

# CEPAL

## Review

*Executive Secretary of ECLAC*  
Gert Rosenthal

*Deputy Executive Secretary*  
Carlos Massad

*Director of the Review*  
Aníbal Pinto

*Technical Secretary*  
Eugenio Lahera



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# CEPAL

## Review

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WORLD BANK

## State-owned enterprise reform in Latin America

*Antonio Martín del Campo*  
*Donald R. Winkler\**

The purpose of this study is to analyse the major characteristics and consequences of State-owned enterprise (SOE) reforms in Latin America so as to derive conclusions useful for guiding future reform programmes. Three countries at different stages of the reform process were identified for in-depth study: Chile, Mexico and Argentina. The underlying rationale for SOE reforms in Latin America has been both economic and political. In most countries the need to reduce the public sector deficit was a primary motive for initiating reforms. In Chile, Mexico and Argentina public sector deficits hit historic highs in the year prior to the initiation of reforms. Chile initiated the first major reform of SOEs in the region in 1974. A decade later, in 1983, Mexico began its reforms and has now embarked on a very large-scale reform programme. Argentina first initiated reforms in 1976, and in 1989 it announced comprehensive reforms that are now being implemented.

Section I sets the scene for analysing SOE reform by describing the historical evolution and importance of the SOE sector in these three countries. Section II analyses the content and impact of SOE reforms by focusing on five areas: i) SOE sector strategy and policy, ii) supervisory and managerial framework, iii) economic policy environment, iv) restructuring and rehabilitation of individual SOEs, and v) modifications in ownership scheme. Section III analyses the impact of reforms on the financial and economic performance of SOEs and on the budget of the non-financial public sector and the macroeconomy.

\*Staff members of the Public Sector Management Division of the World Bank.

## Introduction

The size of the SOE<sup>1</sup> sector in Latin America approximates that found in industrialized countries and developing countries in general. As of 1988, SOE value added and investment as a share of GDP was 14.3% in Chile, 12.8% in Mexico and 10.0% in Argentina. Chile and Mexico traditionally have had larger than average SOE sectors, although, in each case, one enterprise accounts for more than half of the total value-added for the sector.

As a result of the SOE reform process, Chile has achieved a dramatic reversal in the size and scope of the SOE sector. This sector's share of GDP decreased from almost 40% in 1973 to 14% in 1989. Since the adoption of reforms in 1974, the government has reduced the number of SOEs from 202 in 1973 to only 35 in 1989. Despite the considerable paring down of the size of the SOE sector in Chile, the sector is still of vital importance to the economy. CODELCO-CHILE, the large State copper enterprise, alone produced over 9% of GDP in 1988.

In Mexico, the SOE sector continuously expanded from the 1920s until the adoption of reforms in 1983, which reduced the number of SOEs from 1,155 to only 280 in 1990. Like Chile, SOE output is concentrated in relatively few enterprises. The "directly controlled" SOEs represented an average of about 75% of SOE output in 1983-1987.<sup>2</sup> Furthermore, three economic sectors (petroleum, commerce and transportation) accounted for 82% of SOE output during 1983-1987, with PEMEX, the State petroleum enterprise, alone accounting for 66%.

In Argentina the SOE sector's share of GDP has been relatively lower than in either Mexico or Chile, but it grew from an average of about 7% during the 1970s to 8.5% during the 1980s, despite the government's explicit privatization policy. State-owned enterprises in Argentina have been concentrated in

<sup>1</sup> For the purpose of this study, an SOE is defined as an enterprise that is majority owned by the government or a government agency and whose primary function is the production and sale of goods and/or services from which it earns the bulk of its revenue. Financial, educational, and health sector public enterprises are excluded from this analysis.

<sup>2</sup> The "directly controlled" SOEs include about 20 of the largest enterprises operating in the most important economic sectors, whose revenues and expenditures appear directly in the budget of the federal government. "Indirectly controlled" SOEs are controlled via the sectoral ministries and only appear in the federal budget under transfers.

three major sectors: hydrocarbons and energy, transport and communications, and industry (primarily steel and petrochemicals). The 13 largest SOEs contribute over 75% of SOE value-added; and one of these, the State petroleum enterprise Yacimientos

Petrolíferos Fiscales (YPF) produces about 25% of the sector's value-added.<sup>3</sup> Employment is concentrated in the railway company Ferrocarriles Argentinos (FA), which accounts for approximately one-third of all SOE employees.

## I

### The process of SOE reform in Latin America

The focus of this section is the identification and analytical characterization of the measures that have been adopted as part of the SOE reform process. Five key areas of reform are identified and analysed, drawing on the experiences in Chile, Mexico and Argentina.

First, this process initially requires changes in the SOE sector *strategy and policy*. This implies a redefinition of the coverage and role of the SOE sector and modifications in the objectives of individual State enterprises. In Latin America legal reforms have generally been necessary for the implementation of a comprehensive SOE reform programme, especially when reforms imply major redefinition of the scope of the SOE sector. Political consensus is therefore essential for approval and implementation of reforms, and lack of consensus can be a major impediment to the programme's success.

Second, SOE reform should include changes in the *institutional and managerial framework*. Reforms should be designed to increase the degree of managerial and financial autonomy and improve the system of accountability, so that the responsibilities and control of supervisory agencies and SOE management are clearly defined. Latin American governments, in general, have retained tight control over SOE management and have been slow in implementing improvements in performance evaluation and monitoring systems, which are necessary for expanding the autonomy of these enterprises. This has resulted partly from the need to keep SOEs under tight budgetary control, but it has also been due to the government's desire to maintain the existing power structure so that it can continue to use SOEs to meet its own political objectives. Furthermore, the development of a performance-based incentive system requires complex legal and institutional changes, whereas increasing the effectiveness of controls is far

less demanding in terms of managerial and institutional capacity.

Third, changes in the *economic policy environment* are necessary not only for providing a stable macroeconomy, but also for improving competition, particularly in markets with SOE participation. In Latin America macroeconomic instability, especially inflation, has created severe obstacles to the SOE reform process. In contrast, persistent macroeconomic crises have been a source of generalized cultural and political change that has favoured reform. While measures to expand competition, such as trade liberalization, are not a necessary condition for SOE reform, the extent of the improvements in enterprise financial performance and efficiency has critically depended on the impact of such reforms.

Fourth, SOE reform involves *restructuring and rehabilitation of individual* SOEs to improve operational efficiency and financial performance. Such reforms have both facilitated privatization and yielded significant improvements in performance of enterprises that remained in the public sector. Latin America experience, however, emphasizes the need for greater linkage between the benefits from restructuring (reduced debt and improved financial position) and SOE performance targets in order to establish the appropriate incentives.

Finally, the reform may include *modifications in ownership scheme*. A smaller SOE sector implies concentration on activities in which direct public sector intervention is required, together with increased efficiency of those firms which remain in the SOE sector. Privatized enterprises are also expected both to become more efficient and increase tax payments. During the initial stages of reform in Latin America,

<sup>3</sup> Two of Argentina's largest SOEs, the National Telecommunications Company (ENTEL) and Aerolíneas Argentinas, were privatized in 1990.

it was primarily small enterprises with little economic justification for public ownership which were privatized. Later, privatization programmes were expanded to include larger enterprises, many of which had been previously defined as strategic.

### 1. SOE sector strategy and policy

SOE sector strategy is dependent on the country's broad view of the appropriate role of the State in the economy. Until the 1970s Latin American governments took an increasingly active role in the productive sectors. Accordingly, State enterprises were seen as a natural mechanism for promoting economic growth and stability and achieving social objectives. In pursuit of these broader economic and social goals, however, SOEs have often been required to follow multiple and competing objectives: increase profits, generate employment, promote regional development, distribute subsidies, maximize purchases in domestic markets, among others. These competing objectives typically reduced SOE profits, thus requiring governments to finance the resulting deficits, and fostered economic inefficiency by making it difficult to evaluate the performance of SOEs and hold their management accountable. In such a setting, changes in SOE sector strategy and policy as part of the reform process require first, a redefinition of the size and coverage of the SOE sector, and second, modifications in the objectives of individual SOEs and of the overall sector.

The reform programme should establish a set of transparent, economically efficient objectives for individual SOEs, which explicitly define commercial and noncommercial goals. If an SOE is considered to be part of a social programme, this objective should be clearly defined, the costs carefully estimated, and financing provided directly via the budget. To the extent that some social objectives are not best pursued through SOEs, alternative instruments should be designed and implemented.

In Mexico, constitutional changes adopted in 1983 established a legal basis for the SOE reform programme by redefining the areas of government participation in economic activities. The modified articles of the Constitution clearly define and limit the "strategic" areas<sup>4</sup> in which the government

<sup>4</sup> The strategic sectors include minting of coins, mail service, telegraphs, radio and satellite communications, money emission, oil extraction, basic petrochemicals, radioactive materials, nuclear energy generation, electricity generation, and railways.

can operate exclusively, as well as the "priority" areas in which the government, together with the social (e.g., unions, cooperatives) or private sectors, is expected to participate. The articles leave open the option for the government to modify the definition of "priority" sectors in the future, but define specific criteria necessary for State participation and make it clear that the government is to play a subsidiary role in the future promotion of economic development. Subsequently, in 1986, the Federal Law on Public Enterprises (FLPE) was adopted, establishing a new legal framework governing the relationship between SOEs and regulatory agencies. The regulations and by-laws for the FLPE define the precise methods and procedures for operating, managing, controlling and privatizing the SOEs. Overall, this new framework allows for greater SOE management autonomy and clarifies the principles to be followed in setting enterprise performance objectives and proceeding with divestitures.

The flexibility afforded the Mexican government to reclassify "priority" sectors and the lack of an explicit timetable of actions has worked to the advantage of the reform process. As the necessary legal framework had been established by the constitutional reform and the new law, the government was able to start the process of divestiture by a simple administrative decision –by reclassifying an enterprise from priority to nonpriority. The government therefore avoided the political and legal infighting which can impede the reform process. The government also enjoyed an important degree of freedom in determining the number and types of SOEs to be privatized and the mechanisms for divestiture.

In the case of Chile, military rule dismantled the existing legal order and completely changed the government's definition of the appropriate role of the State. Soon after taking power in September 1973 the military government adopted an SOE reform programme which reflected its support for the restoration of the role of the private sector and reduction in government intervention in economic activities. The new government's SOE sector policy was that the State should own only the "strategic" enterprises –those of "vital importance" to the country. All other State-owned enterprises were to be returned to their previous owners, in the case of confiscated businesses,<sup>5</sup> or privatized.

<sup>5</sup> During the Allende administration, the government took control of 259 enterprises, without formal transfer of ownership.

In Chile, as in Mexico, some degree of latitude in classifying SOEs and setting a timetable for action has facilitated the reform process. The notion of "strategic" or "vitally important" SOEs gradually changed over the 16 years of military rule, thus allowing the country's SOE sector strategy to evolve with the country's changing economic position. In 1978 a list of 19 "filiales fundamentales" (key subsidiaries) of the government development corporation (CORFO) was approved, which along with the enterprises created by law were to remain under State control. In the mid-1980s the government changed its position and decided to sell many of the core enterprises that had earlier been defined as "strategic". These included some of Chile's large, traditional SOEs including national monopolies such as the electricity (ENDESA and others) and telephone (CTC, ENTEL) companies.

In Argentina the government adopted two new laws in 1989: the Law on Reform of the State and the Economic Emergency Law. This legislation empowered the government to reorganize, privatize or liquidate SOEs; eliminated most SOE subsidies; and suspended the "Buy Argentina" law ("Compre Argentino") that had imposed costly restrictions on SOE procurement. Unlike the cases of Chile and Mexico, the new legislation in Argentina did not explicitly define strategic sectors for government intervention: indeed, those sectors which in Chile and Mexico were defined as strategic became the primary candidates for privatization or concession in Argentina. The need to demonstrate the government's commitment to change through rapid implementation of SOE reform and privatization overcame the need to retain some strategic sectors under government authority.

In each of the three country experiences reviewed above, the SOE reform process has implied a narrowing of the scope and coverage of the SOE sector. In Mexico, the sectors defined as strategic by the Constitution were narrowed and the priority areas limited. Although the military government in Chile did not formally or legally redefine the scope of the SOE sector, some enterprises were implicitly defined as vital to the country and excluded from the privatization programme. Quite differently, however, the Argentine government left open the possibility of privatization in practically all of the sectors in which SOEs predominate.

The rationale that prevailed in Chile and Mexico, where enterprises like CODELCO (copper) and PEMEX (petroleum) continued to be viewed as vital or strategic SOEs, does not appear to have acted as a constraint in defining Argentina's recent restructuring and privatization programme.

In conclusion, the SOE reform experience in Latin America has shown that the following factors are important in determining which enterprises should remain within the public sector: i) the question of whether the enterprise controls or exploits a non-renewable natural resource whose rent is an important revenue source for the government; ii) the scale, indivisibility and risk associated with the investment programme of the economic sector in which the SOE operates (e.g., electric power, or water and sewerage) and the particular social objectives of the enterprise; iii) the specific historical or political circumstances of the enterprise; and iv) whether or not the management and coordination of productive activities in the economic sector require the direct participation of the State.

In all three countries SOE reform has aimed at creating an institutional and economic environment in which the central objectives guiding SOE operations are profitability and efficiency. The extent to which each country has achieved these goals depends on the importance given to objectives—social, political, or macroeconomic—which may be mutually contradictory.

The Chilean government maintained that SOEs should operate efficiently and be a minimum burden on fiscal resources. These objectives were to be achieved by requiring SOEs to: i) cover current expenditures and debt service with sales revenues, ii) finance investments without relying on government transfers, iii) eliminate redundant labour, and iv) sell all goods and services at market value. While Chile was successful in eliminating the use of SOEs to achieve social objectives, the government's emphasis on reducing the fiscal burden of SOEs and its goal of limiting SOE expansion may have prevented some SOEs from fully achieving potential gains in efficiency. The government increasingly required that SOEs transfer profits to the State. All SOEs created by law, including CODELCO, in addition to royalties, must pay a 40% tax (compared with the 10% paid by

private companies) on retained profits, and the rest of their profits (excluding depreciation and debt amortization) must be transferred to the Central Government as dividends. The government also imposed strict limitations on SOE investment in order to avoid crowding out the private sector. These restrictions hindered some SOEs from taking advantage of business opportunities even in areas where no private initiative existed. For example, in the sugar industry SOEs were hindered from investing in order to make full use of by-products. In the telecommunications industry, investments to improve quality and expand services were also constrained.

In the case of Mexico, the government took a pragmatic approach toward defining SOE objectives: specific enterprise objectives were determined and performance targets set based on the situation of the particular sector and enterprise. Some SOEs are still used as instruments for achieving noncommercial objectives. For example, the National Staple Food Company (CONASUPO) responsible for staple food and grain marketing must meet the social policy objective of providing basic foodstuffs at "accessible prices" and distributing them directly to inaccessible areas. The Federal Electricity Commission (CFE), which is responsible for generating and distributing electricity, is required to provide power at below-market prices as a form of implicit subsidy to private and public enterprises. These subsidies are then financed through direct government transfers. Most enterprises, however, including the largest one—the State oil company PEMEX—have moved toward following efficiency objectives.

While the Argentine government has tried to establish efficiency objectives for SOE operations in the past, including during the 1976-1982 reforms, it has frequently needed to retreat from these objectives in order to meet short-term fiscal and macroeconomic targets in the face of temporary economic instability. For example, the government has often levied additional surcharges and excise taxes on consumer goods (gasoline, electricity, telephone services) produced by SOEs as short-term measures to enhance Treasury revenues or to finance expenditures unrelated to SOEs. Likewise, real SOE output price increases have been temporarily restricted to achieve anti-inflationary objectives. In addition, during 1978-1982 SOEs were strongly encouraged to increase their external borrowing, both to reduce the need for transfers from the Central Government to finance their

deficits and as a means of obtaining foreign exchange necessary for defending the domestic currency. Furthermore, the Argentine government had long required SOEs to increase employment in order to meet social policy objectives. The elimination of redundant labour was a key objective of the 1976 SOE reform programme.

## 2. Institutional and managerial framework

Reform of the institutional and managerial framework of public enterprises should be made with the ultimate objectives of increasing the autonomy of managers to allow them to respond to market pressures and changing the system of accountability so that managers are responsible for SOE performance. The areas of reform needed to achieve these objectives will generally include: i) improving the organizational and institutional capacity of supervisory agencies; ii) establishing adequate rules for the appointment and responsibilities of boards of directors and SOE managers, iii) instituting efficient procedures in areas subject to government control (i.e., budgeting, investment, pricing), and iv) improving mechanisms for monitoring and evaluating performance.<sup>6</sup>

The SOE supervisory framework in Chile was not significantly altered as a result of the reform process. The government, however, tightened control over management and financing, which it thought necessary in order to achieve a rapid reduction in the SOE fiscal burden. In terms of direct supervisory control, Chile has three groups of SOEs: i) enterprises belonging to CORFO, ii) the two large mining enterprises (CODELCO and ENAMI) which report to the Ministry of Mining, and iii) other public enterprises reporting to various sectoral ministries. The sectoral ministries are responsible for the policy formulation and planning of their respective branches and influence the strategy of the SOEs on technical issues, whereas CORFO exercises greater control over the enterprises' financial and investment policies. The boards of directors include a mixture of technical professionals and political appointees. The general managers are appointed by the supervisory agencies or, in the case of the largest enterprises, the President of the Republic.

<sup>6</sup> A comprehensive examination of the institutional and managerial framework of SOEs is given in Shirley, 1989c.

Although management develops the business strategy and plans for the enterprises, annual budgets and personnel, investment, and financial plans must be presented for approval to the Ministry of Finance. The Ministry then relies on the advice of the supervisory agency and the Ministry of Planning and Cooperation (MIDEPLAN) for budget evaluation, especially in the area of investment. MIDEPLAN oversees the financial and economic justification of all investment proposals and checks whether they conform with the socio-economic programme of the government. The Chilean government's predominant objective of reducing the fiscal burden generated by SOEs overwhelmed all other reform objectives and led to the formation of this tight system of supervisory control over SOE budgeting, investment and finance. While these strict controls may have been needed in the first turbulent years of the reform period, they later became an obstacle to flexible and efficient management.

In Mexico the Federal Law on Public Enterprises established a legal basis for reform of the supervisory and managerial framework of SOEs. In comparison with Chile, Mexico's system of SOE governance consists of a more direct link between supervisory agencies and management. Since 1976 public enterprises have been under the control of the Sectoral Secretariats, of which the Secretariats of Energy, Mines and Public Industry (SEMIP), Telecommunications and Transport (SCT), and Agriculture and Water Resources (SARH) control the largest number of SOEs. In accordance with the new law the relevant sectoral secretary automatically serves as the chairman of the board of the SOE or has the power to appoint another person in his place. The board can vary in size from 5 to 15 members and must contain representatives from the Secretariats of Finance and Public Credit (SHCP) and Programming and Budgeting (SPP), plus a "commissar" from the Office of the Comptroller-General (SCGF), who has no vote. All other board members are appointed by the sectoral secretary.

The specific provisions of the new law empower the board of directors to: i) establish general policy in accordance with sectoral programmes, ii) approve initial budgets, iii) set and adjust prices (except those determined by the Secretariat of Finance and Public Credit), iv) approve investments and loans, v) approve salaries of the two management levels below the board of directors, and vi) approve procurement rules, among others. The responsibilities of the general managers are also quite broad. They are

empowered to formulate corporate plans and annual budgets, propose to the board appointments of direct subordinates, set quality and performance evaluation controls, and establish agreements with labour.

Although in comparison with the former law considerable power has been given at the level of the firm, overall autonomy of SOE management is still quite limited. The Secretariat of Programming and Budgeting must review and approve the operating and investment budgets of SOEs which rely on fiscal resources. Further authority is exercised by the Secretariat of Finance and Public Credit, which approves foreign loans, sets bank credit ceilings, and, in consultation with the sectoral secretariats, sets prices. The Office of the Comptroller-General defines accounting and auditing procedures, monitors procurement, and appoints "commissars" to evaluate SOE financial performance. The Intersecretariat Committee on Expenditure and Financing (ICEF) was created in 1985 to resolve issues of public expenditure and financing and coordinate actions of the Secretariats of Programming and Budgeting, Finance and Public Credit, and Office of the Comptroller-General on SOE issues relevant to the budget and macroeconomic stabilization programmes. The Federal Law on Public Enterprises states that the board of directors is not allowed to hire or fire workers below second-level officials, and managers cannot set salaries. These restrictions deny SOEs the autonomy to compete with firms in the market to hire more qualified workers.

The supervisory framework for SOEs in Argentina has been constantly evolving, leaving no clearly defined institutional and procedural responsibilities among the various government agencies and the management of the enterprises. Prior to the Menem Government, the most important SOEs were under the control of the Ministry of Public Works and Services (MOSP), which controlled about 90% of revenues, and the Ministry of Defence. In 1988 the MOSP created a "holding company" under the Directorate of Public Enterprises (DEP) to manage the SOEs under its control. Doubting its effectiveness, however, the government soon dissolved the DEP. In addition to the direct control of the supervisory agencies, annual SOE budgets had to be approved by the Ministry of the Economy and the Legal and Technical Secretariat of the Presidency. The multiplicity of government agencies created duplication of effort, lack of effective control, and unclear designation of responsibilities.



As a first step in its reform programme, the Menem Government centralized the financial and economic management of the SOEs by placing them under the direct control of the Sub-Secretariat of Public Enterprises within the Ministry of the Economy. This Sub-Secretariat assumed responsibilities for overseeing budget allocation and monitoring performance and was involved in the planning of the privatizations. Recently, as part of the administrative reform of the public sector, the MOSP was merged into the Ministry of the Economy and several sectoral Sub-Secretariats are carrying out the functions previously performed by the Sub-Secretariat of Public Enterprises.

To assist the ministries in achieving their objectives, the government temporarily suspended the role of the boards of directors and replaced them with a single "Interventor", responsible for managing the transition of key strategic enterprises prior to their restructuring or privatization. This temporary increase in direct government control in the initial stage of reform is similar to the case of Chile, where one of the first measures of the military government was to appoint special representatives to temporarily assume the function of CEO of the public firms.

Increased management autonomy must be balanced with an effective system of performance accountability to ensure that greater power is not misused. Ideally, supervisory agencies should establish clear objectives and performance targets for SOE management, an efficient system for collecting and reporting the financial statistics of the enterprises, and a consistent method for evaluating performance.<sup>7</sup>

The SOE reform programme in Chile has lacked an effective incentive system for SOE management and mechanisms for evaluating performance. The institutional capacity of the supervisory agencies, the quality of the management, and the SOE governance mechanisms created conditions for enabling performance evaluation to become a key aspect of the SOE reform process. The fact that this did not happen can be explained by the emphasis given to privatization, the tight financial controls imposed by restrictive adjustment policies, and the political motivation of the government to keep strict control over SOE actions.

<sup>7</sup> For an analysis of successful performance evaluation systems developed in Pakistan and Korea, see Shirley, 1989a and 1989b, respectively.

Improvement of the procedures for monitoring and evaluating SOE performance is a key objective of the reform programme in Mexico. Under the proposed programme, a Performance Agreement Unit, attached to the Inter-Secretariat Committee on Expenditure and Financing, has been established to monitor SOE performance. The Unit's primary task is to coordinate negotiations with the SOEs on *ex ante* annual performance targets, monitor the attainment of goals, and establish a system for providing rewards and penalties linked to performance. It also advises the Intersecretariat Committee on recommendations to the sector secretariats on board appointments and dismissals based on performance evaluations.

Argentina does not yet have an effective system for monitoring and evaluating SOE performance. The primary government performance target has been that SOE budgets must be kept in line with the Federal Budget, with economic and financial performance objectives receiving secondary consideration. The SOE reform in Argentina during the 1970s made an effort to increase the *ex-post* monitoring effort of SOE finances by establishing the Sindicatura General de Empresas Públicas (SIGEP), which continues to be responsible for financial control and audit of SOEs.

### 3. Economic policy environment

Reform of the economic policy environment affecting SOEs must generally occur at three levels: macroeconomic and structural adjustment policies; SOE sectoral policies; and policies regarding specific SOEs or economic activities.

#### a) Macroeconomic and structural adjustment policies

Chile, Mexico and Argentina have all experienced highly unstable macroeconomic environments—characterized by high and variable inflation, recession, and large external transfers—over the course of the reform process. Consequently, each government also implemented an austere programme of fiscal adjustment, demanding increased financial discipline from the SOEs.

In Mexico and Chile fiscal adjustment policies led to a sharp fall in SOE investment expenditure. In Mexico, during the reform period, SOE investment as a share of GDP was half the level it had been during 1979-1982. In Chile the new military government

eliminated all transfers from the central government to SOEs and imposed tight controls on SOE domestic borrowing. In Argentina, however, despite attempts at fiscal adjustment, until 1988 the government continued to support public enterprise investment by providing SOEs with preferential access to credit from domestic public banks and international lending agencies. As a result, during the period 1971-1988 SOE investment declined relatively moderately compared with the rest of the economy. The resulting dramatic rise in SOE external debt, however, contributed to the financial deterioration of the SOEs and of the public sector as a whole.

With regard to exchange rate policy, for most of the SOE reform period the Chilean government followed a "realistic" exchange rate policy—one that reflected market conditions—except for the 1979-1982 period, when priority was given to anti-inflationary objectives. This policy benefited SOEs producing tradeables, such as the steel, petroleum, and mining enterprises. In Mexico exchange rate realignments during the reform period meant an increase in SOE interest costs and higher costs of imported inputs, thus hurting the financial position of some SOEs. SOEs oriented towards the export market, however, gained.

All three countries adopted a policy of trade liberalization during the SOE reform period. In Chile the opening of the economy created initial challenges for SOEs producing tradeables. Public enterprises such as the Compañía de Acero del Pacífico (CAP), the State steel-producing enterprise, were particularly hurt by the increased competition. After a period of adjustment, however, most enterprises, especially the export-oriented ones such as CODELCO and ENAMI, benefited from the improved access to international markets.

Mexico underwent dramatic trade reform during the period 1985-1988 which transformed the economy from one of the most tightly closed in the region to one of the most open economies. The tariff range was reduced from 0-100% to 0-20%; official prices were practically eliminated by December 1987; and import license requirements were drastically reduced, falling from 83% of total imports in mid-1985 to 20% in 1988. Liberalization of activities dominated by SOEs has been carried out more recently, however, and in some areas restrictions are still in place. Furthermore, a number of SOE monopolies still effectively avoid foreign competition through their pricing policies (domestic prices below import parity).

Since mid-1987 the Argentine government has conducted an extensive trade reform programme, despite a succession of periods of runaway inflation and disinflation programmes. Prior to this reform the trade regime was highly restrictive, including a wide band of import tariffs (0-115%) and export duties (0-70%), as well as strong product-by-product discrimination through quantitative restrictions (covering about 50% of domestic production). The reform was sequenced so as to allow an early export supply response followed by reductions in import restrictions, in order to counter possible adverse balance of payments implications. After October 1988 the quantitative restrictions were reduced, and the *ad valorem* tariff band was narrowed with an average rate of 18%, while the production coverage of industrial export taxes was reduced to 30%.

#### b) SOE sectoral policy

Prior to the implementation of reforms, public enterprises in each of the three countries benefited from several kinds of preferential treatment, including tax exemptions and rebates, access to credit, customs duty exemptions, procurement subsidies, and monopoly and quasi-monopoly rights. These policies hampered the growth of private firms and protected SOEs from competitive pressures.

In 1987 the Mexican government adopted a new income tax law (*Ley del Impuesto Sobre la Renta*) that eliminated SOE tax exemptions, except for enterprises engaged in social activities. A new procurement and assets administration law (*Ley de Adquisiciones y Prestación de Servicios Relacionados con Bienes Inmuebles*), approved in 1988, eliminated legal preference for local producers, permitting SOEs and the public sector to procure and import goods under competitive procedures, subject only to the payment of customs duties. The coverage of price controls has also been substantially reduced, although a significant number of price controls on goods and services produced by large SOEs remain.

Beginning in 1974, Chile's broad system of preferential treatment for SOEs was gradually eliminated. A major step in this process was the tax reform of 1974 which introduced the value-added tax and other new taxes collected from both private and public firms. By the end of the decade the tax and customs regimes were equalized for public and private firms. Soon after 1974 most of the monopoly rights of State-owned companies were abolished, although some of them (e.g., in power generation and distribution) were removed only in the early 1980s.

Argentina has also taken steps to improve the competitive environment for the SOE sector. In September 1989 the "Buy Argentina" law that had required enterprises to favour the purchase of domestically produced inputs through a high preference margin and a complex approval system was replaced by a straight preference margin for domestic suppliers of 5% above the nationalized value of imported goods.

*c) Policies with regard to specific SOEs or economic activities: pricing and deregulation*

From the beginning of its rule the military government in Chile supported a market-based pricing system that was crucial for reversing the massive deficits of the State-owned enterprises. Prices for tradeables and non-monopolistically produced goods were to be determined by the market. As the opening of the economy progressed the government relied more and more on broader competition. For example, in air traffic the government introduced an open sky policy in 1978 permitting free entry, free competition, and free tariff setting for both public and private airlines.

In the 1980s separate decree-laws were adopted defining the basic principles of tariff setting in each of the areas of monopolistic services: electricity, water and telephones. The pricing systems defined by the decree-laws not only make the utility companies profitable, provided they operate with reasonable efficiency, but they also provide the appropriate signals for consumers, create the potential for transparent subsidization if the government finds it necessary, and offer possibilities for private participation.

Mexico has adopted a less comprehensive public sector price control reform than Chile, due to a desire to meet macroeconomic and other objectives through pricing policy. Pricing policy during the SOE reform process can be divided into two phases: the first, from 1983 to early 1988, consisted of raising public sector prices faster than the inflation rate, while the second phase consisted of near zero growth in public prices as part of a partial price freeze, in line with an anti-inflationary policy implemented in 1988-1989.

Mexico, however, has implemented some price reforms and is expected to accelerate the process in the future. For example, the State-owned electric power company, CFE, has changed its tariff structure

to include price differentials for peak and off-peak service and geographical differences in demand, and the State telephone company, TELMEX, is also undertaking a series of reforms in its pricing policy. In Argentina, SOE price reforms aim at the deregulation of petroleum and gas, rail freight, and telecommunications prices. Crude oil and liquid petroleum product prices were raised to international levels in 1991. In the telecommunications sector tariffs are to be tied to inflation. The new rail freight and inter-urban passenger transport operators are to set prices independently, in competition with the trucking and bus industries, according to their franchise contracts.

In Mexico several deregulation measures affecting specific SOEs have had important effects on increasing domestic competition. For example, in the hydrocarbon industry, the reclassification of a number of products from basic petrochemicals (constitutionally reserved for PEMEX) to secondary petrochemicals has opened the industry for private Mexican and foreign competition. Adjustments in domestic oil product prices to more closely approximate international prices have also reduced distortions and implicit income loss. Finally, a number of PEMEX subsidiaries, primarily in distribution, have been sold.

In Argentina, comprehensive deregulation of the hydrocarbon sector aims to create equal competition for private and public companies in all aspects of production, sales, and distribution of energy resources. The specific reforms include i) liberalization of nearly all hydrocarbon prices; ii) deregulation of crude oil purchases and sales, including imports and exports; iii) enhanced opportunities for private sector operations in exploitation and production areas held by the State-owned oil company (YPF); iv) reduction in royalties and the replacement of excise taxes with a single ad valorem tax; and v) restructuring/privatization of YPF and the State natural gas company GDE.

#### *4. Restructuring and rehabilitation of individual SOEs*

Inadequate investment, technological obsolescence, and management deficiencies are some of the problems encountered at the level of the enterprise. In Chile, restructuring of individual SOEs has largely occurred as a step prior to privatization. For example, in the early 1980s the government decided to break up ENDESA and CHILECTRA, the country's

largest electric power companies, in order to increase competition among power generating plants and make possible the future privatization of the sector. As part of this process, in 1981 CHILECTRA was restructured into three enterprises that were later privatized, while 10 subsidiaries were separated from ENDESA. Following a financial crisis between 1985 and mid-1987, ENDESA underwent a financial restructuring in which it was capitalized by CORFO, leading to improved financial performance and paving the way for successful privatization.

In Mexico, the government has implemented reorganizations of individual SOEs largely through a generalized system of financial restructuring. Since 1985 the government has carried out such restructuring of 12 SOEs through financial restructuring agreements (CRFs), signed between the government and individual SOEs. In accordance with these agreements the government absorbed a substantial proportion of the enterprise's long-term debt and the SOE agreed to a major reorganization, including the streamlining of management and activities, as well as a series of quantified targets on financial and economic performance. Although in principle the objective of linking government incentives to the performance of the enterprises is sound, the results have been mixed. The problem has been that the government absorption of debt has occurred all at once, at the outset of the exercise, while the targeted results are placed at the end of the period. As a result, there is no incentive for the SOEs to make a special effort to accomplish the goals, since debt is absorbed or the resources transferred regardless of performance.

The State electric power company (CFE), for example, signed a CRF agreement with the government in 1985. The government agreed to absorb 81% (US\$8.6 billion) of CFE's foreign and domestic debt, while CFE agreed to a series of structural and organizational changes, including specific quantified productivity and financial targets as well as expenditure and inventory rationalization measures. The success of the agreement has been mixed. The productivity targets were not in general met, although the gap between the performance target and outcome had narrowed by 1988. Operating expenditures per kilowatt hour have remained relatively constant, and the price/cost ratio fell far short of the targets due to the lack of tariff adjustments. Since 1990, CFE has undertaken additional reform measures, including tariff reforms and action to allow private firms to participate in the construction of new power plants.

In Argentina, the government adopted a programme to reorganize the State oil company YPF, the largest SOE, into a commercially viable enterprise in which the government acts as a shareholder (e.g., election of directors and monitoring of results). The board of directors is responsible for strategic planning of the business group, allocation of financial resources to individual business units, and monitoring of the group's economic and financial performance. YPF's previous regulatory role in monitoring the activities of private companies is discontinued.

The Argentine government's programme for restructuring the railway enterprise (FA) aims at dividing the enterprise into potentially profitable business sectors to be awarded as long-term concessions to the private sector. The elimination of nonessential interurban services and the renegotiation of labour contracts and staff reductions are primary goals of the reform. When reforms are completed FA would cease to have any major direct operating responsibility.

### *5. Modifications in the ownership scheme*

Modifications in the ownership scheme, mainly through privatization, represent the most effective way to rationalize the size of the SOE sector and concentrate its activities in areas in which direct State intervention is required. A well-designed and implemented privatization programme is expected to increase the efficiency of the privatized companies, by increasing the autonomy and flexibility of enterprise management; to enhance public sector revenue, both through sales proceeds and reduced transfers to the SOEs; and to improve the capacity of supervisory agencies by reducing the size of the SOE sector.

Privatization may be achieved through direct sale of enterprise assets, sale of shares through public offer or to a single private party or group, management/employee buy-out, break-up of an enterprise to be sold as individual units, or a combination of these methods.<sup>8</sup> The choice of privatization method is generally a function of the government's reform objectives, the financial condition of the enterprise and of the sector of activity, and the specific characteristics of the country. For example, lack of sufficiently developed financial markets or poor financial performance of the SOE may limit

<sup>8</sup> See Vuylsteke (1988) for a description of methods and procedures for privatization, and Nankani (1988) for a case study on privatization in Chile.

opportunities for sale through public offer of shares. Direct sales of assets which lead to large reductions in employment, however, may be politically unpopular. Management/employee buy-out may be preferred when reducing concentration of wealth is a government reform objective.

#### a) *The evolution of privatization policy*

The sequencing of privatizations has been similar in the three countries. Each country broadened the scope of privatization goals as reforms progressed, beginning with the sale of small enterprises in non-strategic sectors, followed by larger, more important SOEs.

Since the initiation of SOE reforms in Chile in 1974, the government has consistently followed the objective of reducing the size and scope of the SOE sector through privatization. The initial focus of privatization was on returning to the private sector SOEs nationalized by the Allende government. Between 1974 and 1975, 241 enterprises were returned to their original owners and 50 enterprises were liquidated by the State development corporation, CORFO. This period did not involve any actual process of privatization, as the enterprises were simply returned to their legal owners, without any formal estimation of sale value. During the late 1970s and early 1980s, the objective was to privatize all enterprises except those in the "strategic sectors". During 1975-1982 more than 100 firms were privatized, primarily involving the sale of commercial and industrial enterprises and banks and other financial institutions, most of which were CORFO subsidiaries. As a result of the deep economic recession of 1982-1983, the government was forced to renationalize about 50 bankrupt firms. This action, however, did not represent a change in government policy toward State ownership, but rather a pragmatic response to a crucial situation, and was followed by reprivatization of these firms under improved privatization procedures. After 1986 the scope of the privatization programme was significantly expanded, both in terms of the value of transactions and the importance of the enterprises sold. Recent privatizations include many public utilities (telecommunications, electric power, water) and other "core" enterprises. The decision to privatize some of the "core" enterprises which had previously been defined as "vital" to the country represented a major shift in the government's SOE policy.

Since 1982 Mexico has engaged in a major programme to reduce the size and scope of the SOE sector. Since the programme's initiation, 706 companies have been liquidated, sold, merged, or transferred to local governments. As in Chile, the privatization programme in Mexico initially focused on small and medium-sized SOEs, but has recently moved toward privatization of the larger enterprises, including public utilities. During the first stage, 1983-1989, the government privatized those SOEs which had been created or nationalized during the 1970s and had little economic or social justification for government ownership. More recently the government has privatized some of the largest SOEs.

Although previous SOE reform efforts in Argentina included plans for divestiture, a comprehensive privatization programme was first undertaken in 1989 by the Menem administration. The 1976-1982 SOE reform programme included the privatization of approximately 150 small enterprises, most of which had been acquired in the early 1970s to avoid liquidation and subsequent loss of employment. Few large SOEs were privatized during this period, however, due to the belief that some enterprises, especially those connected with the armed forces, were strategic, and therefore not eligible for privatization, and the fear that their sale prices would be low due to their weak financial position. The government's new SOE reform programme has significantly broadened the scope for privatization to include public utilities (telecommunications, electricity), railways, and the hydrocarbon sector, among others. The 1989 Law on Reform of the State explicitly states which SOEs are subject to privatization or concession. Rapid implementation of privatizations has been motivated by the need to raise public confidence by demonstrating the government's commitment to reform and change, since instilling public confidence is crucial for expanding private investment and growth in Argentina. Furthermore, after the failure of past partial reform measures, and given the power of vested interests, radical change (including privatization) is seen as the only means of effecting reforms in the country.

#### b) *Methods and procedures for privatization*

In each of the three countries methods and procedures for privatization evolved over the course of the reform process. The governments have adapted privatization methods to meet the changing economic conditions, the financial performance of the

SOES being sold, and reform objectives. They have also learned from their past experience, thus enabling them to establish more uniform procedures and employ privatization techniques which yield higher returns and more evenly distribute the gains.

During the first privatization phase in Chile, most enterprises were privatized through direct sale of majority participation in the enterprise. Enterprises were generally sold with a 10-20% down payment, the rest being financed by a direct loan from CORFO. Although in principle the prospective buyers were supposed to present solid evidence of financial solvency, in practice qualifications for participation in the auctions were fairly easy to satisfy. Furthermore, the simultaneous privatization of enterprises in the industrial, commercial and financial sectors and the lack of sufficiently developed domestic capital markets led to a concentration of ownership of the newly divested firms in a few financial and commercial conglomerates with high debt/equity ratios. These factors contributed to the vulnerability of the newly privatized enterprises to the forthcoming recession.<sup>9</sup>

Following the economic crisis and subsequent renationalizations, the renewed privatization effort had two ancillary goals: diffusion of ownership and increased capitalization of the enterprises sold. To diffuse ownership, CORFO gave small investors loans with a maturity of 15 years and a zero real interest rate, and required only a 5% down payment. Limits were placed on the maximum stock ownership of individual shareholders, while a more selective pre-qualification process was established for sales to individual private investors. Specific privatization methods were developed to ensure widespread stock ownership, including the sale of shares to private pension funds and the introduction of public employee equity schemes which provide incentives to workers in the privatized enterprises to become stockholders. In addition, two enterprises –ECOM (computing services) and EMEL (electricity generation)– were privatized through 100% employee buy-outs. Although these employee-targeted programmes have been important in raising public support for privatization, however, they represent a relatively small portion of the total number of privatizations.

The privatization method most frequently used in Chile has been the sale of shares on the stock exchange. Shares have been sold both through the auctioning of large groups of shares and the gradual sale of minor share packages. The latter has the advantage that it facilitates the use of market information in determining the sale price. For example, the privatization of ENDESA was effected through the transfer of its foreign liabilities to CORFO in exchange for the subscription of a new share issue. This operation implied a considerable transfer of capital from CORFO to ENDESA, thus drastically reducing the enterprise's debt/equity ratio and making the shares more attractive to potential private buyers.

In Mexico the enterprises privatized during the first phase, 1983-1989, were mostly small companies, including hotels, sugar mills, textile factories, and auto parts manufacturers, among others. The primary privatization method was direct sale to private Mexican companies or, in some cases, to trade unions. For example, the hotel industry was almost completely divested in 1985 through the sale of the Nacional Hotelera chain to the TURNAL S.A. group. In the textile industry, 90% of the factories were sold to unions and factory workers. Almost 30 sugar mills have been either sold or liquidated since 1987, thus reducing the large financial burden that this highly subsidized sector represented for the government.

The larger size of the recent privatizations in Mexico has required the development of new mechanisms for privatization. The sale of SOES has been opened to foreign buyers, both due to a lack of sufficient domestic financial resources and as a means of promoting direct foreign investment. In 1990 the government reopened foreign debt swap operations for both domestic and foreign buyers. These operations have been limited to US\$1 billion and a maximum of 50% of the sale price. For enterprises such as TELMEX, the government has employed the method of sales through the stock market. Furthermore, enterprises in the fisheries, sugar and capital goods industries are potential candidates for sale of groups of SOES through the stock market.

As the Mexican Government moves towards the privatization of larger enterprises and monopolies, additional problems and constraints must be

<sup>9</sup> See Hachette (1988) for more on the privatization process and the impact of privatizations in Chile during 1974-1985.

addressed. First, as many of the enterprises are public sector monopolies or companies operating in non-competitive markets, price adjustments and sectoral deregulations must be effected before transactions are completed in order to ensure that the privatized enterprises will operate in a competitive environment. For example, in the cases of TELMEX, SIDERMEX and CONASUPO, price adjustments have resulted in the elimination of cross-subsidization, with gains in efficiency. Second, large SOEs are likely to require extensive organizational, financial and legal restructuring prior to privatization in order to make them more attractive to potential buyers and thus increase the financial return to the government. Third, in the privatization of SOEs with a large work force, potential conflict with labour unions and employees of the enterprises must be addressed by the government.

In Argentina during 1976-1982 about 120 small enterprises were sold or liquidated. In addition to direct government sale of SOEs, two large government financial organizations, Banco Nacional de Desarrollo and Caja Nacional de Ahorro y Seguro, sold shares in enterprises acquired as a result of loan guarantees and equity subscriptions in order to provide support for loans to particularly important investment projects. The two financial institutions divested themselves of about 200 firms and reduced their shares in others through the periodic sale of small share packages on the stock exchange and invitations for bids on large share packages. Since the new privatization programme was announced in September 1989, the government has concentrated its actions in four areas: telecommunications, airlines, railways and highways.

#### *6. Sequencing of SOE reforms*

During the first stage of SOE reform, priority is given to reducing government transfers to SOEs, establishing the framework for sustainable reform, and eliminating small and marketable SOEs. Reduction of transfers to SOEs is required to support the new macroeconomic policy framework, which in turn will permit sustained SOE reform. Sharp reductions in transfers require stringent controls along the lines

adopted by Chile and Argentina in the first phases of their reforms.

Sustainable SOE reform includes, at a minimum, a consistent and coherent government strategy to improve SOE efficiency and reduce the government's role in directly providing goods and services which could be supplied by the private market: Chile, Mexico and Argentina all adopted such strategies early in their comprehensive reform efforts. In a democratic setting, this strategy requires sufficient public support, reflected in legal or constitutional changes, to ensure continuity of policies through a difficult adjustment period.

Finally, effective government financial control of SOEs requires that the SOE sector be of manageable size. Hence, this first stage of reform includes the divestiture of smaller SOEs which can be easily sold and which appropriately belong in the private sector in any case. All three countries reviewed here reduced the number of SOEs early in their reform processes.

A second stage of reform replaces the stringent ad hoc SOE expenditure controls with mechanisms to monitor financial performance and more flexible procedures to control SOE expenditures, investment and debt. The most important reform in this second stage concerns the sectoral policy environment and includes the elimination of all SOE subsidies, reform of SOE pricing practices, and deregulation of markets to increase domestic competition; Chile adopted such reforms in the late 1970s and early 1980s, and Mexico has made substantial progress in this direction. In addition, a number of important SOEs must be restructured, including transfer of debt to the government, both to improve operational efficiency and to prepare them for privatization. Meanwhile, privatization continues, especially for SOEs which operate in the newly competitive markets.

The final stage of reform entails the replacement of SOE expenditure controls by institutional changes to ensure autonomy and accountability on the part of managers and boards of directors, including performance contracts, culminating in completion of the privatization programme. Chile can be viewed as still being in this third stage of SOE reform.

## II

### State-owned enterprise performance

The primary objectives of the reform of State-owned enterprises are to improve the enterprises' financial and economic performance and increase their net fiscal contribution to the government budget. The attainment of one objective does not necessarily imply the attainment of the other. Efficiency of the enterprise, for example, can be increased at the same time that its net fiscal contribution declines due to the imposition of output price controls. Similarly, strict controls on government transfers to SOEs can increase the net fiscal gain, but may be at the expense of investment required for efficient production. In this section we analyse the effects of the reform of State-owned enterprises on each of these objectives.

Time series data are analysed below for the three countries for the periods prior to and after the adoption of SOE reform measures. The study attempts, where possible, to isolate the effects of reform and non-reform changes, especially changes in market prices of inputs and outputs. Non-availability of data, unreliable data resulting from high inflation rates, definitional differences in the performance indicators for the three countries, and differences in the competitive environment and time periods in which reforms were adopted allow for only limited comparison of efficiency and profitability levels across countries. We therefore focus our analysis on the comparison of performance and budgetary trends in the course of the reform process, with the aim of drawing conclusions on the impact of SOE reform on enterprise performance that reflect broad differences in the reform approaches employed in each country.

For each of the three countries, the economic and financial performance of SOEs and their macroeconomic impact were measured using data for a sample of SOEs and for the consolidated sector made up of such enterprises. In the case of Chile, two data sources were employed to measure economic and financial performance: a large sample, which includes 30 SOEs, excluding CODELCO-CHILE, and a small sample, which includes the six largest SOEs.<sup>10</sup> For Mexico, labour productivity indicators for a sample of 20 "directly controlled" SOEs were used.

<sup>10</sup> The large sample was obtained by selecting 30 SOEs that remained under government control during 1970-1988.

The Argentine performance indicators are based on data for the 13 largest SOEs presented by the Syndicate-General of Public Enterprises (SIGEP). The budgetary, debt, and investment indicators for Chile and Argentina are based on data for the consolidated SOE sector. For Mexico, macroeconomic indicators are based on data for both the "directly controlled" State enterprises and the consolidated SOE sector. In the cases of Chile and Mexico—where a single large SOE predominates—some indicators are presented with and without this enterprise.<sup>11</sup>

#### 1. Economic and financial performance

SOE reform policies to eliminate redundant labour have resulted in substantial increases in labour productivity in each of the countries, despite reduced capital investment. Gains in labour productivity occurred whether reforms were piecemeal or comprehensive and whether they emphasized efficiency improvements or financial performance. Labour productivity indices for Chile, Mexico and Argentina are presented in table 1 and figure 1.

In Chile, output per worker rose steadily in all the enterprises in the small sample, at an average rate across firms of 7% per annum during 1975-1988.<sup>12</sup> For Chile's large sample, the ratio of operating revenues to labour costs (a somewhat weaker measure of labour productivity) also increased over the reform period.

In Mexico, as in Chile, there is evidence of increased SOE labour productivity during the reform period. After a period of falling labour productivity between 1979 and 1982, it rose sharply as from 1983. By 1988 average value-added per worker in the "directly controlled" enterprises (excluding PEMEX) was 48% higher than before the initiation of

<sup>11</sup> Chile's mining enterprise, CODELCO-CHILE, and Mexico's petroleum enterprise, PEMEX, account for more than 50% of the SOE sector's value added in some years, but their performance fluctuates greatly with changes in output prices.

<sup>12</sup> Labour productivity estimates for the small sample in Chile are based on physical units of output and the number of employees and are therefore quite reliable, as they do not require adjustments for inflation and are not affected by changes in relative prices.



Table 1

PERFORMANCE INDICATORS OF STATE-OWNED ENTERPRISES<sup>a</sup>

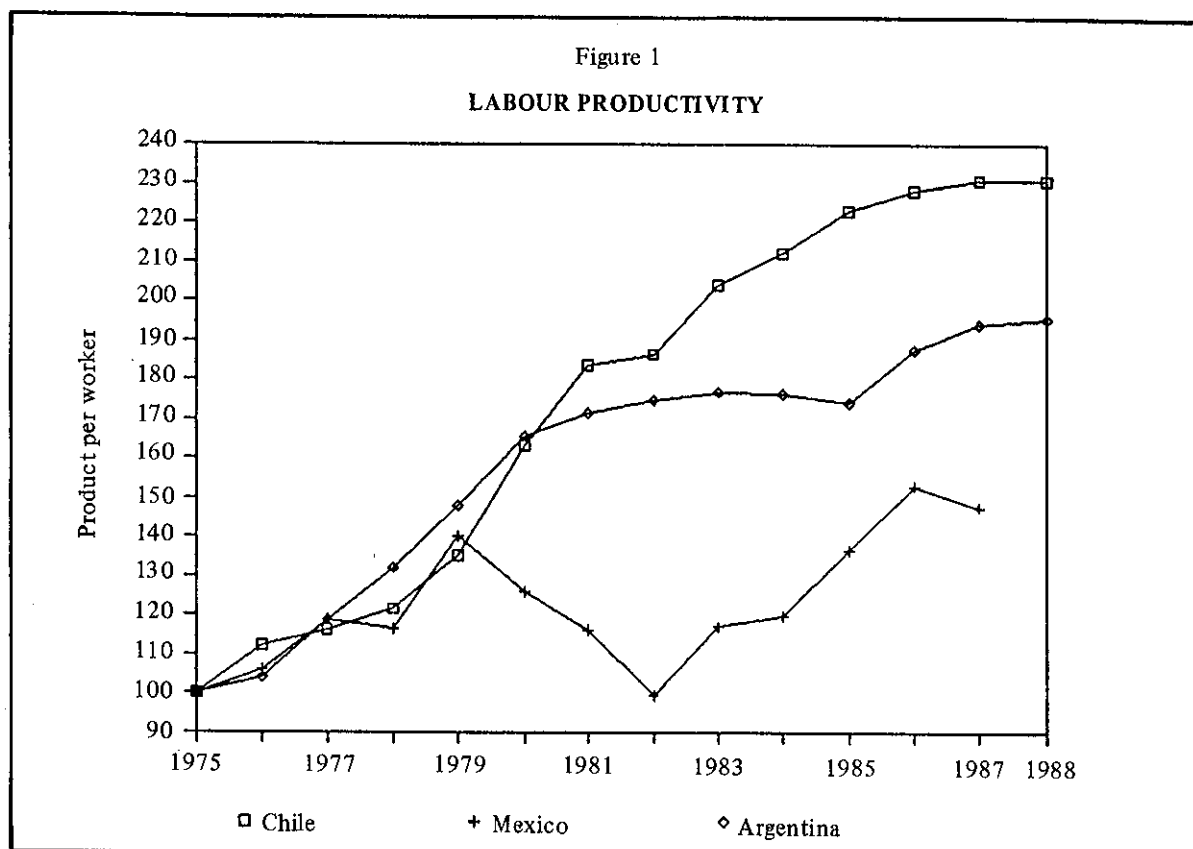
	Chile			Mexico		Argentina	
	1976-1980	1981-1982	1983-1988	1979-1982	1983-1988	1979-1982	1983-1988
Index of labour productivity <sup>b</sup>	129.4 (128.5)	184.7 (190.2)	221.0 (227.3)	226.1 (120.4)	285.5 (134.8)	145.0	184.2
Financial performance (%):							
Operating revenue/ operating costs	107.5 (97.8)	112.1 (107.9)	139.7 (134.0)	121.9 (92.8)	132.7 (99.9)	119.0	103.0
Net revenue/fixed assets <sup>c</sup>	4.2 (1.1)	-1.1 (-3.0)	4.3 (3.7)	... (-6.0)	... (-3.5)	...	...
Interest payments/ operating revenue	8.1 (10.0)	16.8 (20.5)	12.8 (14.5)	16.2 (13.2)	21.0 (19.6)	9.1	20.0

**Sources:** The data for Chile were taken from the annual reports of the companies in the small sample; data are not available for some firms in some years. The data for Mexico were obtained from the National Institute of Statistics, Geography and Informatics (INEGI) and the Secretariat of Programming and Budgeting (SPB); data on labour productivity correspond to the State enterprises under "direct control", while the rest of the data for Mexico refer to the consolidated SOE sector. The data for Argentina were obtained from the Syndicate-General for Public Enterprises (SIGEP).

<sup>a</sup> The data in parentheses exclude PEMEX in the case of Mexico and CODELCO in the case of Chile.

<sup>b</sup> The index of labour productivity (1975=100) was calculated on the basis of physical units of production per worker in Chile; units of production at 1970 prices per worker in Argentina, and value-added per worker in Mexico.

<sup>c</sup> As noted in the text, the figures for the net revenue of consolidated SOEs in Mexico are misleading because of the heavy special taxes paid by PEMEX to the Central Government, which mean that PEMEX's profits must equal zero each year.



reforms.<sup>13</sup> The sharp decline in our estimated measure of labour productivity during 1980-1982 may have resulted from social policies to maintain or increase employment, but the measure also may be distorted due to the relative deterioration in SOE output prices relative to wages during the period.

Eliminating redundant employment and increasing the contracting out of goods and services were primary objectives of the early SOE reforms initiated in Argentina in 1976. During 1976-1982 employment decreased by 31% and real output increased, resulting in a 68% increase in output per worker for the 11 largest SOEs. The government's inability to sustain labour rationalization policies, especially during the 1981-1982 recession, caused the growth rate of labour productivity to slow between 1982 and 1985, but it again picked up after 1985. Furthermore, productivity growth occurred despite reductions in capital investment. From 1975 to 1982 output grew more rapidly than investment, leading to a decrease in ICOR from 3.2 to 2.2.<sup>14</sup> This increase in labour productivity suggests that targeted objectives, as part of a piecemeal reform programme, can increase economic efficiency.

Improved profitability is an almost universal goal of public enterprise reform, yet specific reform measures have ambiguous effects on operating costs and net income. On the one hand, productivity gains, simplified procurement procedures and output price reforms tend to raise SOE profits. On the other hand, removal of input subsidies, including inputs provided and subsidized by other SOEs, and the elimination of preferential access to foreign exchange and trade protection can reduce profits. Furthermore, increased profitability need not imply similar changes in SOE efficiency if input and output price controls are in place. SOE financial performance, therefore, must be analysed separately from efficiency.

<sup>13</sup> Productivity estimates are much less reliable in the case of Mexico than in Chile, as they are obtained by deflating the nominal value-added of the SOE by the economy-wide GDP deflator. Problems resulting from relative price changes are particularly important for PEMEX, which has therefore been excluded from this indicator.

<sup>14</sup> The incremental capital/output ratio (ICOR) is measured as cumulative investment divided by the cumulative change in output. Reductions in ICOR over time can indicate improved capital productivity, especially if other inputs are stable or decreasing over the same period.

The experiences with SOE reform in the three countries are consistent with the above characterization. Productivity gains, output price reforms, and other policies which eliminated discriminatory treatment of SOEs contributed to overall improvements in financial performance during the reform period. Improvements in profitability were, however, not as marked as improvements in labour productivity or reductions in the fiscal burden, due to the effects of reform policies which forced SOEs to operate in a more competitive environment. Table 2 presents financial performance indicators for Chile, Mexico and Argentina.

In Chile, SOEs experienced moderate growth in profitability up to 1980, a sharp decline in 1981-1982, and relatively steady growth thereafter. For the large sample, net income increased by 56% in real terms from 1974 to 1979.<sup>15</sup> The profitability ratio, defined as the ratio of net income to fixed assets, which adjusts for changes in capital stock, also indicates improvements in financial performance between 1974 and 1979. For the small sample, the profitability ratio increased by 90% between 1976 and 1980, or by almost 70% if CODELCO-CHILE is excluded.

Beginning in 1981, the financial performance of the SOEs declined markedly, largely as a result of the severe economic crisis and the resulting stabilization policies. The government's anti-inflationary policy, which fixed the nominal exchange rate and allowed for a substantial overvaluation of the peso, contributed to higher input and interest costs during this period. This policy was especially costly to enterprises requiring imported inputs, such as CODELCO. Reforms in the economic policy environment which increased competition faced by SOEs may also have contributed to the temporary decline in SOE performance.

Since 1983 the average profitability of Chile's six largest SOEs has increased significantly. Improved financial performance resulted not only from better operating results, but also from lower interest costs, relative to the 1981-1982 period. Overall, excepting the 1981-1982 recession, there have been consistent improvements in SOE profitability during the public enterprise reform period.

<sup>15</sup> Net income is defined as total (operating and non-operating) revenues minus total costs, including interest payments and exchange rate adjustments measured in constant prices.

Table 2

**BUDGETARY INDICATORS OF STATE-OWNED ENTERPRISES<sup>a</sup>**  
(Percentages)

	Chile			Mexico		Argentina	
	1976-1980	1981-1982	1983-1988	1979-1982	1983-1988	1979-1982	1983-1988
SOEs deficit/GDP <sup>b</sup>	6.7 (6.3)	-5.1 (-1.0)	-8.3 (-4.6)	1.0 (2.9)	-1.7 (2.3)	4.7	4.5
SOEs deficit/public sector deficit <sup>c</sup>	36.3	...	...	11.2	-18.2	56.1	56.2
Government transfers to SOEs/GDP	1.4	0.6	-	2.5	2.8	1.8	3.8
Taxes paid by SOEs/GDP	1.0 (0.5)	6.0 (2.4)	8.7 (4.8)	4.4 (0.8)	5.9 (0.7)	...	...
Investments of SOEs/GDP	3.0	3.0	3.4	7.0	4.1	4.0	2.9
External debt of SOEs/GDP <sup>d</sup>	...	11.3	16.0	20.4	21.0	20.7	13.3

Sources: The data for Chile were obtained from Larraín (1988) and from the Department of the Budget of the Ministry of Finance. The data for Mexico were taken from the information on public sector finances and public sector production prepared by the National Institute of Statistics, Geography and Informatics (INEGI), and the data on the public finances prepared by the Secretariat of Programming and Budgeting (SPP); the data for Argentina were obtained from the Ministry of the Economy.

<sup>a</sup> The data for Mexico on the deficit, taxes and transfers correspond to the group of SOEs under direct control; the other data refer to the consolidated SOE sector, unless otherwise indicated. The data in parentheses exclude PEMEX in the case of Mexico and the copper companies in the case of Chile.

<sup>b</sup> Excluding taxes and transfers.

<sup>c</sup> This ratio is not significant in the later periods in Chile, since the SOEs, and the SOE sector as a whole, fluctuated between deficits and surpluses, all of them of minor importance.

<sup>d</sup> End-of-period figures. The data for Mexico and Chile correspond to the consolidated SOE sector; those for Argentina refer to the 13 biggest SOEs.

In Mexico the average financial performance of SOEs has improved since the initiation of reforms in 1983. Comparing the reform period with 1979-1982, for the consolidated SOE sector excluding PEMEX, operating revenues increased more rapidly than operating costs.<sup>16</sup> Despite improvements, however, the operating results for the consolidated SOE sector excluding PEMEX remained negative during the reform period, largely as a result of price controls that kept output prices below unit costs, reflecting the government's commitment to maintaining non-commercial objectives for some enterprises (e.g., CONASUPO). The ratio of net income to fixed assets was also higher during the reform period than during 1979-1982, but was still negative. A primary source of increased non-operating costs has been higher interest payments. PEMEX, however, had a large operating surplus averaging 3.5% of GDP during 1983-1988. AS PEMEX, in addition to regular taxes, is required to transfer all after-tax revenues to the Central Government in the form of special taxes, profit figures for

the consolidated SOE sector including PEMEX are misleading. If these special tax payments are excluded, then PEMEX profits more than cover the net losses of the rest of the consolidated SOE sector during the reform period.

In Argentina, SOEs achieved a substantial improvement in financial performance during 1976-1982 following the adoption of reforms. The average SOE operating surplus, net income, and the ability to self-finance investment were all higher during 1976-1982 relative to 1971-1975. The improved operating surplus is largely attributable to the government's policy of eliminating redundant labour and to the decline in real wages, as average personnel expenditures per unit of output declined by nearly one-third in 1976-1982 compared with 1971-1975. Financial performance, however, deteriorated during 1983-1988. Higher real wages and other input prices and lags in real output price adjustments, as a result of anti-inflationary policies, reduced the ratio of operating revenues to operating costs. Furthermore, SOE interest payments as a share of operating revenues more than doubled.

<sup>16</sup> Higher operating costs resulted primarily from increased non-labour costs, as average personnel expenditures declined by about 15% between 1979-1982 and 1983-1988.

## 2. Macroeconomic effects of SOE performance

State-owned enterprise performance plays a critical role in determining the magnitude of the overall public sector deficit, the external debt burden, and the levels of investment and overall economic activity in the country. SOE reform which focuses on controlling costs, eliminating price distortions, and reducing net government transfers in general may be expected to reduce the SOE deficit, its share of the total public sector deficit, and the level of financing through external borrowing.

Chile, Mexico and Argentina have all been successful in reducing enterprise deficits and net transfers from the central government. The extent of reduction in each country, however, depended on the government's ability to sustain tight controls over SOE expenditures and financing, the degree of real output price adjustments, and the impact of macroeconomic instability and external shocks (table 2 and figure 2).

Throughout the reform process in Chile, SOEs achieved clear and consistent reductions in SOE deficits and improvements in net government-SOE transfers. From an average annual SOE deficit (excluding taxes and transfers) of 6.7% of GDP during 1970-1973, SOEs achieved a 3.8% surplus during 1974-1975, the early years of the SOE reform. The size of the surplus continued to grow, even during the 1982-1983 recession, and reached an average of 9.6% of GDP during 1983-1988. The net contribution (taxes minus transfers) of the consolidated SOE sector to the central government improved considerably during the reform period, as shown in figure 2. This improved contribution from the SOEs to the overall public sector was the direct result of the government's policy that SOEs must transfer a large share of profits to the government and finance investment through new loans.

In Mexico during the reform period SOE deficits fell both relative to GDP and as a share of the overall public sector deficit. The overall deficit for the directly controlled SOEs reached a peak of 6% of GDP in 1981, but as a consequence of government policy changes it fell to less than 0.5% of GDP in 1983 and has since been in surplus.

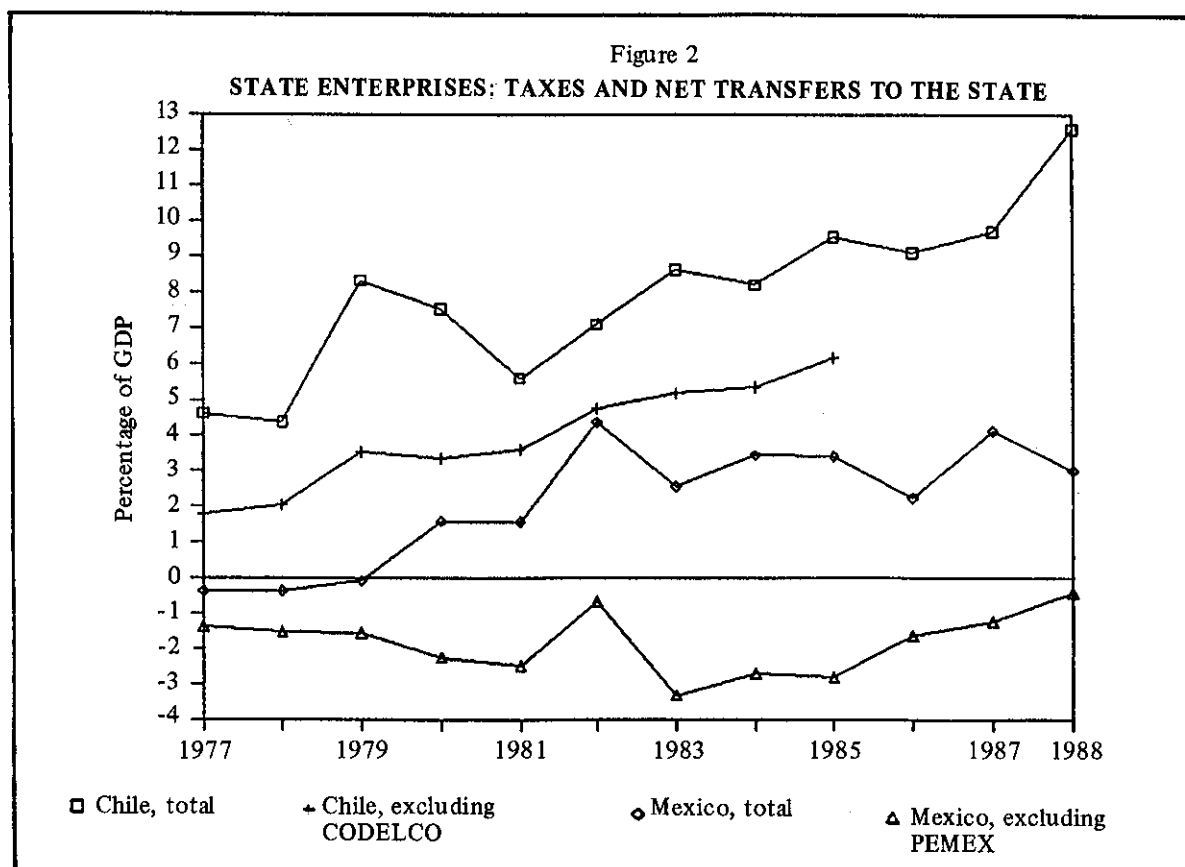
Given Mexico's complex system of government transfers and tax exemptions for SOEs engaged in social activities, and special taxes on

enterprises such as PEMEX, which amount to a direct transfer of profits, the fiscal burden of the SOEs is best analysed by considering net transfers from the SOEs to the central government (see figure 2). Excluding the high levels of debt absorption during 1986-1988, the contribution of the consolidated SOE sector to the central government has been positive in every year since 1980. If PEMEX is excluded, however, the SOE contribution was negative. Furthermore, the importance of PEMEX transfers, which are 80% of all tax revenues received from SOEs, creates the additional problem that the net fiscal burden of the SOEs fluctuates greatly with changes in petroleum export prices. For example, due to the fall in international oil prices, tax revenues from PEMEX declined during the reform period from a peak of 6.3% of GDP in 1985 to 3.4% in 1988.

SOE investment in Mexico increased greatly during the public expenditure boom of the late 1970s, particularly in the petroleum sector. Investment of the consolidated SOE sector increased from an average of 4.5% of GDP during 1970-1978 to 7% during 1979-1982 (from 3.2% to 3.8%, if PEMEX is excluded). Deficit reductions during the reform period have been achieved largely through cuts in investment, as capital expenditures fell to 4.1% of GDP (2.6% excluding PEMEX) during 1983-1988.

In Argentina since 1976, programmes to reduce fiscal deficits, including deficits of SOEs, have included measures to eliminate redundant labour and adjust SOE output prices to better reflect costs. While SOEs have achieved gains in labour productivity through employment reductions, output price adjustments have generally not been sustainable due to the highly unstable macroeconomic environment and the resulting government stabilization measures. As a result, although the consolidated SOE deficit (excluding transfers from the central government) was reduced to 2.8% of GDP in 1977, it rose again to 5.2% of GDP in 1979 and reached a peak of 6.9% in 1982, largely as a result of falling real output prices. In recent years the SOE deficit has gradually declined due to some cost reductions, but more importantly, due to cuts in investment. Thus, the SOE deficit fell to 4.3% of GDP in 1985 and 2.7% in 1987.<sup>17</sup>

<sup>17</sup> The petroleum (YPF) and gas (GDE) enterprises have been mainly responsible for reductions in the SOE deficit. Since 1986 they have reduced their combined deficit to less than 0.4% of GDP, compared with more than 2% in 1984.



### III

## Conclusions and summary

The comprehensive reform process entails five distinct areas: i) SOE sector strategy and policy, ii) the institutional and managerial framework, iii) the economic policy environment, iv) rehabilitation of SOEs, and v) modifications in SOE ownership. The experiences of the three countries examined in this study differ in the timing and emphasis assigned to these five areas. In Chile the new military government in 1973 immediately adopted policies to reduce the size of the State and promote private development, tightly control SOE expenditures and emphasize profits, initiate macroeconomic reforms and trade liberalization, and return expropriated properties. Subsequently, the government transferred most SOEs to a holding company responsible for their supervision, deregulated markets to stimulate domestic

competition, legislated transparent pricing policies, and restructured companies to prepare them for privatization.

The reform process in Mexico was slower, partly because of the need to develop political consensus in favour of it. The reform began in 1983 with constitutional changes redefining the role of the State, followed by legislative changes in 1986 and implementing regulations in 1990. The Mexican process was similar to Chile's in its early emphasis on macroeconomic reform, trade liberalization and privatization of small companies and a more gradual introduction of sectoral reforms. However, it differed significantly from Chile's by continuing to emphasize the social objectives of SOEs and adopting institutional and management reforms to increase SOE autonomy,

introduce performance contracts, and institute close government supervision of SOE performance. Mexico also followed a policy of SOE restructuring and rehabilitation more oriented towards improving SOE operational efficiency than preparing for divestiture.

Argentina's SOE reform process went through two phases: a piecemeal approach from 1976 to 1982, which emphasized reductions in employment; and a comprehensive approach, initiated in 1989, which is still not completely defined. This latter process is similar to that of Mexico in its legislative redefinition of the role of the State and SOEs, similar to Chile in its attempts to tightly control SOE expenditures in order to sharply reduce SOE deficits, and similar to both countries in its early emphasis on macroeconomic reform and trade liberalization. Argentina differs from Chile and Mexico in its efforts early in the reform process to privatize the most important SOEs, perhaps because the credibility of the process depended on demonstrated efforts to make the most politically difficult decisions.

The experience of these three countries suggests a model sequencing of SOE reform policies, which may vary depending on country circumstances. In the first stage, the emphasis is on setting the overall SOE strategy; initiating macroeconomic stabilization and trade liberalization; adopting ad hoc controls to ensure significant reductions in SOE deficits; and selling off those SOEs which can be easily disposed of. In the second stage, these ad hoc measures are replaced by performance monitoring and control procedures; trade liberalization continues and sectoral policies are reformed, including pricing policies and market deregulation to increase domestic competition with SOEs; and larger SOEs are restructured and divested. In the final stage, strict government controls over remaining SOEs are replaced by institutional changes to ensure autonomy and accountability on the part of managers and boards of directors, and the privatization programme is completed.

While data limitations do not permit formal testing of the effects of specific SOE reforms on enterprise performance, the three cases examined in this study permit conclusions about the broader effects of reform. In all three cases, SOE reform resulted in big improvements in economic performance as measured in labour productivity, sometimes even in spite of recession and reduced capital investment. Gains in labour productivity occurred whether reforms were piecemeal or comprehensive and whether reforms emphasized improvements in efficiency or in financial performance.

The evidence from Chile and Mexico shows a positive relationship between SOE economic and financial performance. Chile provides evidence that sustained, comprehensive SOE reform improves financial as well as economic performance and can generate positive rates of return on fixed assets. Mexico demonstrates that improvements in labour productivity and financial performance will not necessarily generate positive net revenues (excluding PEMEX, the State oil company) if SOE reform fails to establish market pricing. Argentina shows that unsustained reform efforts (1976-1982) can result in backsliding to worsened financial performance.

For a variety of reasons, improved SOE economic performance is not necessarily reflected in reduced deficits for the consolidated SOE sector. The tight fiscal controls imposed early on in the Chilean reform process dramatically converted SOE deficits into surpluses exceeding 8% of GDP (5% if CODELCO, the State copper company, is excluded). A similar transformation occurred in Mexico, although net of PEMEX the consolidated SOE deficit remained negative during the reform period. The Argentine piecemeal reform had little effect on SOE deficits, which averaged almost 5% of GDP throughout the reform period.

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