

Report No. 9871-BR

Brazil

Privatization and the Steel Sector

September 22, 1992

Country Department I

Energy and Industry Operations Division

Latin America and the Caribbean Regional Office

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Report No.: 9871-BR Type: (SEC)
Title: PRIVATIZATION AND THE STEEL SECT
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LIST OF MAIN ABBREVIATIONS AND ACRONYMS

ACOMINAS	Steels of Minas Gerais (Aços de Minas Gerais)
ACESITA	Itabira Special Steel Company (Companhia Aços Especiais Itabira)
BIB	Brazil Investment Bonds
BNDES	National Bank of Economic and Social Development (Banco Nacional de Desenvolvimento Economico e Social)
BTU	British Thermal Unit
CELMA	Electromechanical Company (Companhia Eletromecanica)
COPFUSUL	South Petrochemical Company (Companhia Petroquimica do Sul)
CORFO	Chilian Development Corporation (Corporacion de Fomento)
COSINOR	Northeast Steel Company (Companhia Siderurgica do Nordeste)
COSIPA	Sao Paulo Steel Company (Companhia Siderurgica Paulista)
CPs	Privatization Certificates (Certificados de Privatização)
CSN	National Steel Company (Companhia Siderurgica Nacional)
CST	Tubaraõ Steel Company (Companhia Siderurgica de Tubaraõ)
CVRD	Vale do Rio Doce Company (Companhia Vale do Rio Doce)
DNMM	The National Department of Mines and Metallurgy (Departamento Nacional de Minas y Metalurgia)
FCVS	Fundo de Compensacao das Variações Salariais (Compensation Fund for Salary Variations)
FOSFERTIL	Phospate Fertilizers, S.A. (Fertilizantes Fosfatodos S.A.)
FRANAVE	São Francisco River Navigation Company (Companhia de Navegação do São Francisco)
GOIASFERTIL	Goiás Fertilizers S.A. (Goiás Fertilizantes S.A.)
IMF	International Monetary Fund
INDA	National Institute of Steel Distributors (Instituto Nacional de Distribuidores de Aço)
MYDFAs	Multi-Year Deposit Facility Agreement Certificates
OFND	National Development Fund Bonds (Obrigações do Fundo Nacional de Desenvolvimento)
PFA	Parallel Financing Agreement
PETROBRAS	Petroleos Brasileiros
PETROFERTIL	PETROBRAS' Fertilizer Holding Company
PETROQUISA	PETROBRAS' Petrochemical Holding Company
PIRATINI	Piratini Special Steel Company (Aços Finos Piratini)
PSEs	Public Sector Enterprises
RFFSA	Federal Railways Network (Red Ferrovieria Federal, S.A.)
SIDERBRAS	Brazilian Steel Holding Company
SNBP	Bacia do Prata Navigation Service (Serviço de Navegação da Bacia do Prata)
SNDE	National Secretariat of Economic Law (Serviço Nacional de Defesa Economica)
SOEs	State-owned Enterprises
TDA	Agrarian Debt Certificates (Titulos de Divide Agraria)
USIMINAS	Steel Mills of Minas Gerais (Usinas Siderurgicas de Minas Gerais)

Title: Brazil: Privatization and the Steel Sector

Country: Brazil

Region: Latin America and the Caribbean

Sector: Economic

Report: Type: Classification: MM/YY: Language:
--BR ERA Official Use 01/92 English

Date: September 1992

Abstract: This report assesses Brazil's current program of privatizing state-owned enterprises (SOEs). It provides a background on privatization in Brazil, examines the regulatory reforms preceding privatization, and assesses operational and functional features of the program. It also more specifically reviews prospects for privatization of the steel sector, since this is the most important sector (in terms of assets) being privatized.

Brazil now has in place a workable privatization program, the authority to carry it out, the institutions to guide and manage the process, a powerful motivation to sell SOEs, and the acquiescence if not the active support of most major political groups. The program is ambitious, its processes are fair and transparent, and the deregulation of the industrial sector and trade reforms which are taking place in parallel should ensure in most cases that privatization will result in increased efficiency. Results of the first thirteen privatizations, including major firms in the steel and petrochemical sectors, have shown that the careful, methodical and transparent approach which characterizes the privatization program so far has been a major reason for its success and its acceptance by all political forces, the unions and the public.

The program, however, does face some uncertainties and carries risks. Lack of success in stabilization efforts and of progress in external debt negotiations could seriously undermine investors' confidence; further deregulation, often requiring Constitutional change, is needed; a variety of legal, financial and operational issues arise in each case which need resolution prior to sales. Most of these issues are being addressed either in the framework of individual privatizations, or through the introduction in Congress by the Government of appropriate Constitutional amendments. Perhaps the major issue remains the lack of interest from foreign investors (due to an unfavorable macroeconomic and political climate, and a number of legal and regulatory restrictions), and the possibility of concentration of these generally capital-intensive industries in the hands of a few large domestic groups. Furthermore, as the program expands into new areas such as railroads, power and telecommunications, more thinking will be required well ahead of privatization to establish adequate regulatory frameworks.

Brazil: Privatization and the Steel Sector

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This report is based on the findings of three missions which visited Brazil between January 1991 and July 1992. The first mission, in January 1991, consisted of Malcolm Bale (mission leader); Jose Augusto Carvalho (LEGLA); Sir Roger Douglas (consultant); Claudio Frischtak (IENIN); Frederick Harvey (consultant); Roberto Mosse (LA1EI); and Silvina Vatnick (LA1CO). A follow-up mission in April 1991 consisted of Roberto Mosse, Dominique Babelon (LA1EI) and Koichiro Fukui (CFSPS). Finally, the draft report was discussed in July 1992 by Dominique Babelon. Maurice Meunier and Mahrukh Doctor (consultants) also contributed to this report. The report was prepared by Dominique Babelon on the basis of contributions from all these missions, and reflect events up to August 1992.

==|| EXECUTIVE SUMMARY ||==

A. Introduction

1. In March 1990, the new Brazilian administration immediately announced a major reform program to: (a) stabilize the economy; and (b) restore growth through structural adjustment toward a competitive, market-driven economy rather than the existing regulated and heavily state-dominated economy. A key element was the planned sale of many state-owned enterprises (SOEs) to the private sector. This privatization program is the subject of this report.

2. In Brazil, state ownership of industrial and financial enterprises, and state intervention in the running of these and other enterprises, was a long and widely accepted tradition. It was only in the last decade, when federal and state governments owned over 600 enterprises and 28 of the 30 largest firms were SOEs, that debate on the role of the state, and discussion on policies and programs to reverse the proliferation of SOEs, became serious. But despite some efforts, the number of SOEs stayed approximately constant during the second half of the 1980s. No major companies were sold, and most sales were of firms BNDES had acquired through bankruptcy proceedings.

3. The World Bank has followed Brazil's privatization program with great interest for almost a decade. In 1988, when it appeared that Brazil might undertake a major privatization program, the Bank assessed the program.¹ However, the current privatization program is so much more comprehensive and organized than the former, that an entirely new assessment by the Bank was warranted. The purpose of this report is: (a) to assess the program for Bank management, and thereby provide a basis for possible future Bank assistance; and (b) to recommend to the Government refinements in the program. Since the steel industry represents the largest portion of the estimated value of the Government shares of companies officially on the privatization list, an annex assesses the steel industry in Brazil, its regulatory environment, and the major public steel companies. This report assesses the privatization program for federally-owned companies only. A number of states are also engaged in their own privatization program but these are outside the scope of this report.

B. The Present Privatization Program

4. The recent privatization program was launched officially on March 15, 1990, by Provisional Decree 155, whose substance was shortly thereafter approved by Congress in the Privatization Law of April 12, 1990. The Law's application decree was signed by the President in August 1990, and several decrees followed stating the objectives of privatization, identifying companies to be sold, defining the procedures to be used, and appointing the various agents in the privatization process. Objectives of the privatization program include: (a) reorientation of the role of the federal government in the economy away from activities

¹ Brazil: Prospects for Privatization. Report No. 7550-BR, The World Bank, June 30, 1989.

that are more effectively the domain of the private sector; (b) reduction in the public debt; (c) modernization and growth (through new investments) of privatized companies; and (d) strengthening of the domestic capital market. Institutional responsibilities for the implementation of the program have been entrusted to a Privatization Commission and to BNDES: The eleven-member Privatization Commission is responsible for defining and overseeing the entire program and is accountable to the President of the Republic. The Commission is currently chaired by the President of BNDES, which is also the executing agency for the program. Under the decrees and even more in practice, BNDES therefore plays a dominant role in the process. The mandated role of BNDES is to register companies for sale; contract consultants for economic, asset appraisal and audit purposes, and manage those consultants; recommend to the Commission the needed pre-sale preparatory measures, the general conditions of the sale, the minimum price, and the use of the proceeds from the sale; find interested private sector investors; and conduct the sale. Checks and balances between the various actors (the Commission, BNDES, private consultants, auditors, the accompanying congressional committee), transparency and competitive bidding characterize the process at all stages. Foreign ownership is limited to 40% of the voting capital. Virtually all debt instruments held against the companies or the government and fallen due may be used as tender in the sale.

5. Since August 1990, there has been considerable progress made on privatization. Sixty-four (64) companies in which the Federal Government holds majority (30) or minority (34) ownership have been officially approved for privatization so far, although a firm timing has not been set for all of them. They are mainly from the steel, petrochemical, fertilizer, capital goods, and transportation sectors, and include: (a) all federally-owned SOEs in the manufacturing sector except for PETROBRAS, whose ownership is reserved to the State by the Constitution, and CVRD; and (b) a limited number of companies in the transportation (including RFFSA, the Federal Railways Network) and electrical utilities sectors (excluding ELETROBRAS). Another notable exception to the program is TELEBRAS, the federally-owned telecommunications company, the privatization of which is constrained by the Constitution. All companies on the list so far have an aggregated net worth estimated at US\$15 - \$20 billion, including the Government equity, estimated at US\$12 - \$15 billion (book value).² Since October 1990, the date of the first auction (that of USIMINAS, a major steel mill), thirteen companies have been privatized for a total sales value of about US\$3.5 billion, including two major integrated steel mills, one petrochemical cracker and a large fertilizer plant. Despite the somewhat chaotic sale of USIMINAS, the success of those auctions has demonstrated that the program is working. Privatization is now accepted by a wide segment of Brazilian society.

² Primarily from the steel (44%), chemicals (28%), rail transport (25%) and fertilizer (3%) sectors.

6. With total assets estimated at about US\$13.6 billion, the eight state-owned companies in the steel sector account for most currently announced privatizable assets. Five integrated steel mills account for close to US\$12 billion in total assets and US\$6.2 billion in state equity (USIMINAS, CST, CSN, COSIPA and ACOMINAS). Their privatization therefore is at the core of the program. A review of their performance shows that all five are cost competitive internationally, when excluding administrative and financial expenses, and reducing depreciation charges to reflect asset values more in line with their earning power (some have incurred excessively high investment costs as a result of long construction delays). Technical and production management is generally excellent; however, financial results of all companies have been adversely affected by several factors: (a) domestic prices of flat steel products maintained artificially low by the Government until they were deregulated in August 1991; (b) stagnant domestic demand falling far short of expectations at the time investment decisions were made, forcing large exports on a mostly depressed international market; (c) low labor productivity resulting in part from current labor laws which restrict shift length; and (d) high depreciation charges, for reasons mentioned above. As a result, except for USIMINAS and CST, and in spite of the 1987 financial restructuring, the companies have again accumulated large amounts of debt, particularly short term debt. All companies require large amounts of catch-up investments for technological upgrading and pollution control, and in some cases, completion. CSN, COSIPA and ACOMINAS will require financial restructuring prior to privatization. For these three companies, public information campaigns will be needed to explain how minimum prices take account of past mistakes and reflect present realities in the world and domestic steel markets, lest they be perceived by the population as "give-away" prices, when compared with the amounts invested over the years by the state.

7. Privatization needs to be coupled with the removal or revision of regulations that affect the sectors in which the enterprises operate, to promote competition and efficiency. The Brazilian privatization program has been conceived within an overall framework of deregulation, which is being carried-out in parallel as part of the macroeconomic program. Most barriers to domestic and import competition have already been removed or substantially reduced. A comprehensive trade reform is being implemented, although at a slower pace than in several other Latin American countries. Most price controls were lifted again in August 1991.

C. Assessment and Recommendations

8. After many years of flirting with privatization, Brazil now has in place a workable privatization program, the authority and institutions to carry it out, a powerful fiscal motivation to sell SOEs, and the acquiescence if not the active support of most major political groups. Enabling legislation has been passed by the Congress; the President has made the program a priority; the Privatization Commission, represented by prominent government officials and private experts, is advising the President; and BNDES, already experienced at privatizing firms through its portfolio activities, has set in train a disciplined

timetable for the process. The sale of thirteen SOEs over a period of only eleven months has demonstrated that the processes do work. Therefore the prospects for a successful and vast privatization program are good.

9. Brazil has adopted many of the policies and procedures of other countries that have undertaken major sales of SOEs. This has helped the program to move forward rapidly, although not quite at the unrealistic pace originally envisaged. Despite this positive background, certain aspects of the privatization and deregulation programs can be improved. Accordingly, the recommendations below are given in the spirit of improving an already workable and satisfactory program.

Impact of the Macroeconomic Environment and External Debt Issues

10. One cannot overemphasize the importance for successful privatization of parallel implementation of a macroeconomic program which restores investors' confidence. Progress in external debt negotiations is also important to reduce the uncertainty faced by potential investors. Otherwise it may be very difficult to attract fresh funds for privatization and for the firms' badly needed technological upgrading. Furthermore, the foreign commercial creditors might not grant, or might delay granting, the waivers needed for the indebted enterprises to be sold. There has been substantial progress on both fronts since mid-1991, but much remains to be done for Brazil to meet the targets agreed with the IMF and to secure the necessary collateral for debt restructuring.

Linkages between Deregulation and Privatization

11. Deregulation of the industrial sector, including those subsectors in which to-be privatized SOEs operate, is well advanced. In the steel sector, for instance, entry and expansion barriers have been removed, forced use of domestic raw materials and capital goods have been lifted, plant-specific quotas on transportation and distribution of the output have been discontinued, and import quotas have been replaced by tariffs that are neutral across sectors and are to be phased down over the next five years. Prices, which had been deregulated in March 1990, but subsequently frozen in February 1991, resulting in significant distortions and constituting an important disincentive to privatization, were liberalized in August 1991, together with most industrial prices.

12. Nevertheless, numerous residual regulations remain which maintain significant distortions in several subsectors. Their elimination would greatly enhance privatization and ensure the disappearance of unwarranted subsidies. Principal among them are: (a) labor regulations in the steel sector, particularly pertaining to the length of each shift; (b) port regulations that keep costs way above internationally comparable levels (this is especially critical to the international competitiveness of the fertilizer sector); (c) public monopolies on the supply of inputs (e.g. PETROBRAS monopoly on supply and imports of naphtha to the

petrochemical sector), exacerbated by government pricing of these inputs (e.g., subsidized pricing of gas and naphtha as petrochemical feedstocks); and (d) remaining investment and tax incentives which may distort resource allocations across regions (in particular in the petrochemical sector). While some of these issues are already being addressed (e.g. the announced privatization of port operations), it would be advisable to eliminate remaining distortions rapidly.

13. There are other important policy and legal constraints to the extension of the privatization program to other sectors, especially (a) the Government's tariff policies make electrical utilities financially unprofitable; (b) ports cannot be privatized until Congress has passed the proposed ports reform, aiming at removing the monopoly of port unions; (c) privatization of ports, electric power and other public services would be facilitated by the passing by Congress of the draft Concession legislation; (d) privatization of telecommunications and the oil business requires amendments to the Constitution, which currently reserves these activities to the state; (e) privatization of the mining industry and expansion of private mining activities, are seriously limited by a constitutional provision which prohibits foreign companies from exploiting new discoveries unless they have a majority Brazilian partner and they process the minerals before sale. It is advisable to focus early attention on the type of regulatory environment, institutions and policies which will be required to oversee private sector operators of utilities and public services.

14. Finally, one area where the government may wish to put increased emphasis is in competition policies and the application of the antitrust legislation. This is especially important in a context where macroeconomic conditions and obstacles to foreign participation are not conducive to much investors' interest, and, therefore, where incumbents (existing partners) or large private groups already present in capital intensive sectors are the most likely buyers. The Privatization Commission appears concerned by the possible ownership concentration that may result from privatization, and is taking this aspect into account when deciding on individual sales strategies. However, this may not be sufficient because sales strategies do not guarantee auction outcomes. Increased attention should be paid to the identification by consultants of risks of anti-competitive behaviors resulting from specific privatization transactions; potential buyers who would gain a share of 20% or more of a specified market as a result of their purchase should be encouraged to file an ex-ante formal consultation with antitrust authorities. In any case, as proposed by BNDES, contracts with auction winners should include a provision that they are to submit themselves to a post-auction review if their market share exceeds 20%.

Securing Public and Congressional Support

15. The successful examples of privatization around the world have all mounted significant information dissemination campaigns, by government and private sector groups. It appears that the privatization program was initially poorly understood by most Brazilians. Brazil is undertaking a fundamental change in the role of government, and the public needs a

comprehensive explanation of this process, how privatization fits into this basic change, and why privatization is good for the country and good for them. In order to increase public support (which is important for the sustainability of the program), great efforts were made subsequently to widely explain the rationale of the program. The practice in Brazil of reserving a portion of shares for workers has helped considerably in reducing unions' oppositions to privatization. Also, potentially explosive issues such as labor redundancy have to be, and are being, addressed well in advance of privatization whenever they may later derail the program.

Institutional Responsibilities

16. Deliberate trade-offs have been made in favor of: (a) a flexible structure with representation of the public sector as well as private expertise (the Privatization Commission), directly accountable to the President, and with clear responsibilities; and (b) a competent administrator (BNDES) experienced in privatization and a long-time enthusiastic supporter of the program. The institutional set-up is a clean break from the previous organization, and should ensure that the program moves forward without excessive bureaucratic caution and interministerial feuds. Although there are some risks inherent to the structure (e.g., potential conflicts of interest between BNDES' roles as lender and as administrator), there are substantial built-in checks and balances minimizing those risks. It has worked well so far, and all parties to the process must be commended for their careful and methodical approach, the quality of their valuation work, their negotiating skills to resolve difficult legal and labor issues, and the transparency of the entire process.

Sector Strategic Planning and Sales Structuring

17. There seems to be an apparent absence of timely industry-wide strategic thinking prior to privatization. More time should be spent substantially ahead of the sale studying strategic aspects of the industry, how an industry might ideally be organized, what legal, policy and regulatory changes are needed for the industry to reach international competitiveness, attract buyers and maintain competitive pressure, and how the mode of privatization might be modified to accomplish this strategy. Also the structuring of the sale should pay more attention to the optimum ownership structure needed to achieve efficiency and further competition. This will become particularly important as railroads, electric power, ports, telecommunications and the oil and mining businesses are privatized, where an adequate regulatory framework must be in place prior to privatization.

Deterrents to Foreign Participation

18. After 13 sales and close to US\$3.5 billion worth of sales, there is still a virtual absence of foreign capital participation, apparently due to a combination of factors, including: (a) continued macroeconomic instability; (b) lack of interest in sectors offered for sale so far; (c)

fear of the pattern of legal suits initiated by diverse segments of society before and after each auction; (d) wait-and-see attitude on the part of foreign banks unwilling to convert external debt instruments into equity pending the outcome of external debt negotiations; (e) 25% discount on foreign (but not domestic) debt instruments; (f) limitations of foreign ownership to 40% of voting capital at auctions; (g) restrictions on capital repatriation; and (h) generally, fear of discrimination in favor of domestic firms, explicit in the Constitution, which distinguishes between enterprises of national capital and others and foresees the possibility of granting privileges to the former.

19. A number of deterrents to foreign participation have already been removed or relaxed, in particular with respect to capital registration limits, remittance and taxation of profits and dividends, and time constraints on capital repatriation. Although the relative importance of these factors in the decision by foreigners not to participate so far is not easy to establish, in light of the foreseen shortage of domestic, as means of payment, it may become important to remove all potential obstacles to foreign participation, in particular the 25% discount on face value of external debt instruments offered as payment currencies; and the 40% limitation on foreign participation at voting shares auctions.

Currency and Debt Issues

20. Diverse types of financing instruments may be used in the privatization program, mostly debt instruments to be used in debt/equity swaps. Available non-cash currencies are estimated at about US\$60 billion, to purchase SOEs with a total equity book value of less than US\$20 billion, including about US\$10 billion of domestic debt and US\$50 billion of external debt instruments. So far, only internal debt instruments have been used.

21. Internal debt instruments, though widely used, exist in relatively limited amounts. To incentivate the use of internal debt instruments in the auctions, the Government has promoted the development of secondary (over-the-counter) markets for SIDERBRAS' Debentures, Frozen Cruzados, Agrarian Debt Certificates and NDFBs. This is really necessary to avoid distorting the ownership of privatized companies, in favor of the original public debt holders. Internal debt instruments are more attractive than external debt instruments, because, while they are also traded at less than 50% of their nominal value, they are accepted at face value, while external debt instruments are accepted at 75% of face value only.

22. Chief among eligible external debt instruments are Multi-Year Deposit Facility Agreement Certificates (MYDFA's), for which there exists an active secondary market. MYDFAs have not been used, due to the combination of factors described in para. 21 above (in particular the 25% discount on face value), and the relative attractiveness of domestic debt instruments. One other potential issue is the restricted access to external debt instruments by Brazilian residents. This will increasingly become a constraint as internal debt instruments become exhausted.

23. Another major concern is the liabilities of the companies being sold and/or of their former holding company, such as SIDERBRAS. Although SIDERBRAS was abolished in March 1990, its liquidation has not been completed. A number of loan agreements entered into by the steel companies and SIDERBRAS forbid the transfer of their assets or the majority of their shares to others than SIDERBRAS or the Government. Waivers of these provisions have to be obtained from creditors in each case. Of particular concern is the outstanding external debt of SIDERBRAS. Although the legislation extinguishing SIDERBRAS stipulates that the Government would assume all of SIDERBRAS's liabilities, the necessary changes to loan and guarantee agreements with SIDERBRAS creditors have not been formalized. In other countries, obtaining waivers has been a time-consuming process sometimes linked with progress on external debt negotiations. Such waivers are being obtained prior to each company sale, but without a broader resolution of this issue, the privatization of other steel companies may be in jeopardy.

24. As discussed in para. 6 and in more detail in Annex 1, a number of SOEs slated for privatization, in particular in the steel sector, are facing major financial difficulties. Excessive indebtedness has resulted from Government controls on domestic prices of steel products and very high domestic real interest rates. Financial restructuring of these companies will therefore be necessary before they can be scheduled for privatization. This process is underway as part of the pre-sale steps scheduled by the Privatization Commission.

25. Large amounts of debt instruments are held by state banks and public entities, and initially, it was conceivable that other public entities could end up as majority owners of "privatized" companies. Indeed, several auctions had an important participation of public debt holders. The Government has now restricted public sector participation to no more than 15% of voting stock. In addition, pension funds, which had been freed from normal diversification rules in order to facilitate their participation in privatization auctions, have since also been limited to 15% of the voting stock of any company (the case of MAFERSA, the control of which was purchased by the railroad workers pension funds, cannot therefore be repeated). Besides limiting pension funds participation to levels compatible with prudential considerations, this rule should also help make available larger amounts of internal debt instruments to other investors on the secondary markets.

Minimum Price

26. A minimum price is published as part of the sale announcement. The price is based primarily on the discounted net cash flow of projected operations. Other criteria also reviewed include the accounting net worth, the estimated net worth at market values, and asset liquidation value (net of liabilities and employees compensation). The setting of a minimum price is useful for transparency, to avoid a perception that state assets are being given away, and whenever specific factors (such as existing shareholder agreements or captive plants) make the company attractive only to a limited number of bidders. In most

auctions so far, the market price has been close to the minimum price. One should caution, however, against the fixing of minimum prices which leave little margin for error, because its adequacy depends on the choice of the discount factor used in the calculations, and the value of the usable debt instruments on the secondary markets. This question will become particularly relevant as the supply of attractive domestic debt instruments becomes exhausted, and if MYDFAs' prices increase as a result of the debt accord. BNDES has applied a rate of 14% to cash flows in dollar terms, to arrive at the minimum price. However, since debt instruments worth at best half of their face value are accepted in payment, the implicit discount rate has been much higher (25% to 30%).

Restructuring Prior to Privatization

27. Except for financial restructuring (debt assumption or capitalization), and low-cost, quick yielding cost-cutting measures, the Government has rightly avoided extensive modernization/rehabilitation in preparation for privatization. The private sector is more efficient than governments at reorganizing companies and selling and liquidating unprofitable assets, especially since it is less subject to political and social pressures. Restructuring efforts should not delay privatization, and should be undertaken only if failure to do so would render the sale politically impossible.

28. Similarly, while there is no doubt that efforts to "corporatize" SOEs should be pursued, so that they can operate as soon as possible in an environment that approximates that found in private industry, privatization should not await corporatization, which usually requires many legislative changes and faces extensive bureaucratic resistance, thus being difficult to achieve in a short time.

==|| I. INTRODUCTION AND HISTORIC BACKGROUND ||==

A. Purpose of the Report

1.1 In March 1990, Brazil's first directly elected administration in three decades implemented a major reform program to stabilize the economy, reduce intervention, and restore growth. The program -- based on a vision of a modern, competitive Brazil -- had two basic elements: (a) a stabilization program aimed at substantially reducing inflation through monetary contraction and radical fiscal adjustments; and (b) a set of structural reforms aimed at consolidating the gains from the stabilization program and paving the way for economic recovery. The structural reforms included opening the economy to foreign trade and investment, a new industrial policy to promote competition, and a privatization program designed to return the state to more typical government activities in the social and infrastructure sectors. Through these changes, the program has sought to redefine, fundamentally, the boundary between state and private initiative. Privatization -- the focus of this report-- is one part of the initiative. Privatization --the sale of state-owned enterprises to the private sector -- is seen as an important component of the program to restructure Brazil's economy.

1.2 Brazil has a long history of the state as entrepreneur. State ownership in industrial and financial enterprises and state intervention in the running of these and other enterprises is a long and widely accepted tradition. It was only in the last decade, when federal and state governments owned over 600 enterprises and 28 of the 30 largest firms were SOEs, that debate on the role of the state, and discussion on policies and programs to arrest the trend of proliferation of SOEs, was initiated. But despite the policies and programs, the number of SOEs stayed approximately constant during the second half of the 1980s and efforts to reduce the number through consolidation, closings and sales were limited. No major companies were sold and most sales were made out of the portfolio of BNDES which had frequently acquired control or ownership of private firms through bankruptcy proceedings.

1.3 The World Bank has followed the development and formulation of the privatization program in Brazil with great interest. Discussions between the Government and the Bank on privatization and on realigning the role of the state go back almost a decade. In 1988, when it appeared that Brazil might undertake a major privatization program, the Bank undertook a study assessing the program.¹ In the intervening period the government and the Bank have had numerous discussions on the subject, have collaborated in a privatization workshop, and the Bank has prepared several informal notes for the government to elucidate various issues on privatization.

1.4 The new privatization program was so much more comprehensive than the former, and the process was proceeding at such a rapid pace, that an entirely new assessment by the Bank was warranted. This report is the outcome of several Bank missions which took place between January 1991, when the new institutional mechanisms had just become operational, and July 1992, and thus reflects progress and adjustments made over a year and a half. As with all World Bank economic and sector work, the purpose of the report is twofold. First, it is designed to inform Bank management of the program and thereby provide a basis for

¹ Brazil: Prospects for Privatization. Report N° 7550-BR, The World Bank, June 30, 1989.

possible later Bank support for the program. Second, recommendations generated by the Bank's independent assessment are the source of policy dialogue between the Bank and the Government, which ideally leads to refinements in the program. The report notes the necessary conditions for a successful sale and offers suggestions on how the privatization program may be refined as it continues. In fact, many of the shortcomings described in earlier drafts have been corrected already. Since several steel companies are among the first large firms to be sold under the program, we dedicate an annex to an assessment of the steel industry in Brazil, including its regulatory environment. This annex is illustrative of the program's successful approach to a sub-sector faced with policy, regulatory and financial issues.

1.5 The report starts in this Chapter by providing a brief background on the scope of state intervention and privatization efforts before the present administration; Chapter II describes the main features of the current privatization program; Chapter III presents an assessment of the program and recommendations; and Chapter IV reviews the merits of corporatization of SOEs prior to privatization. Finally, the report includes a substantial annex on the steel sector and prospects for privatization in that sector.

B. History of State Intervention and Ownership

1.6 Brazil has a long history of state ownership in industrial and financial activities, beginning in the 1930's and reaching its zenith in the mid 1980's when federal and state governments owned over 600 enterprises.² But in the early 1980's the limitations of state ownership were first recognized. Over the decade of the 1980's three different privatization initiatives were introduced designed to turn over ownership of various SOEs to the private sector. The first efforts were effective only in curbing the growth of SOEs. Later efforts saw the privatization of some small, previously private, firms which had come into state hands through bankruptcy proceedings where debt was owed to BNDES.

1.7 There were three basic reasons for state ownership in Brazil:

- (a) certain sectors were considered strategic to the industrialization process, but due to the lack of private interest in such long-term, risky investments, they were developed by the state;
- (b) public utilities and services were over-regulated or price controls were imposed, thereby making them unattractive to private investors; and
- (c) certain companies, which started as private concerns were taken over by the Government rather than being allowed to go bankrupt.

But with the development of a vigorous private sector in Brazil, the continuation of state ownership has become widely recognized as unnecessary and counterproductive. First, there is no reason for companies, which started out as private concerns and have no particular

² See "Prospects for Privatization", *op. cit.*, pp. 23-26 for a description of the evolution of state ownership in Brazil.

connection with government activity, to remain under state control. Second, state ownership has resulted in considerable inefficiencies, both in the production of goods and in the allocation of resources. And third, many SOEs require large investments in order to modernize. The state must be freed from this obligation so that its resources can be channeled into the traditional areas of education, health, housing and welfare.

C. Previous Privatization Efforts

1.8 The privatization programs of the 1980's had more than their share of teething problems. Privatization as a policy was first mentioned in 1981, during the military government, when the uncontrolled growth in the number of state owned enterprises and their poor performance was becoming a concern, and as the state development bank was taking over many bankrupt concerns. Decrees establishing guidelines for transferring SOEs to the private sector were issued at that time.

1.9 However, it was not until 1985, with the coming of a new administration, that a concerted effort to start privatizing was mounted. A special interministerial council was formed to guide the process and a secretariat was established in the Ministry of Finance to implement its decisions. Because of its complexity and novelty, it took a long time to produce the regulations necessary to undertake actual privatizations. Only in June 1987 did the first significant privatization take place. A new decree was issued in 1988, as well as a list of 61 firms to be privatized.

1.10 Between 1981 and 1989, 38 privatization operations were successfully concluded, for a total sale value of about US\$1 billion. Most of these, however, were reprivatizations. The privatized companies were mostly controlled by BNDESPAR, the holding company and a fully-owned subsidiary of BNDES. BNDES managed the process, gaining significant experience and becoming an enthusiastic supporter of the program.

1.11 The administrative branch of government, however, proceeded very cautiously. None of the companies put-out for sale during that period was a major SOE. Government officials did not feel they had received a clear mandate nor had the necessary coalitions formed in the legislative branch to provide majority support for a widespread privatization program. Many politicians were (and remain) concerned about the possibility of "giveaways" or bargains to well-placed local entrepreneurs or, even worse, to foreign corporations. As detailed in the Bank June 1989 report, the program also lacked clear definition on a number of critical points, which made it vulnerable to attack. Chief among these were: (a) lack of accompanying broad-based regulatory reforms to prevent rent-seeking behavior on the part of private buyers; (b) no definition as to where proceeds of sale would go (whether state-owned holding groups would be allowed to retain them); (c) lack of promotion of the program and its objectives, and of efforts to promote its political acceptability, in particular with workers; finally, (d) the provision of subsidized credit to purchasers was also controversial.

1.12 As political objections were raised to specific sales, and since the country was entering the waning days of the Sarney administration, there was little motivation to bring the sales of designated SOEs to completion. Thus, the privatization program was postponed in early 1989 and it was left to the incoming President to define a new program.

==|| II. THE CURRENT PRIVATIZATION PROGRAM ||==

A. Privatization Within the "New Brazil Plan"

2.1 When President Collor came to office and announced the "New Brazil Plan" (the "Collor Plan"), it was evident that privatization was to play a central part in redefining the economic role played by the state in the production and service sectors. Shortly following the passing by Congress of the Privatization Law on April 12, 1990, the federal administration, by means of Decrees Numbers 99463 and 99464, dated August 16, 1990, launched the Brazilian Privatization Program. Decree No. 99463/90, which defines the Law's application modalities, defines: (a) the type of companies subject to privatization; (b) the means by which such companies will be privatized; and (c) the role of the Privatization Commission. Decree No. 99464/90 appoints the Brazilian Economic and Social Development Bank (BNDES) as the manager of the program, and provides a first list of thirteen companies that will undergo privatization. Finally, a Presidential Decree, dated July 19, 1990, appointed the members of the Privatization Commission.

2.2 The privatization program is an attempt to transform the role of the State as an economic agent, by transferring to private enterprise, sectors which the State has developed or contributed to expand. A major motivation is to reduce the public deficit and overhaul state finances. The basic objective is to allow the federal administration to concentrate its efforts in activities where the State presence is essential for achievement of national priorities (mainly the social sectors).

2.3 Although not part of the privatization program, various complementary measures are contributing to a sound privatization program. Principal among these are those reforms designed to stimulate competition. Lowering trade barriers, removing price controls, lifting domestic industrial regulations, and breaking up state monopolies are important steps that have been taken or are being undertaken as part of the structural changes of the "Collor Plan."

2.4 The following companies may be privatized: (a) those directly or indirectly controlled by the federal government, instituted by law or created as a result of legislative authorization; (b) those created and directly and indirectly controlled by corporations under (a) (for instance by holdings such as SIDERBRAS, and PETROQUISA and PETROFERTIL, themselves subsidiaries of PETROBRAS); and (c) those organized by the private sector that have come under the direct or indirect control of the federal government, for example bankrupt private concerns taken-over by BNDES.

2.5 The decrees confirm that the privatization process is not applicable to public companies that engage in activities in the exclusive domain of the federal government. These are: (a) under Article 21 of the Constitution, telephone, telegraph, data transmission and other telecommunication services; (b) under Article 159, financial institutions with regional activities; (c) under Article 177, oil, natural gas, fluid hydrocarbons, oil transportation,

nuclear mineral oils and minerals; and (d) under Article 192, the Bank of Brazil and the official reinsurance agency.

2.6 Under the law and accompanying decrees, foreign participation is limited to no more than 40% of voting capital. Any higher percentage requires special legislative approval.

B. Objectives

2.7 The objectives of the privatization program, as laid out in Law No. 8031 of April 12, 1990, are sixfold, to:

- (i) restructure the strategic position of the State in the Brazilian economy, by transferring to the private sector economic activities unduly exploited by the public sector;
- (ii) contribute to the reduction of the public debt, striving to right finances in the public sector;
- (iii) permit reinvestment in economic activities by such companies as may be transferred to private enterprise;
- (iv) contribute to the modernization of the Brazilian industrial plant, by making it more competitive and strengthening the business capacity of the various sectors of the Brazilian economy;
- (v) allow the Federal Public Administration to concentrate its efforts and resources in activities where the State presence is needed for achievement of national priorities; and
- (vi) contribute to the invigoration of the capital market by increasing public offers of securities and democratization of the holding of share capital in the companies participating in the Brazilian Privatization Program.

2.8 Privatization is not restricted to transfer of corporate holdings. The application decree allows the sale or leasing of assets or premises of companies controlled by the federal government as well as items from the assets of companies that are dissolved or deactivated. With respect to privatization methods, although it states that preference should be given to as wide as possible a dissemination of ownership in the public, the law in fact allows substantial flexibility in their choice, from total or partial sales, to capital increases, mergers and spin-offs, leasing and liquidations. The later Presidential application decrees have somewhat reduced this flexibility since they specify that the sale of existing shares must be conducted either through public auction (block sales) or through widespread distribution of shares to the public and to employees at a fixed price (or a combination of both).

C. Institutional Structure and Responsibilities

2.9 The Privatization Commission is composed of eleven members appointed by the President. In addition to the President of BNDES, who chairs the Commission, it includes four representatives from the ministries of economy, infrastructure and labor; one representative of the state of Sao Paulo; three legal advisers from the private sector; and three business consultants and financial advisers. Its functions are to: (a) recommend the companies to be included in the program for the President's approval; (b) set the timetable for each privatization, with Presidential approval; (c) approve operational, accounting, legal and financial adjustments needed to prepare enterprises for privatization; (d) monitor compliance of the process with the law; approve the privatization projects and the mode of privatization; (e) approve the general conditions of sale including price, means of payment and assets included; and (f) publish an annual report of goals established and results obtained.

2.10 Commission members are appointed by the President. They are not entitled to any remuneration for performance of their duties, are held personally liable for any commission or omission that adversely hinders the privatization process, and are prohibited from participating in any other way in the privatization process.

2.11 BNDES has been designated as the administrator of the privatization program. Its mandated role is to: (a) fully disclose the privatization proceedings; (b) register companies for sale to the private sector through bids; (c) contract consultants for economic, asset appraisal and audit purposes; (d) publish in the Official Gazette the economic/financial conditions of the company to be privatized; (e) set a minimum price for the sale of the assets based on appraisal reports of two outside companies contracted by the administrator, with a third appraisal if the two valuations are more than 20% apart; (f) recommend the general conditions of sale to the Privatization Commission; and (g) recommend to the Privatization Commission, the use of proceeds from the sales. BNDES is entitled to a commission (0.2%) on the sale and reimbursement of expenditures incurred during the privatization process.

D. Pre-Sale Steps

2.12 As soon as a company has been formally selected for privatization by the Privatization Commission, all of its shares held directly or indirectly by the federal government (including those held by BNDES) are transferred to a National Privatization Fund managed by the administrator (BNDES). Sales proceeds are to be deposited in that account. They are allocated first to the repayment of administrative and other (outside consulting) costs incurred by the administrator for preparing the sale, to a 0.2% commission on sale value as administrator's fees; and the balance of proceeds is allocated to the repayment of enterprise debts to public sector institutions, with priority given to debts with federal guarantees. Any remaining balance is to be used for the purchase of long term federal debt titles. Thus, the public holding companies which used to formally hold the shares of their subsidiaries (PETROQUISA, PETROFERTIL, SIDERBRAS) will not be receiving any of the sales proceeds.

2.13 BNDES has established a strict chronology to be followed in the privatization program, and to date the intermediate deadlines have generally been met. The timetable is shown in Table 2.1. Thus the means and mechanisms of a privatization program are in place and the program is proceeding. As might be expected, various unanticipated obstacles arose in the process of reaching the first major sale (that of USIMINAS), which took about 15 months before the auction in October 1991. It was part of learning a new process, and the obstacles were being dealt with as they arose. With experience gained with USIMINAS and the subsequent twelve sales, the process now runs much more smoothly.

E. Use of Debt Instruments

2.14 The law foresees the use of debt instruments representing debt contracted by federal public entities (the Union, public enterprises owned by the Union, mixed-ownership enterprises and foundations) in payment for shares (debt/equity swaps). It also states that it will be the responsibility of the Privatization Commission to determine the means of payments which may be used in each case. In addition to Cruzeiros, the legal tender in Brazil, the Brazilian government, since mid-1990,³ has been expanding the menu of domestic and external debt instruments that could be redeemed at the time of the first and subsequent privatization transactions. The purpose of this section is to characterize every instrument, to present an estimate of outstanding amounts as of mid-1991, describe holders, discuss price at which they are traded, and to identify the potential role of each of those instruments in financing the sale of Public Sector Enterprises (PSEs).

External Debt Instruments

2.15 Multi Year Deposit Facility Agreement Certificates (MYDFAs): This term debt represents approximately US\$34 billion, or about 45% of Brazil's total indebtedness with commercial banks and consists of medium- and long-term commercial debt contracted subject to the restructuring agreements. The term debt of Brazil in the 1988 agreement was consolidated and made subject to a Multi-Year Deposit Facility (MYDFA). The claims of each participating bank were converted into a deposit account at the Central Bank. Present deposits at the Central bank include the deposits under the 1983, 1984, and 1985 Deposit Facility Agreements, the 1986-87 maturities, and the 1988 maturities. All maturities due between 1988 and 1993 will be deposited in the MYDFA. The MYDFA has a term of 20 years, a grace period of 7 years, and an interest rate of LIBOR plus 13/16%. However, US\$1.7 billion of the MYDFA was excepted from these terms and will be paid from 1991 to 1993, according to original maturities.

2.16 The MYDFAs are the most traded of all external Brazilian debt paper. They are being traded in the New York secondary market for debt at between \$0.30 and \$0.40 per one dollar of face value. Under Resolution No. 1810 (March 27, 1991), the Monetary Council has established a 25% discount which determines a redemption price of 75% of face value.

³ These amounts vary over time as debt falls due.

2.17 New Money Bonds. Brazil issued US\$870 million of bonds in bearer form to 131 commercial banks. The terms of these bonds are the same as the terms of loans under the parallel facility (para. 2.19), and they are exempt from all Brazilian taxes. They are traded in the secondary market at around \$0.80 (80% of face value).

2.18 Exit bonds or Brazil Investment Bonds (BIBs) as they are called in the 1988 Financing agreement, were exchanged for debt outstanding at the time. This exchange allowed banks to withdraw from future lending packages by converting their claims into long-term, low-interest rate bonds which will reduce the exposure level (base) that determines new money contributions. Some 109 banks subscribed to US\$1.06 billion of these bonds issued in September 1988. The banks were from all regions and were primarily the smaller banks, which could exchange most or all of their exposure for these bonds. Of the 308 banks that signed the 1988 agreement, 47 exchanged their entire Brazilian exposure for exit bonds. These bonds carry a 6% interest rate, have a 25-year tenor, and can be converted into domestic currency debt instruments. They are traded in the secondary market for debt at between \$0.45 and \$0.55 (or 45%-55% of face value).

2.19 Parallel Financing Agreement. This facility totals US\$3.309 billion and was underwritten by 209 commercial banks in 1988. All funds (PFA) under this facility may be relent. In addition, according to the 1988 agreement with the banks, beginning in November 1989 and for 36 months thereafter, PFA loans are eligible for debt-for-equity conversions for privatizations at a 25% discount. Conversions of US\$50 million a month for a total of US\$1.8 billion may take place through this mechanism. These are traded on the secondary market at about 45%-50% of face value.

2.20 Co-financing Facility. A total of US\$615 million was finally subscribed by 86 banks and is available for two co-financing operations. Under both co-financing facilities, incorporation in the IBRD loan agreements of the usual optional cross default clause for co-financed loans is an additional condition. These would be redeemed with a 25% discount.

2.21 4131 Loans: Law 4131 loans are foreign currency loans which were made directly to Brazilian borrowers by commercial banks. These loans originally had a tenor of 8 years but since 1982 the tenor has been extended; it is currently 12 years, with 5 years' grace. These loans were made to both private and public sector companies. However, most of the currently outstanding Law 4131 loans represent public sector obligations. Estimated amount outstanding is \$10 billion. These are traded at about \$0.35 (or 35% of face value). They would be redeemed at a 25% discount.

2.22 In sum, the total amount of outstanding external debt that could be used for the privatizations in Brazil is approximately \$50 billion.

Internal Debt Instruments

2.23 Privatization Certificates (Certificados de Privatizaco--CPs): They were created under Law No.8018, as part of the March 1990 Macroeconomic Stabilization Plan. In fact, the certificates were created to incentivate private savings, although it was a forced placement among Pension Funds Insurance companies and financial intermediaries.

Outstanding amounts were approximately US\$0.4 billion in mid 1992, but have been increasing as more fall due.

2.24 Frozen Cruzados: As part of the restrictive monetary policy, measures implemented in March 1990, approximately \$40 billion which were deposited in the financial system were frozen by the Central Bank. Release of these funds over a 12-months period started in August 1991, considerably reducing their owners' interest in privatization. The last installment was made in August 1992, so this "currency" has now disappeared.

2.25 Privatization Funds: The National Monetary Council has approved the formation of three types of funds: (i) Frozen Cruzados' funds, (ii) PC's funds, and (iii) MYDFA funds. These funds are regulated by the Brazilian Securities and Exchange Commission (CVM). The Frozen Cruzados fund was a closed fund by which small investors could redeem frozen Cruzados to invest in shares or debentures of the privatized companies; they could be transferred, the minimum holding period is three years, maturity of the fund is 3 1/2 years, and are managed by financial intermediaries. These funds, however, do not add to total currencies available.

2.26 SIDERBRAS' and Public Companies' Debentures (Securitized Debt): SIDERBRAS's debentures were initially issued in October 1988 as a result of SIDERBRAS' financial crunch. The Brazilian Treasury agreed to increase SIDERBRAS's capital at the maturity of every issue. Therefore, those debentures that could not be converted into shares had the Federal Government guarantee. The total amount of debentures issued by SIDERBRAS was approximately \$4.4 billion. As a result of the abolishment of SIDERBRAS, in 1990, the original debentures were transformed into longer maturity instruments (10 years). After several rounds of negotiations between the government and the original holders of the debentures, no final agreement has been reached on the conditions of the exchange.

2.27 Bonds and debentures fallen due issued by the companies to be privatized and other fallen due securitized debts of federally-controlled public entities may also be eligible as means of payments. These amount to about US\$4.7 billion.

2.28 Agrarian Debt Certificates (Títulos da Dívida Agrária--TDAs): They were originally included as part of the Law No. 4504 (November 1964), but in its present form, they were only issued in February 1988 under Decree Law No.95714 the total amount outstanding is approximately \$400 million. They are traded at 45% of their face value.

2.29 National Development Fund Bonds (Obrigações do Fundo Nacional de Desenvolvimento--OFNDs). These are government bonds acquired by pension funds as part of Decree 2288 of July 23, 1986. Under a Central Bank Resolution of August 28, 1991, pension funds may use them to purchase shares in privatization auctions or sell them on the secondary market (as long as the sales proceeds are applied to the purchase of treasury bonds). The same Central Bank resolution dispensed pension funds from normal diversification rules when OFNDs are used for privatization, but this ruling was reversed later. Total amounts outstanding are about US\$835 million.

2.30 Compensation Fund for Salary Variations (Fundo de Compensacao das Variacoes Salariais--FCVS). This debt instrument became a privatization currency in May 1992. It represents debt fallen due to financial intermediaries by a fund, administered by the Caixa Economica Federal, established to compensate financial intermediaries for differences between housing mortgage payments which are by law indexed on salaries, and amounts due when debt is corrected by inflation. Total amounts due by the Government as of May 1992 amounted to about US\$1.5 billion, but, as more of that debt falls due, this amount could increase (total deficit to be covered by the end of the decade is estimated at about US\$20 billion).

2.31 The total amount of outstanding internal debt that would be eligible for the privatization was in principle about US\$30 billion at the start of the Program. When excluding blocked Cruzados Novos and excluding FCVCs, the total stock of eligible domestic debt is estimated at about US\$12 billion. Since the equivalent of about US\$3.5 billion has already been used in privatization transactions, the outstanding balance as of mid 1992, was about US\$8.5 billion.

2.32 BNDES has announced that all eligible instruments will be accepted in payment for shares at face value, except for those external debt instruments (MYDFA's, PFA, Cofinancing Facility and 4131 Loans) which will be accepted at 75% of face value. Not counting cruzeiros and frozen cruzados, the supply of currencies available from the pool of external and internal debt instruments thus theoretically totals about US\$62 billion. This compares to a total estimated aggregate Government equity in privatizable PEs of about US\$12 - US\$15 billion (total assets are estimated at between US\$35 and 40 billion). In the case of USIMINAS and the subsequent auctions, credit facilities were also available to employees and to the public for the purchase of shares at a fixed price. Given the current macroeconomic situation, status of negotiation of the country's debt, advantages in converting heavily discounted Government debt into equity at face value, it is not expected that privatization will bring significant amounts of cruzeiros or foreign currencies.

F. Progress to Date

Choice of Firms and Sectors

2.33 Since the decrees on privatization were signed in August 1990, there has been considerable progress made on privatization. Sixty-four (64) companies have been officially listed for privatization although a firm timing has not been set for all of them. They are mainly from the steel, petrochemical, fertilizer, capital goods, and transportation sectors.

2.34 Although the program does include a few public utilities and transportation companies and the government has also announced the forthcoming privatization of the federal railways systems and a number of ports, since their privatization will require legislative changes in many cases, at this stage, the program focuses mainly on the manufacturing sector. The companies whose privatization has been announced include all major public manufacturing enterprises, with the exception of PETROBRAS and CVRD. The list of companies in the program is presented in the table below.

Companies Officially Listed for Privatization

COMPANY AND LOCATION	DESCRIPTION	REVENUES US\$ MILLION	NET WORTH US\$ MILLION	ASSETS US\$ MILLION	EMPLOYEES	STATE SHARE OF VOTING STOCK (%)
CHEMICALS AND PETROCHEMICALS			7,732 a/			49
01. COPESUL (RS) *	<u>Naphtha Cracker</u>	482	561	743	1,449	96
02. PETROFLEX (RJ) *	Synthetic Rubber (COPESUL Downstream)	248	115	160	1,759	100
03. NITRIFLEX (RJ) *	Synthetic Rubber (COPESUL Downstream)	94	25	65	799	40
04. PPH (RS)	Polypropylene (COPESUL Downstream)	110	33	108	592	20
05. TRIUNFO (RS)	Polyethylene (LD) (COPESUL Downstream)	127	756	95	394	45
06. POLISUL (RS)	Polyethylene (HD) (COPESUL Downstream)	116	31	79	570	33
07. CNA (RJ) *	Soda Ash	80	71	138	n/a	93
08. PQU (SP)	<u>Naphtha Cracker</u>	321	430	530	1,375	68
09. CBE (SP)	Styrene (PQU Downstream)	98	14	27	203	23
10. OXITENO (SP)	Ethylene Oxide (PQU Downstream)	134	158	218	260	24
11. POLIBRASIL (SP)	Polypropylene (PQU Downstream)	222	62	99	808	26
12. POLIDERIVADOS (SP)	Polypropylene (PQU Downstream)	1	25	46	118	48
13. POLIOLEFINAS (SP)	Polyethylene (PQU Downstream)	156	156	204	872	32
14. PETROCOQUE (SP)	Petroleum Coke (PQU Downstream)	n/a	29	47	103	35
15. COPENE (BA)	<u>Naphtha Cracker</u>	n/a	n/a	n/a	n/a	36
16. ACRINOR (BA)	Acrylonitrile (COPENE Downstream)	n/a	n/a	n/a	n/a	18
17. CIQUINE (BA)	Plasticizers (COPENE Downstream)	n/a	n/a	n/a	n/a	31
18. CBP (BA)	Polyurethanes (COPENE Downstream)	n/a	n/a	n/a	n/a	24
19. CPC (BA)	VCM/PVC (COPENE Downstream)	n/a	n/a	n/a	n/a	17
20. DETEN (BA)	Detergents (LAB) (COPENE Downstream)	n/a	n/a	n/a	n/a	32
21. EDN (BA)	Styrene/Polystyrene (COPENE Downstream)	n/a	n/a	n/a	n/a	26
22. METANOR (BA)	Methanol (COPENE Downstream)	n/a	n/a	n/a	n/a	18
23. NITROCARBONO (BA)	Caprolactam (COPENE Downstream)	n/a	n/a	n/a	n/a	19
24. POLIALDEN (BA)	Polyethylene (HDPE) (COPENE Downstream)	n/a	n/a	n/a	n/a	14
25. POLITENO (BA)	Polyethylene (LDPE) (COPENE Downstream)	n/a	n/a	n/a	n/a	25

COMPANY AND LOCATION	DESCRIPTION	REVENUES US\$ MILLION	NET WORTH US\$ MILLION	ASSETS US\$ MILLION	EMPLOYEES	STATE SHARE OF VOTING STOCK (%)
26. PRONOR (BA)	Polyurethane interm. (DMT/TDI) (COPENE Downstream)	n/a	n/a	n/a	n/a	35
27. CQR (BA)	Ethylene Dichloride (EDC) (COPENE Downstream)	n/a	n/a	n/a	n/a	37
28. POLIPROPILENO (BA)	Polypropylene (COPENE Downstream)	n/a	n/a	n/a	n/a	34
29. NITROCLOR (BA)	Benzene/Chlorine deriv. (COPENE Downstream)	n/a	n/a	n/a	n/a	22
30. SALGEMA (AL)	Alcalis and EDC	n/a	n/a	n/a	n/a	29
31. ALCLOR (AL)	Chlorinated chemicals	n/a	n/a	n/a	n/a	24
32. CINAL (AL)	Alagoas complex utilities	n/a	n/a	n/a	n/a	14
33. COPERBO (PE)	Synthetic Rubbers (COPENE Downstream)	n/a	n/a	n/a	n/a	23
34. FCC (RJ)	Catalysts	n/a	n/a	n/a	n/a	40
STEEL		4,722	6,848	13,641	76,190	90
35. CST * (ES)	Integrated Steel Mill - steel slabs	454	2,163	2,800	9,320	74
36. ACESITA (MG)	Stainless Steels- Integrated from charcoal	339	172	447	8,693	92
37. CSN (RJ)	Integrated Steel Mill - Flat Products	1,424	544	3,039	20,303	100
38. COSIPA (SP)	Integrated Steel Mill - Flat Products	1,054	2,368	4,249	15,285	100
39. ACOMINAS (MG)	Integrated Steel Mill - Billets and Blooms	429	1,114	1,894	5,849	100
40. USIMINAS (MG) *	Integrated Steel Mill- Flat Products	930	507	1,125	13,547	86
41. PIRATINI (RS) *	Partly Integrated Steel Mill- Specialty steels	74	(24)	64	2,500	100
42. COSINOR (PE) *	Semi-integrated mill- long products	18	4	23	693	99
FERTILIZERS		528	411	674	8,673	92
43. INDAG *	Fertilizer (Granulation and Bulk Blending)	19	15	18	804	34
44. GOIASFERTIL	Phosphate Rock Concentrate	23	24	49	716	100
45. ICC	Fertilizer intermediate (Phosphoric Acid)	22	2	32	458	100
46. FOSFERTIL	Phosphate Fertilizers	125	144	193	2,190	100
47. ULTRAFERTIL	Nitrogen Fertilizers	142	130	191	2,303	100
48. NITROFERTIL	Nitrogen Fertilizers	116	62	136	1,398	100
49. ARAFERTIL	Phosphate Fertilizers (SSP)	81	34	55	804	33
CAPITAL GOODS						
50. ENBRAER	Aircraft Manufacturing	417	(281)	1,092	9,007	98
51. COBRA	Computers	n/a	n/a	n/a	1,700	95

COMPANY AND LOCATION	DESCRIPTION	REVENUES US\$ MILLION	NET WORTH US\$ MILLION	ASSETS US\$ MILLION	EMPLOYEES	STATE SHARE OF VOTING STOCK (%)
52. USINEC *	Mechanical (capital goods - was sold with USIMINAS)					
53. CELMA *	Aircraft Maintenance	60	26	51	1681	87
54. MAFERSA *	Railroad Cars Manufacturing	86	(27)	36	1,910	100
TRANSPORTATION & UTILITIES						
55. FRANAVE	River Transport	6	2	2	445	100
56. ENASA	River Transport	13	7	14	340	100
57. SNBP *	River Transport	n/a	4	4	235	100
58. LLOYDBRAS	Ocean Transport	136	(368)	199	1,797	100
59. RFFSA	Federal Railroad Network	901	3,356	12,000	58,683	100
60. AGEF	Railroad Storage Infrastructure	n/a	n/a	n/a	n/a	100
61. VALEC	Railroad Engineering	n/a	n/a	n/a	n/a	100
62. LIGHT	Electrical Utilities					
63. ESCELSA	Electrical Utilities					
OTHER						
64. MINERACAO CARAIBA	Copper Mining	22	11	25	1,000	100

SOURCE: BNDES. Data for 1990, based on Companies' balance sheets and information.

NOTES:
 * = Indicates Companies already privatized.
 a/ As of the end of 1991.

2.35 Four companies were privatized between October and December 1991. The privatization calendar calls for the sale of 19 companies in 1992 (of which nine had been sold by the end of August), and another 14 in 1993. For all these, consultants have already been hired and their analysis and the pre-sale steps are being carried out. For remaining companies on the list, consultants are being hired. Auctions are presently scheduled as follows:

PRIVATIZATION CALENDAR

<u>Companies</u>	<u>Industries</u>	<u>Auction Dates</u>
SNBP	River transport	Jan. 14, 1992 *
Indag	Fertilizers	Jan. 23, 1992 *
Piratini	Specialty steels	Feb. 14, 1992 *
Goiasfertil	Fertilizers	Feb. 19, 1992 (1)
Petroflex	Plastics	Apr. 10, 1992 *
Copesul	Petrochemicals	May 15, 1992 *
Alcalis (CNA)	Chemicals (alkalis)	July 15, 1992 *
CST	Steel	July 16 and 23 1992 *
Nitriflex	Plastics	August 6, 1992 *
Arafertil	Fertilizers	August, 1992 (p)
Fosfertil	Fertilizers	August 12, 1992 *
PPH	Plastics	September, 1992
Polisul	Plastics	September, 1992
Acesita	Specialty steels	October 22, 1992
Ultrafertil	Fertilizers	October, 1992
Mineracao Caraiba	Copper	November, 1992
Nitrofertel	Fertilizers	November, 1992
PQU	Petrochemicals	December, 1992
CSN	Steel	December 22, 1992
ACOMINAS	Steel	March 17, 1993
COSIPA	Steel	February 17, 1993
LLOYDBRAS	Navigation	March, 1993
Embraer	Aerospace	March, 1993
Franave	River transport	To be closed down
Enasa	River transport	1993
ICC	Fertilizers	1993
PQU Downstream Companies	Petrochemicals	1993
Triunfo	Petrochemicals	1993

(1) Suspended auction due to lack of buyers; will be put up for auction again in October, 1992.

(p) Provisional dates.

* Companies already sold.

Source: BNDES.

2.36 Privatization of the public steel industry figures prominently in the program. All firms are to be privatized. Two major firms (USIMINAS and CST) and two smaller firms (PIRATINI and COSINOR) were privatized between October 1991 and July 1992. USIMINAS was relatively profitable before it was privatized. Both USIMINAS and CST had good management, in part because close involvement of their foreign partners had limited political interferences. The two smaller companies found domestic buyers and their privatization was relatively uneventful. The privatization of ACESITA, a fairly large, partly integrated (from charcoal) producer of special flat steel products, is scheduled for October 1992. It is already attracting substantial buyers' interest. Privatization of the remaining three large integrated firms (CSN, COSIPA and ACOMINAS) will be more complicated and more time is required to solve some difficult outstanding issues. Their sale has been scheduled between December 1992 and March 1993. All three companies are loss-makers, have accumulated excessive debts (mostly short term), and are notably overstaffed. In some cases (CSN), labor relations have traditionally been poor and need to be substantially improved before privatization becomes politically feasible. Poor financial performance is attributed to a combination of the government's past pricing policies, lack of management continuity and past poor management. ACOMINAS appears in addition to be facing underlying competitiveness problems due to incomplete physical plants. Under the direction of the Privatization Commission, the management of all three companies has undertaken programs to restructure their debt, improve efficiency and labor relations. Issues in privatizing the steel sector in general and each company in particular are reviewed in Annex 1.

Chronology of Privatization Operations

2.37 As already mentioned, each privatization involves the contracting of several outside consulting firms. The law and accompanying decrees specify that BNDES must set a minimum price for the sale based on appraisal reports of two outside companies, and a third appraisal if the two valuations are more than 20% apart. One firm carries out the economic and financial valuation of the firm and recommends the minimum price using various methodologies specified in the bidding documents ("A Service"). Another firm carries-out the same work as above and in addition identifies and proposes solutions to legal, contractual, labor-related and other issues; carries-out a special audit of the company's accounts; proposes the sale strategy; and defines its modalities ("B Service"); a third firm will be appointed in case the valuations provided by the two previous firms differ by more than 20%. Finally, a special auditor, directly accountable to the Privatization Commission, is also appointed to follow the privatization process. All four firms are selected through a competitive bidding process and, once selected, are forbidden to participate in subsequent privatization steps. Once a minimum price has been proposed to, and accepted by, the Privatization Commission and the President, BNDES is required to publish it as part of the sale announcement. The whole process has taken nine months on average, during which pre-sale steps are being implemented in parallel with valuation studies. The average time taken by each step is presented below:

Table 2.1: CHRONOLOGY OF A PRIVATIZATION OPERATION

<u>STEP</u>	<u>AVERAGE TIME FOR THE STEP</u> (days)	<u>TOTAL TIME</u> (days)
1. Company is recommended to the President and officially included in the program.	--	--
2. Company shares are deposited in the Privatization Fund.	5	5
3. Selection of consultants and auditors.	75	80
4. Consultancy work carried out.	90	170
5. Adjustments prior to privatization.	20	190
6. Approval of minimum share price and method of sale.	10	200
7. Publication of Sales Notice.	15	215
8. Public Auction of shares.	60	275

Source: BNDES. The Brazilian Privatization Program, May 1992.

Pre-sale Steps: Legal issues for USIMINAS and CST

2.38 To illustrate legal issues encountered in preparations for privatization, and the way in which they are being handled, it is useful to focus on USIMINAS and CST, the two of the large companies to have been successfully prepared for sale. BNDES carried out, for both, extensive preparatory work to sort-out a number of legal issues that have to be resolved prior to privatization and for the process to be fair to all parties and maximize interest of potential buyers. These issues can be grouped into three broad categories:

- (a) waivers from creditors. A number of loan agreements for medium and long term credits entered into with the companies themselves and SIDERBRAS include provisions permitting the recall of loans in case of change of ownership. BNDES has been negotiating waivers of such provisions with creditors for both CST and USIMINAS, successfully negotiated waivers on USIMINAS' outstanding debt of US\$38 million, but this broad issue has not been resolved

yet for all companies and may well delay other scheduled auctions. In particular, waivers related to the overall SIDERBRAS debt may still turn-out to be an obstacle to privatization of other companies in the steel sector, since creditors are unwilling to grant a blanket waiver, and waivers thus have to be obtained separately for each company.

- (b) rights of minority shareholders. In the case of USIMINAS, a long standing dispute with NIPPON-USIMINAS, the Japanese minority shareholder had developed since 1982 as a result of the retention by SIDERBRAS of fiscal incentives normally accruing to the company; and the dilution of NIPPON's shares through a capital increase forced by SIDERBRAS, which reduced NIPPON's share of capital from 17% to 4.7%. BNDES resolved this dispute before the auction by negotiating with NIPPON an agreement whereby the minority shareholders were given an opportunity to reestablish its share of capital to up to 12.9% (13.8% of voting capital and 11.9% of preferential capital): NIPPON and other minority shareholders have an option to purchase as many ordinary (voting) shares as necessary to reach the set percentage at a price considerably lower than the minimum price established for the auction (Cr\$39.79 per thousand shares versus Cr\$332 per thousand shares set as the minimum auction price for ordinary shares), and may pay for this purchase with external debt instruments. In the case of CST, the main issue lay in large arrears on outstanding loans from shareholders to SIDERBRAS and CST. Also, the privatization of CST through public auction was substantially complicated by minority shareholders' rights of first refusal (i.e the right to buy up to 49% of common stock offered for sale), which was also in conflict with the 40% legal limitation on foreign ownership of voting stock. BNDES eventually successfully negotiated with the foreign partners an arrangements by which they would limit their rights to 40% of voting stock. In return, the sale was structured in two parts, a first auction of 51% of voting stock being reserved to domestic buyers, and a second auction of the remaining 14% of voting stock (12% are reserved to employees) being open to all, the minority shareholders retaining their rights of first refusal on any offer. The sale was carried-out accordingly and CST was sold at the minimum price. Rights of first refusal in shareholders' agreements are expected to substantially complicate the privatization of downstream petrochemical companies.
- (c) conversion of preferential shares. Following the failure to sell half of USIMINAS's preferential shares, the Privatization Commission is now systematically considering the conversion of preferential shares (i.e. without voting rights) into ordinary shares prior to the sale. It has been found that investors have little interest in purchasing preferential shares before the new ownership is known and has had a chance to establish a minimum track record.

USIMINAS's Sale Announcement ("Edital de Venda")

2.39 The sale announcement for USIMINAS, by far the largest company privatized so far, was published on May 29, 1991. The USIMINAS Edital de Venda was the first to be published and USIMINAS the first company to be privatized. It is a good illustration of how

the Privatization Commission attempted to attract maximum buyers' interest in this profitable company while encouraging dispersion of ownership. USIMINAS was put-out for sale together with its subsidiary USIMEC, a producer of capital goods. The minimum price established for the 85.5% of capital held by the Government and BNDES was set at US\$1.54 billion. This price was equivalent to a total valuation for both companies of US\$1.77 billion, based on the net present value of projected cash flows, discounted at 14% (in real terms). In fact, since debt instruments and other frozen assets were accepted in payment, share purchases would cost buyers substantially less, since, while these instruments are accepted at face value (except for external debt instruments, which will be accepted at 75% of face value), their market value if they were traded on a secondary market would be significantly less. For instance, MYDFA's could be purchased at about 34% of face value on the secondary market and accepted in payment for the shares at 75% of their face value, so that a share sold at 100 actually would cost the purchaser only 45. Assuming a similar discount for other debt instruments, this means that purchasers could actually buy the companies for less than US\$1.0 billion (50% to 60% of the minimum price in Cruzeiro). These ratios may change overtime as external debt negotiations progress and as privatizations increase demand for debt instruments on the secondary market. The acceptance of frozen assets as payments thus implicitly means an actual discount rate to 20% to 25% if legal tender was used in payment (as compared to the 14% officially used), close to the rate used by commercial bankers today in their assessment of the sector and country risks.

2.40 Shares were to be sold on the stock market in sequence as follows:

- September 24, 1991: Public auction of 75% of ordinary (voting) shares, in about one million lots of 854,500 shares each (there are no restrictions on quantities which may be purchased by any single participant); the balance of ordinary shares being reserved to Nippon Usiminas and the employees;
- up to October 11, 1991: Offer of 10% of ordinary shares and 10% to 20% of preferential (non-voting) shares to USIMINAS's employees at a fixed price;
- October 17 and 18, 1991: offer of 20% to 40% of preferential shares to the public at a fixed price; and
- October 28, 1991: public auction of remaining 26% to 56% of preferential shares (the balance of preferential shares being reserved to Nippon Usiminas).

2.41 The sale had been structured to encourage the dissemination of ownership (fixed-price offers to employees and the public), and to permit open and transparent competition for the company's voting stock. Employees were offered prices substantially lower than minimum prices established for the auctions (60% lower for ordinary shares) and long term concessional credit was made available to them for these purchases. The public was offered a fixed price for preferential shares above that for employees but below the minimum price yet to be set for the subsequent auction, and also long term credit.

2.42 The Edital included a number of statements aimed at promoting buyers interest: it included no restriction on possible lay-offs, no investment commitments, and no obligation to

keep shares purchased for a minimum period except for foreign buyers (2 years minimum holding period). In addition, it reiterated the intention to privatize the other steel companies; established a strict commitment by the Government not to finance their operational deficits in the meantime and not to allow unfair competition on their part; and to adhere to the basic rules of industrial policy (eliminate obstacles to exports and imports, except, for the latter, through the application of tariffs; and give priority to the companies in the allocation of long-term finance and technological development programs).

2.43 On the negative side, however, although the Edital announced a commitment by the government to progressively increase steel prices to import parity by the end of March 1992, it did not state its intention to liberate these prices subsequently. However, steel prices were in fact liberated in August 1991. Also, waivers were still being negotiated with commercial bank creditors of USIMINAS for a total outstanding of US\$38 million (which was granted by Citibank prior to the auction).

2.44 On balance, the choice of USIMINAS as the first to be privatized was a good one, given the company's past record of profitability (except for 1990 when losses are attributed to the Government's pricing policies), its good reputation as an efficiently run company, the presence of a reputed minority shareholder from the steel sector (Nippon Steel), limited overstaffing, moderate indebtedness and the relatively good coincidence between the minimum price arrived at using the discounted cash flow method and the company's estimated net worth (with assets valued at market prices). It was probably the best candidate for maximum use of the stock exchange. The Edital de Venda and accompanying prospectuses were comprehensive, very clear, and provided extensive background on agreements reached with minority shareholders as well as on the company's liabilities. Prospectuses were available free of charge to all. Success in privatizing USIMINAS was critical in testing the system and procedures in place as well as the Government's ability to persuade the Brazilian people and Congress that the process is fair.

Results from the First Thirteen Sales

2.45 The auction of USIMINAS' ordinary shares was eventually carried-out on October 24, 1991, one month behind schedule, amidst loud political opposition and following considerable legal confusion regarding the eligibility of external debt instruments as means of payment. Congress unambiguously confirmed their eligibility only a few days before the auction took place. Nevertheless, the success of the USIMINAS auction in the midst of all these uncertainties was determinant in testing privatization procedures and proving the Government commitment to the privatization program. The subsequent auctions were considerably easier, although still plagued by over thirty legal suits contesting their legality, the level of minimum prices asked, or that of means of payment used.

(a) prices. A comparison of prices obtained with minimum prices is presented below:

	(US\$ Million)		
	<u>Minimum Price</u>	<u>Actual Price</u>	<u>% Over Minimum</u>
USIMINAS/USIMEC			
Ordinary shares auction	1,010.0	1,112.4	14.3
Preferred shares -- fixed price offer	80.0	80.0	--
Preferred shares auction	<u>264.3</u> a/	<u>264.3</u> a/	--
Subtotal	1,354.3	1,456.7	--
CELMA	75.1	90.7	25.1
MAFERSA	19.5	48.4	160.2
COSINOR	9.2	13.6	12.4
SNBP	7.0	12.0	54.4
INDAG	6.8	6.8	--
PIRATINI	69.4	106.2	153.1
PETROFLEX	180.0	215.6	20.7
COPEL	624.0	832.3	29.2
ALCALIS	79.5	79.5	--
CST	366.0	366.0	0.2
NITRIFLEX	26.9	26.9	--
FOSFERTIL	144.0	183.0	27.1
<u>TOTAL</u>	<u>2,961.7</u>	<u>3,437.7</u>	<u>16.1</u>

Source: BNDES

a/ half the preferential shares did not find buyers.

Prices obtained have been within a 0%-30% range above minimum prices, except for MAFERSA, PIRATINI and SNBP (which appear to have been undervalued) and the preferential shares of USIMINAS (which were overvalued). This would indicate a tendency to set minimum prices rather close to estimated market prices.

(b) ownership after sale. The ownership structure after sale is summarized below:

Ownership of Voting Capital
(% of ordinary shares)

	<u>SOEs</u>	<u>Pension Funds</u>	<u>Financial Institutions</u>	<u>Domestic Corporation</u>	<u>Foreign Corporation</u>	<u>Individuals</u>	<u>Employees</u>	<u>Total</u>
USIMINAS/USIMEC	15	26	28	7	14. ¹	--	10	100
CELMA		5	46	21	21. ²	4	3	100
MAFERSA	--	90	--	--	--	--	10	100
COSINOR	--	--	--	90	--	--	10	100
SNBP	--	--	--	100	--	--	--	100
INDAG	--	--	--	100	--	--	--	100
PIRATINI	4. ⁴	--	--	86	--	--	10	100
PETROFLEX	--	26	2.6	51	0.4	10	10	100
COPEsul	15	7	17	48	5	6	10	100
ALCALIS	--	--	--	90	--	--	10	100
CST	15	--	44	--	27. ³	--	9	100
NITRIFLEX	--	--	--	100	--	--	--	100
FOSFERTIL	11.7	--	7.9	68.6	...	1.8	10	100

¹ existing partner

² previously 11%

³ existing partners 26%

⁴ owned by the State Government

Source: BNDES

... negligible

The new ownership structure of the thirteen privatized companies reflects the sales strategy adopted in each case (for instance, pulverization of ownership sought for USIMINAS and CELMA, and block sale to one controlling agent for MAFERSA and COSINOR). Some trends are emerging, however: (a) the notable absence in all cases of foreign buyers, except for limited increases in shares of existing foreign partners (USIMINAS and CELMA); (b) the importance of pension funds and financial institutions, reflecting the ownership of internal debt instruments accepted as currencies; and (c) the presence of public enterprises such as CVRD.

(c) currencies used. As expected, almost no "new" money was used as payment for purchases, and very few "Cruzados Novos". Currencies used were essentially domestic public debt titles. Negligible amounts of external debt instruments were offered. The implications of the currency composition are further discussed in para 3.37. The distribution of means of payments is shown below:

Use of Currencies at Auctions (US\$ million)*

Company	Siderbras Debentures	Privatization Certificates	OFND	PE Debt to Suppliers	TDA	MYDFAs	PE Debt to Banks	NCr\$	Cr\$	Total
USIMINAS	544.3	324.0	247.9	225.4	65.4	32.9	--	12.1	39.1	1491.1
CELMA	54.4	8.5	4.2	7.6	16.4	--	--	--	--	91.1
MAPERSA	23.7	--	25.1	--	--	--	--	--	--	48.8
COSINOR	--	15.1	--	--	--	--	--	--	--	15.1
SNBP	12.0	--	--	--	--	--	--	--	--	12.0
INDAG	--	6.8	--	--	--	--	--	--	--	6.8
PIRATINI	23.9	67.0	--	9.6	5.7	--	--	--	--	106.2
PETROFLEX	0.8	145.7	64.0	3.7	1.3	--	--	--	--	215.6
COPELUS	105.9	262.7	60.4	279.5	76.9	7.7	4.0	--	--	797.1
ALCALIS										
CST										
NITRIFLEX										
POSFERTIL										
TOTAL	765.0	829.8	401.7	525.8	165.7	40.6	4.0	12.1	39.1	2,783.7
IN PERCENT (%)	27.5	29.8	14.4	18.9	6.00	1.5	0.1	0.4	1.4	100.0

* as per exchange rate on date of financial liquidation

Source: BNDES, Jornal da Privatizacao, June 1992

III. ASSESSMENT AND RECOMMENDATIONS

3.1 The progress of privatization and of economic reforms in Brazil is being monitored with intense interest, not just in Brazil, but around the world. If well managed it will boost confidence in the Government of Brazil and will partially restore the confidence of the international investment community.

3.2 This chapter examines the privatization program and recommends measures to strengthen it and to ensure prospects for a successful outcome -- economically, socially and politically. The approach we will use is first, to examine the motivation for economic reform and privatization, and second, to examine those issues known to be crucial to the success of a privatization program. The Brazil program will then be measured against these. Where we observe that the Brazil program is at variance from the international experience with successful programs, we will suggest adjustments in the program or practice. Most of the recommendations are general to the privatization program. Some concern political and organizational issues. Others concern economic issues. Ultimately, they all converge to become components of a process which makes a successful privatization program.

A. Privatization and the Macro-Economic Context

3.3 One cannot overemphasize the importance for successful privatization of parallel implementation of a macroeconomic program which restores investors' confidence. Otherwise privatization may not bring the intended benefits, or fail, because: (a) macroeconomic uncertainties will result in such lack of interest and high discount rates being applied to calculations of companies' worth that the resulting auction price will be so low that it will be politically unacceptable; and (b) new owners, although they may have been interested in purchasing companies to exchange outstanding claims, will not later-on bring the new funds so badly needed to keep the companies competitive. Also progress on negotiations of the US\$44 billion public external debt is essential, because otherwise it may be difficult to obtain waivers from external creditors of provisions limiting the government's right to sell its shares in the companies (para. 3.33), and external debt creditors are unlikely to participate in debt/equity swaps until a debt accord is finalized.

3.4 Since mid-1991, there have been indications of substantial progress on both fronts: with respect to the Government's macroeconomic program, the approval in January 1992 of a US\$ equivalent 2.1 billion stand-by agreement by the IMF recognizes Government efforts at preparing and committing itself to a credible stabilization program. With respect to external debt negotiations, following the agreement reached on April 8, 1991 regarding the 1989-90 arrears, at the end of August 1991, the Brazilian Government presented its external commercial creditors a "Brady-type" proposal on the restructuring of the stock of outstanding debt. After a year of negotiations, a framework agreement was reached on July 6, 1992, to reduce the country's medium and long term debt to private commercial creditors (US\$44 billion). The plan gives banks a menu of six possibilities for being repaid debt on which Brazil has not made principal payments since 1988, and on which it has been paying only 30% of interests owed. Banks have options to exchange their loans for long-term bonds (five different types of bonds) worth about 65% of face value (paying market interest rates); or maintain the face value and receive lower interest rates; or get preferential treatment (no

discounts on face value and market interest rates) by providing new money (18.88 dollars of new money for every 100 dollar outstanding). The new bonds would be initially collateralized by US\$3.2 billion worth of credit enhancements, half of which Brazil will supply and half of which will be provided by banks, the IMF and the World Bank. The commercial banks can select their options once they see how much of the enhancement guarantees materialize. The accord has yet to be ratified by the Senate and signed by 95% of participating banks before it becomes effective. Obtaining the required collateral, however, will depend on Brazil's ability to further control inflation, a target which is proving difficult to achieve.

B. Privatization-Deregulation Linkage

3.5 The role of the Ministries of Economy and Infrastructure is to develop the overall regulatory framework to ensure competition within the sector. The Brazilian Government recognizes that privatization cannot succeed alone but should be integrated into a package of wide-ranging economic reforms. The privatization of a monopoly or a firm part of a cartelized group or in a protected climate, prior to liberalization of the regulatory framework, risks creating evils far worse than those of the state monopoly. Therefore, as noted earlier for steel, the Government has undertaken far-reaching regulatory reforms prior to privatization, many of them part of a global package of measures applicable to the entire industrial sector, in order to ensure that the industry will be forced to operate in an internationally competitive manner. The Ministries of Infrastructure and Economics provide advice, rules and enforcement that sets this environment. The Ministries play an even more crucial role on the wider economic front because they advise on the design of the total package of reforms. When reforms are packaged in large bundles, the linkages in the economic system can be used to ensure that each measure enhances the effect of the others. Comprehensive reforms allow that losses suffered by any particular group can be at least partially offset by gains for the same group in some other area. Also, they are viewed as non-discriminatory, since everyone in the economy is being affected by the reforms.⁴

3.6 Pricing policies are potentially the most distortionary. Prices which had been deregulated in March 1990, were frozen again in January 1991, resulting in significant distortions and constituting an important disincentive to privatization. In particular, in the steel sector, prices of flat steel products in mid-1991 had fallen to 70% to 80% of the (already low) export price and to an even lower proportion of import prices. In the sale announcement of USIMINAS the Government declared that steel prices would increase to reach the landed price of equivalent imports by the end of March 1992. However, prices of steel and most other products were liberalized in August 1991. A continued commitment to keep prices free from Government intervention will be essential in attracting interest in the privatization program.

⁴ It was for this reason that the sweeping reforms of the March 1991 Collor Plan were so widely accepted.

3.7 There remains, however, a number of specific regulations which restrict competition and need to be addressed if privatization is to result in improved efficiency in selected subsectors. Principal among them are:

- (a)** labor regulations, in particular with respect to length of shifts in some industries, including the steel sector; Many of these regulations, however, are embodied in the Constitution and changes would have to await the round of constitutional amendments planned for 1993;
- (b)** very high port costs and taxes, resulting in artificial protection to industries (in particular those producing relatively low-priced commodities) and in turn substantially penalizing those which rely on imports of bulk raw materials (this is especially critical to the international competitiveness of the fertilizer sector); The Government has declared its intention to privatize the country's ports, but this will require: (i) Congressional approval of laws removing the monopoly of port unions on the provision of port services; and (ii) the passing of a draft law regulating concessions of public services (both draft laws are now in Congress);
- (c)** public monopolies on the supply of inputs: in particular, PETROBRAS monopoly on the supply and imports of naphtha, gas and other hydrocarbon feedstocks. This monopoly is creating inefficiencies in the petrochemical industry and is discouraging new entrants, reluctant to enter an industry where they cannot freely source their input from the most advantageous supplies (in terms of price and specifications) and where they are not permitted to integrate upwards into refineries; the elimination of PETROBRAS monopoly, however, requires a Constitutional amendment;
- (d)** price-setting mechanisms for key feedstocks provided by public suppliers: Natural gas prices, sold by PETROBRAS to the fertilizer and petrochemical industries, are set by the Government. These prices are well below opportunity cost since they amount to US\$0.90 per million BTUs for the fertilizer industry, and to US\$1.20 per million BTUs to the gas-based petrochemical industry (methanol). Such low levels, however, may perpetuate inefficient industries. Regarding naphtha sold to the petrochemical industry, it has been traditionally set by the Government at subsidized levels. Prior to the privatization of COPEL, however, prices were increased by decree to oil parity (1.2 time the price of Brent crude oil). This increase was a very significant step towards the elimination of a major distortion in the sector. However, sources of distortions remain to the extent that price adjustments are made only every forty days (thus allowing real prices to erode significantly) and the price is uniform for all locations. Again, foreign investors are not likely to be attracted to the petrochemical sector unless they can source their feedstocks freely and compete with naphtha suppliers from PETROBRAS on a fair basis; and

- (e) regional investment and tax incentives may distort resource allocations across regions (important in particular in the petrochemical sector, where subsidies for investments in the North East region may distort significantly the choice of sites for large complexes or expansion plans).

3.8 While these factors constrain efficiency in the subsectors selected so far for privatization, there are other important policy and legal constraints to the extension of the privatization program. Chief among these constraints are:

- (a) in the electrical utilities sector, the government tariff policies which makes it financially unprofitable;
- (b) ports cannot be privatized until Congress has passed the proposed port reform, which removes the monopoly of port unions on the provision of port services;
- (c) privatization of ports and other public services awaits the passing by Congress of the draft Concession legislation;
- (d) privatization of telecommunications and the oil business requires amendments to the Constitution, which reserves these activities to the state;
- (e) privatization of the mining industry and expansion of private mining activities, though not reserved to the state by the Constitution, is seriously limited by a constitutional provision which prohibits foreign companies from exploiting new discoveries unless they have a majority Brazilian partner and unless they process the minerals before sale.

3.9 For the privatization program to move into these new areas, a number of important legal and constitutional changes are required, for most of which the Government is already lobbying. It would be advisable, nevertheless, without awaiting these changes, to focus attention on the type of regulatory environment, institutions and policies which will be required to oversee private sector operators of utilities and public services.

3.10 Finally, while trade and deregulation reforms implemented so far go a long way towards removing most obstacles to free entry and import competition, one area where the government may wish to put increased emphasis is in competition policies and the application of the antitrust legislation. This is especially important in a context where macroeconomic conditions and obstacles to foreign participation are not conducive to much investors' interest, therefore where incumbents (existing partners) or large private groups already present in capital intensive sectors are the most likely buyers. The Privatization Commission appears to be concerned by possible ownership concentration that may result from privatization, and is taking this aspect into account when deciding on sales strategies (e.g by breaking-up **SIDERBRAS**, the former federal steel holding; by selling all participations of **PETROQUISA** (petrochemical holding of **PETROBRAS**) and **PETROFERTIL** (fertilizer

holding of PETROBRAS) separately; by limiting ownership by each buyer to no more than 10% of voting capital in the case of CELMA, a monopoly supplier of jet turbine repair services. Furthermore, it is argued that trade liberalization should limit potential adverse effects on consumers.

3.11 However, despite these arguments, it is likely that privatization will result in increased concentration of ownership in the hands of the few large existing groups in each sector (e.g. steel and petrochemicals), due to several factors: (i) in the petrochemicals industry, the logical buyers are the downstream users, because upstream crackers and downstream facilities are captive of each other and are normally integrated vertically -- new entrants will thus have a chance only when the opportunity arises to increase capacity- but this in turn is unlikely to occur until the monopoly of PETROBRAS on the supply and import of feedstocks is removed and their prices deregulated; in the meantime, the industry will remain concentrated in the hands of a few incumbents; (ii) in the steel sector, a few large established local groups are the likely purchasers because the steel sector is not today attractive worldwide, there is a large supply worldwide of steel companies being privatized, and, in Brazil, foreign ownership restrictions will discourage foreign bidders; (iii) in the fertilizer sector, it is also very likely that SOEs will be purchased by consortia of established distributors in the absence of foreign interest (as in the case of FOSFERTIL). Finally, (iii) although the Privatization Commission may attempt to minimize the risks of concentration through sales strategies of individual sales, it cannot ensure that companies will not be purchased by private sector firms seeking to consolidate an oligopolistic position, nor can it prevent that the same firms simultaneously purchase controlling interests in several firms in the same sector. Although concentration of ownership is not necessarily bad and in fact may be efficient in a number of cases, it may also be to the detriment of consumers even when trade barriers are lowered (particularly in light of high remaining internal transport and port inefficiencies).

3.12 Similar to many antitrust regulations in the world, the current Brazilian anti-trust regulations (Law 8158 of January 8, 1991) include both conduct regulations (i.e. prohibition of conduct that either restrains trade, lessens competition, or abuses a market-dominating position); and structural regulations (allowing antitrust authorities to intervene when intercorporate transactions, usually mergers, joint ventures and assets transfers, would weaken the independence of competing suppliers and raise concentration in economic markets to high levels). Any act resulting in a market share of 20% or more in the "relevant" market must be reviewed by the National Secretariat of Economic Law (SNDE) of the Ministry of Justice. Enterprises have the option of requesting the ruling of SNDE beforehand, and SNDE must rule on the case within sixty days. Because the law is new, it would be useful for the Government to carry-out a review of the adequacy of its application so far. Furthermore, with respect to privatization transactions, one may suggest that: (i) consultants hired for the "B" service should be explicitly requested, as part of their important tasks, to review the current concentration of the industry; assess the risks of anti-competitive behavior in case of increased concentration; and suggests ways to deal with such risk, including through the design of the sale strategy); (ii) the Edital de Venda should recommend that potential buyers who would gain a market share of 20% or more of a specified market as a

result of their purchase should file an ex-ante formal consultation with SNDE, and the auction should be timed to allow sufficient time for SNDE to rule; and (iii) as proposed by BNDES, contracts with purchasers should include a provision that they are to submit themselves to SNDE review if their market share exceeds 20%.

C. *Prioritizing Objectives and Securing Public Support*

Prioritizing Objectives

3.13 Privatization can achieve several objectives. Not all of them are mutually compatible. Program goals must therefore be specified, avoiding inconsistencies which may detract from the ultimate goal of the program. Action to achieve one of the various goals of any particular program will frequently impede efforts to achieve some of the other goals. During planning and implementation, trade-offs between the various goals are inevitable. For instance, if priority is given to debt reduction, the modernization and efficiency goals may be lost if protected or monopolistic positions are maintained or granted in order to obtain a high price; also, in some cases, Article 5.1 of Decree 99463 (the Law application decree), which lays down that the sale of shareholdings will preferably be effected by fostering dispersion of shares, might be overlooked, for instance when the government could obtain a better price and the company gain better growth and efficiency prospects by selling shares to a single strategic buyer prepared to bring new technology, improved access to international markets or major future injections of capital. Choices have to be made about achieving some goals at the expense of others. Those choices will be made on an ad-hoc basis, without control or direction, unless priorities among the various goals of the program are established initially and acceptable tradeoffs given. If clear priorities among the various goals are not established and acceptable trade-offs are not given, then the program can lose direction and debate on priorities may be reopened at the time of each sale.

3.14 Privatization is not an end in itself. It contributes towards larger goals. The goals of the privatization program must fit into the hierarchy of government objectives for overall economic development. Therefore, to set priorities and acceptable tradeoffs, it is necessary to step back from the detail of the privatization program itself, and view the overall economic priorities. In this vein, one can interpret the objectives of privatization (as stated in para. 2.7) in the wider context of the Collor Plan. The overriding objective of the Collor Plan is to achieve a recovery of investment and a return to a pattern of economic growth and prosperity that Brazil experienced during the 1970s. The Government economic policy package includes measures to:

- (a) Lower inflation in order to lower interest rates, create greater business certainty and form a solid foundation for internationally competitive growth; and
- (b) Promote competition by opening Brazil to more foreign trade and investment, thereby encouraging more efficient resource use.

3.15 Privatization of SOEs contributes towards those broader economic goals by recognizing that:

- (a) Government spending needs to focus on those areas where Government involvement can achieve most for the nation (social expenditures, infrastructure);**
- (b) Activities of most SOEs can be handled by the private sector more efficiently and with greater benefit to Brazil; and**
- (c) The private sector is better placed than the Government to fund the large capital investments which many SOEs need in order to play a full commercial role in Brazil's development.**

3.16 The Government's overriding objective for the economic program is stability and recovery of economic growth in order to improve the living standards of Brazilians. This, then, must be the overriding objective of the privatization program. The privatization of SOEs is key to improving the efficiency of state businesses so that they will play a large role in an ongoing improvement in living standards. The following recommendations suggest a simple system of priorities to ensure that all planning, decision-making and implementation contribute to the overall priority:

- (a) First, confirm that the main goal of the privatization program is to redefine the role of the state, reduce its size, and focus state effort into the areas where Governments have an advantage;**
- (b) Second, specify that, among the various goals of privatization, first priority is given to economic efficiency via increased competition and improved management; and**
- (c) Last, but subject always to the over-riding importance of that top priority, seek the highest possible price obtainable for assets being sold and to procure the maximum practicable debt reduction.**

3.17 Explicit recognition of such a ranking would provide all parties with greater certainty about the objectives of the Government privatization program, and would therefore maximize the likelihood of a successful final outcome. Rules and outcomes can then be measured against these priorities. It is important, for example, to frame the rules so that they do not make it difficult for decision-makers to consider all options on the basis of their contribution towards the priority objectives. Achieving this goal is at times only possible at the cost of

sacrificing one or both of the two major objectives. Thus, it should be made clear that the last goal (in particular debt reduction) is subject to achievement of the first two goals.⁵

Securing Public and Congressional Support

3.18 Decision-makers and opinion-formers in Brazil have grown inside a tradition of intensive regulation. Many did not understand that a more open and competitive economy can generate greater benefits to the nation. Therefore the government, with assistance from or through BNDES, has launched a major and sustained public education program to improve understanding among Federal and State Congressmen, news media editors and business editors, business people and business associations, civil servants, trade unions, the financial community, and the public at large. Tools used to convey this information include: seminars, regular newsletters, speeches, feature articles in business and popular newspapers, and lecture tours. These information campaigns and the success of USIMINAS and the first thirteen sales (all done methodically within an eleven-months period) have convinced all segments of society of the merits of the program, which is now well accepted. BNDES may now want to focus more attention on the promotion of the program abroad.

3.19 The USIMINAS experience demonstrated that earlier and increased attention should be given to convince local communities and their political leaders and unions of the good of the program for them as well, and much more attention is now being paid to these aspects by the managers of the privatizable companies as part of the preparation process. The experience of USIMINAS and other firms sold has demonstrated that privatization has not resulted so far in significant lay-offs, and sometimes has in fact resulted in wage increases. The result of these experiences, which is well publicized by BNDES, has helped considerably in changing the workers's outlook on privatization, and many unions have now become favorable to privatization. Another important factor in securing cooperation of workers has been the practice of reserving about 10% of voting capital for a special offering to workers at a fixed price (the price is very favorable, usually 20% to 30% of the regular auction minimum price, and long term credit at favorable terms is also available from BNDES for their purchase). The traded value of USIMINAS shares on the stock market has been substantially above the price workers paid for the shares, and this has helped reinforcing the case that workers have a lot to gain from privatization.

3.20 Another difficulty faced by a privatization program at the start is how to avoid the public perception that enterprises in which the Government invested huge amounts of money are being "given away". The number of law suits challenging valuations indicates that this was a real problem early in the process. Documenting and exposing past waste and

⁵ In some cases it could be more desirable to sell a majority or all of the shares to a single strategic stakeholder, particularly where the stakeholder could contribute new technology, improved access to international markets, or major future injections of capital. In other cases, the skill of management and staff may be the crucial factor in the business, and a means for them to participate may need to be found.

inefficiency is important, since an understanding of the deficiencies of the old system is the foundation for building a consensus in favor of change, although a too candid public acknowledgement of past mistakes and inefficiencies may rally past responsible, but still politically influential, parties against the program. In fact, these mistakes are being acknowledged through the application of the valuation methodology (which is based on the assets' earning power), and, when necessary, BNDES' and the consultants' readiness to defend their calculations. It appears that the validity of valuation methods has now become better accepted, because auctions have resulted in price offers not substantially above the minimum price (generally between 0% and 30% above) and that two firms (FRANAVE and GOIASFERTIL) have not found buyers at the asking price. Political and union opposition on the grounds that minimum prices are too low has thus subsided considerably.

D. Institutional Responsibilities

3.21 In principle, the concept of the privatization administrator reporting to the Privatization Commission, which in turn reports to the President of the Republic, appears to be a satisfactory and workable structure, and experience to-date seems to indicate that it is indeed working well. In selecting the administrator (BNDES) and the members of the Privatization Commission, deliberate trade-offs have been made in favor of: (a) a flexible structure with representation of the public sector as well as private expertise (the Privatization Commission), directly accountable to the President, and with clear responsibilities; and (b) a competent administrator experienced in privatization (BNDES) and a long-time enthusiastic supporter of the program. The institutional set-up is a clean break from the pre-Collor organization, and should ensure that the program would move forward without excessive bureaucratic caution and interministerial feuds. The advantages justify the risks inherent to the structure. It is necessary, however, to be aware of these weaknesses so that corrective action can be taken quickly should they threaten to derail the program.

3.22 There is some concern with the weak linkages between deregulation and privatization. Presently the responsibility for inter-departmental linkages for deregulation lies with the Privatization Commission, which includes high-level officials of both ministries of economy and infrastructure, in addition to a majority of professionals from the private sector. Since the Privatization Commission is directly accountable to the President himself, there are formal channels through which the need for inter-departmental policy changes can be brought-up for resolution at the highest levels.

3.23 There does not seem, however, to be an adequate process by which timely decisions are taken to revise regulations or policies ahead of time and to the required extent. The Privatization Commission, in spite of its direct access to the President, has not been able to identify a number of possible bottlenecks sufficiently ahead of time and provoke timely changes (e.g. in foreign investment regulations). Perhaps this is because its individual members do not have sufficient time to dedicate to a systematic review of potential legal and regulatory bottlenecks in advance of privatization, only to dealing with them as they manifest themselves. Perhaps formal coordination mechanisms between the Privatization Commission and the Cabinet need to be streamlined.

3.24 There does not seem to be a clear emphasis, prior to the start of privatization in a particular sector or subsector, on systematically reviewing the policy and competitive framework in which the companies operate or will operate once privatized. Liberalization of steel prices were not implemented until well after the sales announcement of USIMINAS. No determination has been made so far regarding prices and import freedom for petrochemical feedstocks (para. 3.7). It is important that this work be done prior to the start of the privatization process in each subsector, because subsequently, the Privatization Commission, the administrator and the consultants become very involved into the design of the transaction and the procedural aspects of the process. Earlier detection of policy issues would also allow timely changes to be made by the responsible ministries. It is suggested that this work should be an essential part of the pre-privatization strategic studies further discussed in para. 3.45.

3.25 The Privatization Commission may be excessively focused on the transaction aspects of privatization. The Commission is made of reputed legal, financial and business experts, and high-level Government officials. Commission members are part-time and unpaid. They meet once a week to discuss alternatives at each stage of the privatization process, including preparatory steps to be taken by the managers of privatizable enterprises, and authorize BNDES to undertake certain actions. Experience has shown that the Commission takes an active part in decision-making and does not simply rubber-stamp the recommendations of the administrator (e.g. on the sales strategy of COPEL). However, Commissioners have little time to individually digest the massive amounts of material they are given, or to collectively deliberate on the issues, even less time to think about broad sequencing and sector strategies and to put individual privatization into that broader framework. Privatization is approached on a case-by-case basis. Inadequate sector policies have been tackled in the framework of individual privatizations (increase in steel prices in the framework of USIMINAS's privatization, pricing of naphtha in that of COPEL's partly to abate opposition from PETROBRAS), usually rather late. Necessary arrangements should be made to secure assistance for strategic and policy analyses well ahead of the start of privatization in a particular subsector. The Government should support them financially to that effect by either paying them suitable fees or meeting the financial costs of such assistance. As already indicated, good coordination with Government policy makers will be particularly important in the design of an adequate policy and regulatory framework permitting the private provision of public services (including telecommunications, ports and railways) and utilities.

3.26 Possible conflicts of interest within BNDES. There is in theory a possibility of conflict of interest within BNDES' role as lender and owner and its role as privatization agent, in particular, since BNDES's staff working on privatization is also involved in BNDES's normal lending business. However, there has been no manifestation of such conflicts so far, and it appears that the large number of checks and balances present in the system should help minimize their occurrence: valuation and sales strategy proposed by independent consultants; close involvement of the Privatization Commission in each step of each transaction, from the definition of preparatory steps to be taken by the enterprise through periodic reviews of consultants' work, definition of sales strategies, etc., through

weekly meetings, the proceeds of which are public; presence of outside auditors accompanying the entire process, reporting directly to the Privatization Commission; ex-post review and final clearance at each sale by the Tribunal de Contas; follow-up and periodic enquiries by the Congressional sub-committee in charge of accompanying the privatization program; and, last but not least, extensive press coverage of the program.

3.27 Staffing of BNDES. Outside advisors hired through a competitive process to carry-out company valuation and propose sales strategies carry-out a large portion of the substantive work. The extensive scope of their work often results in a joint venture of local and offshore teams in consortiums pooling a variety of sectoral, legal and financial expertise. Given the complex nature of the legal and regulatory issues likely to arise, this policy would appear to be an appropriate one. The selection process and method adopted would also appear to have the advantage of being both open to all and transparent, and in BNDES's own terms, "to privatize the privatization process". However, extensive reliance on external consultants also carries the risk of uneven quality of advice, so it is important that BNDES and the Privatization Commission should build sufficient in-house expertise to critically assess such advice. Quality control and supervision of these consultants, as well as resolving last minute issues prior to sales (in particular, dealing with the usual rash of law suits) remains an important task that cannot be delegated.

3.28 In order to carry-out these functions, BNDES appoints, on an ad-hoc basis for each privatization, working groups of operational staff (usually seven to 12) selected for their sectorial and enterprise knowledge, working under the direction of one of the BNDES Executive Directors. In addition, BNDES's President has created a Privatization Cabinet with a staff of special advisers directly reporting to him, who are dealing exclusively with the privatization program. This cabinet carries-out special duties arising from meetings of the Privatization Commission, is responsible for publicizing the program at home and abroad, and deals with the legal issues which usually precede or immediately follow auctions. As a public entity, BNDES is subject to the current hiring freeze applicable to public sector entities, but has been able to contract long-term consultants (as suggested in earlier versions of this report) to work full-time for its Privatization Cabinet. As the workload increases, however, one may be concerned that the qualified operational staff familiar with the sector and the enterprises appointed to the working groups become overloaded, particularly since they continue to carry-out their regular operational work in parallel. A suggestion is made that at least some staff in each working group should be seconded to the Privatization Cabinet to work full time on privatization of companies in their sector, or at least assigned full time to privatization activities by their own unit.

3.29 Finally, enterprise participation in the design of the privatization strategy, valuation process and identification of potential bidders or buyers is a delicate issue. On the one hand, hostile management may slow down or derail the process, and there is always the danger of management attempting to strike-out its own deals and/or unevenly provide information to potential buyers. On the other hand, the companies are the only source of information on their operations and frequently the only source of sectoral knowledge (in sectors dominated by them) and can substantially contribute to the valuation process (in particular to assess the

potential value of the enterprise). They can also help with the promotion of the sale by helping identify potential buyers with the requisite sector management expertise, financial strength, and likely strategic interest in the business. Finally, they can play an important role in helping resolve labor issues and local political opposition to privatization. On balance, close association of the enterprise to the process, from the readying/restructuring stage to privatization, is desirable, but it requires an absolute commitment of board and management to privatization and a clear objective to that effect. Appointment by the responsible ministries of management teams and boards with a clear, timebound mandate to prepare the enterprise for privatization and facilitate the process is always recommended. This seems to be the case for all major enterprises being privatized in Brazil.

Other Countries' Experience

3.30 There is not a single institutional mechanism applicable to all countries which provides proper checks and balances and addresses coordination issues. On the one hand, privatization may get bogged-down in overlapping bureaucracies requiring extensive coordination and consultation processes within the Government. On the other hand, there is a need for some checks and balances to ensure that the process remains transparent and thorough, and that accompanying actions are taken in the proper sequence (particularly if regulatory changes and extensive enterprise restructuring are required). A number of countries (Canada, France, New Zealand), have resolved coordination mechanisms by establishing a ministry of privatization (or public enterprises), with a small staff of high level professionals and government officials working full-time, in charge of preparation of SOE's for divestiture, as well as drafting recommendations for policy and regulatory changes and the analysis and recommendation of privatization strategies. Other countries, such as Chile, have maintained a structure somewhat similar to that of Brazil. In Chile, CORFO, the state development and holding corporation is in charge of the process as well as responsible for preparation steps and any necessary prior restructuring of the enterprises to be sold. CORFO's Council (made of the economy, finance and planning ministers among others), has final decision powers on privatization strategies. The Privatization Committee (made of the planning minister, CORFO's General Manager, enterprise managers and the head of the normalization unit) is in charge of recommending privatization strategies to the Council, and supervising the implementation of actions approved by the Council). CORFO's Normalization Unit is in charge of their implementation.

3.31 It is possible to envisage a number of structures that establish clear relationships and accountability among the various participants in the privatization program. They include the creation of a special ministry in charge of all matters pertaining to SOEs, including their corporatization and privatization, but this carries the risk of creating additional layers and overlaps with existing institutions unless the structure is kept small. Because of the advantages of the existing structure in the Brazilian context, and because it appears to have worked well so far, it is not suggested that such structures be created. Instead, more emphasis should be placed by the Privatization Commission in policy and strategic analyses prior to the start of the privatization process, using qualified staff from the ministries of economy and infrastructure or outside consultants as required. In addition, the current set-up

should be closely monitored and changes introduced only if weaknesses identified in the system become likely to cause a major failure in one of the large privatizations.

E. Currency and Debt Issues

Companies' Debts

3.32 As discussed in more detail in annex 1, a number of companies candidate for privatization, in particular in the steel sector, are facing important financial difficulties. Excessive indebtedness has resulted from past Government controls on domestic prices of steel products and very high domestic real interest rates. In the steel sector, several companies are again excessively indebted in spite of the extensive financial restructuring which took place in 1987 when SIDERBRAS assumed a large portion of their outstanding debts. Financial restructuring of these companies, through direct negotiations with the companies' creditors, or with the Federal Government taking-over any excess debt and SIDERBRAS debt, together with price liberalization, is therefore necessary before they can be privatized. Financial restructuring along these lines has been a normal part of the readying stage in each privatization.

The Waivers Issue

3.33 SOE's are often subject to restrictions concerning the sale of their assets and of the majority of their shares as part of loan agreements signed with private creditors. This issue could become a major economic and political impediment to privatization as legal issues need to be overcome in assigning ownership to the debt, and negotiations with creditors must be undertaken in order to at least clear waivers before the sale of each firm. Such restrictions may also be included in loan agreements with holding companies, such as SIDERBRAS. This is particularly worrisome in the case of the large SIDERBRAS debt under its 71 financing agreements. Of these, 28 agreements include a covenant which forbids SIDERBRAS to divest the shares it owns in the capital stock of its subsidiaries. Creditors under these loan agreements would have a basis to:

- (a) claim that an event of default has occurred as a consequence of the liquidation of SIDERBRAS (the original borrower);
- (b) prohibit the sale of all or any substantial part of the assets of SIDERBRAS;
- (c) make the SIDERBRAS subsidiaries fully liable (as the original borrower under the credit agreement) because the Republic did not capitalize SIDERBRAS as promised at the time of the 1987 financial restructuring: creditors may argue that there was fraud in the inducement of the assumption agreement; and
- (d) even impede the proposed privatization of CST and other steel mills.

3.34 Guarantees of the Federal Government present similar problems. Since the Government does not wish to maintain its guarantee free of charge on past loans to companies once they are privatized, it intends to require the privatized companies to offer a security in favor of the Government (or BNDES, acting as its agent). But the need for them to encumber their assets in favor of the Government may trigger the negative pledge clauses of their own financial agreements.

3.35 In the absence of waivers from internal and external creditors, neither SIDERBRAS nor the Republic could represent to prospective investors that (i) the sale of shares as part of the privatization does not violate any binding agreement; or (ii) such shares are free of adverse claims. Already, the sale of USIMINAS was at some point jeopardized by Citibank's announcement that it would not issue a waiver of this provision unless the proceeds of the sale would be allocated first to the repayment of the outstanding SIDERBRAS debts (although the waivers were subsequently granted). So far waivers have been successfully negotiated prior to the sale of all privatized companies in the steel sector. It would be, advisable, however, that the Government renegotiate all large SIDERBRAS debts (including a revised repayment schedule), formally assume all SIDERBRAS debts by renegotiating all the agreements with SIDERBRAS creditors to obtain necessary waivers, and be current in its debt service payments before the other steel companies are put-out for sale. This may be a matter to be addressed in the framework of the global external debt negotiations. Waivers would also continue to be obtained on other company debt in the framework of each privatization.

3.36 The faster the government moves towards more conventional financial arrangements by concluding debt negotiations and adhering to repayment schedules, the faster it will restore international confidence and attract foreign investors to bid in the privatization process.

Currency Issues

3.37 As mentioned in para. 2.45(c), almost no "new" money was offered. Only internal debt instruments have been used so far in auctions, often by their holders. In order to determine the gross return of any of the internal debt instruments, a market price is needed. Only TDAs were actively traded on the secondary market at the start of the program, but by now, an active, over-the-counter market has developed in domestic privatization currencies, in particular CPs and SIDERBRAS debentures. It is very important that such trading continue to be encouraged, in order to reduce the current concentration of internal debt instruments in the hands of public enterprises, pension funds and financial institutions: pension funds own 23% of domestic currencies, including 100% of OFNDs and 20% of TDAs. Banks own 62%, including 90% of CPs and 77% of SOE debts. Finally corporations (including public corporations such as CVRD) own 14%, mostly TDAs (80%), SIDERBRAS debentures, and other SOEs debt (15%). As was already expected before the USIMINAS auction, very few frozen cruzados were used because the option of converting them into shares had already grown less attractive as the Government started releasing them in September 1991 (the last installment was made in August 1992, so now this currency no

longer exists). It was expected, however, that investors would make considerably more use of external debt instruments (MYDFAs and 4131 titles). Hardly any were offered. Outstanding currencies today, compared with their originally estimated availability are as follows:

Outstanding Currencies usable for Privatization
(US\$ million equivalent)

<u>Currencies</u>	<u>Total</u>	<u>Used so far</u> ^{1/}	<u>Outstanding</u>
SIDERBRAS Debentures	4,425	765	3,660
Other SOEs Debentures (Securitized Debt)	4,713	530	4,183
OFNDs	853	402	451
CPs	371 ^{2/}	830	n.a
TDAAs	400	166	234
FCVSS	1,500	-	1,500
MYDFAs	34,000	...	34,000
Other external debt inst.	<u>16,000</u>	<u>--</u>	<u>16,000</u>
	62,262	2,698	60,028

Source = BNDES/CONSEMP

^{1/} Excluding fixed-price sales to employees and to the public (usually financed through long-term credit) and sale of USIMINAS preferential shares. Excluding sales of CST, Alcalis, Nitriflex and Fosfertil.

^{2/} availability as to the end of 1991. Additional amounts become available as they mature or new CPs are issued.

3.38 Since use of New Cruzados is now ruled-out outstanding domestic debt instruments amount to less than US\$10 billion, short of the estimated US\$12-15 billion estimated Government equity into all enterprises now on the privatization list. Although the Privatization Commission is constantly seeking means to expand the list of eligible domestic debt (the inclusion of federal debt due to parties to legal suits was recently announced), the price of internal debt is expected to increase, unless ways can be found to increase the use of external debt instruments.

3.39 Past auctions have shown little interest on the part of their holders to part with, or offer, MYDFAs and other external debt instruments. MYDFAs offers appear to have been limited for various reasons: (a) their value was expected to increase as progress under external debt negotiations was being made: foreign banks were expecting better from a Brady Plan scheme than from selling MYDFAs on the secondary market and investing in risky privatizations; (b) a large portion of the Brazilian debt has been written off, and, since Brazil resumed interest payments, returns on the outstanding (written-down) portfolio is

satisfactory -- foreign banks have thus been reluctant to forego this return in exchange for shares in companies in depressed sectors worldwide and in an unstable economy; and (c) in light of these uncertainties and restrictions faced by foreign investors (para. 3.41-3.44 below), the 25% discount on face value of the major external debt instruments was perceived as excessive. Since the various modalities agreed-upon in the recently concluded framework agreement targets debt exchanges at 65% of face value, the price of external debt instruments on the secondary market should eventually substantially increase from its current level of less than 40 cents on the dollar. It is therefore urgent that the 25% discount level be substantially reduced or eliminated. BNDES's proposal to determine the discount through special auctions preceding privatization auctions should be implemented.

3.40 Although privatization may be considered as a means to avoid explicit and difficult renegotiations of the Government's internal debt, the exclusive use of debt instruments in the privatization program is not without disadvantage. First, because even with well functioning secondary markets, original holders of the debt are favored since they have first choice; and the secondary markets remain relatively narrow and volatile: the structure of ownership after privatization so far shows the importance of original debt holders (banks, pension funds, PEs); Second, because, although nothing bars foreign investors from purchasing domestic debt instruments, they may be reluctant to convert foreign currency to purchase them in advance of an auction, not knowing if they will win nor what they can do with these currencies if they lose; third, conversely, there are substantial restrictions to the acquisition of foreign debt instruments by Brazilian firms and their foreign subsidiaries. In fact, it is not permitted, except through financial holdings (and only within the limits of their foreign participants' holdings), and Brazilian banks, (within the limits of foreign debt instruments held by their foreign subsidiaries, and only up to the value of that portfolio). A review should be made of whether these limitations impede equal access to privatization currencies.

Foreign Investments Regulations

3.41 After 13 auctions and US\$3.5 billion worth of sales, the program is still characterized by the virtual absence of foreign capital participation. Such lack of interest has been attributed to a combination of the following factors: (a) lack of confidence in Brazilian macroeconomic management; (b) lack of interest in sectors offered for sale so far, either because of poor performance worldwide (over-supply of steel and steel companies), industrial structure unfavorable to newcomers (sale of petrochemical crackers captive of downstream users and of upstream PETROBRAS supplier), or the local or regional scope of some of the businesses sold; it is expected that foreigners will become more interested when utilities, ports and telecommunications, which carry higher returns at lower risks, and the oil and possibly the mining business as are put out for sale; (c) wait-and-see attitude on the part of foreign banks unwilling to relinquish MYDFAs pending the outcome of external debt negotiations; (d) excessive discount on MYDFAs (25% of face value); (e) foreign ownership limited to 40% of voting capital at auctions (foreigners may later-on buy from domestic owners after a minimum compulsory holding period, determined on a case by case basis, has elapsed, usually 2-3 years); (f) restrictions on capital repatriation (6 years); (g) fear of discrimination against foreign firms stemming from Article 171 of the Constitution, which distinguishes between enterprises of national capital and others, and foresees the possibility of granting privileges to the former; and (h) fear of the pattern of legal suits initiated by diverse segments of society before and after each auction.

3.42 A number of deterrents to foreign participation have already been removed or relaxed: (a) a resolution of the National Monetary Council of July 31, 1991 eliminated the cap on registered capital for privatization auctions of 1.5 times the minimum price (beyond which the investor would have to pay with fresh funds in order to be allowed to register the excess); (b) it also changed taxation rules, the tax rate on profit remittances abroad is now a flat 25%, while previously this rate was applicable only to profit remittances up to 12% of registered capital (with tax rates increasing to 60% on balances above 12%); (c) requirements that profits and dividends could be remitted abroad only after two years were eliminated; (d) in December 1991, the minimum two-year holding period for shares bought with foreign debt instruments was eliminated; and (e) the 12-year capital repatriation prohibition period was reduced to six years. Furthermore, the Government has presented a draft law to Congress which would further ease remaining restrictions on foreign investment. A Constitutional amendment has also been submitted eliminating the current distinction between foreign firms established in Brazil and domestic capital firms (Article 171 of the Constitution foresees the possibility of granting special incentives and privileges to domestic capital firms).

3.43 With respect to the 40% limit on foreign ownership of controlling capital sold at auction time, BNDES and the Government argued that this limitation has not so far represented a binding constraint to foreign control of privatized companies, because: (a) exception can be granted by Congress (so far "no foreign group has requested such an exception"); (b) the 40% restriction applies at auction time only-- restriction on later share sales by domestic shareholders is determined on a case by case basis, and is usually prohibited for only 2-3 years; and (c) it is not necessary to have more than 50% of voting

capital to have effective control, particularly if the foreign purchaser is member of a holding in which other shareholders are passive. These arguments however are not completely convincing because, first, no foreign group can be expected to introduce a process of legislative approval to get an exception to the rule; second, they will not know until after the auction who the other shareholders are, and they may not be able to purchase control from them later, particularly if they are their competitors; third, because a shareholder may need majority control to effectively manage a company, particularly when the company needs to be restructured and turned around financially (this may become important for the privatization of CSN and COSIPA, for instance). As already indicated in earlier paragraphs, another means to attract more foreign bidders would be to reduce or eliminate the 25% face value discount in foreign debt-equity swaps.

3.44 Although the relative importance of these factors in the decision not to participate so far is not easy to establish, in light of the foreseen shortage of domestic, and possibly of foreign debt instruments as means of payment, it may become important to remove all potential obstacles to foreign participation. Foreign banks might be more inclined to participate if they can associate with a strong foreign operator who also has majority ownership. Increased foreign participation is needed not only to introduce more competition in the auctions (thus bringing higher prices) and facilitating technological improvements, but also to increase competition in the sectors being privatized and minimize the risks of excessive industrial concentration.

F. Sector Strategic Planning and Methods of Privatization

Sector Strategic Planning

3.45 Whenever the government plans to privatize a large company or several companies in the same subsector, it is useful to begin the process of privatization by taking an overview of that subsector in order to understand its strategic aspects, the key factors to its competitiveness and remaining distortions in its regulatory environment which may affect buyers' decisions. The review would examine:

- a) The relevance today of past Government ownership and the objectives of privatization;
- (b) The policy environment in which the company will operate once privatized, identifying outstanding distortions affecting efficiency and competition in the sector and implicit and explicit subsidies;
- (c) The approximate magnitude of the gains to be made from reform (sale of enterprise and deregulation of sector);
- (d) The obstacles to privatization and how these should be dealt with;

- (e) The desirable structure of the industry (in particular in terms of diversity of ownership, and horizontal/vertical integration);
- (f) The order in which the firms should be sold, since the privatization of one company may affect the value and possibilities of another; and whether any should just be closed down; and
- (g) The range of desirable privatization methods for each company.

The strategic review would then be discussed by the Privatization Commission and result in a set of recommendations to the President regarding: (a) desirable policy of regulatory changes; (b) needs for financial restructurings or closures; (c) general sales strategy (dispersion of ownership or a need for strong controlling interests from experienced operators) and (d) sequencing of sales. Privatization could then proceed on the basis of decisions taken and regulatory changes introduced. In practice, most of these elements have been reviewed by the Privatization Commission in the framework of the first privatization in a specific subsector, on the basis of recommendations of BNDES and the "B Service" consultant. As pointed out earlier in the report, the program would benefit from more systematic reviews well ahead of the first privatization, in particular, with regards to the policy environment, the desirable industrial structure and the sequencing of sales (e.g. whether intermediates plants should be sold after finished product plants).

Methods of Sale

3.46 The method(s) by which a partial or total sale is conducted should be determined with a view to the privatization objective. This is because the manner in which the equity in the enterprise is sold will affect the type of future shareholder, the concentration of ownership, the price at which the shares can be sold and the number of parties who benefit from the sale. The four main methods to sell equity are:

- (a) Strategic stake sale/private tender - to single or multiple parties;
- (b) Public tender - to single or multiple parties;
- (c) Public Offer - broad distribution of securities; and
- (d) Employee Share Ownership Plan.

These methods can be employed separately or together. Often, in a partial sale, a single strategic investor is sought who brings industry credibility, management expertise and synergistic benefits to the company. When control is given, a control premium is obtained, thereby increasing the proceeds to the government. However, partial sales without relinquishing control often fail because they are not attractive to investors, particularly when the enterprise does not have a good record of profitability and efficiency, and should be avoided in most cases. The strategic review and subsequently the detailed consultants' studies should consider the type of sale which will be most beneficial to the company in terms of bringing about efficiency, profitability and growth. In particular, in light of the likelihood that most shares of the companies will be bought by banks and other lenders, it is

very important that the sales should be structured and the minimum price be determined, to permit the purchase of a controlling interest by an operator experienced in the business and able to mobilize investment funds required for technological upgrading. In the case of USIMINAS, it is not clear at this point whether the structure of ownership which has resulted from the auction is the most conducive to efficiency, as the main shareholders may have diverging interests (CVRD in selling iron ore and integrating downstream; clients industries in purchasing cheap steel; and financiers and pension funds in ridding themselves of their shares as soon as possible or maximizing dividends early on). Fortunately, in the case of USIMINAS and CST, the companies already had experienced foreign partners operating them.

3.47 It has been noted earlier that, although the privatization law is flexible on the choice of methods, the subsequent application decree has restricted them to public auction, or a combination of public auction and public offering at a fixed price to employees and the public, and sales have generally been structured in small blocks of shares to favor the maximum dissemination of ownership to the public. In this framework, however, there is substantial flexibility in designing the sale strategy. It is possible to auction blocks of shares, or even group all controlling shares in one block, (as was done for COSINOR) if the Government wishes to find a single experienced operator but could not do so without offering majority control. Furthermore, auction participants may be prequalified: for USIMINAS, and others so far, prequalification criteria were exclusively financial (to ensure that bidders have the financial capacity to purchase the enterprise), but other criteria could be introduced to screen experienced operators or strategic stakeholders if necessary. In fact, only direct negotiations are prohibited, except by special authorization of Congress. The only case where the auction requirement may complicate privatization substantially is when existing shareholder agreements give the minority shareholder the right of first refusal on all or part of controlling shares offered: few bidders are likely to be interested in preparing an exhaustive assessment of the company prior to participating in the auction if one participant has the right to match their offer at all times. This was the case for CST, which sold at the minimum price. However, lack of interest would exist regardless of the sales method. All considered, the advantages of auctions, particularly transparency and open access, largely exceed their disadvantages, as discussed below.

Auctions

3.48 The allocation mechanism used in the privatization transactions is a crucial element of the process. In principle an "auction" seems to be a desirable mechanism, since it is a market mechanism that has an explicit set of rules determining resource allocation and prices on the basis of bids from market participants.

3.49 Four basic types of auctions could be used to allocate those rights: the English auction (also called oral, open or ascending-bid auction); the Dutch (or descending bid)

auction; the first-price sealed auction; and the second-price sealed auction.⁶ With the first-price sealed-bid auction, potential buyers submit sealed bids and the highest bidder is awarded the right for the price he bid. The basic difference between the first-price sealed-bid auction and the English auction is that in the latter bidders are able to observe their rival's bids and accordingly if they choose, revise their own bids; with the sealed-bid auction, each bidder can submit only one bid. Given the diversity of types of auctions, a selection criteria is needed. Would the price be higher, and the outcome more efficient using one type of auction as opposed to others?

3.50 Theoretically, it can be proven that the above presented standard type of auctions all lead to the same expected revenues for the entity that will give the rights, and expected profits for the buyers or investors. In the case in question, where the number of shares will be specified in advance, and where the bidders' (investors) valuations will depend on some common random factors, so that all the bidders will be estimating the same variables⁷, an English or a first-price sealed-bid auction may be suitable. The auction type selected for all sales up to now is of the first type.

3.51 The cost to prepare a bid is another relevant element to determine the relative efficiency of a particular type of auction. Complicated auctions and those that provide large returns to information gathering will increase bid preparation costs, therefore reducing bid prices for every bidder. In this respect it may be advisable to reconsider the relatively limited access to company information now given to prospective bidders (para 3.55).

3.52 Generally, the consulting companies and BNDES rightly recommend to have only one auction, at least for the voting shares. Exceptions have been made, though, such as for CST, where it was sold in two auctions (one reserved to domestic investors, for 51% of voting capital, and one open to domestic and foreign investors for the remainder). There is substantial flexibility in the design of each sale strategy to accommodate the specific requirements of each sale (in the case of CST, to accommodate the existing partners rights of first refusal).

3.53 While Public auctions have obvious benefits in terms of transparency and price maximization, they may turn to have limitations, which have to be addressed as part of the sales strategy:

- (a) banks and other debt holders interested in making maximum use of debt instruments are likely to be major participants. Their interest may not be in the long term efficiency and profitability of the business they are acquiring, but rather in maximizing dividend payments early on in an attempt to recoup their

⁶ For a complete analysis of auctions see P. McAfee and J. McMillan (1987) "Auctions and Bidding", *Journal of Economic Literature*, Vol. XXV.

⁷ In statistical terms, the bidders' estimates of the price to bid will be positively correlated, even if their estimation errors are independent.

original claim. It may thus not be advisable to have banks having large controlling interests, unless they are part of an organized consortium in which an experienced operator has management control. However, as explained earlier, there are ways to design the sale strategy to avoid this outcome; and

- (b) loss-makers requiring extensive changes in the management culture or large investments to become profitable may not attract much interest. It may be advisable in these cases to seek a strategic shareholder willing to assume the control of the company by injecting required capital and assuming management, with full scale privatization following turn-around. This may require blocked sale of the company's control, and, if necessary, preparation of bidders or consortiums of bidders.

3.54 Thus, while public auctions should remain the favored method, some flexibility is needed in the choice of methods to suit each case. Whatever the mode selected, it is essential that the sale process has, and is seen to have, probity. There must be a "level playing field" for all potential investors. All investors or consortiums should have equal access to information and management.

Access to Company Information

3.55 Although potential bidders are provided with capacity, technology and production information, together with productivity and yield analysis, and with the company's audited financial statements, and are entitled to supervised visits of the facilities, they are not provided with cost accounting information. This is in order not to expose the companies' competitive strengths and weaknesses to their competition (the steel companies, in particular, are strong contenders on the export market). This practice, however, in fact privileges incumbents (existing partners) and may be difficult to sustain when large concerns with multiple activities are privatized. Investors experienced in the sector will want to analyze detailed cost breakdowns. It is suggested that this information be made available to those who request it, but at a non-refundable cost high enough to deter those not seriously interested in bidding.

Minimum Price

3.56 Privatization regulations call for the fixation of a minimum price for each company to be sold. This price is proposed by the consultants in charge of valuation (para. 2.11 and 2.38) and determined by the Privatization Commission. The price is primarily based on the discounted net cash flow of projected operations, taking into account investments necessary to maintain capacity and markets, working capital and control pollution. In the case of USIMINAS and CST, all output was valued at international price equivalent. Other criteria also reviewed include the accounting net worth, estimated net worth at market values, and asset liquidation value (net of liabilities and employees' compensation).

3.57 The minimum price is published as part of the sale announcement. A question arises on the need for setting minimum prices, which require sometimes complication valuation studies and may be seen as delaying the process. However, the setting-up of a minimum price is considered necessary because it is politically important for transparency and to avoid a perception that state assets are being given away. Also, there are cases where existing shareholder agreements or the characteristics of the business (e.g. captive plants) will considerably limit interest in the sale, mostly a few existing partners or groups prove to disagreeable behaviors. A minimum price based on an independent valuation of the company's value helps ensure that the enterprise will not be sold at a price mentioned artificially low by consortiums of users. As mentioned in para. 2.45 (a), except in a few cases, minimum price levels have been close to market prices, a credit to BNDES' and the consultants' valuation abilities. One should recognize, however, the large uncertainties in valuation introduced by the choice of the discount factor used in the calculations, which in turn depends on the foreseen mix of currencies. In the case of USIMINAS, for instance, the 14% discount rate assumed that payments would be made in debt instruments purchased at half of their value (otherwise, to fully reflect the country risk, the rate should have been much higher (para. 2.39)).

3.58 If the availability of debt currencies becomes restricted, and in light of uncertainties regarding future use of external debt instruments, minimum prices will need to be fixed at levels which leave a larger margin for error with respect to the mix of currencies. This question will become particularly relevant as the supply of attractive domestic debt instruments becomes exhausted, MYDFAs prices increase, and larger companies are offered for sale (such as CSN and the other remaining steel companies) at the end of 1992. Thus, it is suggested that the discount factor used in minimum price calculations may have to increasingly approximate that rate needed to attract cruzeiros.

Participation of Public Entities

3.59 The question of whether public entities holding domestic currencies should be allowed to participate in privatization auctions has been the subject of considerable controversy. In a number of past auctions a significant portion of the voting stocks has been purchased by public enterprises (such as Companhia Vale do Rio Doce (CVRD) and pension funds of public enterprises (90% of the voting stock of MAFERSA was purchased by the pension fund of railroad workers; and 26% of USIMINAS' by that of Banco do Brasil and PETROBRAS). Pension funds have been motivated by a desire to offload their stock of poorly performing Government debentures (NDFBs), encouraged in late 1991 by a special dispensation from normal diversification rules applicable to pension funds investments. Although it may be a good decision on the part of pension funds to convert bad claims into better performing shares, there is no reason why these investments should escape normal diversification rules, which specify that pension funds cannot hold more than 4% of their share portfolio in the same company, more than 8% of a company's voting capital, and more than 20% of total capital (particularly since the federal treasury remains the bailer of last resort). Also, one may question whether pension funds are well equipped to provide companies with the strategic orientation that board representation demands. This exemption

was later reversed and normal diversification rules now apply to privatization auctions. With respect to the participation of public enterprises, such as CVRD or PETROBRAS, and other federal state and municipal entities, the Government has limited their participation to no more than 15% of voting capital. From the point of view of CVRD, for instance, the decision to participate in the USIMINAS and CST auctions appears to be a sound business decision, CVRD holds a large stock of SIDERBRAS debentures which may be advantageously used in achieving diversification and downstream integration from iron ore into steel production. Furthermore, it appears that the presence of CVRD has been reassuring to other investors, and may have been an important factor in the sale of CST. In the petrochemical industry, a continued presence of PETROBRAS in the auctions (it is not permitted in the downstream industry), was considered important by private investors as long as PETROBRAS remains a monopolistic supplier of naphtha (to somewhat hedge against risks of arbitrary pricing). Nevertheless, the 15% limit, should remain a maximum, particularly since large PEs such as PETROBRAS or CVRD are often large suppliers of inputs to large privatizable PEs in the steel, fertilizer and petrochemical sectors and might want to achieve minority control for the sole purpose of preserving their positions or monopoly as input supplier.

G. Preparing Firms for Sale and Corporatization

3.60 There is considerable debate on the extent of company restructuring and preparation needed prior to privatization. Generally, there is agreement that: (a) financial restructuring (debt reduction or capitalization) is often a prerequisite if the amount of outstanding debt makes the company inviable; and (b) new investments for modernization or rehabilitation are not advisable because they will cause delays and will not be fully recoverable. Investments should be limited to those which, with relatively small amounts of money, are required to meet legal commitments (pollution control) or have large impacts on operating results and can be recovered in a few months (this may be important if widespread distribution of ownership in the public is an important goal). The need for other types of restructuring is more questionable. For example, due to delayed funding of large investments under construction and to large infrastructure costs incurred in anticipation of expansion plans that had to be cancelled later, several steel companies show asset values which do not bear relations to their earning power. Candidly acknowledging "past mistakes" or changed market conditions by revaluing the company's assets may later facilitate acceptance by the public of a realistic minimum price. Also, potentially difficult issues such as firing large excess labor and funding associated social costs may have to be handled ahead of time, if otherwise privatization may become stalled by social conflicts and union opposition. It is also argued that better prices may also be obtained if efforts are made to restructure the enterprise into self-accounting business areas with clear and realistic accounting of results, and if unrelated and unprofitable activities are shedded off before privatization. Finally, a track record of profitability may be important to achieve dispersion of ownership.

3.61 On the other hand, the private sector is more efficient at reorganizing companies, cutting costs, and selling and liquidating unprofitable assets and can do so more cheaply than governments, in part because they are more free from political and social pressures. The

government may thus maximize its return from privatization by deducting the expected cost from such a reorganization from the asking price for the company. Company break-ups are necessary beforehand only in cases where they are needed to encourage a more competitive and efficient industrial structure. On the whole, while Governments should do their best to put their PE's house in order prior to sale, restructuring efforts should not delay privatization, unless the failure to do so would render the sale politically impossible.

3.62 A related issue is the need to "corporatize" PEs. Many regulations remain that dictate how state enterprises in general should operate which limit the operational discretion of the firms management and prevent them from operating as private businesses. These regulations range from major bottlenecks such as restrictions on hiring and firing and wage and price fixing, to the lack of advertizing autonomy and restrictions on foreign travel. A more extensive discussion of this subject and of steps required to achieve corporatization is presented in Annex 2. As a whole, these rules and regulations effectively remove accountability from management. Subject to appropriate competition policies and a policy framework conducive to efficiency, managers should be given maximum freedom then judged totally on the financial performance of their firm. All PEs, including those being prepared for sale now, should be corporatized. That is, the operating/regulatory environment of the PEs should be changed so that it approximates that found in private industry. The management of the PEs would be selected and retained on the basis of the bottom line performance of their firms and their commitment to privatization. Corporatization would facilitate privatization because it would increase their value by setting them up and operating them as if they were private firms, and also increase private investors' confidence that competing PEs in the same subsector will not behave unfairly by taking advantage of privileged access to Government resources and decision makers. However, corporatization is likely to require difficult and major changes in many laws and regulations and may not be possible in a short time (or for that matter it may not be possible at all if associated reforms face excessive bureaucratic resistance) and should in no way be made a prerequisite of privatization.

September 11, 1992

Introduction

1. A comprehensive review of the Brazilian steel sector is a major task, far beyond the scope or need of the Bank's privatization mission to Brazil. Nonetheless, this annex is included to provide an overview of the sector with emphasis on the five major publicly owned steel plants, so that their privatization can be seen in their sectoral context. The material presented in this report was obtained from The Iron and Steel Institute of Brazil, the integrated plants visited, World Bank documents, and numerous individuals. However, while the main report updates information on progress made in privatization, this annex only reflects developments in the steel sector up to early 1991. Since then, four steel companies have been privatized. The remaining four companies have made substantial progress in rationalizing operations, improving financial performance (all companies reported a profit in the first half of 1992 except for COSIPA), and improving labor and community relations in preparation for privatization. The annex continues to be relevant as an illustration of the magnitude of problems which may be generated by inadequate policies and managerial practices. The annex is divided into 3 chapters: chapter 1 provides background information on the Brazilian and world steel sector; chapter 2 reviews the policy framework in which the steel sector operates and its evolution during the past two years; and chapter 3 analyzes each of the five major state-owned companies and their prospects for privatization.

Chapter 1: Background on the Brazilian and World Steel Industries

A - Recent Developments in the World Steel Industry

2. During the eighties, the world steel industry has gone through extensive restructuring. World demand for steel has been decreasing by about 1% per annum due to the combination of losses of market to substitute new materials and better engineering. Since demand for steel is a derived demand, low economic growth rates have also had an impact on the demand for steel. In 1990, effective world steel-making capacity was 522 million tons and forecasts are approximately 528-530 million tons by 1995. Following a short recovery in 1989, recession has again depressed world steel prices, which are today 25% to 30% lower than their 1989 peak, indicating that there is still excess capacity.

3. Developed countries' steel capacity declined significantly, especially in the United States and the European Community, with a drop of 17% between 1980 and 1988. Latin America's capacity expansion slowed due to economic stagnation in the region. However, steel making capacity and imports grew in Asia, fueled by the region's increased demand for steel. The future is uncertain with respect to East Europe and the Soviet Union, where the shift to a market economy has exposed numerous problems including inefficiencies in labor, management and use of materials, severe pollution problems, poor quality of products and bad locations entailing huge transportation costs (for both raw materials and output).

4. Given these structural changes, the following trends are observed in the world steel market:

- (a) the share of industrialized countries in steel production declined from 64% in 1973 to 52% in 1985;
- (b) production in centrally planned economies increased but there was little change in volume traded;
- (c) the share of developing countries in world trade more than doubled to 10.5% in 1985, with exports up from 2.3% in 1973-75 to 11.6% in 1985; and
- (d) apparent consumption of steel products shifted away from industrialized countries, where currently steel consumption is less than half of world steel consumption.

5. While industrialized countries production declined, that of developing countries increased, from 7% in 1979 to 12% in 1988. Their share in world exports also increased. The world steel trade balance has changed as follows:

Table 1

World Steel Trade Balance
(million tons ingot equivalent)

<u>Country or Region</u>	<u>1979</u>	<u>1984</u>	<u>1989</u>
EEC	27.4	28.2	20.0
Japan	38.0	36.3	20.1
United States	-16.8	-29.0	-20.2
Latin America	-5.7	5.7	12.2
Asia/Middle East (excluding Japan)	-34.6	-31.8	-33.4

Source: OECD- The Steel Market in 1988 and Outlook for 1989

6. The emergence of minimills (500,000 tons to 1 million tons capacity) has been the single most important technological development in the sector. These smaller mills operate from scrap steel instead of iron ore, and their relatively smaller investment requirements make them very competitive on modest size markets for lower value-added long products. Today, 40% of world steel production is from recycled scrap. When steel scrap prices are low, as they are today, these developments make it impossible to justify new investments in blast furnaces in integrated plants (producing from iron ore and coke). At present, only brownfield investments can possibly be justified, and generally only to serve the domestic market.

7. Integrated plants have consequently focused on higher-value, higher quality products,

in particular flat products which are still too expensive to produce on a small scale (although development efforts are ongoing to find suitable technologies for small scale semi-integrated plants). Technological advances in large integrated plants to reduce costs as well as increase quality, include Basic Oxygen Furnaces and continuous casting. Today, all major world producers of steel for flat products are using continuous casting.

8. Today, global competitiveness no longer depends on local availability of good quality iron ore, coal and energy, nor on cheap labor. In fact, the most efficient lowest cost plants in the world are in Europe and Japan, who have none of these advantages. The table on the following page provides some indication of cost structure.

9. Since it is cheaper to transport raw materials than finished steel products, lack of locally available inputs and of cheap labor does not constitute a large disadvantage. It can be more than compensated by scale, up-to-date technology ensuring better product slates and quality and management techniques emphasizing quick deliveries and customers' needs. A skilled work force is becoming more important than cheap, unskilled labor. Proximity of markets, scale and technology have thus become major determinants of competitiveness. The view is widely held within the industry that a plant needs to sell about 80% of its output on the domestic market to secure consistent profitability.

B - The Brazilian Steel Industry

Background

10. At the end of the second World War the Brazilian steel industry consisted of a variety of independent producers of steel products. Approximately 40% of the nation's steel requirements were being imported and there was no capability to produce flat-rolled steel products (coils, sheets, plates) domestically. Due to the huge investments required for plants capable of producing these products economically, the Government of Brazil initiated a program of developing large, publicly owned, integrated steelworks to meet the needs of the nation. Five large integrated steel plants were thus constructed and expanded overtime, developing in parallel to smaller private sector investments in other types of plants (mostly semi-integrated and charcoal-based plants for long products and special steels).

5

11. In 1990, Brazil's well established iron and steel industry comprised five large integrated coke steel plants, eight charcoal fueled integrated plants, two direct reduction-type integrated plants, and twenty semi-integrated steelworks. Brazil is now the sixth largest steel producer in the world, with a capacity of 28 million tons per year of liquid steel. That capacity is distributed as follows:

A. Flat rolled sector	17.8 Million tons per year
B. Non-flat sector	7.1 Million tons per year
C. Specialty steels	3.1 Million tons per year
TOTAL (liquid steel)	28.0 Million tons per year

Annex 1
Table 2: Estimated Pretax Costs for Major Steelmakers

Country	USA	Japan	Germany	U.K.	France	Canada	Australia	S. Korea	Taiwan	Brazil	Nucor thin slab 1991	U.S. minimill rebar
Currency/\$	1.00	127.00	1.48	0.51	4.97	1.17	1.29	714.00	26.80	109.60	1.00	1.00
Operating Rate (%)	90%	90%	90%	90%	90%	90%	90%	90%	90%	90%	90%	90%
I/O Ratio Liquid steel/CRS	1.26	1.15	1.20	1.20	1.21	1.27	1.20	1.20	1.21	1.30	1.20	1.14
Raw Material Cost:												
Coking coal	39	48	40	44	48	38	31	49	56	--	--	--
Inner ore/sinter	64	79	80	74	80	73	75	76	85	52	--	--
Scrap (before credits)	41	17	31	28	25	42	19	34	18	27	120	--
Total raw material cost	144	144	160	146	153	153	125	159	159	156	145	120
Other material cost#	174	184	172	172	170	160	182	168	172	207	177	116
Labor Cost:												
Employment cost/hour	26.5	24.0	31.0	22.0	27.0	24.5	21.0	8.0	10.0	4.0	27.0	22.0
MH/tonne	5.3	5.6	5.7	5.7	5.7	5.6	6.8	7.1	7.0	11.2	1.6	2.0
Total Labor Cost	141	142	178	128	147	136	144	57	70	45	43	44
Total Operating Cost	459	470	510	446	470	449	451	384	401	408	365	280
Financial Expense:												
Depreciation Expense	25	70	49	23	38	30	25	125	68	80	40	10
Interest Expense	10	20	13	1	13	17	28	16	11	50	0	10
Total Financial Expense	35	90	62	24	51	47	53	141	79	160	40	20
Pretax cost	494	559	573	471	521	495	503	524	480	538	405	600
Cost Thru Process:												
Coke	91	105	120	107	110	98	71	99	103	129	--	--
Blast furnace	133	138	158	143	148	133	126	134	141	125	--	--
Liquid Steel	193	202	220	198	208	185	184	186	192	181	210	204
Slabs	239	232	259	232	242	232	217	214	219	221	235	215
Hot Mill & R&O	317	309	348	305	321	308	296	270	283	282	285	280
Cold rolling and overhead #	459	470	510	446	470	449	451	384	401	408	365	--
Costs from process to process:												
BF to Liq. steel	60	65	62	55	60	52	58	52	51	56	--	--
Slab to Liq. steel	46	30	39	34	34	47	33	28	27	40	25	11
Slabs to HR (P&O)	78	77	89	73	79	76	79	56	66	61	50	65
HR to CR (with overhead)	142	161	162	141	149	141	155	114	118	126	80	--

Source: World Steel Dynamics

12. In 1989 the Brazilian steel industry produced slightly over 25 million tons of liquid steel. This represented a capacity utilization factor of approximately 90%, a high rate. During 1990, those figures dropped significantly due to poor economic conditions domestically and a reduction in worldwide demand. The result was that total production (20.5 million tons) represented only 73% of the available capacity.

13. Table 3 presents evidence of major shifts in the Brazilian steel industry in the 1970-89 period. Output growth in the period averaged 8.42% per year and Brazil's share of world production climbed from 0.9 to 3.2%. Exports grew at nearly twice the rate of output expansion, and as a result, the export-output ratio reached 43% in 1989, one of the highest in Brazilian manufacturing industry. Imports, on the other hand, after being responsible for over 30% of apparent consumption in the mid 1970s, were below 2% in 1989.

**Table 3: PRODUCTION, IMPORTS AND EXPORTS OF STEEL
1970-89
(in million tons)**

Year	1970	1975	1980	1985	1989	Growth ^{a/} Rate (%)
Production (% of world output)	5.4 (0.9)	8.5 (1.43)	15.3 (2.14)	20.5 (2.85)	25.1 (3.21)	8.42
Exports (% of production)	0.68 12.6	0.20 2.35	1.5 9.8	7.2 35.1	10.8 43.0	5.67
Average Price per Ton (in current US\$)	285.7	379.5	233.9	335.1		
Imports (% of apparent consumption)	0.81 14.5	3.74 31.1	0.664 4.6	0.102 0.76	0.285 1.95	-5.35
Average Price per Ton (in current US\$)	307.3	756.0	1135.9	989.5		

a/ average annual growth rates.

Sources: Carlos A. Primo Braga, Steel, Trade and Development: A Comparative Analysis with Special Reference to the Case of Brazil, Ph.D. Thesis, University of Illinois, 1984, Tables I.2, I.3, IV.3, IV.10, and Instituto Brasileiro de Siderurgia, Estatísticas Siderúrgicas, December 1990.

14. The state-owned steel industry consists of five major integrated plants producing flat and semifinished products (slabs, blooms and billets): USIMINAS, CST, CSN, ACOMINAS and COSIPA; and three smaller steel mills: PIRATINI, a producer of special steels (semi-integrated and dual reduction technology); COSINOR, a producer of long products (semi integrated); and ACESITA, a producer of stainless flat steels (integrated from charcoal). Privately-owned plants are smaller semi-integrated facilities producing long and special steel products, and charcoal-based plants producing pig iron. Liquid steel output by categories of plant types and ownership is shown on the table below:

Table 4

Brazil: Output of Steel Plants 1989 and 1990
(In thousand tons liquid steel)

	1989	1990
<u>State Owned:</u>		
Integrated from Coke		
ACOMINAS	1876.2	1933.2
CSN	3514.3	2847.8
COSIPA	3406.1	2901.1
CST	3269.5	1985.9
USIMINAS	<u>4394.7</u>	<u>3466.9</u>
Sub total	16460.8	13134.9
<u>Mainly Privately Owned:</u>		
Integrated from Charcoal	4690.9	4010.5
Direct Reduction	537.7	492.2
Semi-Integrated	3365.7	2931.4
TOTAL	25055.1	20569.0

15. Although the large coke integrated plants of the public sector produced about 65% of all the liquid steel, much of that production is exported as rolled products or as semi-finished products. Domestic consumption of steel accounts for only half of domestic production. The per capita consumption of steel in Brazil is far below that of most countries. Therefore, there exists a major long term potential for growth in the domestic market--growth that has been inhibited by the economic environment in Brazil in the last decade. Consumption of steel per inhabitant of a few countries illustrates this point:

A. Japan	700 Kg/capita
B. Italy	450 "
C. USSR	550 "
D. Venezuela	200 "
E. Mexico	150 "
F. Brazil	90 "

16. The productive capacity of the Brazilian steel industry expanded dramatically in the seventies and early eighties, while domestic consumption, which grew fast until the mid-eighties, has remained flat since, causing an increasing share of steel products to be exported. This is illustrated in table 5 below. Data for 1990 was not complete but the percentage of exports remained high.

Table 5
Brazil: Exports of Rolled and Semi Finished Products
 (Thousand Tons)

<u>Type</u>	<u>1987</u>	<u>1988</u>	<u>1989</u>
Flat Products	1,766	3,857	2,971
Non-Flat	1,166	2,004	1,671
Semis and Ingots	<u>3,415</u>	<u>4,184</u>	<u>5,449</u>
Total	6,347	10,045	10,091

International Competitiveness

17. Brazil's operating steel plant costs are generally among the lowest in the world (table 2). Reasons for this are the low cost of iron ore, modern, large scale, technically efficient plants, high process yields and a low total labor cost (due to low wages, and in spite of poor labor productivity). The steel industry in Brazil is amply endowed with the raw materials for steel making. Iron ore is abundant and of high quality, limestone is of acceptable quality, electricity is largely self-generated, and coal is imported at world prices. The industry produces nearly every steel product with the exception of large structural shapes. The quality of the products is comparable to those available in world markets. Although sluggish demand and price controls force substantial exports now, the domestic market is large and has a high growth potential. In spite of some weaknesses in the areas of staffing, inventory management, pollution control and delayed technological upgrading, the potential is there for a world-class, competitive steel industry in Brazil. The steel industry in Brazil could remain a major global exporter and contribute importantly to the development of Brazil. For these reasons, public steel plants should attract international interest when they are put up for sale.

(a) Inputs

18. *Iron Ore.* Brazil is rich in high quality iron ore deposits. Reserves are estimated to exceed 27 billion metric tons. Approximately 11 billion tons are located in the Quadrilatero Ferrifero of Minas Gerais and 16 billion in the Serra dos Carajas. The latter deposits are plus 65 per cent in Fe content and the Quadrilatero Ferrifero ores include over 3 billion tons of plus 66 per cent Fe. The main mine suppliers of USIMINAS are only 100 km from the steel plant while the port of Tubarao is about 500 Km from the site. Brazil is one of the major suppliers of iron ore to the world. Export tonnage amounts to about 80 per cent of the normal production of 150 million tons per year. Principal export markets are in Eastern and Western Europe, Japan, and the United States. The availability and quality of this high grade, low cost iron ore gives the industry a great advantage in this prime cost item.

19. *Coal.* Brazilian coal is not suitable for coking and blast furnace operations. As a result only about 10 or 15 per cent of the total coal used is from domestic sources. Imported coal from Europe, Australia, and the United States are brought through the coastal seaports and shipped to the plants by rail or directly to the plant as is the case with CST. Although expensive, these coals produce good quality coke, low in sulfur and

ash content and consistent in strength, all of which are essential factors in high productivity blast furnace operations.

20. *Other Raw Materials.* Limestone, dolomite, and manganese ores of acceptable quality are all found in the country relatively close to the steel plants. Tin is also native to Brazil and Bolivia and is readily available to CSN in Volta Redonda, the largest producer of tin plate in the world.

21. *Electricity.* Although the steel plants generate large blocks of electrical power, 95 per cent in the case of CST, the national system supplements those needs as required through 230,000 volt transmission lines. Supplies are adequate, reliable and cheaply priced.

(b) Outputs

22. *Pig Iron.* Production of pig iron is centered in the blast furnace facilities of the public and independent sector steel plants. Electric furnaces produce only 1 per cent of the total, as shown in Table 6.

Table 6

Brazil: Pig Iron Production by Process

(Thousand tons)

Year	Coke	Charcoal	Electric	Total
1987	13755	6976	213	20944
1988	15647	7575	232	23454
1989	15802	8325	236	24363

23. Since export tonnage of pig iron is approximately 15 percent of total production, the balance is used primarily in the integrated plants for steel making. Foundry production is not a major iron consumer in the Brazilian economy.

24. *Steel Products.* The industry produces nearly every steel product category, one notable exception being the rolling of large structural shapes. The importation of these sections has long been controlled by the government. The result is that architectural and fabricating plants in the country do not have this product in their selection and rely on reinforced concrete in most construction. The quality of rolled steel products is generally equal to or better than comparable products available in world markets. A breakdown of product categories is shown in Table 7.

Table 7
Brazil: Rolled and Semi-Finished Steel Products
(Thousand tons)

<u>Type</u>	1987	1988	1999	1990
Ordinary Flat	8,703	9,304	940	8,356
Special Flat	357	418	390	410
Ord Non-Flat	5,116	5,163	5,280	4,951
Special Non-Flat	1,014	939	879	769
Seamless Tube	344	329	314	238
<u>Sub Total</u>	15,534	16,153	16,269	14,723
Slabs	3,505	3,310	3,570	2,351
Ingots	14	472	212	N/A
Bloom/Billet	2,159	2,384	2,691	2,510
<u>Sub Total</u>	5,678	6,166	6,473	4,861
<u>TOTAL</u>	21,212	22,319	22,742	19,584

Chapter 2- Subsector Policy and Regulatory Environment

A. Introduction

25. An important aspect in any program of corporatization and privatization is the regulatory environment in which SOEs operate. This aspect of a privatization program is vital to promote efficiency. Reform of the regulatory environment should occur before privatization.

26. The central aim of regulatory reform is to promote competition. As noted earlier, the Brazilian steel industry has strong underlying international competitiveness. Factors which have inhibited the steel industry are related to a regulatory environment which has inhibited competition and held down profits, both within the sector and in other sectors. Examples are:

- (a) Ports which are inefficient and impose high costs;
- (b) Labor laws which promote overmanning, and poor reliability for product delivery;
- (c) Excessive transport costs caused by cartelization; and
- (d) Price controls and administered markets.

27. A competitive domestic market is needed to create an internationally competitive business. This is recognized in Brazil's economic reform programs. Regulatory issues under review with the objective of promoting competition are:

- (a) Financial incentives to industry;
- (b) Price controls;
- (c) Barriers to entry in industries such as transport;
- (d) Petty government rules and regulations;
- (e) The taxation system;
- (f) Labor market regulations; and
- (g) The trade regime.

28. This chapter reviews regulations in the steel sector and related sectors. In order to demonstrate how far deregulation has come, the pre-Collor regulatory regime is presented first, then the extent of deregulatory reforms already undertaken is analyzed.

29. The development of the steel sector has been a priority of successive Brazilian governments since the 1940s. Capacity creation was spearheaded by public investment in large integrated steel mills, starting with CSN. Later on capacity growth was also stimulated through trade and regulatory policy instruments. Steel producers enjoyed high levels of protection, were shielded from domestic competition by entry-deterring investment approvals, were stimulated to move to export markets by various promotion mechanisms, and were provided substantial fiscal and financial incentives. This regime was successful in creating and expanding capacity at an accelerated rate starting in 1970, when the National Steel Program was launched. It also helped shift Brazil's position from a net importer of steel in the early 1970s to a significant exporter in the 1980s (although excess domestic capacity generated by the recession of 1982-83 was equally important in accomplishing this shift).

B. The Pre-Collor Regulatory Regime

30. *The Trade Regime.* High levels of nominal (and effective) protection have in the past been a key element of the incentive structure for the steel industry. Although tariff levels have never been low for steel products which competed with domestic production, they increased significantly between 1975 (when they averaged 20.1 percent) to the early 1980s (when they moved above 100 percent). Producers, on the other hand, were generally exempt from tariffs (and other taxes) on imported inputs.

31. The increase in tariff levels was part of a policy to shift the industry from one of excess domestic demand (imports) to one of excess domestic capacity (exports). Tariff barriers were reinforced with non-tariff restrictions organized around the same logic: imports should be allowed only when not competing with domestic production (either because there was no "similar" product manufactured domestically, or when production volumes were insufficient to satisfy domestic demand). In fact, until 1990, steel producers were fully shielded from import competition; for all practical purposes they had infinite protection.

32. The other important dimension of the trade regime was a comprehensive set of export incentives. Combined with a retraction of the domestic market starting in the early 1980s, they gave a major impulse to exports. The list of export incentives is long, and most have been abolished or subsequently suspended.^{1/} The main instruments included:

- (a) The IPI "Premium Credit", which was established in 1981 with the purpose of offsetting certain domestic taxes; until March 1982, producers were paid at a rate of 15% of FOB export prices; this percentage was gradually reduced, and this GATT-inconsistent incentive was eliminated in May 1985;
- (b) The EPEX "Surplus Electric Energy", which entitled producers to pay lower power rates for export-oriented production; it was eliminated in 1985;
- (c) The BEFIEX program, which allowed producers with export commitments with the Government to import capital goods and intermediate inputs (in proportion to their exports) at steeply reduced duties and other taxes. Since March 1990 the program has been suspended, although ongoing "contracts" have been grandfathered;
- (d) Income tax exemption on export profits until the 1988 fiscal year; and
- (e) Export finance schemes with interest-subsidy components, which were available but have been abolished (FINEX in October 1990) or substantially reduced in scope.

33. Investment-Based Incentives. Capacity expansion in steel, just as in other key intermediates such as petrochemicals, paper and cellulose and non-ferrous metals, has been heavily promoted since the early 1970s. Generally, investment incentives were awarded on a discretionary, case-by-case basis, by CDI (Council for Industrial Development) and CONSIDER (Steel and Non-Ferrous Metals Council). These incentives comprised accelerated depreciation (double the normal depreciation rate) and an IPI (industrial production tax) credit on domestically-produced capital goods; tariff and tax exemptions (or reductions) on imports of capital goods, intermediate inputs and raw materials; and IPI credit based on sales of steel producers, with firms allowed to credit themselves 95% of the IPI on value added (actually charged to customers and owed to Government). Until 1986 those proceeds could finance up to 100% of the capital investment of integrated steel producers (including purchase of shares in other steel producing firms); thereafter it was reduced to 50%.

34. Fiscal incentives were matched by financial instruments centered on BNDES' credit. Basic intermediates, particularly steel, absorbed considerable resources from BNDES. In 1986/87, for example, steel projects averaged 19% of approvals and 23% of

^{1/} See Associação das Siderúrgicas Privadas, "Análise dos Fatores Externos que Afetam a Competitividade da Siderurgia Privada," mimeo, January 1991.

disbursements of all industrial projects. Combined, fiscal and financial incentives functioned as powerful stimuli for entry and capacity expansion. Table 8 illustrates how significant just one of these mechanisms--the IPI tax credit -- could be to producers' investment plans and the industry's capital formation. On average, over the 1977-87 period, this incentive contributed one-fifth of the investment outlays of both public and private producers.

Table 8: SOURCE OF INVESTMENT FUNDS FOR STEEL a/
1977-87 (March)
(%)

	Own Resources	IPI credit	Borrowed Funds	Total
Siderbras Group	58	20.2	21.8	100
Private Sector	70.5	22.9	6.6	100

a/ Percentage distribution of cumulative investment outlays over the period.

Source: Juan Lerda, "Política de Incentivos e Regulação Industrial no Brasil: Avaliação e Recomendações," mimeo, 1988.

35. **Price Controls.** While the policy and regulatory regime offered strong incentives for producers to create capacity, it also subjected firms to numerous constraints. For public sector enterprises, in particular, some of these were binding and had major adverse effects. Possibly the most important were price controls. Between 1978 and 1987 domestic prices of steel (as a product group) were reduced by 61.9% when compared to the wholesale price index (Table 9). Controls were generally binding on public enterprises, but often circumvented by the private sector.

Table 9: EVOLUTION OF WHOLESALE AND STEEL PRICE INDICES
1978-87

Year	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	Cumulative
Steel, Iron Group	33	49	100	86	72	45	200	215	30	446	123,323
WPI	41	79	122	90	97	73	233	235	60	400	323,795

Source: Myriam Silva de Bulhoes, Desempenho da Indústria Siderúrgica, Conjuntura Econômica, January 1989, Table 1.

WPI: Wholesale Price Index.

36. Steel producers also faced a number of cost-increasing regulations. High-ash domestic coal had to be utilized in a proportion of 12.5% of total coal input, thereby lowering steel-making efficiency. Restrictions, such as the Law of Similar (which basically forbade importing goods which were domestically produced), affected the choice

of capital goods, parts and components, often introducing delays while increasing project costs.

37. Generally, the public steel sector enterprises were the least capable of circumventing the most rigid and deleterious aspects of the regulatory regime. Managers faced (and still face) a large number of constraining regulations which do not allow them to function as profit-maximizing entities. Facing price controls, for example, private firms introduced add-ons in response to particular product specifications, integrated downwards into distribution, increased financial charges or simply ignored the controls. Public enterprise managers could not mimic such behavior without being accused of failing to support the Government's anti-inflation efforts, or breaching legislation.

38. Moreover, public enterprises became the focal point of politically supported rent-seeking agents. Until recently, only firms registered and belonging to an association of service providers were entitled to transport and distribute steel to the local market. Thus, in case of flat products, distributors belonging to INDA (National Institute of Steel Distributors)--of which there were only 90 countrywide--were the only ones entitled to a steel "quota". Similar arrangements prevailed for firms providing transportation of steel.

39. The result was a cartelized structure of providers, which set prices for their services in a monopolistic fashion. What in any other country would be considered illegal, was encouraged by Government regulations. The losses to Siderbras associated with this system ran into millions of dollars per year.

40. The effects of the regulations left government firms facing difficulties servicing and reducing their debt. Price controls depressed revenues and profits, transferring to steel users substantial resources.^{2/} Regulatory restrictions and external pressures on management of public enterprises progressively reduced their ability to maximize the value of the enterprises. Instead, they became a source of rents for suppliers, transportation firms, distributors, trading companies, and other private agents.

41. Though not sustainable over the longer term, the presence of these restrictions did not lead to the exit of public firms and only a limited phase-out of private ones.^{3/}

^{2/} It has been estimated that price controls cost steel producers over US\$ 14.5 billion (US\$ 12.5 billion in case of flats for the period 1978-88 and some US\$ 2.0 billion for non-flats for the period 1974-85). See Jorge Gerdau Johannpeter, "Fatores Restritivos ao Desenvolvimento da Siderurgia Brasileira," presented at the 16th Congresso Brasileiro de Siderurgia, August 1990, p. 5.

^{3/} Five private steel mills were closed in the 1980s: Santo Amaro (1982), Coffereaz and Metalpen (1983), Santo Stefano (1984), Santa Olimpia (1986) and Sidelpa (1986). In addition, Hime (1985), Fi-el (1987), Aparecida and Anhanguera (1988) were sold to other producers. See Jorge G. Johannpeter, *op. cit.*, Table A, p. 7.

Many state producers faced a soft budget constraint supported by protective policies.^{4/} Yet producers, though able to survive, neither had the capacity nor the incentives to modernize.

42. Product innovation and quality improvement also faltered. With limited economic incentives, R&D expenditures were small compared to international firms.^{5/} Most important, Brazilian producers were moving slowly and in traditional directions when their international competitors were accelerating their shift to new modes of production, management and client relations. The failure to make this transition is reflected in the adverse steel terms of trade the country has faced in the past decade and in its loss of international competitiveness.^{6/}

C. Recent Changes in the Regulatory Regime

43. Since 1990, The Government of Brazil has taken major steps in reforming the regulatory and policy regime directly affecting the steel sector. Regulatory and policy reform have been bold, addressing major sectoral issues regarding, inter alia, policy-related entry and expansion barriers, price controls on inputs and outputs, forced utilization of key inputs (both raw materials and capital goods), and plant-specific quota allocations in the transportation and distribution of output. In addition, a highly distortionary regime of quotas, tariffs and fiscal incentives has undergone major changes towards a far greater degree of intrasectoral uniformity and intersectoral neutrality. Below we summarize the major regulatory and policy changes for the steel sector undertaken since March 1990.

44. Trade Regime. Prior to March 16, 1990, all domestically manufactured products enjoyed infinite protection. Thereafter the Government removed nearly all significant non-tariff barriers. Until January 1990, tariffs in the steel sector averaged 22.0%, with a standard deviation of 8.7%. The 1991-94 tariff reform, announced on February 6, 1991, to take effect immediately, is the most comprehensive trade reform undertaken by a

4/ In this regard, it is noteworthy the role played in the past (particularly in the early 1980s) by BNDES in financial distress management, which often meant bail-out of insolvent firms. In 1981-88 period, metal and metal products firms were responsible for 36% of financial distress loan approvals in a sample of major BNDES clients. Breaking down the sample by ownership, public enterprises in the sector took up 54% of all approvals in that category. See The World Bank, Industrial Regulatory Policy and Investment Incentives in Brazil, Report No. 7843, March 15, 1990, Table 5.11.

5/ The ratio of R&D over sales in 1987 was 0.33, one-tenth of that observed among Brazil's major competitors. See Instituto Brasileiro de Siderurgia, "A Industria Siderurgica Brasileira," Rio de Janeiro, July 1990, p. 29.

6/ The U.S. International Trade Commission compared the strength of domestic steel producers with those from Brazil and Japan in the U.S. market. It found that Brazilian exporters were price competitive, offered products of just average quality, and were weak in terms of delivery time and technical assistance. American firms' strengths lay in delivery time and customer assistance, whereas Japanese in price and quality. See Rinaldo C. Soares, *op. cit.*, p. 19.

Brazilian Government. A four-year pre-announced schedule progressively lowers tariff levels and tariff bands, as shown below:

**Table 10: BRAZIL'S TARIFF REFORM SCHEDULE
1991-94**

Overall (13,000 positions)	Jan 1991	Feb 1991	1992	1993	1994
Average	32.2	25.3	21.2	17.1	14.2
Std. Deviation	19.6	17.4	14.2	10.7	7.9
Std. Deviation					
Average	22.0	16.5	14.1	11.1	10.3
Std. Deviation	8.7	6.9	7.2	5.9	6.0

Source: Coordenação Técnica de Tarifas, Ministry of Economy.

45. In the case of steel, tariff levels are cut by more than half to 10.3% in the final year, with a standard deviation of 6.0 percent. The impact of trade reform on the intensity of import competition is unclear. Restrictions on import finance have been an important barrier irrespective of tariff levels. Moreover, Brazil appears internationally competitive in a number of products such as cold and hot-rolled coils. A lowering of tariffs in these cases will not dent this market--landed prices of EEC-originated products will decrease from US\$794 to US\$742 per ton and from US\$688 to \$643 per ton respectively. USIMINAS prices, by contrast, are US\$586 and US\$413 per ton.^{7/} Exchange rate fluctuations and quality adjustments could make these margins less impressive. But it is still too early to assess how significant import competition will become in stimulating efficiency-improvements in the industry.

46. *Investment Approvals.* Since 1988 investment approvals have not been required from private firms. By contrast, state enterprises' investment activities continue to be tightly controlled if undertaken in the same line of business, while investments in other lines of business are forbidden. Such controls do not appear to be justified in view of stated aims of the Government to allow public enterprises to function as profit-maximizing entities.

47. *Price Controls and Input Use Requirements.* Steel prices were decontrolled in May 1990, but were frozen again on January 31, 1991, as were all other prices in the economy. As a result, steel prices fell again substantially below international equivalents. As shown in paras. 77, 86, and 97, price controls have principally affected flat products, while prices of semi-finished and long products have remained more in line or above

^{7/} All prices refer to mid 1990. See Rinaldo C. Soares, *op. cit.*, Table 3, p. 18.

international levels. This has been a major source of loss for the public steel companies producing flat products and has resulted in a large subsidy to downstream industries.

The highly distortionary regulation of imposing two uniform flat steel prices for the country as a whole (with producers charging higher prices in the states of Sao Paulo, Minas Gerais and Rio de Janeiro)--the so-called "CIF uniforme"--has been phased out. Except for electricity (and other price-regulated services such as water--the price levels of which are established by municipalities), input prices were also decontrolled in 1990 (and then frozen in January 1991). In July 1991, the Government announced that steel prices would be progressively increased to reach import parity (landed cost) by the end of March 1992. Steel prices, together with most other industrial prices, were in fact freed in August 1991.

48. Coal trade, distribution, resale, pricing and coke production were liberalized in September 1990, and the domestic coal content requirement was ended despite the adverse impact on coal mine employment. Finally, domestic content requirements for capital goods are no longer operational.

49. Transportation and Distribution Services -- Registration and Quota Allocation. Since March 1990, the public steel mills are free to distribute and market their products as they see fit, including bypassing traditional intermediaries (distributors, trading companies etc.). Intermediaries no longer need to be registered with the steel mills and transportation services are now purchased on an open, competitive basis.

50. Fiscal and Financial Incentive Regime. On March 16, 1990, all fiscal incentives were suspended. The IPI tax credit, which allowed steel producers to retain 95% of the industrial production tax (IPI) on their domestic sales to finance their fixed investments, and the accelerated depreciation provision allowing producers to depreciate equipment in three years, have been grandfathered (for constitutional reasons) to individual time-bound projects. Exemption of import duties and other taxes have been abolished.

51. Although not as distortionary, a few incentives remain (and others may soon be instituted). Portaria 365 allows for duty-free imports of raw materials and capital goods on a case-by-case basis, at the discretion of CTT, and a number of modernization and technology development incentives are contained in the forthcoming PCIs (Programas de Competitividade Industrial). In the case of steel, the PCI's general directives are expected to emphasize the Government's priorities, namely modernization and efficiency enhancement, as opposed to capacity expansion.

52. In sum, very few sector-specific fiscal and financial incentives remain, except those that have been grandfathered and that will be expiring at project end. Newly introduced incentives (such as duty exemption and the PCI) do not appear to be sector specific, and are therefore less distortionary.

53. It is important that prices remain free. Historically, public enterprises, particularly in the steel sector, have absorbed a disproportionate share of losses from price controls. Moreover, price controls are anti-competitive devices in a sector

characterized by institutional arrangements that favor cartelization and high levels of concentration:

**Table 11: NUMBER OF STEEL PRODUCING FIRMS BY PRODUCT SEGMENT
1989**

Products	No. of Firms
ROLLED PRODUCTS	
Flat Products	
Slabs	5
Uncoated Sheets and Coils	
Plates and Coils	4
Hot Rolled Sheets and Coils	4
Cold Rolled Sheets and Coils	4
Black Plates	2
Coated Sheets and Coils	
Teme Plates	1
Galvanized Sheets	1
Chrome-Plated Sheets	1
Tin Plates	1
Special Sheets	
High-Carbon Steel	2
Stainless Steel Sheets	1
Silicon Sheets	1
Non-Flat Products	
Blooms and Billets	18
Bars	
Carbon Steel	23
Low Alloy Steel	10
Stainless Steel	7
Tool and Die Steel	6
Structural Shapes	
Light	10
Medium	5
Heavy	2
Wire Rod	16
Concrete Reinforcing Bars	16
Rails and Track Accessories	2
Seamless Tubes	2
DRAWN PRODUCTS	
Wire	10
Bars	7
Forgings	7

Source: Instituto Brasileiro de Siderurgia, Anuario Estatístico..., Rio de Janeiro, 1990.

54. Promoting competition in domestic markets by lifting controls, ensuring free entry, and breaking-up cartelized arrangements in production, marketing or distribution, may be insufficient to stimulate producers to increase efficiency to international levels. Import competition is particularly important. Therefore it is critical for the Government to adhere to its preannounced schedule of tariff removal and not reintroduce non-tariff barriers. Competition from international competitors plays a crucial role in pushing firms to increase efficiency, improve product quality and shorten delivery time.

55. Finally, the Government should strive to reform the regulatory maze which constrains the efficiency and profitability of public enterprises. This question goes beyond the steel sector, and affects all SOEs. The myriad of regulatory controls on those enterprises concern both their day-to-day operations as well as their investment plans. They range from minor nuisances (getting ministerial approval for staff to travel abroad) to major potential blockages on firm strategy (the extreme difficulty of establishing a joint venture, for instance). These issues are further discussed in Annex 2 of this report.

Chapter 3- State-Owned Steel Companies and Privatization Prospects

A. Historical Development of The Public Steel Sector

56. The expansion of the Brazilian public steel industry during the past two decades is unparalleled in the developing world. Between 1973 and 1987, crude steel output tripled. Simultaneously, major expansion plans were launched at CSN, COSIPA and USIMINAS and entirely new sites were started (CST, ACOMINAS). Over US\$10 billion were absorbed for investments in the steel industry just between 1977 and 1980. SIDERBRAS, the holding company of public steel companies, and the companies themselves, borrowed heavily from BNDES and foreign sources, with government guarantees, to finance these investments. The economic and debt crises in the early eighties brought these plans to a halt. Lack of funds forced the suspension of investments or substantially delayed their termination, resulting in large cost overruns. The heavily indebted public companies were simultaneously faced with a substantial slow-down of domestic demand and a lasting slump in the international steel market.

57. The Federal Government was forced in 1987 to restructure the steel companies' and SIDERBRAS' liabilities, which had grown abruptly from US\$12.5 billion in 1981 to almost US\$22 billion by 1987. There were three main causes of this growth in financing requirements: (i) net investment of US\$2.2 billion; (ii) project delays which resulted in additional costs of US\$4.6 billion (largely US\$3.3 billion of extra interest expenses accumulated during the protracted construction period); and (iii) US\$2.9 billion losses which resulted from the effect of price controls on profitability. During the early 1980's, when the financing requirements were largely investment related, external liabilities increased rapidly, with foreign creditors meeting all the incremental funding requirements during that period. Since 1985, however, the main source of funds has been internal creditors.

Table 12
Evolution of SIDERBRAS Debt: 1982-88
(US\$ billion)

	1981	1982	1983	1984	1985	1986	1987	1988	1990 ^{a/}
Total	12.5	13.9	12.6	13.3	15.3	18.0	20.8	21.9	6.6
Internal	6.2	8.2	7.1	5.2	6.7	9.6	12.3	13.4	5.0
External	4.1	4.0	4.2	6.8	7.1	6.3	6.4	6.4	1.4
Other ^{b/}	2.2	1.7	1.3	1.3	1.5	2.1	2.2	2.0	0.2

^{a/} As of September 1990

^{b/} Other includes suppliers' credit, arrears to the social contributions fund, domestic bond issues.

Source: SIDERBRAS.

58. The restructuring program which took place in 1987 had four major components:

- (a) the transfer of US\$7 billion from the operating companies to the SIDERBRAS holding company; of this, US\$4.73 billion was internal, the rest external;
- (b) the refinancing of US\$1.34 billion of internal debt by BNDES at terms which included a maturity of 11 years with a 4 year grace period and an annual interest rate equivalent to 7.0% plus monetary correction;
- (c) the write-off against operating company equity of US\$4.3 billion in capitalized project charges; and
- (d) the recapitalization of the holding company with a debt-equity swap of US\$10.9 billion, of which approximately US\$7.5 billion took place in 1987 and 1988. The outstanding US\$3.4 billion was going to be assumed by the Government in declining tranches until 1992, when the financial restructuring program was due to end (this did not take place).

59. At the end of calendar year 1988, the federal government was responsible for guaranteeing over US\$14 billion of consolidated SIDERBRAS debt. A further US\$7.6 billion was moved directly onto the government books as a result of a financial rehabilitation program carried out in 1987 and 1988. Moreover, the exposure of BNDES and Banco do Brasil (\$3.9 billion) should have been considered as balance sheet (rather than contingent) liabilities of the consolidated public sector. Both types of liabilities, the ones on SIDERBRAS' books and the ones on the Federal Government's books originated

in the Steel Sector represented a very significant proportion of the total outstanding Brazilian public debt, and exception of direct borrowing by the government, debt originated in the public steel sector, is the largest single source of sovereign (guaranteed) debt. Indeed, SIDERBRAS external debt accounted in 1988 for over 14% of all external liabilities owed by the public enterprise sector. The exposure of the government to SIDERBRAS debt represented over 7% of its internal and 5% of its external liabilities.

B. Major Characteristics of Public Steel Companies

60. A review of the five major steel companies today shows a number of common characteristics and problems which can be summarized as follows:

(a) all five integrated steel works are cost competitive internationally, when excluding administrative and financial expenses. Technical and production management is often excellent, at par with the best producers in the world;

(b) financial results of all companies have been adversely affected by several common factors: (i) domestic prices of flat steel products maintained artificially low by the government; (ii) stagnant domestic demand falling far short of expectations at the time investment decisions were made, forcing large exports on a mostly depressed international market; (iii) low labor productivity resulting in part from current labor laws which restrict shift length; and (iv) except for USIMINAS and CST, where the presence of strong foreign partners has ensured stability, lack of continuity in management;

(c) except for USIMINAS and CST, and in spite of the 1987 financial restructuring, the companies have again accumulated large amounts of debt, in particular short term debt, which will require restructuring prior to privatization; and

(d) all companies require large amounts of catch-up investments for technological upgrading and pollution control.

61. In the following sections, each of the five integrated steel companies under public ownership are reviewed. Due to time and resource constraints, this review is rather general and limited by lack of in-depth information. It does illustrate, however, the range of issues which should be expected in the course of their privatization. Key data on technical performance are summarized in table 18 at the end of this annex, and on production and financial performance in tables 19 through 23.

C. Usinas Siderurgicas de Minas Gerais (USIMINAS)

62. *Background.* The best managed and most profitable of Brazil's public sector steel companies, and the first company to be sold under the Privatization Program, it was built with Japanese capital and operates with an efficient, well-trained work force producing high quality products. The company was founded in 1956 and initiated operations in 1962 with a capacity of 500,000 tpy. It was the first joint venture by the Japanese in the West after World War II, and Nippon Steel, the Japanese shareholder, still owned about 13% of the shares before it was privatized. It is located at Ipatinga

(Minas Gerais), close to its iron ore sources, and 400 km from port facilities near Vitoria (port of Praia Mole).

63. Capacity Production and Markets. The plant is an integrated coke plant with a capacity of 4.2 million tpy of crude steel. Final product distribution at USIMINAS is about evenly divided between hot-rolled, cold-rolled and plates, with some excess steel going to slabs. It expects to move into tin plate and to start a new electrolytic galvanizing line to process 360,000 tpy of laminated products. In 1990, USIMINAS produced 1.9 million tons for the domestic market and a record high of 1.3 million tons for export (40% of total production). Main markets are in civil construction, packing, nuclear, agricultural and industrial equipment makers and PETROBRAS. USIMINAS accounts for about 37% of domestic use of ordinary flat products.

64. Technology and Efficiency. The technology is an updated 1980's technology that works well and produces good quality steel. USIMINAS is the unquestioned leader in the Brazilian steel industry. Capacity utilization is very high, on average 100% from 1987 to 1989 and 91% in 1990. Its product quality and services are very high by any standard. The areas where technology seems to be most lagging and where considerable investment is required is in air pollution control, computerized controls, and some finishing processes. Maintaining the leading position will require facilities to produce cleaner steels in the near future, which involves vacuum degassing, hot metal treating stations, and process controls in the steelmaking department. The hot strip mill produces a maximum coil weight that is about half the weight of coils available in the world market. Increasing the coil weight will have to be done later-on. A new cold mill complex will also be a distinct possibility along with a continuous anneal/temper mill. An electro-galvanizing line is currently under construction at the plant and there may be a need for a hot-dip anneal line as well. Plant process yields are good by world standards, energy use is efficient. Although overall labor costs are low by world standards due to low wages, productivity is low, with an estimated 33% excess personnel.

65. Costs of Production. Operating costs (excluding depreciation and financial charges) at USIMINAS during November, 1990, using an exchange rate of NCz\$56.9 per US\$, were as follows:

(US\$ per ton)

Coke, furnace	115.20
Hot Metal	104.60
Liquid steel #2 BOF	131.88
Cont cast slab	148.89
Hot rolled band	208.80
Cold rolled sheet	294.64

These figures compare very well with costs of the best world producers (Table 2).

66. **Financial Condition.** USIMINAS was profitable in 1988 and 1989, but registered a small loss in 1990, due to unfavorable exchange rates and price controls on the domestic market. At the end of 1990, the company seemed sound financially, with a long term debt to equity ratio of 36/64, but a somewhat tight liquidity position (current ratio of 1.1). USIMINAS' debt was restructured in 1987 as part of the overall steel sector financial restructuring (para 56). At the end of 1990, the company had a debt of \$ 386.7 million, of which \$ 255.8 million was with foreign creditors.

67. **Investment Needs.** Investments for modernization and quality upgrading are needed constantly in the steel sector. For USIMINAS, these are estimated at about US\$530 million, including the completion of the galvanizing line (requiring about US\$260 million), and environmental investments (about US\$120 million).

68. **Privatization Prospects.**^{8/} USIMINAS is probably the easiest of the steel plants to privatize. It is relatively profitable, its financial structure is sound, its book value is not too far out of line with the stipulated minimum price and its net worth calculated from its assets replacement value. Furthermore, it is well managed, modern and efficient and is the domestic market leader for ordinary flat products. It is internationally competitive and well positioned on the world market as well.

D. Companhia Siderurgica de Tubarao (CST)

69. **Background.** CST was founded in 1974, and initiated operations in 1983. CST's ownership was originally shared between SIDERBRAS (50% of shares) and Kawasaki Steel and FINSIDER (25% of shares each). Today, following the conversion of CST's debt into equity by SIDREBRAS in 1988, the shares of the two foreign partners have been diluted down to 5.25% each of voting stock. CST is located in Espirito Santo, on the port of Praia Mole, which it operates, and through which it imports all its coke requirements and exports slabs. It was intended to be a huge flat rolling facility, to be constructed in stages. However, lack of funds prevented its completion and rolling facilities were never constructed. As a result, CST produces slabs, an intermediate product of much lower value.

70. **Capacity, Production and Markets.** CST is an integrated coke plant with a total installed capacity of 3.4 million tpy of crude steel per year, and a capacity of 3 million tons of slabs. It was originally designed for a total capacity of 6 million tons of slabs and has thus plenty of room for expansion. In 1990, CST produced 1.98 million tons of slabs, versus 3.27 million tons in 1989 (poor performance in 1990 was due to an unscheduled blast furnace outage, followed by a planned outage for additional repairs), indicating excellent capacity utilization rates except for that last year. About 90% of CST slab production is exported, mostly to the United States and Turkey, and also to other European and Asian countries.

8/ USIMINAS was privatized in October 1991. Results are commented in the main text of the Report.

71. **Technology and Efficiency.** CST is a one blast furnace plant. A major disadvantage of CST, besides that finishing facilities have not been constructed, is that continuous casting facilities have not been installed, and all steel is being cast as ingots. Thus, CST is unable to satisfy growing demand for better quality continuously-cast slabs and thus risks losing its market. Otherwise, plant yields and efficiency of raw material and energy use is good, and, except for 1990, capacity utilization has been high. Good quality low cost iron is supplied from Minas Gerais. The existing coke oven, blast furnace and basic oxygen furnace are among the newest in the world. It is operated by Kawasaki Steel, one of the largest and technologically most advanced steel companies in the world. Labor productivity, however, is poor, as the number of workers and employees is double the force used elsewhere in the world.

72. **Costs of Production.** Approximate cost estimates prepared by the mission indicate that CST is in the lowest cost range of world steel producers. These estimates are as follows:

	(US\$ per ton)	
<u>Output</u>	<u>With Depreciation</u>	<u>Without Depreciation</u>
Coke	143	122
Hot Metal	122	104
Liquid Steel	150	128
Slabs (capped)	190	162
" (semi-killed)	200	170
" (killed)	220	187

73. The long term viability of CST critically depends on prospects on the international slab market. Current world trade is about 8 million tons per year. Some experts predict the rapid expansion of the slab trade in the next five years, since there are few newly planned investments in upstream steel-making facilities, where there are many in downstream strip mills in various parts of the world, especially in South East Asia.

74. **Financial Condition.** The company has been profitable in 1988 and 1989, but incurred substantial losses in 1990: from profits of US\$147 million in 1989, it posted losses of \$190 million in 1990, due to the an extended strike (it could only utilize 43% of the production capacity); to poor international market conditions (international slab prices decreased by 15% between 1989 and 1990); and to the Government exchange rate policies. The financial condition of CST critically depends on international slab prices. These appeared to be increasing again in 1991. CST's debt outstanding is moderate, about US\$470 million at the end of 1990. The long-term debt to equity ratio was only 15/85 and the current ratio was about 1.4 at the end of 1991, pointing at a sound financial structure. One area of concern was the high level of inventories, amounting to 33% of sales in 1989.

75. **Investments Needs.** As mentioned above, continuous casting facilities have not been installed and CST cannot produce finished slabs/plates, losing substantial value-added. Without considering expansion of capacity, CST requires investments amounting to about US\$600 million, including a continuous caster (otherwise it may lose its existing markets), renovation of the blast furnace by end-1994 (US\$280 million); and pollution control investments (about US\$80 million).

76. **Privatization Prospects.**^{9/} For CST, the most logical partners, and perhaps the best for the nation, would be a major international steel producer in an industrial country. Since Kawasaki Steel owns a percentage of the facility already and operate it, they would certainly be a logical contender. A steel company located in an industrial country, with aging primary facilities, faced with massive investments to maintain production levels, and under extreme environmental pressure could also be a prime potential partner at CST. It would import slabs from CST and roll them in modern, highly automated mills at the home location, thus avoiding huge investments for primary facilities yet permitting investments for continuous casting and other enhancements at CST. Several companies fit this scenario. Another possibility is a major company considering an expansion program, such as China Steel, which has elected to build off-shore. The acquisition of CST's primary facilities could provide that expansion at a low cost. The possibility of installing the facilities necessary to make CST into a fully integrated flat rolling plant does not seem likely at this stage, given the world excess capacity in rolling mills.

77. The privatization of CST is likely to be more difficult than that of USIMINAS for two reasons: (a) because the foreign partners hold rights of first refusal in case of sale of government shares (i.e. they have a right to match any offer made at the auction within 30 days); this will considerably decrease potential bidders interest in participating in the auction and incurring large expenses in analyses and documentation preparation; and (b) valuation on the basis of CST's projected net cash flow is likely to yield substantially lower values than the book value and very much lower than the original investment (US\$2 billion, a very large amount for a plant of this capacity), possibly making privatization politically more difficult than USIMINAS.

E. Companhia Siderurgica Nacional (CSN)

78. **Background.** The company, which is located in Volta Redonda, Rio De Janeiro state, was founded in 1941. It was the first SOE in the steel sector. CSN is entirely state-owned, with SIDERBRAS holding 99.9% of all shares and a similar proportion of voting shares.

79. **Capacity, Production and Markets.** CSN initiated operations in 1946 with a capacity of 270,000 tpy. Today, CSN has a capacity of 4.6 million tons of crude steel. It produces a wide range of hot and cold-rolled products and is the only producer in Brazil of high-value coated flat products (galvanized products and tin plates). Over the

9/ CSP was privatized in July 1992. Results are commented in the main text of the Report.

past five years, production has ranged between a low 2.67 million tons in 1990 to a high 3.5 million tons of crude steel in 1988, representing an overall capacity utilization of 70% to 94%. Poor performance in 1990 was mostly due to an extended strike. Given the significant difference between domestic and export prices (as shown in the paragraph below), company management is attempting to maximize its profits by exporting, and exports of all product categories have increased substantially from 23% of production in 1986 to 63% in 1990. In 1990, CSN met about 18% of domestic requirements of ordinary flat products and more than 88% of those of coated products. In the non-coated flat products area, however, CSN's market share is decreasing, mostly to the benefit of COSIPA. This reflects both the facts that COSIPA is located closer to the main Sao Paulo market and CSN's management decision to emphasize exports.

80. For flat products, except in 1990, domestic prices have always been below export prices by about 20%. Table 13 gives the evolution of the relation between selling prices in the domestic and export markets, respectively.

81. *Technology and Efficiency.* CSN is the most modern integrated plant in Brazil for the bulk of its facilities, including its third blast furnace, steel making and continuous casting shops, the most recent hot and cold strip mills, and finishing and coating facilities. Its physical performance is comparable to the best performers in the world, although some improvements are possible in the areas of blast furnace fuel rates and overall energy consumption. Iron ore is supplied from CSN's own mine of Casa de Pedra in Minas Gerais and transported by rail to the plant. Coal is imported, and finished products are exported, through the ports of Rio de Janeiro, Sepetiba and Vitoria. The quality of CSN products is very good and customers are well attended, both domestically and abroad.

Table 13: Relation Between Export and Selling Prices

	<u>Non Flats</u>	<u>Hot Rolled</u>	<u>Cold Rolled</u>	<u>Galvanized</u>	<u>Tin Plates</u>
(US\$/ton FOB works)					
<u>1986</u>					
D	295	221	259	345	411
E	189	229	309	364	474
D/E %	<u>156</u>	<u>96</u>	<u>84</u>	<u>95</u>	<u>87</u>
<u>1987</u>					
D	289	221	272	345	395
E	261	262	366	419	493
D/E %	<u>111</u>	<u>84</u>	<u>74</u>	<u>82</u>	<u>80</u>
<u>1988</u>					
D	347	264	325	408	462
E	n.a.	346	430	508	506
D/E %	n.a.	<u>76</u>	<u>76</u>	<u>80</u>	<u>91</u>
<u>1989</u>					
D	344	319	403	498	521
E	325	378	494	595	607
D/E %	<u>106</u>	<u>84</u>	<u>82</u>	<u>84</u>	<u>86</u>
<u>1990</u>					
D	545	325	486	657	627
E	315	307	386	529	544
D/E %	<u>173</u>	<u>106</u>	<u>126</u>	<u>124</u>	<u>115</u>
<u>1991</u>					
D	732	236	321	527	572
E	n.a.	327	403	539	582
D/E %	n.a.	<u>72</u>	<u>80</u>	<u>98</u>	<u>98</u>

The above prices are average, given the CSN product mix. It shows that domestic prices for non-flat products (profiles and rails, which represent a small portion of CSN's output) were 6% to 73% above export prices. For flat products, with the exception of 1990, domestic prices were always below export prices by about 20 percent. This behavior explains the emphasis of CSN's new management on exports in early 1991 to maximize profit.

82. *Costs of Production.* Excluding depreciation and financial expenses, CSN operating margin has been positive since 1989. CSN's costs compared as follows with export prices:

Table 14: Cost-Price Relation
(current US\$/ton)

Product Category	1987	1988	1989	1990	1991 ^{10/}
Hot Rolled					
Avg. Price	232.4	295.0	336.6	239.9	313.7
Avg. Cost ^{11/}	262.9	301.4	267.7	182.8	252.3
Price/Cost %	88.4	97.9	125.7	131.2	124.3
Avg. Export Price	262.0	346.0	378.0	307.0	327.0
Cold Rolled					
Avg. Price	282.7	323.8	404.5	361.2	350.8
Avg. Cost	298.5	344.7	303.0	209.1	287.0
Price/Cost %	94.7	93.9	133.5	172.7	122.2
Avg. Export Price	366.0	430.0	494.0	386.0	403.0
Galvanized					
Avg. Price	348.9	407.1	516.7	469.0	531.6
Avg. Cost	388.4	493.9	405.8	280.6	399.2
Price/Cost %	89.8	82.4	127.3	167.1	133.2
Avg. Export Price	419.0	508.0	595.0	529.0	539.0
Tin Plates					
Avg. Price	403.3	457.3	526.0	462.4	574.5
Avg. Cost	349.3	402.6	356.8	246.5	333.3
Price/Cost %	115.5	113.6	147.4	187.6	172.4
Avg. Export Price	493.0	506.0	607.0	544.0	582.0

^{10/} January to May.

^{11/} Does not include depreciation and financial expenses

83. CSN's operating margin is relatively good, even with current depressed domestic and export prices. CSN is a competitive producer of steel products, but has high fixed costs (administrative and sales) and excessively high financial costs. The table below compares the estimated cost of producing one ton of cold rolled steel coil with the cost of importing the same product in May 1991:

Table 15: Cost, Import and Domestic Prices

<u>Cost</u>	<u>(US\$/t)</u>	<u>%</u>	<u>Import Price</u>	<u>(US\$/t)</u>
Cooking Coal	54.5		FOB Antwerp	445.0
Iron Ore	30.4		Freight/Ins.	37.0
Other Raw Mat.	28.4		CIF Santos	482.0
Subtotal	<u>113.3</u>	<u>39.5</u>	Port Taxes	30.0
Energy	26.9	9.4	Quality Premiums	<u>30.0</u>
Maintenance	34.3	11.9	TOTAL	542.0
<u>Subtotal Variable</u>				
<u>Costs</u>	<u>174.5</u>	<u>60.8</u>	Domestic Price (US\$/ton)	
Labor	63.0	21.9	FOT Works	<u>350.8</u>
Major Repairs	7.6	2.6		
Admin. and Sales	41.9	14.7		
<u>Subtotal Fixed</u>				
<u>Costs</u>	<u>112.5</u>	<u>39.2</u>	Import Price	=100
Operating Costs	<u>287.0</u>	<u>100.0</u>	Domestic Price	=53
Depreciation	519.0		Operating Costs	=68
Finan. Expen.	335.0		Total Costs	=126
TOTAL	<u>681.0</u>	<u>237.0</u>		

NOTE: financial expenses as estimated by the mission, based on 1990 income statements.

84. **Financial Condition.** Between 1987 and 1990, CSN made consistent losses. Losses were mostly due to huge financial expenses incurred on short term debt. Financial expenses were about 76% of total revenues and about 112.8% of total loss for the year. The financial expenses are mainly due to short term debt incurred at high interest rates (5 to 6% per month in real terms) to finance working capital requirements (and possibly investment needs as well). Total debt of CSN at the end of 1990 was a staggering US\$2.5 billion. The long-term debt to equity ratio had already reached a level of 50/50, in spite of the 1987 financial restructuring. The current ratio was a very low 0.5. The main reason quoted for such a high level of short term debt was that low domestic prices have limited the company's ability to generate the required level of working capital. There may be other reasons, however, because low prices do not seem to have affected USIMINAS to a similar extent (USIMINAS has been selling products of a somewhat lower average value, yet has been able to maintain a current ratio around 1.0). These other reasons may include: until 1991, the higher share of output sold by

CSN on the domestic market; comparatively higher administration and sales costs; high inventories (46% of sales at the end of 1989); past management teams more sensitive to political interferences; and lack of continuity in management.

85. **Investment Needs.** Although CSN has the most modern facilities, investments are still needed to catch up with latest technological advances and to reduce pollution. These are estimated at about US\$500 million over the next two to three years.

86. **Privatization Prospects.** Privatization is welcomed by the new management, who considers it a priority objective. It is attempting to prepare the company for sale by maximizing profitability through debt restructuring, cost reductions, quality improvement and new marketing policies. In order to achieve this goal, the new management has committed to its Agreement with the Government defining specific goals monitored by the National Department of Mines and Metallurgy (DNMM). So far, these goals have been met. Present management is vigorously restructuring the company: it has cut total labor force by 6,000 over a twelve month-period ending March 1991; together with BNDES, it has restructured about half of CSN external debt using debt-buy-backs on the international market.

87. The company is potentially the most interesting of all the steel sector SOE's: it is competitive, modern, and has the best product slate. It has a large share of the domestic market, thus should attract buyers interested in the long-term prospects of this large market. It has its own sources of good quality iron ore. However, privatization will not be possible unless the company is restructured financially. Furthermore, current restructuring actions to reduce overhead, excess labor and improve working capital management need to be pursued actively. Labor issues at CSN are potentially difficult due to the dependence of the company town on CSN for employment and lack of alternative jobs nearby. With total assets of US\$4.5 billion, privatization may be difficult politically if all efforts are not made beforehand to turn the company around financially prior to sale.

F. Companhia Siderurgica Paulista (COSIPA)

88. **Background.** Located in Cubatao, Sao Paulo, the company was founded in 1953, and initiated operations in 1963 with a capacity of 500,000 tpy. Today it has a capacity of 3.9 million tpy. It is conveniently located near the major Sao Paulo market and has its own terminal in the port of Cubatao. COSIPA is owned by SIDERBRAS (99.98%) and BNDES (0.2%).

89. **Capacity, Production and Markets.** COSIPA is an integrated coke plant with a total capacity of about 3.3 million tons of crude steel per year. COSIPA produces non-coated plates, hot-rolled and cold-rolled flat products for the domestic and export markets. Exports have increased from 24% of production in 1986 to 48% in the first five months of 1991, reflecting the stagnant domestic market and higher prices obtained on the export market:

Table 16: Domestic (D) and Export (E) Prices
(current US\$/ton)

	<u>Dec. 85</u>	<u>Dec.86</u>	<u>Dec.87</u>	<u>Dec.88</u>	<u>Dec.89</u>	<u>Dec.90</u>	<u>Apr.91</u>
<u>Plates</u>							
D	311	235	292	258	380	340	305
E	265	275	330	480	440	420	425
% D/E	117	85	88	54	86	81	72
<u>HRC:</u>							
D	266	209	256	303	346	320	237
E	230	240	310	440	385	340	430
% D/E	116	87	83	69	90	94	55
<u>CRC:</u>							
D	349	270	320	298	464	463	329
E	280	320	440	550	495	430	450
% D/E	125	84	73	54	94	108	73
<u>Rebars:</u>							
D	275	265	302	337	307	353	347
E	225	240	265	340	300	300	300
% D/E	122	110	114	99	102	118	116
<u>Wire Rod:</u>							
D	255	250	288	327	316	275	318
E	240	260	290	360	340	330	310
% D/E	106	96	99	91	93	83	103

Domestic: FOT works; Export: FOB Antwerp

Brazilian domestic steel prices have thus been kept artificially low compared to export prices, providing a significant subsidy to the downstream industries. Asia absorbed about 80% of COSIPA's exports in 1990. COSIPA participates in the domestic market of non-coated flat products for about one-third of the total demand. The quality of COSIPA's products is good, and the company has a long-standing relationship with customers. However, it will be a priority for COSIPA future owners to catch up with investments in the latest process technologies, in order to meet an increasingly demanding market.

90. *Technology and Efficiency.* COSIPA's physical performances are fair by international standards but low by Brazilian standards. Although cost competitive when compared to border prices (assuming normal financial expenses), COSIPA is behind USIMINAS and CSN and needs to improve its productivity and maintenance and reduce its other costs. The lack of continuity in management has affected the quality of maintenance and operation. Nevertheless, physical performance still compares quite well with steel producers abroad and operating costs remain comparatively low. Capacity utilization of all production facilities range from 80% to 100% and is limited only by slack market demand, locally and abroad, and major repairs like blast furnace relining. Energy consumption has improved during the last five years and is now close to the most efficient uses of energy in the steel industry. Labor productivity is the area where efficiency gain could be made, since it is only about 70% of CSN's. The company, with 14,000, is largely overstaffed.

91. *Costs of Production.* The analysis presented below examines the relation operating costs-selling prices during the last five years in US\$ of December 1990 per ton of finished products, using the official exchange rate and the IGP and BNTF correction factors.

Table 17: Cost/Price Relation
(US\$/ton; constant December 1990 terms)

	<u>1986</u>	<u>1987</u>	<u>1988</u>	<u>1989</u>	<u>1990</u>	<u>1991^{12/}</u>
Slabs						
1. Average Price	229.8	193.7	160.5	177.4	171.1	104.2
2. Average Cost ^{13/}	286.3	269.8	284.3	296.3	304.8	221.7
3. Price/Cost %	80.3	71.8	56.5	59.9	56.1	47.0
Plates						
1. Average Price	369.7	397.6	310.6	335.8	362.0	314.4
2. Average Cost	383.3	341.6	319.0	325.9	365.8	325.2
3. Price/Cost %	96.5	116.4	97.4	103.0	99.0	96.7
Hot Rolled Coils						
1. Average Price	361.7	379.3	300.4	337.2	297.4	270.3
2. Average Cost	337.2	305.9	301.8	293.2	319.7	267.5
3. Price/Cost %	107.3	124.0	99.5	115.0	93.0	101.0
Cold Rolled Coils						
1. Average Price	461.0	444.0	371.6	426.6	435.1	327.0
2. Average Cost	410.3	343.4	373.6	371.0	405.2	336.2
3. Price/Cost %	112.4	129.3	99.5	113.9	107.4	97.3

^{12/} January to May 1991.

^{13/} Does not include depreciation and financial expenses.

92. It is quite clear that, under the working conditions of the last years, COSIPA's operating margin was most of the time negative, except for cold-rolled products. This was due to relatively high costs and to depressed prices, especially in the domestic market. It is unlikely that COSIPA can survive unless ongoing efforts to cut costs are pursued, even if domestic prices increase.

93. Estimates of production costs of one ton of cold-rolled coil in early 1991 are presented below. They compare with import and domestic prices as follows:

Table 18: Cost, Import and Domestic Prices

	<u>Cost (US\$/ton)</u>	<u>%</u>	<u>Import Price</u>	<u>(US\$/ton)</u>
Cooking Coal	62.5	18.6	FOB Antwerp	445.0
Iron Ore	32.2	9.6	Freight & Ins.	37.0
Other raw materials	20.3	6.0	CIF Santos	482.0
Energy	20.8	6.2	Port Taxes	30.0
Maintenance	71.2	21.2	TOTAL	<u>512.0</u>
<u>Sub-Total Var. Costs</u>	<u>207.0</u>	<u>61.6</u>		
Labor	97.3	28.9	<u>Domestic Price</u>	<u>(US\$/ton)</u>
Major Repairs	18.4	5.5	FOT Works	<u>327.0</u>
Adm. & Sales	13.5	4.0		
<u>Sub-Total Fixed Costs</u>	<u>129.2</u>	<u>38.4</u>		
Operating Costs	<u>336.2</u>	<u>100.0</u>		
Depreciation	30.4	9.0		
Financial Expenses		118.2	35.2	
TOTAL	<u>484.8</u>	<u>144.2</u>		

NOTE: Financial expenses are estimated, based on financial expenses for 1990.

94. Thus, operating costs (variable and fixed costs, excluding depreciation and financial expenses) are 15% to 20% higher than CSN's for similar products, reflecting significantly higher maintenance and labor costs. The domestic price (64% of the import price and 74% of the export price) was too low to cover operating costs, let alone total costs. At the export price, COSIPA covers its operating costs, but not its depreciation and financial expenses.

95. Financial Condition. Except in 1989, when COSIPA recorded a small profit, COSIPA has made consistent losses since 1986. This is due, as said above, to low domestic prices and relatively high production costs, but also to high financial expenses associated with a large debt. The debt as of December 31, 1990, was of Cr

\$118,140,378,000 (US\$ 695 million) and has since escalated to more than US\$900 million (end-April 1991). The long term debt to equity ratio, which was less than 5/95 in 1987 following the financial restructuring of the steel companies and debt assumption by SIDERBRAS, is now already about 50/50, and the current ratio is 0.5, indicating very serious liquidity problems. Redressing the financial situation of COSIPA will require a combination of financial restructuring, cost reductions and price increases.

96. *Investment Needs.* Because of the poor financial performance of the company, the level of investments required to keep-up with the latest development in technology has not been maintained. COSIPA management is well aware of the issue and has already an updated program of technological improvements. The five-year-program is estimated at about US\$ 430 million and focuses primarily on cost reduction and quality improvement. The major components of this program are summarized below.

<u>Area</u>	<u>Cost</u> (US\$ Million)
Iron Making	120.0
Steel	66.0
Rolling Mills	153.0
Environment	30.0
Miscellaneous	<u>61.0</u>
TOTAL	430.0

97. *Privatization Prospects.* COSIPA, because of its location, has an easy access to the largest industrial market in Brazil, the state of Sao Paulo, and to exports, thanks to its own port loading and unloading facilities. Physical performance is only fair but within international standards, and it should be cost competitive compared with border prices if it reduces its operating costs and increases productivity. In order to maintain its competitiveness cost- and quality-wise, it will also require significant catch-up investments. Thus, although it is potentially competitive internationally, COSIPA is at this point substantially less attractive to potential buyers than USIMINAS and CSN.

98. Current COSIPA management has committed to perform according to an agreement with the government, based on annual targets in all areas (production, finance, marketing, etc.) discussed and agreed upon yearly. A system of bonus and penalties is being developed and performances are reviewed quarterly by the National Department of Mines and Metallurgy (DNMM). In order to prepare the company for privatization, current management will require time to achieve foreseen targets, especially in the area of debt restructuring and cost reduction. Domestic price increases are also of paramount importance to help control the hemorrhage of financial expenditures and restore a reasonable liquidity position. Prior assumption of a substantial portion of the debt by the Government is likely to be required prior to privatization.

G. Acos de Minas Gerais (ACOMINAS)

99. ***Background.*** ACOMINAS is located in the state of Minas Gerais, close to CSN's facilities. It was founded in 1975 and conceived to provide the Brazilian market with large quantities of steel rails, heavy structures and profiles, which are not yet produced in Brazil. However, plant construction ran into financial difficulties in the eighties, and facilities could not be completed. ACOMINAS is an incomplete plant as compared to its original design. Construction works are completed only to the semi-finished stage. The two rolling mills which were included originally are only 75% completed. They would allow ACOMINAS to produce and sell medium, heavy sections and rails, which would increase significantly its profit margins as compared to its current one based on the sales of semi-finished products. Operations of the upstream and semi-finished stages began in 1987.

100. ***Capacity, Production and Markets.*** ACOMINAS is an integrated coke plant, with a capacity of about 2 million tons of crude steel. ACOMINAS's management is considering, as part of its improvement program, to increase its output to 2.4 million tons by using a Soviet process. This would help decrease the fixed costs of operation. In 1987, its first year of operations as an integrated plant to produce semi-finished products, ACOMINAS shipped about 1,647,900 tons of semi-finished products (slabs, blooms, billets). During the following years, the volume of shipment remained very stable at about 1.75 to 1.8 million tons per year. Exports have steadily increased from about 35% of output in 1987 to close to 60% in 1990. Major exports are directed to the Middle East and Southeast Asia. On the domestic market, the bulk of the billet sales goes to Mendes Junior, a private company producing rebars. A renewable contract is in force with Mendes Junior for about 36,000 tons per month or about 50% of the domestic sales. ACOMINAS covers the domestic demand adequately for blooms and billets. The slab market is very volatile and demand is totally dependent upon CSN, USIMINAS and COSIPA, which are self-sufficient under normal conditions. Domestic slab demand is therefore linked to blast furnace shutdowns for repairs or unexpected shutdowns of blast furnaces and/or steel-making plants, of the other flat products producers.

101. The table below shows the evolution of the relation between domestic and export selling prices, in the case of ACOMINAS operations.

Table 19
Relation Between Domestic and Export Prices
(US\$/ton FOT Works)

	<u>Billets</u>	<u>Blooms</u>	<u>Slabs</u>	<u>2nd Grade</u>
<u>1987</u>				
Domestic	165	-	172	-
Export	148	-	153	-
D/E %	111.5	-	112.4	-
<u>1988</u>				
Domestic	180	218	242	168
Export	201	185	234	171
D/E %	89.6	117.8	103.4	98.2
<u>1989</u>				
Domestic	233	259	261	210
Export	231	221	226	183
D/E %	100.9	117.2	115.5	114.8
<u>1990</u>				
Domestic	212	268	205	204
Export	208	195	185	156
D/E %	101.9	137.4	110.8	130.8
<u>1991 (jan-may)</u>				
Domestic	208	284	210	214
Export	209	214	200	-
D/E %	99.5	132.7	105	-

Domestic prices for semi-finished products in Brazil are generally higher than export prices, as it is usually the case under normal conditions in free market countries. ACOMINAS cannot, therefore, expect to improve its financial performance from much better prices, as it is the case for the other two companies, CSN and COSIPA. ACOMINAS' sales revenues would increase significantly only if their two rolling mills for finished products are completed.

102. *Technology and Efficiency.* ACOMINAS operates very close to capacity. The quality of its products is fair with 1.2% to 6.4% of second-grade products. Little hard

data were released by ACOMINAS, and it is therefore difficult to have a more precise assessment of physical performance of production facilities. It is however fair to assume that the performance of their operating facilities is equivalent to other Brazilian producers. However, the overall performance is lower due to the lack of continuous casting machines.

103. Costs of Production. It has not been possible to prepare the same analysis on costs of operation as for CSN and COSIPA due to lack of adequate information. However, in extracting an average cost from the income statements, some general conclusions may be drawn. The cost presented below is the average cost per ton of the product mix of sales in 1990.

Table 20

Production Costs
Blooms, Billets, and Slabs

(US\$ per ton)

<u>Costs</u>		<u>Import Price</u>	
Operating Costs:	190.0	Import FOB Antwerp	215
Depreciation*:	1.5	Freight & Insurance	25
Financial Exp.:	98.9	CIF	240
TOTAL:	<u>290.4</u>	Port Charges	<u>25</u>
		<u>Total Landed</u>	<u>265</u>

Domestic Price: 210.00 (FOR works)

Export Price: 207.00 (FOR works)

Relationship:

Import Price	=	100
Operating Costs	=	72.3
Total Cost	=	109.6
Export Price	=	78.1
Domestic Price	=	79.2

Although the above analysis is oversimplified, it shows that ACOMINAS can produce competitively with border prices, provided financial expenses are brought back to normal. The domestic prices were low as compared with import equivalents, but were slightly above export prices.

104. **Financial Condition.** ACOMINAS has registered losses in all years since the start of operations, except in 1989. Unfortunately, lack of information does not permit to make a firm judgement on the cause of such losses, but main factors appear to be: (a) low product value internationally (semi-finished, except slabs, do not have a large market and fetch low prices); (b) high financial expenses on short term debts (except in 1989, the current ratio has been consistently below 1.0). The situation appears to have improved in 1991.

105. **Investment Needs.** As mentioned in para. 93, the two rolling mills which were included originally are 75% completed. Their completion is probably economically justified as it would allow ACOMINAS to produce and sell medium, heavy sections and rails which would increase significantly its profit margins as compared to its current one based on the sales of semi-finished products. Additional investments to complete the above two rolling mills are estimated at about US\$ 320 million (205 million for heavy sections and 115 million for medium sections). In addition, the company would need a continuous caster.

106. **Privatization Prospects.** As it is, the plant will remain marginal economically. It could probably sell to a group of its main clients, but for a low price, even after financial restructuring. Obtaining a higher value for ACOMINAS will depend on the financial and economic justification of implementing the above-mentioned investments, and on an assessment of the domestic market for rails and large structural shapes today. Not enough information is available to make a judgement on this subject.

September 14, 1992

Table 21

BRAZIL: Steel Sector Privatization Study
Comparison of Physical Performance of Major Steel Producers

Factors	Year	COSIPA	CSN	ACOMINAS	USIMINAS	CST
Fuel Rate kg/ton	1987	519	509	472	471	459
	1988	489	512	468	493	465
	1989	481	519	690	473	666
	1990	491	502	n.a.	491	495
Ingot Liquid Steel	1987	97.9	97.5	98.1	98.3	98.4
	1988	97.9	98.1	98.4	98.2	98.0
	1989	98.1	98.0	98.7	98.3	97.8
	1990	98.5	97.6	n.a.	98.6	97.6
cont. cast ratio %	1987	2.0	82.0	0.0	77.6	0.0
	1988	18.6	83.2	-	80.2	-
	1989	30.5	89.6	-	80.6	-
	1990	35.7	94.3	-	87.5	-
Slab Liquid Steel (cont. cast.)	1987	95.7	97.6	-	97.7	-
	1988	96.6	98.6	-	97.7	-
	1989	97.5	98.2	-	97.6	-
	1990	98.0	98.3	-	97.7	-
Slab Ingot (slabbing mill)	1987	91.2	90.8	88.4	87.7	89.5
	1988	91.1	93.1	91.0	88.2	90.0
	1989	91.2	90.2	91.5	88.0	90.7
	1990	91.8	90.5	n.a.	87.0	89.9
Plate Slab	1987	91.1			95.1	
	1988	n.a.			n.a.	
	1989	98.4			99.6	
	1990	90.0			99.0	
HRC Slab	1987	97.6	98.2		98.4	
	1988	97.4	97.1		98.2	
	1989	98.3	97.7		98.3	
	1990	97.4	97.7		98.3	
CRC HRC	1987	100.0	99.8		100.0	
	1988	100.0	99.7		100.0	
	1989	100.0	99.9		100.0	
	1990	100.0	99.9		100.0	

Annex 1: Table 22

PROFILE OF STATE OWNED STEEL COMPANIES - 1990

	CSN	USIMINAS	COSIPA	CST	ACOMINAS
FOUNDED/INITIATED OPERATIONS	1941/1946	1956/1962	1953/1963	1976/1983	1975/1985
LOCATION	VOLTA REDONDA, RJ	IPATINGA, MG	CUBATAO, SP	SERRA, ES	OURO BRANCO, MG
PORT	PORTO SEPETIBA, RJ	PRAIA MOLE, ES	CUBATAO, SP	PRAIA MOLE, ES	PRAIA MOLE, ES/RIO, RJ
COMPETITIVENESS					
- DOMESTIC	YES	YES	YES		COULD BE IF PLANT
- INTERNATIONAL	YES	YES	LESS	YES	IS COMPLETED
COMPETITIVE STRENGTHS	ONLY DOMESTIC PRODUCER OF COATED PRODUCTS	QUALITY, SERVICE, & EFFICIENT PRODUCTION	LOCATION: NEAR PORT & MAIN MARKET (SP)	GOOD TRANSPORTATION INFRASTRUCTURE; LOW PRODUCTION COSTS	
OWNERSHIP STRUCTURE (%) (1990)	SIDERBRAS 99.96 OTHERS .04	SIDERBRAS/BNDES 94.79 NIPPON 4.65	SIDERBRAS 99.98 BNDES .01	SIDERBRAS 76.0 KAWASAKI 13.0	SIDERBRAS 99.9 OTHERS .01
EMPLOYMENT	17,500	13,500	14,000	8,900	5,535
PRODUCTIVITY - tons per man year (1990)	207	300	178	474	n.a.
MAIN PRODUCTS	SLABS, COATED HOT & COLD ROLLED SHEETS & COILS, TINPLATE, GALVINIZED SHEETS, CARBON STEEL, LONG PRODUCTS	UNCOATED HOT & COLD ROLLED SHEETS & COILS, BLACK PLATES	UNCOATED HOT & COLD ROLLED SHEETS & COILS	SLABS	SLABS, BLOOMS & BILLETS
PRODUCTION (1000 TONS)					
CRUDE STEEL	2,848	3,464	2,901	1,986	1,933
ORDINARY STEEL FLAT PRODUCTS	2,793	3,107	2,455	-	-
HOT ROLLED	1,274	1,156	995	-	-
COLD ROLLED	392	1,045	684	-	-
COATED	966	-	-	-	-
ORDINARY STEEL LONG PRODUCTS	44	-	-	-	-
SLABS	-	258	134	1,777	197
INGOTS	0	-	-	0	-
BLOOMS & BILLETS	0	-	-	-	1,526
STEEL PRODUCTION TECHNOLOGY	BOF & ELECTRIC FURNACE	BOF	BOF	BOF	BOF
CONTINUOUS CASTING (%)	94	88	36	0	0
FUEL RATE (KG/TON)	502	491	491	495	n.a.
ENERGY CONSUMPTION (Gcal/Ton Liquid Steel)	7.6	5.6	6.28	n.a.	n.a.
IMMEDIATE INVESTMENT NEEDS	US\$ 450 Million	US\$ 130 Million	US\$ 430 Million	US\$ 1.4 Billion	US\$ 320 Million

Annex 1: Table 23

=====				
COMPANY NAME: CSN				
	1987	1988	1989	1990
=====				
PRODUCTION - LIQUID STEEL	4,080	4,012	3,609	2,919
- CRUDE STEEL	3,984	3,925	3,514	2,848
CAPACITY UTILIZATION %	89	87	78	3
CONTINUOUS CASTING (%)	82	83	90	94
TOTAL SALES (1000 TONS)	3,379	3,407	3,370	2,672
- DOMESTIC MARKET	2,550	2,372	2,438	1,338
- EXPORTS	829	1,125	932	1,334
% EXPORTED	25	32	28	50
	1000 Cz \$	1000 Cz \$	1000 Hcz \$	1000 Cr \$
REVENUE FROM SALES	87,428,426	1,104,058,433	19,966,979	189,258,736
TOTAL COSTS	67,540,721	849,004,078	9,973,380	81,300,180
GROSS PROFIT	4,302,850	73,470,990	5,787,107	74,061,575
OP. EXPENDITURE & REVENUE	(35,796,440)	(338,603,083)	(6,184,903)	(195,474,542)
NET PROFIT (LOSS)	(41,013,421)	(368,718,002)	(422,747)	(127,324,781)
CURRENT ASSETS	35,900,231	341,858,386	10,696,275	165,884,418
CURRENT LIABILITIES	87,149,105	849,260,332	20,514,807	327,985,933
CURRENT RATIO	.412	.402	.521	.506
LONG TERM DEBT	n.a.	n.a.	n.a.	\$1.1 Billion
DEBT/ EQUITY RATIO	4.866	5.394	0.216	0.501

Annex 1: Table 24

=====				
COMPANY NAME: CST				
	1987	1988	1989	1990
=====				
PRODUCTION - CRUDE STEEL	3,456	3,241	3,270	1,986*
CAPACITY UTILIZATION %	102	95	96	58
CONTINUOUS CASTING (%)	0	0	0	0
TOTAL SALES (1000 TONS) (SLABS & INGOTS)	3,023	2,878	2,912	1,777
EXPORTS	2,612	2,671	2,645	1,843
% EXPORTED	81	94	88	95
	US\$ Million	US\$ Million	US\$ Million	US\$ Million
NET SALES	n.a.	624	755	n.a.
TOTAL COSTS	n.a.	507	530	n.a.
GROSS PROFIT		117	225	n.a.
OP. EXPENDITURE & REVENUE		(80)	(240)	n.a.
NET PROFIT (LOSS)	n.a.	39.8	147.4	(190)
CURRENT ASSETS	n.a.	342,000	656,174	496,220
CURRENT LIABILITIES	n.a.	365,000	338,430	363,073
CURRENT RATIO	0.63	0.94	2.01	1.37
LONG TERM DEBT	n.a.	n.a.	n.a.	\$420 Million
DEBT/ EQUITY RATIO	25/75	20/80	15/85	15/85

* Two blast furnace outages in 1990 curtailed production

Annex 1: Table 25

***** COMPANY NAME: ACOMINAS *****				
	1987	1988	1989	1990

PRODUCTION - LIQUID STEEL	1,848	2,120	1,971	1,975
- CRUDE STEEL	1,844	2,121	1,876	1,933
CAPACITY UTILIZATION %	87	102	95	99
CONTINUOUS CASTING (%)	-	-	-	-
TOTAL SALES (1000 TONS)	1,647	1,796	1,760	1,717
- DOMESTIC MARKET	1,066	867	693	638
- EXPORTS	581	929	1,067	1,069
% EXPORTED	35	52	61	63
	1000 Cz\$	1000 Cz\$	1000 NCz \$	1000 Cr \$
REVENUE FROM SALES	15,476,986	312,098,209	5,009,383	54,650,785
TOTAL COSTS	12,060,052	207,500,924	3,438,632	43,322,828
GROSS PROFIT	1,330,662	63,036,907	982,315	1,414,337
OP. EXPENDITURE AND REVENUE	(2,729,920)	(84,247,007)	(703,230)	(40,946,454)
NET PROFIT (LOSS)	(9,416,454)	32,913,030	213,778	(39,697,144)
CURRENT ASSETS	12,623,090	256,028,992	5,707,975	76,729,751
CURRENT LIABILITIES	21,341,848	275,649,502	5,060,102	119,320,972
CURRENT RATIO	0.59	0.93	1.13	0.63
LONG TERM DEBT	n.a.	n.a.	n.a.	n.a.
DEBT/ EQUITY RATIO	3/97	1/99	3/97	6/94

Annex 1: Table 26

***** COMPANY NAME: COSIPA *****				
	1987	1988	1989	1990

PRODUCTION - LIQUID STEEL	2,318	2,965	3,485	2,972
- CRUDE STEEL	2,261	2,894	3,406	2,901
CAPACITY UTILIZATION %	82	90	99	85
CONTINUOUS CASTING (%)	2	19	31	36
TOTAL SALES (1000 TONS)	2,352	2,605	2,722	2,505
- DOMESTIC MARKET	1,651	1,652	1,807	1,459
- EXPORTS	701	953	915	1,046
% EXPORTED	30	37	34	42
% REVENUE FROM EXPORTS	30	22	22	44
	1000 Cz \$	1000 Cz \$	1000 NCz	1000 Cr \$
REVENUE FROM SALES	33,155,384	748,148,713	13,942,778	178,775,904
TOTAL COSTS	21,752,553	629,116,112	9,872,257	173,160,745
GROSS PROFIT	5,481,409	1,639,233	1,022,085	21,588,826
OP. EXPENDITURE & REVENUE	(11,170,942)	(270,932,061)	76,583	9,128,836
NET PROFIT (LOSS)	(25,134,105)	(327,425,862)	995,810	(14,497,636)
CURRENT ASSETS	28,153,706	325,686,552	6,463,432	91,084,024
CURRENT LIABILITIES	72,538,268	554,925,651	10,625,970	237,630,670
CURRENT RATIO	.388	.587	.608	.383
LONG TERM DEBT	n.a.	n.a.	n.a.	\$695 Million
DEBT/ EQUITY RATIO	78/22	65/35	47/53	18/82

Annex 1: Table 27

COMPANY NAME: USIMINAS				
	1987	1988	1989	1990

PRODUCTION - CRUDE STEEL	2,874	4,120	4,395	3,467
CAPACITY UTILIZATION %	76	108	116	91
CONTINUOUS CASTING (%)	78	80	81	88
TOTAL SALES (1000 TONS)	3,788	3,566	3,746	3,163
- DOMESTIC MARKET	2,268	2,424	2,583	1,846
- EXPORTS	520	1,142	1,163	1,317
% EXPORTED	19	32	31	42
	1000 Cz \$	1000 Cz \$	1000 NCz \$	1000 Cr \$
TOTAL REVENUE		461,361,445	7,158,480	116,950,228
TOTAL COSTS		178,491,566	2,403,101	46,456,127
GROSS PROFIT		198,168,289	3,320,422	47,850,459
OP. EXPENDITURE & REVENUE		52,332,543	904,602	14,324,851
NET PROFIT (LOSS)		39,952,569	2,718,097	1,920,628
CURRENT ASSETS	22,714,592	293,462,334	5,387,400	60,088,465
CURRENT LIABILITIES	33,012,984	345,493,598	5,079,659	65,807,415
CURRENT RATIO	0.688	0.849	1.06	0.913
LONG TERM DEBT	n.a.	n.a.	n.a.	\$132 Million
DEBT/ EQUITY RATIO	52/48	46/54	29/71	36/64

==|| **ANNEX 2 - REFORMING THE FRAMEWORK OF SOES: CORPORATIZATION** ||==

1. The present structure and incentives of SOE businesses is an important obstacle to privatization. Because the job of privatizing the considerable assets of the state is likely to be a long process, it is essential in the meantime to improve the operation of SOEs, or at least keep them from deteriorating further. This will require "corporatization", i.e. the removal of a vast arrays of regulations which keep them from operating as private businesses.

A. Regulatory Controls Over Operations of State-Owned Enterprises (SOE's)

2. In Brazil, public enterprises are affected by a myriad of regulatory controls affecting their day-to-day operations as well as their investment plans. They range from minor nuisances (getting ministerial approval for staff to travel abroad) to major potential blockages on firm strategy (the extreme difficulty of establishing a joint venture, for instance).

3. The total number of regulatory norms which constrain managerial discretion over the day-to-day operations of public enterprises, as well as entry, expansion and exit from economic activities, is quite large, nearing one-hundred (Table 4.1 below). Public enterprises cannot operate as profit-maximizing firms with these norms. Moreover, regulatory fiat makes it difficult to evaluate how well a firm is managed and to disentangle factors responsible for the firm's profitability. Effective monitoring of management and making it fully accountable for the firm's performance depends on removing regulatory barriers that currently constrain the operation of public enterprises.

4. These barriers include norms regulating salary structures, job descriptions, and pension benefits; regulations which preclude firms from using credit and leasing markets according to their needs; controls preventing managers from adjusting prices in response to market conditions; legislation constraining the purchase of imported goods or acquiring of specialized services of foreign origin; restricting new investment including joint ventures; the obligation of disposing all non-fixed assets unrelated to the enterprises' "operational activity"; and many more.

**Table 4.1: NORMS REGULATING THE FUNCTIONING OF PUBLIC ENTERPRISES
BRAZIL -- 1990**

Major Areas	Regulatory Norms (number)	Sample of Key Constraints
Contractual Relations	22	Expenditure ceilings of the wage bill and employees and managers restrictions on wage rates; Top management earnings limited to 20% of maximum salary; No employee may earn more than a cabinet member; Changes in structure of salaries and jobs subject to government approval.
Finance	14	Borrowing, leasing in and other financial operations limited to December 31, 1989 balances; credit operations subject to Ministerial approval; up to one year for Ministerial approval of programs and projects which give rise to such operations; restricts application of cash balances; restricts application of cash balances to Treasury paper.
Pricing	1	Price changes subject to approval (unless otherwise stated), follow up and (informally) "jawboning".
Capital Increases	6	Capital increases through new share subscription by the public only if explicitly authorized by the President of Brazil; new allocations of capital to subsidiaries or investment in other firms subject to Government approval.
Disinvestment	4	Forces all enterprises to sell shares, commercial papers and related securities of firms operating in unrelated areas to its own; all transactions subject to government approval.
Imports and Leasing of Imported Goods	3	Imports subject to "similarity exam"; purchase or leasing of imported goods subject to limits approved by the President for the fiscal year.

Purchase of Engineering and Technical Consulting Services	3	Forbidden if similar services can be purchased from domestic firm; purchases from foreign firms need to be approved by parent Minister.
Transportation	8	Air and sea transport of goods and staff solely on domestic carriers.
Micromanagement	5	Budgetary resources cannot be allocated to purchase technical journals and similar items; Ministerial approval for traveling out of the country.
Advertising	6	Publicity services' bidding structured, evaluated and approved by Special Commission of the Presidency.
Foreign Offices	1	Cannot be created unless authorized by the President.
Pension Fund Administration	8	Establish pension value limits and allocate cash reserves of pension funds to paper of uncertain value and returns (FND obligations and CPs).
Procurement	5	Strict restrictions on direct purchases.
Planning and Budgeting	1	Detailed information submitted to parent Ministry.
Overseeing	1	Managerial actions and enterprise accounts subject to scrutiny by Congress and the "Tribunal de Contas da Uniao"
Auditing	3	Enterprises obliged to maintain in-house auditing bodies.

Source: Ministries of Economy, Infrastructure and selected state enterprises.

5. These controls make it impossible for managers to ensure a firm's profitability, remove accountability from management, and directly impinge on the prospects for successful privatization. Their removal would do away with a major barrier to privatization. Public firms should be fully corporatized to improve their current performance. This would enhance their value and ultimately make them more attractive assets to potential buyers. Moreover, once fully corporatized, management might undertake certain drastic steps that a recently privatized concern might be reluctant to do lest it were to face a political backlash.

The Government should therefore "prepare" the enterprise for privatization by granting management a much freer hand to undertake operational/investment measures as it sees fit, as long as it increases profitability and the value of the enterprise.

6. As further discussed in Annex 1, partial corporatization is already taking place in a number of steel companies. In particular, the formalization of performance plans and the implementation of restructuring programs aiming at cost reduction and increased efficiency. In addition, deregulation in the industrial sector has also exposed public companies to market forces and import competition. However, SOE managers are still constrained by many regulations which put them at a competitive disadvantage relative to their private competitors.

B. Corporatization

7. There are various ways of organizing productive enterprises in the public sector. None are perfect. But corporatization is a useful model for public enterprise restructuring and as an intermediate step in privatization. It has consistently produced large efficiency gains across a broad range of enterprises in the U.K., Australia and New Zealand, and would be a desirable approach to public enterprise reform in Brazil.

8. The Government should undertake a comprehensive program to corporatize all SOEs whether they are scheduled to be sold or not, with the objective of restructuring and adding value to the enterprise. This may involve extensive changes in laws and regulations surrounding the operations of SOE's, however, it would considerably help in improving their efficiency prior to privatization. Corporatization is a tool for increasing the efficiency of the contracting structure of SOEs and strengthening incentives for managers to make contracts that maximize gains from the interaction between suppliers, enterprise and customers. To overcome the factors that make SOEs behave differently than private corporations, steps must be taken to place SOEs on a similar incentive basis by:

- (a) maximizing the enterprise's exposure to the pressures of input markets and product market;
- (b) revising all current regulations unduly restricting the enterprise's manager control over personnel policies, input choices, sales and distribution strategies and pricing regulations not applicable to (or not enforced on) the private sector;
- (c) setting clear, measurable enterprise objectives;
- (d) Developing corporate plans and information systems;
- (e) Establishing measurable performance targets based on private sector norms of profitability;
- (f) providing management with authority to make the decisions that affect the enterprise's performance in relation to the objective;

- (g) Increasing the accountability of management by the use of boards of directors, and linking managerial remuneration to performance; and
- (h) Paying explicit subsidies for any non-commercial activities undertaken by SOEs;

9. In implementing a corporatization program, there are several steps that need to be taken if a systematic and consistent approach is to be achieved. There is considerable overlap between many of these steps and those undertaken in privatization. Accordingly, if the steps are taken in a corporatization program they are dealt with prior to the sale of the firm, making privatization virtually pro-forma. The most important steps are summarized in the paragraphs below.

10. **Strategic Review.** The implementation process should commence with a strategic review of the enterprise's existing managerial structure and market environment. The strategic review will:

- (a) identify the nature of the gains that can be expected from corporatization of the enterprise;
- (b) establish whether the existing regulatory regime promotes efficiency. If the regime fails this test, then deregulation must occur prior to the corporatization. In some cases it may be possible to establish an interim regulatory regime so that the other corporatization steps can be implemented prior to full scale regulatory reform. This has the advantage of achieving significant efficiency gains sooner than would otherwise be the case.
- (c) reveal the major impediments to corporatization (if any);
- (d) suggest a coherent, specific approach and timetable for corporatizing the enterprise; and
- (e) draw a corporate plan, including restructuring actions (organization, personnel, closures or spin-offs, financial, etc.).

11. During the strategic review, the existing managerial and non-managerial staff of the enterprise must be informed of the reasons for the review, the broad options under consideration, and the implications for their work and their future careers. This briefing process should not be overlooked, since the knowledge and experience of the existing employees and their motivation, will significantly influence the success of the corporatization process. This is especially true of managers whose understanding of the business will be of great assistance throughout the process. In addition, it is important to brief the press throughout the corporatization process, explaining the underlying rationale of increasing efficiency.

12. **Market Exposure.** Exposing the public sector enterprise to competitive pressure in product and input markets is the final element of corporatization. Competition (or the threat

of competition) through deregulation, and on general trade practices legislation, is the best way to control market power.

13. **Legislation and Appointment of Board.** An umbrella legislation for corporatized enterprises would be desirable. Then the shareholding Minister would appoint a Board of Directors. The Directors should have proven skills and successful track records in directing enterprises in commercial operating environment.

14. **Appointment of a Chief Executive Officer.** It would be the responsibility and prerogative of the Board to appoint the Chief Executive Officer. The CEO would be accountable to the Board. The Board members in turn are accountable to the shareholding Minister. The CEO should propose the management team, to be selected exclusively on grounds of professional competence, to the Board for approval. Stability in the management team and its commitment to reform and privatization are essential. Professionalism and stability are essential, as demonstrated by experience in some of the steel companies (Annex 1).

15. **Managerial Incentives.** Another hallmark of a corporatized enterprise is that the managers face performance-based rewards and sanctions. With shareholder value becoming the enterprise performance criterion, performance-based incentives would help align management's behavior with the owners' interests. Provided the enterprise's customers, and its other input suppliers, have adequate countervailing market power, these incentives also align management's behavior with the interests of society.

16. **Statement of Commercial Intent.** Following the CEO's appointment, it is the Minister's responsibility to negotiate with the Board a Statement of Commercial Intent, setting out:

- the commercial objectives for the enterprise;
- strategies for achieving those objectives; and
- financial targets, including dividend payments.

In negotiating this Statement, the Board and the Minister will require access to market-based financial data, externally validated business forecasts, and associated cash flow modelling results. Many SOEs have entered into Performance Agreements (Convenios de Desempenho) under the Collor Administration, however, the autonomy granted to managers has been limited. Also, financial rewards managers for good performance remain to be defined.

17. **External Performance Monitoring.** External performance monitoring is a key element of corporatization. Given the objective of adding value for shareholders, the share value of the enterprise relative to other comparable equities must be monitored. The shareholding minister will need to appoint an external monitoring agency to monitor and advise on the performance of the Board.

18. **Valuation, Capital Structure and Financial Targets.** A comprehensive commercial valuation of the enterprise upon its corporatization is a pre-requisite for value-based monitoring. The valuation, based on the enterprise's commercial business plan and

associated cash flow modeling, coupled with research on the performance and financial structure of other comparable enterprises (in Brazil and overseas) will yield information on the total asset value of the enterprise and provide for establishing the enterprise's initial capital structure. It will also suggest what the initial rate of return target and dividend policy should be. The value of the enterprise and initial capital structure, like the financial targets and other aspects of the Statement of Commercial Intent, are negotiated between the Minister and the Board. A commercial capital structure needs to be provided in order to establish a sound commercial managerial incentive structure, because continuous monitoring by debt-holders provides key market signals to management. Proper valuation of the enterprise's assets and net worth early-on are very important to avoid later political difficulties at the privatization stage, resulting from large deviations between book values of assets and their actual earning power. Private debt, and by analogy SOE debt, would not be guaranteed by the government, but financial restructuring of the company will be necessary first if excessive debt payments render operations unprofitable.

19. The corporatization process would be complete when the Board and the CEO are appointed, the regulatory regime and initial valuation are undertaken, and the capital structure and Statement of Commercial Intent are completed. As illustrated in Annex 1, corporatization is being partly implemented in Brazil. However, the process needs to be comprehensive in order to be effective. It is therefore recommended that the whole matter of public enterprise reform be addressed as a matter of priority.

September 14, 1992