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Structural Adjustment and Privatization in Brazil

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SUMMARY

STRUCTURAL ADJUSTMENT AND PRIVATIZATION IN BRAZIL*

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I- Introduction

There are different ways to look at the evolution of the Brazilian economy over the recent past. Unfortunately, looking at its performance over the last 13 years does not produce one of the most favorable views. Since 1980 Brazil has undergone a combination of recession and inflation that led to a marked expansion of poverty and a deterioration in income distribution. In this period GDP has grown 22.5%, while the population expanded about 28.2%, resulting in a 4.4% decline in per capita income. The industrial sector produced in 1993 only 8% more than it did in 1980 (17% less in per capita terms), while manufacturing output showed a small 2% expansion in this period. Per capita consumption in 1993 was back to 1977 levels.

A sharp contraction in investment accompanied the slow-down in output growth. Average investment rates dropped from 23.3% of GDP in the seventies to 18.2% in the eighties and 14.7% in the beginning of this decade (1990-93). The quality of investment also worsened. Proportionately less was invested in machinery and equipment and even less in imported machinery. As a consequence, total factor productivity growth in manufacturing declined from 3.5% per annum in the 1950s to 2.5% in the 1960s and 1970s and 1% in the 1980s.

The deterioration in the real side of the economy has not curbed inflation. In contrast with an average annual rate of 40% in the 1970s, inflation averaged 580% in the 1980s, surpassing 2500% in 1989. In 1993 prices went up 25.6 times. The last 7 years have witnessed a series of 5 unsuccessful heterodox stabilization plans. All these plans included price freezes and changes in established contracts, and, although unable to contain inflation, contributed to increase uncertainty and diminish government credibility.

Only recently has the current government launched a three-phase program to stabilize the economy. Differently from previous attempts, the government has begun by eliminating the public operational deficit (Phase I), in this way addressing the fundamentals first. In Phase II, beginning March 1st, 1994, a new and ingenious indexing mechanism was gradually introduced as a way of synchronizing most prices and wages as well as inflationary expectations. In July 1st, as most prices and wages had been converted to this system, Phase III was started with a change of currency and a drastic reduction in inflation rates

Recession, the concession of fiscal incentives, the loss of government credibility, tax evasion and the acceleration of inflation led fiscal revenues to a sharp decline. From 1984 to 1989 gross public revenues stabilized at 22% of GDP, down from an average of 25% of GDP in the 1970s. In 1992, gross public revenue fell to 20% of GDP. The 1988 Constitution compounded the public finance problem. The new Constitution transferred from the federal to state and local governments a significant share of total fiscal revenues, doing very little towards redistributing expenditures. The result was an absolute inconsistency between duties and means, especially at the federal level, that although previously existent was much less significant.

With the acceleration of inflation and the decline in per capita output real wages have declined considerably. In 1992, the minimum wage bought only 50% of what it did in the early 1980s. Employment in the modern sectors of the economy has been drastically reduced -- in the Sao Paulo industrial sector alone, 450 thousand workers were laid off in the 1990-92 period. In 1993, in spite of an 11.3% expansion in output, employment in Sao Paulo's industry went down 2.7% The slack demand for labor pushed the less qualified workers to informal, low productivity and underpaid jobs. The increase in unemployment and the inability of the poor to protect their earnings from the inflation tax contributed to worsen income distribution.

There is, however, an alternative, more optimistic perspective to analyze the evolution of the Brazilian economy over the last years. In fact, quite a bright picture arises when one looks at the structural reforms implemented since mid 1980s. Trade liberalization, privatization, the end of price controls, a reduction in entry and exit barriers, the enactment of legislation protecting competition, a more open attitude towards foreign investment, and a sharp reduction in the red tape in the life of citizens has changed the economic landscape in Brazil. Although hidden by the difficult macroeconomic situation, very dramatic steps have been taken towards modernizing and integrating the economy to the rest of the world, forcing firms to compete, using the market to orient resource allocation and diminishing state intervention.

This paper looks at this alternative, brighter side of things. Its objective is to give a brief account of the structural changes under way in Brazil. Next section reviews the changing role of the state in the Brazilian economy

Sections 3 and 4 describe, in turn, the programs of trade liberalization and deregulation of the domestic market that have been implemented since late 1980s. Special attention is given in this paper to describing how the privatization process is faring, a task undertaken in section 5. This note concludes with an assessment of the impacts of these policies on firms' behavior and with some comments on how further change may be accomplished.

2 - The Changing Role of the State

The problem of development, as seen by Third World economists and policy makers after the Great Depression, could not be resolved by simply letting market forces hold their sway. The absence of private businessmen with significant amounts of capital, the lack of capital markets, the inflexibility in the labor market, and the existence of sectors showing increasing returns to scale, prevented mere competition between agents from allocating resources efficiently.

In Brazil, this was the diagnosis which led to marked state intervention in the economy. The state would induce sector resource allocation, trying to stimulate private investment through trade, industrial and credit policies. In sectors where private initiative was incapable of or not inclined to invest, or in activities where technological and/or market factors favored monopolies as an optimum solution, the state would resort to the creation of the state-owned enterprises (SOEs). Furthermore, active participation by the state was consistent with the choice of industrialization through import substitution as a development strategy. The top priority was expanding domestic production and avoiding creation of idle capacity. Efficiency was relegated to the back burner.

The first questioning of state intervention became apparent in the 1970s, after the first oil shock, with the deterioration of the external accounts, the slow-down in output growth and the intense dispute for markets and scarce resources between private entrepreneurs and SOEs. As a response to the tensions that arose, the government created the National Debureacratization Program and the Special Stat e Enterprise Secretariat in 1979, and the Special Privatization Commission in 1981. Nevertheless, efforts to change the role of state intervention were concentrated in the 1980s on attempts to contain the expansion of the state productive sector. Structural reforms played an ancillary role in economic policy.

In Brazil and in most of Latin America one would observe in the 1980s a growing demand for changing state intervention in the economy towards what Williamson (1990) termed the "Washington Consensus" and the World Bank (1991) called "market-friendly policies". The main motivation for this change of perceptions would remain, however, the macroeconomic crisis. As stated by a learned spectator:

> "The new commitment to reduced state participation (...) comes less from newfound ideological conviction in the virtues of the market than from ineffective macroeconomic policy in the 1980s. The principal problem confronted by the countries of the region [Latin America] is a fiscal shortfall, not massive inefficiency resulting from misallocation of resources." [Fishlow, 1990, p. 62].

Two other trends also contributed to change. First, the successful assault by the neo-classical school on the precepts underlying the developmental state. New theoretical constructs were developed to show how and why the state can fail. At the same time empirical evidence was compiled to prove that in fact this took place quite frequently. Several authors showed that development economists, eager to identify flaws in the market, failed to perceive that the state too is hardly ideal. Indeed, these authors argue, bureaucracy failure can be more detrimental to development than market failure.1/ The 1980s also witnessed the aggressive pro-market policies of President Reagan and Prime Minister Thatcher, who deregulated markets, sold off SOEs, cut taxes down and pursued other free-market policies. These ideas and experiences echoed widely in Brazilian society to the point where, by the turn of the decade, it had evolved into considerable support for reduced state intervention, support which was not in evidence in the early 1980s. By the end of the decade the call for reforms was loud and clear.

Second, swift technological advances in the past decade have transformed the means of producing and selling goods and services. New standards of competitiveness have been defined and the requirements of flexibility, agility and competence have been imposed on the management of companies. SOEs, hampered by a series of outdated and inflexible norms characteristic of the public sector, became increasingly incapable of facing stiff competition in an open

1/These points are critically reviewed and analyzed in Shapiro and Taylor (1990) and Fishlow (1991), who also present broad literature on the subject.

economic environment. Meanwhile, the Third Industrial Revolution created new demands on areas which have traditionally been the state's responsibility, such as education, health and the physical and legal infrastructure

These ideas were widely reflected in the *Política Industrial e de Comércio Exterior* (PICE - Industrial and Foreign Trade Policy) launched by the Collor government in 1990. Broadly speaking, PICE aimed at establishing policies that were stable, transparent and horizontal, that is, that gave across the board incentives to all sectors, restricting intervention on sector allocation to a minimum. PICE was structured around three government programs. *Programa de Apoio a Capacitacao Tecnologica da Industria* (PADCT - Program for the Support to the Technological Improvement of Industry), that recognized the private sector as the core of technological innovation and aimed at increasing expenditures in science and technology from 0.5 percent of GDP, observed in 1989, to 1.3 percent of GDP by 1994. *Programa Brasileiro de Qualidade e Produtividade* (PBQP - Quality and Productivity Brazilian Program), that aimed at stimulating private firms in all sectors to increase productivity and improve the quality of their products. Programa de Competitividade Industrial (PCI - Industrial Competitiveness Program), that had as its objective to support sectors in which Brazil has a dynamic comparative advantage. Above all, PICE relied on reducing state intervention in the economy -- through trade liberalization, deregulation and privatization -- while enhancing the role played by the private sector.

3 - Trade Liberalization

To understand the recent trade liberalization process it is useful to go back some 20 years and see how Brazil became one of the most closed economies in the world. Brazil reacted to the first oil shock by extending the import substitution process to the capital and intermediate goods sectors. In 1974, the government raised tariff and non-tariff barriers, introduced a negative list for imports,[2/] established the requirement of advanced deposits for imports, restricted imports on concessionary terms and made more rigorous the application of the law prohibiting the importation of goods with domestic substitutes. Although successful in sustaining output growth, raising investment levels and

[2/] That is, a list of products for which no import license could be issued.

diversifying the industrial base, this strategy caused Brazil's foreign debt to snowball, while doing very little to reduce the country's dependence on imported oil.

As a consequence, Brazil was severely affected by the second oil shock and the concomitant increase in international interest rates. With the sharp deterioration of Brazil's external accounts in early 1980s, trade policy was entirely subordinate to macroeconomic objectives. The negative import list was substantially expanded to cover 40% of all tradable goods in 1983, while firm import programs and import financing became mandatory. Administrative procedures became the main instrument to control imports, leading to rent seeking and informal arrangements.

On the export side, credit and financial subsidies substituted for the lack of an exchange rate devaluation. The active policy of export promotion, originally designed to compensate the anti-export bias of the import substitution strategy, was strengthened and geared towards producing a trade surplus. In 1981-82, firms received incentives worth 74 cents for every dollar exported of manufactured goods. Export promotion in the 1980s provided significant stimulus for sector reallocation of resources. In addition to heavily discriminating against agriculture, this policy favored capital-intensive at the expense of labor-intensive exports (Pinheiro et alli, 1993).

This strategy was quite successful in producing large trade surpluses, that in 1984 amounted to US$ 13.1 billion, in contrast to a trade deficit of US$ 2.8 billion in 1980. Brazil would become, however, one of the most closed economies in the world. Concerns were also raised as to whether export competitiveness would outlive the end of government incentives. These policies were clearly not sustainable. Therefore, as the foreign exchange constraint lessened, Brazil gradually moved towards a more open, transparent and neutral trade policy.

Since 1988 Brazil has progressively reduced protection to domestic producers. Two reforms, in 1988 and 1989, brought the average tariff on imports down from 51 to 35%. Most non-tariff barriers were eliminated in 1990. The prohibition to import some computer products ended in October 1992. In addition, the government adopted a pre-announced schedule of tariff reductions that gradually brought the average nominal import tariff down from 32.2% (with a discrepancy of 19.6%) in 1990 to 14.2% (with a 7.9% discrepancy) in the second semester of 1993. Since July 1, 1993 nominal import tariffs range from 0 (for commodities and goods for which Brazil has a clear comparative advantage) to 35% (computers). Since the new round of tariff reductions that took place in September 1994, most manufactured goods carry a tariff of 14% (down from a previous level of 20%). The relevance of this drastic tariff cut can be better evaluated when one sees that the average effective tariff dropped from 32% in 1991 to 17% in 1993, while the United States (8%) and Japan (13%) kept their rates constant. (Delfim Netto, 1993).

On the export side trade policy has also become more neutral since mid-1980s and especially after 1990. Several subsidies were discontinued in 1983-85. As the Collor government took office, export subsidies were eliminated and incentives were reduced to a minimum. As a consequence, the value of incentives fell from an average of 3% of GDP in 1981-84 to 1.3% in 1990-91, despite the significant expansion of exports in the mean time.

The impact of trade liberalization has been dramatic. Non-oil imports jumped from US$ 16.3 billion in 1990 to US$ 23.6 billion in 1993, a nominal increase of more than 45%, or 13% per year. In real terms, non-oil imports trebled from 1984 to 1992, with capital goods imports increasing five-fold in this period, an annual growth of 22%. This strongly stimulated the economy's internal competition, while allowing the modernization of Brazilian firms. Stiffer competition and easier access to foreign technology and intermediate and capital inputs allowed the economy to improve its international competitiveness. Therefore, despite the reduction in fiscal and credit subsidies, exports continued to expand, moving from 31 billion dollars in 1991 (54% manufactured products) to nearly 39 billion in 1993 (61% of that manufactured); an annual growth of 8%. Trade surplus has been kept on outstanding levels: 15.3 billion dollars in 1992 and 13.1 billion in 1993.

Another remarkable development in Brazil's trade policy over the last decade has been the establishment of Mercosur, a common market comprising Argentina, Brazil, Paraguay and Uruguay. The origins of Mercosur date back to the signature of the Economic Cooperation and Integration Program between Argentina and Brazil in July 1986. Formally, however, Mercosur was established through the Assuncion Treaty, in March 1991. Trade among the four members of

Mercosur now enjoys a 89 percent reduction in import tariffs. This reduction will increase to 100 percent in January 1995, when a free trade zone will be established. With the signature of the Assuncion Agreement, trade among the four countries doubled from US$ 4 billion to US $ 8 billion.

Two obstacles remain in the way to the successful implementation of a common market among the four members of Mercosur. First, the difficulty to achieve macroeconomic coordination, given, until very recently, the high rates of inflation in Brazil and the continuous appreciation of the exchange rate in Argentina. Second, the disagreements over a common external tariff. So far the members of Mercosur have concurred to set tariffs between zero and 20 percent for 85 percent of the goods. For the remaining products, which include some capital and computer goods, chemicals and petrochemicals tariffs may be initially set above 20 percent, but will have to gradually come down to this lower level over a six- to twelve-year period.

Future developments in Brazil's trade policy will address the need to further reduce the domestic price of imports, to eliminate residual non-tariff barriers, to increase export competitiveness, and to integrate a larger trade block. Although the level of protection has been drastically reduced, the cost of imports remains higher than in most similar countries, like Argentina, Chile, Korea and Mexico. In fact, adding to the most frequent tariff of 14% the costs of transportation and other customs expenses, one obtains a nominal protection of 39%. Mercosur will force tariffs to be further reduced. In addition, deregulation of ports' operations and privatization of port facilities will help to reduce the domestic price of imports, since Brazil's ports rank among the least efficient and most expensive in the world. On the other hand, domestic pressures will increase for Brazil to develop modern institutions to protect her industry from unfair trade practices. On the export side, key elements will be the reduction of shipping costs, including port expenditures, and the provision of credit and insurance for exporters at internationally competitive costs.

In the future, Brazil will remain committed to establish a South American Free Trade Association, joining Mercosur and the Andean Pact. It is less likely, but possible, that Brazil enters, in the next years, into a hemispheric trade agreement. Brazil's interest to take that step in the long term, however, could be sensed from the support President Bush's Enterprise for the Americas initiative has received. An agenda for the negotiation of such an agreement would have to include, however, issues such as: (i) where transnational corporations would be located, to prevent trade liberalization from causing an outflow of foreign capital; (ii) the access to new technologies; and (iii) financial support from the USA and Canada to reduce the gap in income and productivity levels.

The end of Cold War has changed the OECD's agenda for Brazil from essentially strategic issues to economic subjects. This pattern has already been observed in the last years, when Brazil has entered a growing number of trade disputes. The successful ending of GATT's Uruguay Round will help to iron out some of these contentions but not bring them to an end. In the next years the pressure will remain for Brazil to further liberalize her trade policy, establish rigid regulations protecting intellectual property rights, liberalize trade in services and end discrimination against foreign investment. From the Brazilian point of view, the main issues will be the elimination of non-tariff barriers to Brazil's exports (especially the discrimination inherent in the application of antidumping duties), the access to modern and sensitive technology, and the end of subsidies to agricultural exports. Environmental issues, especially rain forests, industrial pollution and non-tariff barriers, such as green stamps, are also bounded to gain importance.

4 - Deregulation

Brazil has taken other significant measures, besides trade liberalization, to enhance competition in what used to be her sheltered domestic markets. These measures have been implemented by the Federal Deregulation Program (FDP), established in March 1990. This program has two components. One is directed at eliminating redundant legislation and reducing the red tape in citizens' lives. The other is aimed at fostering competition and protecting consumers.

The scope for reform is immense, as can be sensed by some of the measures implemented so far:

. from March 1990 to February 1992, 113,768 Decrees out of the 123,370 issued in the last hundred years were revoked. In the previous hundred years only 6550 Decrees had been canceled. Documentary, tax, and utility billing procedures were substantially simplified. Bills may now be paid in lottery shops and discrimination against non-clients in banks was forbidden. Shops were allowed to open on Sundays. Consumers were allowed to hold international credit cards and to import directly using the post office;

since January 1993 a computer based system, SISCOMEX, has substantially simplified the paper work involved in exporting and importing;

. government monopolies for exporting coffee and sugar and importing wheat were abolished in 1990. For many other products, such as steel, prior government approval for exporting and importing was removed;

. the minimum national content level a project needed to qualify for subsidized government credit was reduced from 85 to 70 percent;

. in January 1991 the anti-trust law enacted in 1962 was reinforced by new and more stringent legislation (Law 8158), with the explicit objective of fostering domestic competition and complementing trade liberalization. More recently, a new anti-trust law (Law 8884) was passed, consolidating the legislation on competition (revoking Laws 4137/62, 8002/90 and 8158/91), while establishing harsher penalties and more expeditious law enforcement than in the past;

since March 1991, a Consumer Protection Law (Law 8078) approved in September 1990 has made firms liable for the quality of their products and the truthfulness of their advertising;

in February 1992 an internal drawback system was established, giving to domestic suppliers of exporters the same fiscal benefits afforded to imported inputs. Controls over trading companies were also simplified;

. micro-enterprises were allowed to import directly and had their participation in SOEs' procurement eased;

. regulations that hampered competition in the insurance sector were partly abolished.

The most significant impacts of deregulation will arise in the non-tradable sectors, such as transportation, commerce, telecommunications, energy, construction and others, in which markets are rather concentrated, often served by a single firm, and that do not benefit from the discipline imposed by imports or the threat of new entrants. Measures to enhance competition in these sectors include:

. civil air transport was liberalized, with Decree 99677 (November 8, 1990) allowing price competition, giving firms more operational leeway and eliminating some barriers to entry;

. Law 8630 (26/2/93) liberalized port legislation, partially deregulating the hiring of workers, stimulating competition among ports, and allowing companies owing private terminals to service goods that not their own. Currently, there are more than 60 private terminals in Brazil, responsible for moving 70 percent of the 350 million tons exported in 1993. Thirteen of these private terminals operate with other firms' loads and 21 more are about to do the same. New investment is flowing into building or expanding port facilities. By the same token, competition has already lowered rates in some ports. At present the government is moving to privatize some small ports that used to belong to Portobrás (closed down in 1990);

. in October 1993, the government deregulated interstate and international road transportation, stimulating competition, establishing that concessions will be awarded by public tender and limiting the transportation concession to 15 years, as opposed to the indefinite concession period that prevailed before;

. the distribution of fuels and the distribution and transportation of steel were deregulated, with price equalization nationwide being discontinued and entry barriers eliminated;

. private participation in some telecommunications services was allowed;

. several measures were undertaken to attract foreign investors, including reductions in taxes paid on profit remittances, access to export credits, direct access to Brazilian capital markets, permission to participate in some formerly restricted sectors, and fewer and less restrictive controls over importation of technology. In addition, new and advanced legislation on intellectual property rights is being voted in Congress

Although a lot has been accomplished, even more remains to be done. Much of the legislation discriminating companies of foreign capital remains untouched. Deregulation still needs to reach several areas, such as inter modal transportation and the labor market. Public monopolies in telecommunications and oil need to be revoked. In addition, according to expert observers, the gains attained from eliminating barriers to free competition have been less remarkable than expected, because reforms have been of a partial nature and have not reflected a complete understanding of the dynamics involved (Abreu and Werneck, 1993 and Castro and Lamy, 1993). Institutions responsible for deregulation, fostering competition and protecting consumers, although strengthened in the recent past, remain understaffed and lack political backing. Brazil's tradition of policy instability and ineffective regulation, the emphasis given so far to use antitrust regulation to control inflation, and the weak commitment shown by the government to furthering the deregulation process make one uncomfortable as to how the program will unfold in the coming years.

5 - Privatization

Background

Brazil's first attempt at controlling the expansion of state enterprises came in 1979 with the creation of the Secretariat for the Control of State Enterprises (SEST). In its first census, SEST identified 505 institutions under public control, about half of which (268) were enterprises. Only 40 of these companies had been created by law and of the remaining 228 one third were bankrupted private companies the state had absorbed. Privatization would not begin officially, however, until 1981, when a presidential decree created the Special Privatization Commission. Over the rest of the decade (1981-89) the government sold 38 companies, transferred 18 to state governments, merged 10 into other federal institutions, closed four, and rented one. Most of the sales were reprivatizations of small companies and proceeds were minimal (and largely financed by the government).[3/]

The snail's pace of privatization in the 1980s was due largely to the lack of political commitment. As with de la Madrid in Mexico and Alfonsin in

[3/] See Werneck (1989), Pinheiro and Oliveira Filho (1991a) and Schneider (1991) on Brazilian privatization in the 1980s

Argentina, the Figueiredo and Sarney administrations tried to reform the state rather than change the development strategy. They emphasized reducing the deficit of state enterprises and cleaning up their finances by transferring a lot of their debt to the government.4/ In addition, ceilings were established for investment, current expenditures, and imports of public enterprises. These ceilings and other restrictions reduced the number of state enterprises among Brazil's 500 largest enterprises from 158 in 1980 to 80 in 1990.

Privatization was a major issue in the 1989 election, and President Collor made it one of his top priorities. The Collor government expanded the divestiture program to include large traditional state enterprises and embedded it in a broad program of market-oriented reforms which included trade liberalization and deregulation. The participation of foreign investors, forbidden in the 1980s, was allowed, though in a restricted form. In September 1992 President Collor was impeached and replaced by Vice-President Itamar Franco. The new administration promptly announced its intention to continue the privatization process. Few changes were introduced in the management and scope of the program. In practice, however, government support to the PND has dwindled considerably.

Institutional Aspects

The legal basis of the current privatization program consists of two Laws (8031 and 8250) and three Decrees.5/ These regulations have been supplemented by various resolutions issued by the National Monetary Council, as well as Central Bank circulars and Brazilian Privatization Program's (PND) Committee resolutions. The Privatization Committee (CD), consisting of 12 to 15 members, is the body responsible for conducting the PND's activities. Five of these members belong to the government. The Brazilian Economic & Social Development Bank (BNDES) is the government agency entrusted with implementing the directives established by the Committee. The CD's main duties are to submit to the President of the Republic the companies to be included in the PND, to approve the privatization model and terms of sale for the companies and to set the minimum price of the shares to be sold. In order to fulfill these tasks,

4/ In the steel sector alone, the federal government absorbed debts worth $8.2 billion between 1987 and 1989 (Passanezi Filho, 1993).

5/ A detailed description of the legal and institutional aspects of the PND may be found in Pinheiro and Giambiagi (1992) and BNDES (1991a and 1993).

BNDES selects via public tenders two consulting firms to handle each of the companies to be sold. The first consulting firm conducts an appraisal of the company, including recommendation of a minimum sale price, while the second, besides conducting an appraisal, points out obstacles to privatization, proposes solutions, identifies potential investors and, most important of all, suggests the sale model to be adopted. The government, however, has limited itself to defining a minimum price for the SOE on the basis of suggestions made by the consulting firms. The final sale price is determined by the market at a public auction.

The PND allows investors to use four types of currency to pay for the SOEs. First, Reais, the nation's present currency. Since January 1993, a floor has been established for the use of cash in the payment for the SOEs -- this floor is set, on a case by case basis, directly by the President of the Republic.6/ Second, medium and long term debt of SOEs, their parent companies and the federal public sector at large. So far, the following forms of domestic debt have been allowed in the PND: Brazilian Development Fund Bonds (OFNDs); Agrarian Debt Bonds (TDAs); Siderbrás debentures;7/ debts with the National Housing Program (Letras CEF), and other domestic securitized debts of the federal government or entities directly or indirectly controlled by it.8/ Third, Privatization Certificates (CPs), a security created in March 1990, which financial institutions and insurance companies were obliged to acquire, and that can be used only in the privatization auctions.9/ Fourth, foreign-held securities and credits corresponding to obligations of federal public sector entities. With the exception of some of the new bonds issued as part of the foreign debt renegotiation -- which are converted with a 25-35% discount -- all currencies are converted at face value.

Special rules were also established to regulate the participation by foreign capital in the privatization process. First, Law 8031 stipulated that a foreign investor could acquire no more than 40% of the voting capital, unless

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6/ With the first Collor stabilization program, in March 1990, a considerable share of the country's financial savings, then denominated in Cruzados Novos (New Cruzados), was withheld in the Central Bank. These savings were returned in 13 monthly instalments, starting in August 1991. While they existed, New Cruzados could also be used to purchase SOE shares.

7/ Siderbras is the former public steel sector holding company.

8 Because the government has defaulted on the interest and principal of these debts and because they trade in secondary markets at huge discounts, these debts have been broadly termed junk money.

9/ When CPs were created they had to be bought with cash. Later firms were allowed to use domestic debt securities to acquire CPs.

express authorization to the contrary had been voted by Congress. Since October 1993, however, several Provisional Measures were sent to Congress allowing foreigners to acquire 100 percent of the SOE's voting stock. Second, a minimum period of between two and three years, depending on the case, was established for purchase by foreigners of majority control of companies included in the PND. Third, it was established that capital converted in the privatization process could not be repatriated before six years.10/

Finally, it should be mentioned that the SOEs were authorized to acquire -- or, in the case of Petroquisa Group companies, to hold onto -- up to 15% of the capital in the privatized companies. Even though this measure clashes with some of the macroeconomic objectives of the program, it can nevertheless be justified from the microeconomic and/or industrial policy point of view.

Record to Date

The government has so far slated 64 enterprises to be privatized, 32 of which are or used to be controlled by the state, with the remaining 32 involving minority shareholdings. The list of these companies, as well as the values of certain relevant economic variables, can be found in Table 1. Nineteen of these 64 companies are among the 56 federal SOEs that rank among Brazil's largest 500 enterprises. Most companies selected for sale are in metallurgy, petrochemicals and fertilizers, sectors that used to comprise the bulk of state participation in manufacturing. Together the enterprises included in the PND so far accounted, in 1990, for roughly 20% of gross revenues, 30% of the net worth and 45% of the net fixed assets of all non-financial federal SOEs. Three SOEs -- Light, Escelsa and RFFSA -- answered for 5% of gross revenues, 13% of the net worth and 14% of the net fixed assets.

From October 1991 to October 1994, the Collor and Franco governments sold 32 state enterprises -- the last 17 in the Itamar Franco administration (Table 2). Revenues generated by these 32 sales amount to US$ 7,847.9 million. Domestic debt instruments were by far the most used currency: cash revenues amount to US$ 1043.6 million (13.3% of total), while foreign debt

10/ This term was initially established in 12 years, but was later reduced due to the lack of interest of foreign investors in the program, which also led the government to eliminate other restrictions initially imposed on foreign participation (Pinheiro and Giambiagi, 1992).

securities answer for about one percent (US$ 68.7 million) of total revenues. Banks, pension funds and industrial firms have acquired most of the shares auctioned (87.6%). Foreign investors and SOEs' employees, with acquisitions worth US$ 353.2 and US$ 281.6 million, respectively, played an ancillary role in the process.[11]

All around the world privatization involves two overriding goals. One is to shrink the state, in pursuit of improved economic efficiency. The other is to contribute to macroeconomic stabilization. According to the World Bank, however, governments should not hesitate between these two priorities:

> the economic benefits of privatization are maximized when governments make improved efficiency the number one goal (...) Maximization of revenue should not be the primary consideration. (Kikeri et al., 1992: 6).

To what extent has greater efficiency been a top priority of the PND so far? Not much, judging from the record to date. Due to the shortage of interested buyers, in only two cases, Celma and Petroflex, limits were set for the participation of certain buyers.12/ For the remaining auctions there were no restrictions as to the purchase of SOEs by their main competitors, customers or suppliers, to whom the companies have special value, since purchase permits them to obtain additional monopoly yields. This attitude contrasts with the received wisdom that is the enhancement of competition and not the change in ownership that turns SOEs more efficient after privatization.

Because privatization has been combined with trade liberalization and deregulation, its impact on the performance of the former SOEs has been, nonetheless, remarkable.[13]/ In the hands of private managers, these companies invested more, improved the quality of their products and increased their efficiency and productivity. In the steel sector, output expanded 5.2% in 1993,

11 These last figures do not include the recent 560.5-million-dollar sale of Cosipa and Usiminas stock.

12/ Limits were imposed on the shares each customer (airline companies and petrochemical producers, respectively) could acquire, so as to prevent verticalization.

13 Average customs duties on steel products declined from 18% in 1990 to 7.5% in July 1993, while distribution and transportation of steel were deregulated and price controls discontinued. Similar developments took place for petrochemicals and fertilizers.

with labor productivity rising 10% in Usiminas and 50% in CST and Açominas Exports increased, making Brazil the fourth largest steel exporter in the world. In the domestic market, the companies cut costs substantially and reduced prices by more than 15%. In the petrochemical sector, privatization permited the sector's industrial restructuring, with the establishment of strong private groups, able to compete internationally.

Three additional stylized facts about the relative performance of private and state-owned enterprises in Brazil are noteworthy:

. SOEs often have an excessive number of employees, especially in administrative functions. The large number of administrative workers is partly due to the need to comply with regulations specific to SOEs. The restructuring of the steel SOEs in 1990, for example, led to a 6% cut in staff; from 1989 to the first half of 1992, the total work force of CSN, Açominas and Cosipa dropped from 58,807 to 42,016, whereas daily output increased by 5%. After privatization, 400 of the 1,500 employees of the aircraft engine repair company Celma were dismissed, as were 700 of the 2,300 employees of Piratini, 2,000 of CST's 9,300 employees, and 1700 of ACESITA's work force of 8700 (the last three are steel producers). A similar pattern has been observed for other SOEs privatized.

. In Brazil, SOEs have historically had lower return on equity than private companies. In 1989, for instance, the return on equity of the largest SOEs was 3.1%, for private Brazilian companies it was 11.4%, and for multinationals it was 18.8%. Most companies privatized in the last two years have been able to increase their profitability after sale by reducing their work force and renegotiating contracts with suppliers, distributors and customers.

. When an SOE begins to get itself ready for privatization, productivity and profitability both increase <u>before</u> the sale to the private sector. In Brazil, for example, the steel-making SOEs managed to substantially increase productivity and to reverse their historic losses after being put on the "privatizable" list (although before actual sale occurred), in spite of the drop in steel prices in world markets. Vickers and Yarrow (1991) note a similar pattern in the case of English SOEs.

The privatization program has played an important role as a signal of the government's commitment to state retrenchment and public deficit reduction. Its fiscal impact, however, while not negligible, has been relatively small. Pinheiro and Giambiagi (1994) estimate the present value and annual fiscal impact of privatization in Brazil under different scenarios. The authors conclude that the most significant fiscal impact of privatization comes from the opportunity to forego the need to invest in the privatized companies. According to their estimates -- and providing that the PND succeeds in selling the remaining companies slated for sale, excluding Light, Escelsa and RFFSA -- the maximum annual reduction in the public sector's deficit that privatization could provide for would be 1.4% of GDP. This figure, however, is inconsistent with the current rules of the PND. It depends on very unfavorable assumptions regarding the economic value of the SOEs for the state; it would be observed only if SOEs' investments were substantially expanded (which, in turn, would increase the public deficit); and it would require changing the PND, so that SOEs are traded for short-term debt, rather than junk money. For the investment levels of the recent past and the swap of shares for medium- and long-term debt, the annual reduction in the public deficit would be about 0.4% of GDP.

What Lies Ahead

Privatization in Brazil is lagging, in relative terms, considerably behind other Latin American countries. Total revenues in the eighties and nineties, US$ 0,7 e US$ 7,8 billion, respectively, fall considerably short of proceeds in smaller economies (Table 3). Mexico, for instance, collected revenues amounting to US$ 23.4 billion, while Argentina in the last three years sold SOEs worth US$ 18.8 billion. In the same fashion, the 70 privatizations carried out so far compare poorly to the 900 conducted in Mexico or the 550 that took place in Chile.

Rough estimates of how much can be collected by selling the remaining SOEs also indicate that the privatization process still is at its very beginning. The net worth of the remaining federal non-financial SOEs is evaluated at US$ 26.7 billion. Considering that so far the ratio of the sale price to the net worth of the companies has been of 2.2, that the most attractive SOEs still have to be sold and that these estimates do not include the federal financial companies and the hundreds of state and municipal SOEs, one realizes that the privatization process in Brazil has only touched the tip of the SOE iceberg.[14]

In March 1994, the PND has evolved to include minority stakes held, directly or indirectly, by the state in a significant number of companies. About 600 minority stakes in private and state-owned companies have been included in the program which has adopted a simplified procedure for their sale; thus accelerating the program itself. The sale of the minority stakes and the unsold tranches of previous auctions is expected to generate about $1 billion in cash revenues.

Furthermore, several measures are being taken to streamline the privatization process. It is worth highlighting, in this respect, the delegation of power to the Privatization Steering Committee to simplify procedures for evaluating and fixing the minimum sale price in the case of auctions of minority stakes, of small- and medium-sized companies and of public companies with shares traded in the stock market; as well as for the disposal, leasing or assignment of assets or facilities of companies.

In addition to predictable political resistance, foreseeable obstacles to extending the PND to the rest of the SOE sector include problems with financing, regulation and the sale model. Brazil's privatization program is heavily dependent on the possibility of acquiring the companies through debt-equity swaps. As of September 1994, however, the initial US$ 13 billion stock of domestic debt instruments accepted by the PND was reduced to US$ 6 billion, an amount insufficient to finance the acquisition of the large public utilities. Legal dispositions restrict the use of part of this debt. In addition, foreign creditors have so far showed very little interest in using the stock of US$ 38 billion in foreign securities to buy SOEs. One may predict, therefore, that unless new domestic debts are securitized and accepted as PND's currencies, the program may falter in the next years. Hopes to circumvent this problem are centered in three possibilities. First, the securitization of other public debts, such as those of the Housing Program (FCVS) and of the SOEs in the electricity sector. Second, that with the end of Brazil's foreign debt negotiations the use of foreign securities becomes more attractive. Third, and most important, that the so-called "social currencies" -- FGTS, PIS/PASEP and INSS -- are introduced in the PND. In

14/ See Mello (1993) and Pinheiro (1994) for further discussion of this topic.

particular, the privatization process may be instrumental in changing the social security system as was done in Chile.

The extension of the PND beyond the manufacturing industry will require changing the way the program has functioned so far. In particular, to successfully privatize SOEs in the electricity, communications, gas, water, sewage and transportation sectors, the PND will have to work hand in hand with the Federal Deregulation Program. These are monopolistic or very concentrated sectors in which import liberalization does not provide price discipline and for which public regulation is necessary. In fact, several of the enterprises in these sectors used to be private owned and have been absorbed by the state because of inefficient regulation in the past. The continuation of privatization will require, therefore, the enactment of specific legislation establishing rights and obligations of the state, the enterprises and the consumers and determining how and by whom disputes will be settled. Regulatory agencies, when deemed necessary, ought to have their discretionary power kept to a minimum, with the prior definition of how prices will be determined and what quantity and quality of service should be provided in exchange. It is essential that the rules be set prior to privatization, avoiding problems such as those that occurred in Argentina. It is advisable, in this respect, to revoke the statutory public monopolies in energy and telecommunications and to implement the new legislation under discussion for public concessions as soon as possible.

In the future the sale model will have to be adjusted to the size and nature of the companies to be privatized and to the new portfolio of debt instruments to be used as currencies. In addition, one should also expect that guaranteeing the modernization and expansion of the companies sold and fostering competition become more important objectives, whereas less emphasis is placed upon maximizing revenues. The use of social currencies will require methods of sale that lead to widespread ownership of SOEs' shares, as in the phase of popular capitalism in Chile. Such policy will be instrumental in widening political support for the privatization of public monopolies and will help to develop domestic capital markets. However, privatization will not be able to do without the presence of strategic investors, responsible for managing the enterprise, bringing in new technologies and expanding output. Great care should be exercised to guarantee that selected strategic investors can produce these results

Finally, one should expect foreigners to participate more intensely in the next phase of the PND. Brazil is one of the few Latin American countries in which foreign investors have not played a key role in the privatization process. So far, foreigners acquired less than 5% of the shares sold, most of it using domestic debt instruments. In the view of an expert observer, this lack of interest can be attributed to a host of factors, including: lack of interest in sectors offered for sale so far; wait-and-see attitude on the part of foreign banks unwilling to relinquish MYDFAs pending the outcome of external debt negotiations; discount on MYDFAs (25% of face value); and foreign ownership limited to 40% of voting capital at auctions. (World Bank 1992: 39). Foreigners' interest in privatization is likely to increase in the future, when utilities, ports and telecommunications, which carry higher returns and lower risks, and the mining and possibly the oil businesses are put out for sale. The remaining restrictions to foreign participation are expected to be discontinued, as others have been since the 1980s. In any fashion, it seems advisable, given the low levels of domestic investment and the need for technological updating, to stimulate a greater presence of foreign capital in the privatization process.

6 - Final Remarks

The impact of state retrenchment on private sector behavior has been remarkable. Since the opening up and deregulation of the domestic economy, firms have been forced to modernize rather quickly Brazil has been quite successful in doing this. Although investment rates have remained low, compared to historical levels, firms have invested heavily in improving their competitiveness. In the last years, enterprises have allocated two-thirds of their investments to improving productivity and quality. As revealed by the results depicted in Table 4, Brazilian leading industrial enterprises have taken decisive action towards improving the efficiency of their production process and the quality of their products. Possibly because of the uncertain macroeconomic environment, however, expenditures with technological development have increased only marginally.

Another sign of the vigorous impact of the reforms on firms' attitude towards competitiveness is given by the number of enterprises holding ISO 9000 certificates. In 1992, only 38 firms held this certificate, a figure that jumped to 111 in April 1993 and to 180 by the end of 1993 By mid-1994 they were more than 350. On a survey conducted by a consultant firm in Brazil,[15] 75% of the firms consulted either held the certificate (13%) or were preparing to apply for it (62%). About a fifth of the firms indicated the certificate was an intermediate step towards the adoption of a Total Quality Program.

One of the most visible consequences of this industrial restructuring has been the sharp increase in labor productivity. In 1988-93, labor productivity (output/men.hour) in manufacturing rose 33%, an annual growth of 6%. To some extent, these numbers reflect the fact that companies are relying more and more on outsourcing for the supply of several kinds of services. Anecdotal evidence indicates, though, that at least half of this substantial increase in labor productivity reflects the adoption of new technologies, the use of modern machinery and the implementation of modern production and management techniques.

Higher labor productivity implies, however, that many jobs lost in the recent downturn of the economy are unlikely to be recovered with growth resumption. Some estimates indicate that for employment to return to its 1988 level output would have to expand 25%. The employment problem is compounded by the need to find jobs for millions of new entrants in the labor market every year. This shows the need to stress job creating measures in the design of Brazil's industrial policy.

What are the main lessons of the Brazilian structural adjustment process?

First, that structural reforms take time. Privatization, deregulation and trade liberalization are all ongoing processes that have started many years ago. The same pattern was observed in other Latin American countries. This highlights the need for governments to be persistent and, at the same time, avoid promises of overnight sweeping reforms. A good example of this last point were the (unfulfilled) promises by the Collor government to collect US$ 17 billion with privatization in 1990-91. Frustation with the pace of change in East Europe also results, to a large extent, from a wrong perception about the speed at which reforms can be implemented.

15/ Boucinhas & Campos, in Gazeta Mercantil, December 14, 1993

Second, that reforms work best when they are comprehensive. Simultaneous deregulation and trade liberalization in the steel, petrochemicals and fertilizer sectors were crucial to stimulate privatized SOEs to increase efficiency and lower prices. By the same token, trade liberalization without deregulation may just cause rents to be transferred from producers to traders In the same fashion, privatization of Brazilian port facilities is deemed essencial for trade liberalization to become fully effective in enforcing price discipline in domestic markets.

Third, that the macroeconomic environment dictates the direction, pace and impact of structural change. Macroeconomic instability drains most of the limited management capacity and political power of the public sector, making structural reforms more difficult to accomplish. The closing-up of the Brazilian market to imports in the 1980s and the use of anti-trust and trade policies to fight inflation are examples of the paramount importance usually ascribed by policymakers to macroeconomic stabilization. Also, in high inflationary contexts, the information contained in relative prices is dramatically reduced, and so is the efficiency of markets in signaling efficient resource allocation. Moreover, macroeconomic instability depresses investment rates, making it harder to reallocate resources. Nevertheless, one should not wait for economic stabilization to start implementing structural reforms.

A fourth lesson relates to the nature and timing of the transformations necessary to adapt the state to its new role. Because the decision to change the role of the state in Brazil has been originally motivated by a fiscal crisis, many jumped to the (false) conclusion that reforming the state is synonym to reducing its size. As well put by Rodrik (1992, p. 30), however, it is the quality and not the quantity of state that matters. It is hard to believe that the state will be able to attend the demands imposed by the new economic model -- in the areas of anti-dumping and anti-trust policies and public utilities regulation, for instance -- without a significant improvement in the quality and motivation of civil servants.

Fifth, for market-oriented reforms to be fully effective it is essencial to invest in institutional building and changing the judicial system. It is necessary, for instance, to give a certain degree of autonomy to government agencies and the bureaucracy at large, partially insulating it from the political cycle (Haggard and Webb, 1993). Also, improving the quality of private contracting and law enforcement are essencial steps to allow the proper functioning of markets. Intense state intervention in the past led agents to downplay the importance of private contracting in favor of administrative solutions (and rent seeking).

Sixth, many of the market failures that motivated state intervention in the past are still relevant. There is, therefore, a role to be played by governments in speeding up economic growth. In particular, the scarcity of long-term credit remains an important hindrance to wide private participation in the provision of infrastructure services. The state will be certainly called upon to stimulate the flow of resources into infrastructure investment.

Finally, the experience of the last years highlight the relevance of political constraints to economic policy. Because economic reforms and democratization evolved almost *pari passu,* policy makers learned the hard way that in democratic regimes political constraints have to be considered when formulating economic policy. In more than one occasion these have been dealt with as exogenous barriers to a proper implementation of supposedly well-formulated economic plans. A separation between the formulation and implementation of economic policy is, however, a false dichotomy. The proper design of economic policy has to take into account the constraints imposed by the behavior of economic and political actors. (Datta-Chaudhuri, 1990, Kanbur and Myles, 1993)

At present, Brazilian society recognizes that the great opportunities for state intervention to speed up the nation's development lie on training specialized manpower, providing for the health of people, creating a modern, stable and transparent regulatory apparatus, establishing top quality physical infrastructure, and stimulating the private sector to increase productivity and catch up with modern technology. In addition, the state has to guarantee that economic growth is environmentally sustainable and leads to a better distribution of income.

Brazil's economic policy agenda for the next years shows the need for sustaining macroeconomic stabilization and continuing the structural reforms. The top priority will be to keep inflation down, for which it is necessary to adjust the public accounts and reform the financial and social security systems. Structural reforms include further trade liberalization, the extension of privatization to telecommunications, electricity, the financial sector and so on, the end of the remaining price controls, a new round of reductions in entry and exit barriers, and the improvement of public services. The timing and the amount of resources dedicated to implement these reforms will depend on the success of the stabilization strategy. To a large extent, so do their impact on productivity, investment and growth.

Furthering the adoption of market-oriented policies will depend on negotiations among the main economic and political actors in Brazil. Slow growth, the deterioration in the social status of the population and the need to enhance the competitiveness of Brazilian firms in a more open economy will influence politicians, and society at large, to converge to some sort of agreement on how to change the *status quo*.

Although less critical, the influence and pressures stemming from the rest of the world will also contribute to the attainment of reforms. Particularly important actors will be: multilateral organizations such as the IBRD and the IDB, since Brazil will continue to need the support of these institutions to complement domestic savings; Mercosur, not only because Brazilian partners are more open economies, but also because the common market will set more strict limits to Brazil's trade and macroeconomic policies; and the internationalization of economic activities, the intense competition for foreign investment, the need for technological updating and the increased importance of reciprocity in international relations.

Table 1: SOEs in the Privatization Program

SOEs Included in the Privatization Program	Net Revenue 1990 (US$ million)	Net Worth 1990 (US$ million)	Net Assets 1990 (US$ million)	Employees 1990	Government Share in Common Stock (%)
STEELMAKING	4722	6833 (6864)	11409	76190	
1 CST (31)	454	2178 (2163)	2375	9320	74
2 USIMINAS (12)	930	464 (508)	881	13547	85
3 COSINOR	18	4	20	693	100
4 AÇOS PIRATINI	74	-24	36	2500	97
5 ACESITA (28)	339	170 (172)	258	8693	92
6 AÇOMINAS (30)	429	1129	1370	5849	100
7 COSIPA (16)	1054	2368	3888	15285	100
8 CSN (13)	1424	544	2581	20303	100
PETROCHEMICALS	4136	3822 (3830)	3111	17288	
9 COPESUL (21)	482	557 (561)	544	1449	98
10 PPH	110	33	90	592	20
11 PETROQUíMICA TRIUNFO	127	75	43	394	45
12 POLISUL	116	31	45	570	33
13 PETROQ. UNIÇO (27)	321	427 (430)	449	1375	68
14 PETROFLEX (40)	248	114 (115)	110	1759	100
15 NITRIFLEX	94	25	32	799	40
16 COPENE	736	1122	966	1903	36
17 ACRINOR	66	41	20	345	18
18 CIA.BRAS.POLIURETANOS	11	15	20	14	24
19 CIQUINE (58)	130	136	95	802	31
20 CIA.PETROQ.CAMACARI	137	41	66	n.a.	28
21 DETEN	123	71	56	378	34
22 EDN	169	90	72	732	27
23 METANOR	16	17	7	107	30
24 NITROCARBONO	93	53	42	434	20
25 NITROCOLOR	24	36	56	460	22
26 POLIADEN	96	95	36	475	14
27 POLIPROPILENO	11	74	0	6	34
28 POLITENO	130	130	49	455	25
29 PRONOR	146	117	35	837	35
30 CINAL	16	54	n.a.	270	16
31 COPERBO	130	63	54	688	23
32 CIA.BRAS.ESTIRENO	84	13	13	280	23
33 OXITENO (71)	66	150	40	587	25
34 POLIBRASIL	203	62	33	780	26
35 POLIDERIVADOS	n.a.	25	23	20	48
36 POLIOLEFINAS	251	155	115	777	31
TRANSPORTATION	1065	3060	5429	61500	
37 FRANAVE	6	2	1	445	100
38 ENASA	13	7	12	340	100
39 SNBP	9	4	n.a.	235	100
40 LLOYD	136	-368	160	1797	100
41 RFFSA (18)	901	3415	5256	58683	99

Table 1: SOEs in the Privatization Program

SOEs Included in the Privatization Program	Net Revenue 1990 (US$ million)	Net Worth 1990 (US$ million)		Net Assets 1990 (US$ million)	Employees 1990	Government Share in Common Stock (%)
FERTILIZERS	528	408	(411)	449	8673	
42 GOIASFÉRTIL	23	24		26	716	100
43 ICC	22	2		24	458	100
44 FOSFÉRTIL (50)	125	143	(144)	153	2190	100
45 ULTRAFÉRTIL (44)	142	129	(130)	105	2303	100
46 NITROFÉRTIL (49)	116	61	(62)	95	1398	100
47 ARAFÉRTIL (70)	81	34		31	804	33
48 INDAG	19	15		15	804	35
CHEMICALS	458	436	(437)	505	3220	
49 ÁLCALIS (61)	80	70	(71)	88	1791	100
50 CQR	27	42		59	223	37
51 SALGEMA	233	267		257	774	45
52 ALCLOR	4	18		22	240	24
53 FCC	57	9		46	42	40
54 PETROCOQUE	57	30		33	150	35
MISCELLANEOUS	4484	3307		1073	34159	
55 MAFERSA (Transp. Equip.)	86	-27		13	1910	100
56 CELMA (Machinery)	60	27		8	1681	87
57 CARAÍBA (Mining)	22	11		313	1000	100
58 EMBRAER (Aircrafts)	417	-281		258	9007	93
59 COBRA (Computers)	102	6		13	2214	98
60 AGEF (Warehousing)	17	6		6	920	100
61 VALEC (Engineering)	n.a.	184		174	200	100
62 LIGHT (Electricity)(15)	1160	3074		109	14237	82
63 ESCELSA (Electricity)(43)	215	140		179	2990	73
64 MERIDIONAL (Banking)	2405	167		n.a.	n.a.	82
TOTAL	15393	17866	(17909)	21976	201030	

Source: Pinheiro and Giambiagi (1994). Original sources: Data obtained directly from the firm and BNDES (1991 b); when the values for net worth from these sources and from Conjuntura Econômica differed, the last was used; in this case the figure reported by BNDES (1991 b) appears on the right in brackets.

Note: n.a. Not-available; the figure in brackets, to the right of the SOE's, gives the rank of the firm among the 500 largest Brazilian companies according to sales.

Table 2:
Privatizations in the 1990s (up to October 1994)

Enterprise Sold	Currencies used in auctions of common stock (%)				Sale value (US$ million)		
	Cash	CPs	Domestic debt	Foreign debt	Auction price[a]	Minimum price[a]	Total reven.(b)
USIMINAS	0.0	15.8	83.8	0.4	1128.1	973.5	1960.9
CELMA		9.4	90.6		90.7	72.5	91.1
MAFERSA [d/]			100.0		48.4	18.5	48.8
COSINOR [d/]		100.0			13.6	12.0	15.0
SNBP			100.0		12.0	7.8	12.0
INDAG [d]		100.0			6.8	6.8	6.8
PIRATINI [d/]		63.0	37.0		106.2	42.0	107.9
PETROFLEX		67.6	32.4		215.6	178.6	234.1
COPESUL		33.0	66.0	1.0	797.1	617.1	860.6
ALCALIS [d]		9.7	90.3		46.6	46.6	49.0
CST [d/]		19.2	80.8		332.3	332.3	347.4
NITRIFLEX		29.0	71.0		26.2	26.2	26.2
FOSFERTIL	0.0	15.2	84.8		177.1	139.3	182.0
POLISUL		43.5	36.4	20.1	56.8	56.8	56.8
PPH		62.5		37.5	40.8	25.1	59.4
GOIASFERTIL		1.6	98.4		12.7	12.7	13.1
ACESITA	0.0	13.1	86.5	0.5	450.3	347.7	465.4
CBE			100.0		10.9	10.9	10.9
POLIOLEFINAS	30.0		70.0		87.1	87.1	87.1
CSN	3.8	8.7	87.4	0.1	1056.6	1056.6	1487.6
ULTRAFERTIL	20.0	0.0	80.0		199.4	199.4	205.6
COSIPA	3.8	1.4	94.8		330.5	167.0	440.3
AÇOMINAS	5.0	1.1	93.9		554.2	297.3	598.5
OXITENO [d/]	5.0		47.5	47.5	53.9	53.9	53.9
PQU	30.0	3.0	66.7	0.3	269.9	269.9	287.5
ARAFERTIL	10.0		90.0		10.7	10.7	10.7
CARAÍBA	10.0		90.0		5.0	5.0	5.8
ACRINOR	10.0		90.0		12.1	12.1	12.1
COPERBO c/	10.0		90.0		25.9	25.9	25.9
POLIALDEN	10.0		90.0		16.7	16.7	16.7

Enterprise Sold	Currencies used in auctions of common stock (%)				Sale value (US$ million)		
	Cash	CPs	Domestic debt	Foreign debt	Auction price(a)	Minimum price(a)	Total reven.(b)
CIQUINE c/	10.0		90.0		23.7	23.7	23.7
POLITENO	10.0		90.0		44.9	44.9	44.9
Total							
US$ million	244.7	1068.6	4881.3	68.7	6263.3	5196.5	7847.9
(%)	3.9	17.1	77.9	1.1	100.0		
Employees							
US$ million	14.2	43.1	224.3		281.6	281.6	
Public d/							
US$ million	784.7	177.0	341.4		1303.1	1303.1	
Total							
US$million	1043.6	1288.7	5447.0	68.7	7847.9	6781.2	
(%)	13.3	16.4	69.4	0.9	100.0		

a/ Refers only to the auction of commom stock. b/ Includes the revenues from the auction of preferred stock to the public and from the fixed price sales of common stock to employees. c/ Includes preferred shares. d/ Includes separate auctions of preferred stock and sales of auctions' leftovers.

Source: BNDES, "Programa Nacional de Desestatização: Sistema de Informações" (Jun 1994).

Table 3: Revenues from Privatization in Argentina, Brazil, Chile and Mexico, 1974-1994 (including debt conversions)

	ARGENTINA		BRAZIL		CHILE		MEXICO	
	US$ Million	% of GDPa	US$ Million	% of GDP	US$ Million	% of GDP	US$ Million	% of GDP
1974					16	0.1		
1975					224	2.0		
1976					107	0.9		
1977					124	1.0		
1978					115	0.8		
1979					165	1.1		
1980					70	0.4		
1981			34	0.01	112	0.6		
1982			125	0.05	20	0.1		
1983			31	0.02	n.a.	n.a.	31	
1984			-	-	n.a.	n.a.	1	
1985			-	-	10	0.1	63	0.03
1986			-	-	232	1.4	69	0.05
1987			22	0.01	313	1.7	102	0.07
1988			407	0.12	560	2.9	514	0.3
1989			86	0.02	234	0.9	726	0.4
1990	7,531	4.3	-	-			3,085	1.3
1991	1,905	1.0	1,583	0.4			10,680	3.7
1992	5,335	2.6	2,453	0.6			6,799	
1993	4,019b		2,613	0.6			1,358c	
1994			1,231	0.3				
Total	18,790		7,848		2,301		23,428	

a As a percentage of GDP in 1991 dollars because the fluctuations in Argentina's official GDP in dollars exceed 100 percent from 1990-92.
b Through August 1993. c Through October 1993.
Source: Pinheiro and Schneider (1993). Original sources: For Brazil, Pinheiro and Oliveira Filho (1991), BNDES (1993); for Mexico, communication from the Unidad de Desincorporacion, Secretaria de Hacienda y Credito Publico (current dollars); for Chile, Hachette and Luders (1993); for Argentina, communication from the Subsecretaria de Privatizaciones, Ministerio de Economia y Obras y Servicios Publicos. For Argentina, debt papers traded at face value account for 36 percent of the total proceeds. Other sources: World Bank (1993), IMF's International Financial Statistics (August 1993).

Table 4: Reaction of Brazilian Industrial Firms to Structural Reforms

	1987-89	1992
Expenditures with technology (% of sales)		
R&D	0.7	0.7
Engineering	1.2	1.5
Training	0.4	0.5
Adoption of modern techniques (% of firms)		
Micro-electornic automation	16.1	25.5
Quality control circles	8.9	15.7
Statistical control of process	13.9	23.9
Timing and movement methods	20.2	27.9
Production cells	10.4	20.6
Internal just in time	11.4	21.8
Adoption of quality certification in production (% of firms)		
Does not adopt	19.1	15.3
Adopts only for final products	20.1	15.1
Adopts only in some steps	13.3	9.3
Adopts only in essencial steps	19.4	22.0
Adopts in all steps	26.6	37.4

Source: CNI, 1993, Estudo da`Competitividade da Industria Brasileira: A Visao Empresarial. Results taken from a survey conducted by CNI (National Industry Confederation) in the first semester of 1993 with about nine hundred leading industrial enterprises.

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