment in the fiscal and monetary role of the government; the opening up of the economy to international trade and financial flows; and unleashing free market policies with regards to price, wage and income determination. As a result of the complexity of the liberalization package and the interrelationships of its components, it is difficult to evaluate privatization per se. Nor should one be tempted to equate coincidence with cause when discussing the Chilean debacle and the de-privatization that followed in the early 1980s.

Still, several conclusions can be drawn which might help prevent in other cases what went wrong in Chile.

Which enterprises to privatize in a question that requires a pragmatic rather than an ideological answer. The only gain in privatization arises if it is assumed that private enterprise is more efficient in operating certain assets. Even then it still has to be decided whether outright private ownership rather than a leasing arrangement or a management contract is more conducive to increasing efficiency; and if the former is the case, whether government participation as minority shareholder and/or government regulation is still desirable. A blanket decision for wholesale privatization is often based on unwarranted credulity about the effectiveness of certain market institutions which might not even exist in many developing countries.

The financing and the timing of privatization are especially sensitive issues. The sale of public assets, whether Treasury debt or state-owned enterprises, is always competitive to new private capital formation. The damage is contained if privatization is timed when private savings are increasing and thus the sale of extant public assets does not crowd out private securities which would finance private capital formation. This is likely to happen under two conditions: if there is a well developed and efficiently functioning capital market, such as a vigorous stock exchange; and if privatization takes place during a period of economic expansion, rather than contraction.

There is always the risk that privatization, far from leading to further economic democratization, it rewards instead the local elites who buy back, in many instances at magnificent discounts, their old businesses that were nationalized because of their failure to repay government-guaranteed loans. The situation becomes worse when privatization takes place in the absence of domestic capital markets, and during periods of tight monetary and fiscal policies. Foreign capital becomes the only source of financing and the multinationals or those with easy access to the international capital market become the most likely buyers of the privatized sector of the economy. This is how the process of increasing concentration and monopolization was set in motion in Chile. It was greatly facilitated by the control of the banking system and of the financial institutions by a few conglomerates.

Once the object, the timing and the mode of financing privatization is settled, still the method of selling must be chosen; the amount to be raised must be determined; and the company's potential must be assessed. This step is especially important in open, democratic societies where accepting the market price for state enterprises can entail great risk for the political authorities. Typically there is a considerable difference between the original investment costs and the earning power of state enterprises, on which buyers' offering prices are based. All the factors that impeded economic efficiency in an enterprise under privatization — inept management, overstaffing, outmoded technology, poor location — induce a prospective buyer to deeply discount the enterprise's book value. The purpose of the careful study of the company and of the method of selling is not so much to increase the profit of the Treasury from the operation. There is hardly a way to make a "profit" out of privatization. It is rather to avoid corruption and to discourage what has been called in the Philippines "cronies' capitalism".

As privatization-for-profit becomes a non-issue, so does privatization for dealing with budget deficits. A friend (Bob Eisner) recounts: "My late father-in-law had a quip — perhaps about himself, after bravely opening a law office in the depths of the Depression. 'Had a good day today,' he would say. 'Sold my desk!'"

Disposing of the public Treasure (whether Caravaggios or public enterprises) to meet shortfalls in government income does not make any accounting sense. If the government kept its accounts like any private business, with separate categories for current and for capital expenditure, divestiture of public assets would not affect profits and losses. The nonsense of reducing the deficit by selling out the national assets would not then seem even superficially plausible.

FOOTNOTES

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1For a chronology and a detailed description of the liberalization sequence see Corbo (1985a).

2The decline in the budget deficit from 24.6 percent of GDP in 1973 to 2.6 percent in 1975 was partly accomplished by dismissing 100,000 government employees (Edwards 1985, p. 226).

3For example, there were public capital contributions for replanting felled forests with the stipulation that the government would participate in the profits of harvesting when the trees matured. Such an arrangement can be viewed, alternatively, as an outright gift, a loan at zero interest rates, or the beginning of the de-privatization of the forests.

4Following the rollback of land reform (see below), water rights in many cases were returned to the pre-reform owners, even though their land might have been expropriated.

5This section draws heavily on Knudsen and Yotopoulos (1985).

6The BIH is legally defined as equivalent to one hectare of first quality, irrigated land in the Maipo Valley of Central Chile. BIH conversion coefficients had been assigned to each zone and sub-zone on the basis of a nationwide land survey carried out in 1965.

7In terms of physical hectares, rather than BIH, expropriated area amounted to 52 percent of the total. Of that total, the reformed sector retained 42 percent (i.e. 21 percent of Chile's total land area).

8The Banco de Estado's share in the market which was 50 percent in the beginning of the decade fell to 14 percent of the loans in 1981 (Ffrench-Davis 1983, p. 907).

9At the same time the limitation of interest rate charges for the banks was monthly 9.6%. This differential gave an advantage in the early years to the financieras.

10Ffrench-Davis (1983, p. 908) remarks on CODELCO: "The state copper corporation (CODELCO) has undergone powerful onslaughts from the economic team but has succeeded in warding them off. Even so, it has suffered budgetary restrictions imposed by the Ministry of Finance despite the substantial profits it has contributed to the treasury. It has only been able to make investments that have allowed it to maintain the production level reached in 1977. Within the contradictions produced by the privatizing dogma, the government has encouraged, unsuccessfully hitherto, the development of other copper deposits to be operated by foreign companies. Paradoxically, these deposits, although rich in a world context, are less so than those mined by CODELCO, which has suffered systematic constraint in its expansion. The dogma of privatization has proved stronger than the search for economic efficiency."

[11]LIBOR rates were about 6% in 1976 and 1977, 9% in 1978, rose from 12 to 14% in 1979 and 1980 and to 17% in 1981, to decline to 13.5% in 1982. The dollar rate in Table 1 is the *ex post* interest rate on dollar loans which also reflects currency appreciation. In 1977, for example, the ex ante dollar interest rate was 9%, but the ex post rate, which also considers currency appreciation, became -10%.

[12]Zahler (1980) estimated the profit for those enterprises that had access to external credit in the period 1976-1979 to be on the order of US$800 million.

[13]For details on the various exchange rates and chronology of the events of Corbo 1985a, pp. 914-15.

[14]The selectivity of foreign lenders in favor of established institutions with existing ties to the international capital market is predictable in a transaction that involves a promise to repay in the future. Since there is no full-proof system in determining the true intensions of the borrower, the lender can only guard against adverse selection of risk by sorting customers based on previous experience and by putting a ceiling on what arms-length customers can borrow, regardless of their willingnes to pay higher interest rates (Stiglitz and Weiss 1981).

[15]The Herfindahl index is the sum of the square of the share of sales of each establishment in total shares. Its upper limit is one for a monopoly, its lower limit is 1/n, where n is the number of firms sharing equally in sales.

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TABLE 1

MACROECONOMIC INDICATORS

Year	GDP Growth (1)	CPI Index (2)	Unemployment Rate (3)	Public Sector Deficit (percent of GDP) (4)	Change in Monetary Base (at end of month): Domestic Credit (5)	Exchange Operations (6)	Changes in Money Supply (percent): M1 (7)	M2 (8)	Real Interest Rate (percent, annual): Peso Loans (9)	Dollar Loans (10)
1960	--	11.6	7.4	4.6	--	--	48.9	32.7	26.9	--
1961	4.8	7.7	6.6	4.5	--	--	18.8	17.1	23.1	--
1962	4.7	13.9	5.2	5.8	--	--	21.7	26.5	5.0	--
1963	6.3	44.3	5.0	4.9	--	--	40.4	34.9	-14.2	--
1964	2.2	46.0	5.3	3.9	--	--	41.5	39.4	-14.8	--
1965	0.8	28.8	5.4	4.1	--	--	58.6	45.8	--	--
1966	11.2	22.9	5.3	2.5	303.2	-109.2	48.3	46.8	10.0	--
1967	3.2	18.1	6.1	1.3	215.5	-130.2	27.9	30.1	9.5	--
1968	3.6	26.6	6.0	1.5	142.0	25.2	29.4	29.2	4.0	4.0
1969	3.7	30.7	6.2	0.4	74.3	93.5	40.2	40.2	3.7	--
1970	2.1	32.5	7.1	2.7	284.9	26.1	51.8	50.8	-8.10	--
1971	9.0	22.1	5.5	10.7	632.1	29.8	98.6	94.5	-3.40	--
1972	-1.2	117.9	3.7	13.0	2205.8	394.7	96.0	91.3	-57.0	--
1973	-5.6	487.5	4.7	21.7	2440.5	134.1	272.5	285.5	-80.00	--
1974	1.0	497.8	9.7	10.5	845.5	49.8	300.9	278.6	-64.80	--
1975	-12.9	379.2	16.2	2.6	148.07	472.10	232.88	--	18.24	2.50
1976	3.5	234.5	16.8	2.3	79.31	765.67	212.58	289.77	65.15	9.85
1977	9.9	113.8	13.2	1.8	275.12	389.60	164.97	225.40	57.97	9.10
1978	8.2	49.8	14.0	0.8	-258.26	781.72	88.41	114.80	43.65	8.70
1979	8.3	36.6	13.6	-1.7	-176.67	832.43	59.84	85.82	16.98	0.22
1980	7.5	35.1	11.8	-3.1	-158.03	791.67	58.19	57.91	13.24	-10.12
1981	5.3	19.7	11.1	-1.6	-143.49	-66.59	32.81	89.48	39.72	11.13
1982	-14.3	9.9	22.1	2.4	3048.06	-2199.55	-5.11	-15.31	38.01	30.93

Notes:
Col. (3), Greater Santiago, U. de Chile.

Source:
V. Corbo and J.M. Sanchez (1985), "Adjustments by Industrial Firms in Chile During 1974-82," in V. Corbo and JU. de Melo (eds.), "Scrambling for Survival: How Firms Adjusted to the Recent Reforms in Argentian, Chile, and Uruguay," Washington, D.C.: The World Bank, World Bank Staff Working Papers No. 764, pp. 83-117.

TABLE 2

MACROECONOMIC INDICATORS, TRADE SECTOR
(millions of dollars)

Year	Net Capital Inflow (1)	Total Net Capital Inflow Except Reserves (2)	Foreign Investment (3)	Surplus in Commercial Account (4)	Surplus in Current Account (5)	Changes in Reserves (6)	Price of Copper (cents per lb) (7)
1960	--	76	--	-86	-148	-28	31
1961	--	188	--	154	-241	-109	29
1962	--	133	--	-88	-182	-49	29
1963	--	108	--	-61	-158	-28	29
1964	--	152	--	-18	-132	23	44
1965	--	66	--	69	-57	47	59
1966	--	168	--	91	-82	120	70
1967	--	126	--	105	-127	-23	51
1968	--	295	--	110	-135	118	56
1969	--	223	--	247	-6	175	67
1970	--	268	--	156	-81	114	64
1971	--	-27	--	-16	-189	-300	49
1972	--	327	--	-253	-387	-231	49
1973	--	333	-4	21	-294	-21	81
1974	--	218	-17	157	-211	-55	93
1975	58	240	-4	70	-491	-344	56
1976	238	199	-1	643	148	414	64
1977	240	572	16	34	-551	113	59
1978	679	1946	177	-426	-1088	712	62
1979	922	2247	233	-355	-1189	1256	90
1980	1809	3165	170	-764	-1971	1760	99
1981	2948	4769	376	-2598	-4814	-296	79
1982	860	1304	--	218	-2382	-1198	67

Notes:
Definitions: Col. (5) + Col. (2) - Col. (6) + Errors and Omissions = 0

Source:
V. Corbo and J.M. Sanchez (1985), "Adjustments by Industrial Firms in Chile During 1974-82," in V. Corbo and J. de Melo (eds.), "Scrambling for Survival: How Firms Adjusted to the Recent Reforms in Argentian, Chile and Uruguay," Washington, D.C.: The World Bank, World Bank Staff Working Papers No. 764, pp. 83-117.

TABLE 3

PARTIAL LIST OF PRIVATIZED PUBLIC ENTERPRISES IN THE AGRICULTURAL SECTOR

1. Central Pisquera Elqui
2. Central Pisquera Ovalle
3. tomatera de Malloa
4. Central Frutícola Aconcagua
5. Planta Lechera de Punta Arenas
6. Planta Lechera Soleche
7. Complejo Avícola de Talca
8. Complejo Avícola Proalin
9. Central Frutícola Curicó
10. Complejo Avícola Santiago
11. Complejo Avícola Ochagavía
12. Complejo Avícola de Ovalle
13. Complejo Avícola de Antofagasta
14. Faenadora de Aves Lomas Coloradas
15. Planta Lechera de Ovalle
16. Central Frutícola
17. Equipos Deshidratadores de Hortalizas Llay-Llay
18. Pisquera Alto del Carmen
19. Equipos Seleccionadores de Semillas
20. Planta Faenadora de Cerdos (PFC) Chillán
21. PFC Concepción
22. Olivarera Azapa
23. Frutícola San Fernando
24. Frutícola Maipo
25. PFC Rancagua
26. PFC Tierra del Fuego
27. Silos de Melipilla
28. Silos San Fco. de Mostazal
29. Silos de Rosario
30. Silos de Nancagua
31. Silos de Curicó
32. Silos de Retiro
33. Cecinas Cerdo Cooperativa Santiago
34. Equipos Cecinas Traiguén
35. Lechera Coyhaique
36. Clasificador Lomas Coyhaique
37. Olivarera Huasco Bajo
38. Mermeladas Freirina
39. Equipos Seleccionadores Semillas
40. Terminal Pesquero de Chinquihue, Pto. Montt
41. Seleccionadora de Semillas de Frejoles Rosario
42. Seleccionador Semillas de Papas de Corte Alto
43. PFC Valparaíso
44. Unidades Deshidratadoras de Hongos y Hortalizas
45. Avícola Llanos de Caldera
46. PFC Puerto Montt
47. Cecinas Llanquihue

48. PGC Valdivia
49. Equipos Frutículas San Felipe
50. Equipos Deshidratadores de Hortalizas Colina
51. Equipos PFC Castro
52. Equipos Incubación Ovalle
53. PFC Puerto Chacabuco
54. Equipos Tomates y Frutícolas (ex-Rengo)
55. Equipos Fibras Naturales
56. Envasadora de Carnes La Hacienda
57. Frigorífico Osorno
58. Complejo Industrial Lo Valledor

<u>Source</u>:
Maximiliano Cox (ed.) (1983), <u>Agricultura Chilena 1974-1982: Politicas, Evolution y Compesinado</u>. Santiago: Desarollo Campesino S.A., Vol. 1, pp. 125-126.

TABLE 4

DISTRIBUTION OF EXPROPRIATED LANDS IN PHYSICAL HECTARES (PH) AND ESTIMATED BASIC IRRIGATED HECTARES (BIH), 1979

	PH		BIH	
	Hectares (thousand)	Percent	Hectares (thousand)	Percent
Total agricultural land	14,599.3		2,082.8	
Total expropriations	9,965.9	100.0	895.6	100.0
Adjustments	2,997.9	30.1	253.5	28.3
Revocations	2,298.8	23.1	143.5	16.0
Partial restitutions	699.1	7.0	110.0	12.3
Transfers	2,378.4	23.8	115.3	12.9
To non-profit institutions	880.5	8.8	42.7	4.8
CORA reserves for non-profit institutions	868.3	8.7	42.1	4.7
Auctioned	629.6	6.3	30.5	3.4
Allocations	3,804.6	38.2	502.5	56.1
To cooperatives	1,087.1	10.9	95.9	10.7
To smallholders	2,036.3	20.4	372.3	41.6
Others	681.2	6.8	34.3	3.8
Pending	785.0	7.9	24.4	2.7

Source:
L.S. Jarvis (1985), "Chilean Agriculture under Military Rule: From Land Reform to Reaction, 1973-80." Berkeley, California: University of California Institute of International Studies, p. 12.

TABLE 5

CORFO: STATE ENTERPRISES AND STATE OWNERSHIP SHARE, SEPTEMBER 1973

Share Owned	Enterprises Number	Percent
Less than 10%	52	9.8
Between 10 and 50%	20	3.8
More than 50%	202	37.8
Requisitioned or intervened by CORFO without owning shares	259	48.6
TOTAL	533	100

Source:
Fernando Dahse (1979), "El Mapa de la Extrema Riqueza. Los Grupos Economicos 'y el Processo de la Concentracion de Capitales." Santiago: Editorial Aconcagua 'Coleccion Lautaro, p. 176

TABLE 6

CORFO ENTERPRISES STILL REMAINING IN THE STATE

Firm	State Ownership
Cia. Chilena de Nav. Interoceanica S.A.	92.95
Sociedad de Navegacion Petrolera S.A.	55.1
Empresas de Viviendas Economicas Pref. El Belloto Ltda.	100.00
Automotriz Africa S.A.	80.0
Industria de Conjuntos Mecanicos CORMECANICA S.A.	100.00
Cia. Minera Carolina de Michilla	51.0
Cia Minera Tamaya S.A.	56.7
Cia. de Petroleos Chile S.A.	6.2
Empresa Minera Mantos Blancos	11.68
Empresa Comercializadora de Camiones Ltda.	100.00
Cia. Minera Chanaral Tal Tal S.A.	80.0
Fabrica Electronmecanica FEMSACO S.A.	100.0
Pesquera Nueva Aurora S.A.	100.0
Cia. Minera de Panulcillo S.A.	100.0
MADECO	21.56
ARMCO Chile S.A. Metalurgica Industrial	30.0
Cia. de Nav. Interoceangas S.A.	37.5

Source:
Fernando Dahse (1979), "El Mapa de la Extrema Riqueza. Los Grupos Economicos y el Prausso de la Concentracion do Capitales." Santiago: Editorial Aconcagua Coleccion Lautaro, p. 182.

BOOK VALUES AND SALES PRICES OF CERTAIN PRIVATIZED ENTERPRISES, 1974-78

Firm	State Ownership (percent)	Sales Price US$ million)	Book Value (US$ million)	Purchaser
Fanaloza	68.05	2.68	2.68	Diaz Matoluna
Embotelladora Andina	51.00	0.49	0.49	Banados/Vergara y otros
Pesquera Indo	50.22	1.14	1.14	Angelini
R. Lota Green	50.13	0.82	1.52	Godoy Pena
Polpaito	75.10	6.07	7.65	
P. Guanaye	81.79	0.76	20.00	Extranjera
Celulosa Arauco	99.65	39.65	36.15	Cruzat-Larrain
Forestal Arauco Ltda.	99.65	50.98	67.78	
Inforsa	56.55	36.07	32.58	Vial J.
Panal	100.00	14.56	63.50	Galmez
Pesquera Coloso	100.00	10.56	26.28	Cruzat-Larrain
Dinac	98.87	3.06	7.01	Luksic y otros
Pesquera a Lquique	76.25	8.25	4.81	Angolini
Turismo Bio-Bio	100.00	0.87	2.10	Luksic
Inacesa	99.99	2.95	38.25	Briones y otros
Cristalerias Chile	46.03	3.44	5.84	Cruzat-Larrain/R. Claro
C.C.U.	34.13	9.72	22.85	Cruzat-Larrain y Edwards
Masisa	17.08	0.27	1.67	Angelini A.
Indus	30.74	3.37	11.69	Vial J.
Carozzi	20.0	0.53	1.62	Varios
Madeco	21.63	4.00	4.83	Extranjero
Vapores	4.0	0.13	3.76	Varios
Ends	100.00	0.09	8.40	Sahli R.
Vinex	100.00	5.84	6.53	Stein G.
M. Cerro Negro	100.00	0.26	2.08	Mustakis
Gasco	100.00	4.23	8.21	Luksic y otros
Astilleros Marco Chilena S.A.	100.00	0.92	5.95	Extranjero
Prodinsa	29.15	0.38	1.45	Saenz O. y otros
Banco Espanol	93.95	13.82	27.31	Puig y otros
Banco Chile	30.07	12.84	41.56	Vial y otros
Banco Israelite	95.91	3.71	9.90	Varios
Banco Sud Americano	73.39	10.67	23.95	Luksic y otros
Banco Talca	89.55	9.50	11.37	Calaf
Banco Concepcion	92.08	15.47	23.45	Ascui/Martinez y otros
Banco del Tabajo	83.83	12.30	23.98	Edwards y Said
Banco Chileno Yugoslavo	78.16	0.46	2.22	Gazmuri A.
Banco Reg. Linares	13.59	0.21	0.18	Varios
Banco Chile	0.03	0.31	0.04	Varios
Banco Sud Americano	12.02	3.06	3.92	Luksic y otros
Banco Chile	4.50	11.53	6.22	Vial y otros
Papeles y Cartones	8.95	3.43	15.06	Matte E.
Banco Chile	11.0	27.0	15.20	Vial y otros
Celco S.A. y Celco Ltda.	100.00	58.0	87.11	Cruzat
Cemento Molon	82.0	41.0	19.9	Extranjero
Firestone	30.0	6.0	4.77	Extranjero
TOTAL	US$ 441.08	US$ 731.83		

Source:

Fernando Dahse (1979), "El Mapa de la Extrema Riqueza. Los Grupos Economicos

TABLE 8

INVESTMENT AND SAVINGS IN CHILE, 1970-82

Year	Gross Capital Formation on Fixed Capital/ GDP (percent)	Depreciation/ GDP (percent)	Gross Domestic Savings/ GDP (percent)
1970	20.4	11.0	21.6
1971	18.3	11.9	17.8
1972	14.8	10.4	10.4
1973	14.7	19.2	9.5
1974	17.4	11.8	25.3
1975	15.4	15.7	8.5
1976	12.7	14.1	15.4
1977	13.3	11.7	10.7
1978	14.5	10.5	11.6
1979	15.6	11.0	13.7
1980	17.8	11.4	15.5
1981	18.5	n.a.	n.a.
1982	13.8	n.a.	n.a.

Source:
Sebastian Edwards (1985), "Stabilization with Liberalization: An Evalua of Ten Years of Chile's Experiment with Free-Market Policies, 1973-83 Economic Development and Cultural Change, Vol. 33, (January), p. 239.

TABLE 9

CONCENTRATION AND PROFITABILITY IN AGRO-INDUSTRY, 1967, 1979

Industry	Herfindah Index 1967	Herfindah Index 1979	Four-Firm Concentration Index 1967	Four-Firm Concentration Index 1979	Profit-to-Cost Margin 1967	Profit-to-Cost Margin 1979
Meats	0.028	0.068	0.231	0.398	0.175	0.239
Dairy	0.052	0.118	0.338	0.578	0.362	0.322
Fruits	0.063	0.075	0.387	0.439	0.469	0.159
Fish	0.056	0.053	0.371	0.360	0.503	0.301
Oils	0.068	0.077	0.404	0.434	0.360	0.337
Grain	0.018	0.024	0.164	0.190	0.227	0.130
Bakery	0.013	0.034	0.199	0.321	0.366	0.305
Confectioners	0.137	0.168	0.683	0.778	0.478	0.252
Animal Feed	0.130	0.289	0.677	0.829	0.299	0.267
Wine	0.015	0.046	0.178	0.332	0.334	0.277
Sawmills	0.007	0.049	0.101	0.371	0.497	0.400
Wood & Cor.	0.042	0.053	0.335	0.363	0.474	0.199
Pulp & Paper	0.189	0.181	0.771	0.787	0.470	0.367
Paper	0.096	0.509	0.532	0.864	0.473	0.653

Source:
J. de Melo and S. Urata (1984), "Market Structure and Performance: The Role of International Factors in a Trade Liberalization," World Bank, Discussion Paper DRD71.