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# THE BRAZILIAN PRIVATIZATION PROGRAM

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AS MULHERES APRENDEM POR DESENCANTO, OS HOMENS, ÄS VEZES, POR EXPERIÊNCIA, AS NAÇÕES, QUASE SEMPRE POR FADIGA

#### Introduction

The purpose of this paper is to reveal the main results of The Brazilian Privatization Program - PND from its outset in 1990, and to introduce the new privatization phase, which began with the new Concession Law, approved in 1995.

In this new stage, the privatization program will transfer, through concessions, public services to the hands of the private sector, especially infrastructure services such as generation, transmission and distribution of electricity, water supply and waste water treatment, transportation services (roadways, railways and ports) and telecommunications.

The second part of this paper describes briefly international privatization experiences of the electricity sector, in three countries: Argentina, Chile and England. Lessons from these privatization processes are discussed, with special focus on regulatory issues.

In conclusion, this paper describes the Brazilian electricity sector and its future under the new concession approach, and highlights the opportunities for private sector participation in this process, while assuming one new role in the infrastructure development.

To succeed in this new privatization phase, the State must guaranty stable and transparent rules and macroeconomic stability, in order to attract the national and international capital to invest in these infrastructure services.

#### I. The National Privatization Program (Programa Nacional de Desestatização - PND)

The National Privatization Program - PND was instituted by Law 8.031/90 and modified by several "Provisional Measures", and means a rethinking of the State's role in the economy.

Brazil has radically altered its view of the proper role of a modern State. No longer is the government seen as a prime producer of goods and services, but rather as a regulatory agent that should focus its resources on the country's social needs. Privatizing the State's extensive productive network is an effective way to enhance the government's social role, to balance the budget, to reduce the public debt and to improve the competitive position of the nation's industry.

The privatization program contributes significantly to the restructuring of the state by pursuing the following objectives:

- · Correcting the fiscal imbalance;
- · Focusing the government's activities on the social area;
- Transferring to private management many activities considered "strategic" in the country's previous development model;
- Stimulating the modernization and restructuring of the country's industrial sector; and;
- Strengthening the capital market by broadening its base.

The PND is one of the main reform instruments under Cardoso's government. Its priority status requires that it act expeditiously and efficiently while decisions be made at the highest level of government. Thus, the National Council for Privatization (Conselho Nacional de Desestatização - CND) was created. It is comprised of Ministers from the following Ministries: Presidency's Cabinet, Finance, Federal Administration, Industry and Commerce. Additionally, the Minister responsible for the company to be privatized, the President of the Central Bank (in the case of financial institutions) are also members of PND, which is chaired by the Minister of Planning and Budget.

The CND is directly reports to the President. This structure enlarges the scope of, and gives more flexibility to the PND without damaging its technical operations nor diminishing its transparency.

The PND support and management is carried out by the National Economic and Social Development Bank (Banco Nacional de Desenvolvimento Econômico e Social - BNDES), which contracts consultants for economic, legal and accounting matters. The consultant's work involves financial and economic assessment, setting out a privatization model, financial adjustment and establishing the minimum price after adjustments.

#### **II. The PND Performance**

#### A. Companies Included

From March 1990 to July 1995, 74 companies have been included in the PND: 41 state-owned companies and 33 minority share holdings of PETROQUISA and PETROFÉRTIL. Table 1 highlights a list of these companies by sector activity and individual situation in the Program.

#### **B.** Consolidated Sales Account

Currently, the Brazilian Government has promoted a total sale of 45 state enterprises in the industrial sector, especially steel, petrochemical and fertilizer companies. The PND has yielded receipts of \$ 9,7 billion from auctions and \$ 396 million from the sale of government minority corporate shares (Petrochemicals Share holdings). In addition, the private sector has accepted responsibility for \$ 3,9 billion in outstanding debts. The overall proceeds, for the 1990-1996 period, totaled \$ 13,1 billion. (See Table 2).

One must also consider the indirect benefits resulting from the privatization: increased investment by the new private sector owners (including environmental protection), more tax receipts, as companies that previously lost money began to generate profits, new employment opportunities and, finally, improvements in the economy's overall productivity.

#### **C. Privatization Currency**

The PND allows several types of currencies to be used for purchasing shares of corporations being privatized. In addition to the Brazilian currency (Reais), acceptable means of payment include:

- Securitized Public Sector Debts
- Privatization Certificates
- Siderbrás Debentures
- Agrarian Debt Notes
- National Development Fund Bonds
- Housing Bank Obligations
- Foreign Debt Certificates and Credits (\*)
- Federal Treasury Notes

Participants in each privatization's auction, however, must pay a minimum percentage of the sales price in Brazilian currency (Reais). The foreign investor can pay for the auction by using any of the currencies accepted in the privatization program. However, only Foreign Debt Certificates and Credits can be purchased outside of the country. The other currencies mentioned above are part of domestic debt and thus are negotiated on the local financial market.

Sales proceeds of state-owned companies and minorities petrochemicals share holdings total \$ 9,8 billion. Of this total, \$ 2,0 billion (20,0%) was received in Brazilian currency (Reais).

One of the most common question about PND is why government could sell one company and accept currencies that have market value less that their book value. The question is: first, government issued the debt and has to honor it; second, when PND intend to reduce public debt, if government receive securities, the reduction is automatic, while if government receive current currency, economic authorities have to fight again political pressures that intend to spend the money in current spending.

#### D. Proceeds of Sales by Investor

The total proceeds of sales in US\$ million by investor is shown below:

Companies	3,813.5 (44,5%)
Financial Sector	2,217,5 (25,9%)
Pension Funds	1,431.5 (16.7%)
Individuals	626.1 (7,3%)
Foreign Investors	480,5 (5,6%)
TOTAL I	8,569.1 (100,0%)
To be Identified <sup>(*)</sup>	1,190.9
TOTAL II	9,760.0

Since 1993, foreign investors participation has been allowed at a maximum of 100% of voting capital and it shall remain as such for 6 years. However, based on legal considerations, a public notice setting the terms of a specific firm can impose a limit on foreign participation.

The foreign capital participation of \$ 480.5 million was mainly applied in public auctions of USIMINAS (\$ 146,3 million), COPESUL (\$ 57,9 million), EMBRAER (\$ 59,8 million), CSN (\$ 48,3 million), and RFFSA (\$ 63,4 million). These values do not include \$ 360,5 million of USIMINAS international offering in September 1994. The low participation of foreign capital in PND (4,9%) was due to the discount fixed at 25% imposed on its participation, and the restricted attractiveness of sectors previously privatized. Table 3 highlights foreign capital participation in PND.

#### E. Employed Participation in Privatized Companies

The privatization model has contemplated offerings to the employees of privatized companies. In general, the percentage of offerings to employees equals 10% of the total capital, sold at a 70% discount over the average unitary price fixed for the company's share. The aim of these offerings has been to break down corporate and labor-union resistance while improving capital/labor relationship.

The subscribed value by the employees has reached \$ 322.7 million of total PND proceeds, standing at 3,3%. Table 4 shows in detail employee participation in PND.

#### F. Comments

As this paper highlights, since its inception, the PND has achieved great results. However, some improvements are necessary. The main issue with which PND did not has much success has been with the privatization of petrochemical companies, the democratization of privatized company's capital and the participation of employees in the process.

In the privatization of petrochemical companies, the most relevant question is the concentration of the privatized companies under the same group. The PND does not created monopoly, but, certainly, promotes economic concentration. Fortunately, this sector has great competition in the international market and Brazilian companies will find strong competition from MERCOSUR petrochemical plants, that will oblige Brazilian' companies to improve productivity, quality and competitive prices.

The PND has not achieved the democratization of the state-owned privatized companies. The public offers of shares was only 9.7% from the total share sold in the privatization process, equal US\$ 944 million. It is not very significant because only 96.235 persons subscribe public offers and it could be higher, especially in companies like USIMINAS, PQU, COPESUL, CST, LIGHT and ESCELSA. Many times, it did not occur because of sales modeling difficulties. The question is, however, that: PND did not hell to improve Brazilian share market.

Employees participation in the privatization process occurs in all privatization processes around the world and must be improved. In the Brazilian privatization process, the employees could buy up to 10% of the companies capital, with a 70% discount. This "rule" (no law oblige the government to sell this percentage of the capital) created many differences in employee participation, with great variation between the share value bought by each employee. Another problem was that, in many cases the employees just did one profit operation, buying and selling the shares in the short term, against the objective, this guaranteeing employee participation in the capital of the privatized company.

#### III. Treatment of Foreign Investment in Brazil<sup>(\*)</sup>

Law 4.131/62, as amended by law 4.390/64, ensures foreign capital the same legal treatment as domestic capital, and prohibits all discrimination, other than what is established in the law. It requires that foreign investments be registered with Brazil's Central Bank.

The issuance of a Certificate of Registry indicates that the investment is officially recognized and allows the remittance of profits and of the initial invested capital at any time. No additional authorization is needed as long as corporate, tax and other pertinent laws are satisfied. Specific authorization from the Brazilian Central Bank is necessary to remit capital gains. Note that there is no requirement for prior authorization for investment. Registration with the Central Bank must be done no later than thirty days from the time the capital enters the country.

Direct foreign investment can enter the country as currency, tangible goods or even intangible goods as long as it is committed to economic activities. It may be channeled through a foreign company's branch that is authorized to operate in Brazil, through the acquisition of capital positions in companies that already operate in Brazil; or through the establishment of a new company, usually a corporation or a limited liability partnership.

The tax treatment given to foreign capital companies is the same as that given to companies without foreign ownership. However, profits or dividends distributed to foreign investors are subject to an income tax of 15%.

To avoid double taxation, Brazil has signed reciprocity treaties with 23 countries, including Germany, Argentina, Austria, Belgium, Canada, China, Korea, Denmark, Ecuador, Spain, Philippines, Finland, France, Hungary, India, Italy, Japan, Luxembourg, Norway, Portugal, Holland and Sweden. As a sign of its political desire and interest in attracting new foreign investment, the Brazilian government has been negotiating Agreements for Reciprocal Promotion and Protection of Investments with several countries. Brazil also has investment agreements with the United States and is a member of the Multilateral Investment Guarantee Agency (MIGA).

It is important to note efforts of the Executive branch to improve the Federal Constitution, by submitting to Congress an amendment to eliminate the distinction between national companies and national companies of Brazilian capital, and the different treatment each receive (paragraph IX of article 170, article 171 and subparagraph 1 of article 176, of the Federal Constitution). Thus, any company constituted under Brazilian law, with headquarters and administration in Brazil, would be considered Brazilian. There would no longer be preferential treatment for products or services produced by companies classified according to the origin of their capital. This change would permit all Brazilian companies to explore and to exploit mineral and hydraulic energy resources.<sup>(\*)</sup>

This proposed constitutional amendment maintains the State's role as coordinator and regulator, but creates private sector opportunities that are more compatible with the creation of a modern, dynamic and competitive economy.

#### **IV. PND PERSPECTIVES**

Proceeds from companies scheduled to be privatized in 1997 are estimated at more than \$ 7, billion. This value includes expected proceeds from the privatization of Companhia Vale do Rio Doce - CVRD, Banco Meridional and from others petrochemical companies see Table 5). This value does not include expected proceeds from privatization of Group Eletrobrás and Telebrás and services included in the concessions program.

#### A. The Concessions Process

Brazil's development model during recent decades required the state to undertake major infrastructure investments. However, the fiscal crisis of the 1980's underlined the indispensable role of private capital in financing national development. The **Law of concessions** (Law 8987/95), which was complemented by Law 9074/95, inaugurates a new form of partnership between the private sector and the Brazilian Government, giving a greater dynamism to the PND.

Traditional privatization signified the sale of public assets. The Law of Concessions enables the State to pass to the private sector those activities (public services) which the latter is better equipped to manage. This transfer allows the government to exercise more efficiently its planning, coordinating, regulating and monitoring functions.

The Concessions Law, which regulates implementation of article 175 of the Federal Constitution, establishes the general rules by which the government authorizes third parties to perform public services. The law requires that specific rules and regulations be set for each sector in which concessions will be granted through competitive bids or auctions, following procedures that will assure the investor of the transparency and competitiveness of the process. Whoever offers the lowest price, and guarantees that the pre-established conditions of service will be met, wins the concession.

## **B.** Main Sectors Included in the Concessions Process

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Electric energy, telecommunications, transportation, highway construction, ports and airports, sanitation and potable water are the main sectors that will be directly benefited by this law. The following are new investment opportunities that open up to the private capital in these sectors:

ELECTRICITY							
New institutional model	Opportunities for private sector						
• DNAEE - Regulatory Body	Self producers						
• ELETROBRÁS - Federal	Independent producers						
	Consortiums						
Installed capacity	Potential investments						
∘ 54.000 MW	Concessions to bid						
<ul> <li>● 142 plants</li> </ul>	\$ 21,8 billion (17.800 MW)						
103 hydro (over 10 MW)	• Thermal plants in project						
39 thermal	\$ 4,4 billion (4.400 MW)						
• 59.000km transmission lines	Plants to be finished						
	\$ 1,4 billion (960 MW)						

TRANSPORTATION	
Roadways	
<ul> <li>Processes to be launched: 840 km of 5 existing roadways &amp; bridges-\$ 1,2 billion investment</li> </ul>	
Second phase	
15.000 km of existing & new roadways	
with estimated investment of \$ 6,6 billion	1
<ul> <li>Railways (RFFSA - Federal railway)</li> </ul>	
<ul> <li>22.000 km - 40 billion TKU - 86 million TU - 46.000 workers.</li> </ul>	
<ul> <li>To be divided in 6 areas to be rented</li> </ul>	
<ul> <li>Prospects of 69 billion TKU in 2001 with</li> </ul>	
investments of \$ 740 million in main lines	
Ports	
Law 8.630/93 of Modernization of Ports	
<ul> <li>Estimated investments \$ 1,0 billion for the next 4 years</li> </ul>	

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TELECOMMUNICATIONS	
Increase from 12,4 million lines in 1994	
to 23 million lines in 1998	
<ul> <li>Estimated investment of \$ 30 billion</li> </ul>	
of which 50% are from the private sector	

Until now, Brazil's privatization program has been executed through the sale of the government's majority ownership in state enterprises, or the sale of minority share holding in private enterprises. The later stands for a minor part of the consolidated asset of public companies. Broadening the PND scope at the state level, in order to make it a real national program, is the aim to be achieved. This will open up new opportunities for public and private sector partnership.

The new model of public administration that is currently implemented by Cardoso's government, where PND is one of the most important component, will be completed by correcting the state's fiscal imbalances. In this context, the privatization of state companies or the concession of public services, in a similar way to the federal level, will contribute to solve the state's indebtedness, achieving a lasting national fiscal adjustment.

#### ASSIM COMO NÃO ADIANTA TENTAR CURAR OS MALES DAS ARMAS DE FOGO VOLTANDO PARA O ARCO E FLECHA, NÃO HÁ REMÉDIO SENÃO EXPERIMENTAR A CURA DA LIBERDADE E, AINDA, RESISTIR Ä GLOBALIZAÇÃO DE MERCADOS É PERDER A EFICIÊNCIA E SACRIFICAR O CRESCIMENTO, CUJO COMPONENTE MAIS DINÂMICO É O COMÉRCIO INTERNACIONAL.

#### RESISTIR Á GLOBALIZAÇÃO FINANCEIRA SIGNIFICA MENOR CAPACIDADE DE INVESTIR. O NACIONALISMO, NO PASSADO, SERVIU ORA PARA MOBILIZAR ENERGIA, ORA PARA PROVOCAR CONFLITOS. HOJE SÓ RESTA SEU POTENCIAL DE CONFLITO.

**Roberto Campos** 

## V. Case Study: Privatization of the Electricity Industry

#### **A. International Experiences**

#### 1. Similar Points in the International Experiences for Restructuring the Electricity Industry

Countries that have made reforms in the electricity sector chose the followings basic initiatives:

- · to separate generation, transmission and distribution activities;
- to recognize status of transmission and distribution as natural monopolies;
- · to recognize the necessity to regulate monopolies' activities in order to avoid abuse of the monopolies.

The most common way to regulate and control monopolies' activities is by regulation, as defined by the following points:

- · having stable rules and mechanisms to give licenses and concessions for operating electricity plants;
- having stable rules regarding relationship between consumers, government and concessionaires.
- · defining quality of services and concessionaires responsibilities
- having price and tariff control rules.

There are two main and common ways in international experience to regulate price and tariff control:

- through regulation of capital returns; and
- by using maximum tariff control price cap.

Both ways have drawbacks. First, companies tend to increase their investments and costs, many times without necessity in order to improve profits. On the second, companies will attempt to promote consumption, in order to maximize profits, while contradicting of the necessity of energy conservation.

#### 2. The Argentine Model

The Argentine model follows basic guidelines as defined by the international community. These guidelines include separation of generation, transmission and distributions' activities.

Generation was considered to be a service of general interest and organized ask a risk oriented activity and, hence, restructured to create a market.

Transmission was restructured through vertical separation from distribution and generation. This is a public service and which was concessioned and regulated based on the need to ensure open access under a toll regime.

Distribution was restructured through vertical separation from transmission and generation. This is also a public service, concessioned and regulated through the setting of tariffs based on economic costs and, a system of sanctions to protect users against unjustified quality adjustment.

The generations' plants, transportation companies, distributors and big users together represent the main electricity market called the "mercado mayorista".

This market functions on a supply and demand basis of services. The supply side consists of generation, transportation and distributions' activities. The demand side is composed off big users, that can buy power directly in main market and small users that have to buy electricity from distributions' companies under regulated prices.

The national regulatory agency is the "Ente National Regulador de La Eletricidade - ENRE". The agency objectives are the follows:

- protect users right;
- promote competition in generation electricity market and encourage investments to ensure future demand of electricity;
- promote the operation, reliability, fairness, free market and lack of discrimination and generalized use of services;
- regulate electricity transmission and distribution, assuring that the level of tariffs are fair and sufficient to guaranty net maintenance and expansion;
- .promote private investment in the sector while maintaining competition in market where possible.

The Argentine model has another important institution, the "Compañia Administradora del Mercado Mayorista Eletrico Sociedade Annônima - CAMMESA". CAMMESA is a private company, with non-profits goals, which pursue the following objectives:

- technically and financially managing the Argentine Interconnection System, in order to optimize energy production while minimizing total generation costs;
- maximizing system safety and quality of its supply and curtailing wholesale prices on the hourly energy market (spot market);
- planning electricity demand, optimizing its uses and forecast the prices that will occur in the market;
- supervising the functioning of term market and managing technical implementation of contracts signed on that market;
- · operating technical contract dispatch;
- guarantying transparency and market equity .

CAMMESA's company shares composition is endorsed by the 4 major organizations in the sector (generators, transports, distributors and large users) with 20 % of the shares to each one, and the remaining 20% belongs to the State.

The Board of Directors has ten members, two from each partner, a Chairman who is the Energy Secretary of State, a Vice-Chairman who is the other member from the State. The States participation' share in the capital can be reduced to 10 % of the Capital by executive decision. However, the State still remain the "veto" right at the board.

#### **Electricity Distribution**

Basic distribution regulatory characteristics includes:

- The concession agreement obliges the concessionaire to supply energy in the concession zone;
- The distribution tariffs are regulated and its value is the main price (from the main market generation plus transmissions cost) plus aggregated value of distribution;
- The concessionaire has to pay fees to small users in case of electricity deficit
- The concession term is for 95 years, but the concessionaire must bid the concession every ten years (except for the first time which lasts 15 years). The concessionaire can participate, however, in the bidding process in order to renew the concession.

Tariffs that the concessionaire can use are calculated and based on the estimated average prices in the spot market for the following six months. This process is reviewed every three months. This tariff is a stationary price geared to stabilize the price that distribution companies use, assuring revision cost to the final small users.

#### **Electricity Generation**

Generation plants are free of any regulations. There are no barriers to new companies coming into the market. Any company can produce energy, as long as technical rules are followed and public security problems do not arise.

Electricity generation from hydro resources demand special treatment since water can have alternatives uses. Thus, in order to explore the hydro potential, the concessionaire must compete in one bidding process, always the capacity of the process exceed 500 kW. Concessions are for 30 years on average but may vary. At the end of concession, all assets revert to the state

In order to control and reduce the economic concentration, concessionaires who generate electricity cannot control any particular transmission or distribution company. They can only have transmission lines if it is for their own uses.

Energy can be sold in the market by two ways: (I) term contracts with distribution companies or big users, (ii) in spot market or, (iii) by any combination of first two.

In term market, price, quantities and all others conditions are defined between suppliers and demanders, without any involvement of the regulatory agency.

In the case of the spot market, price is calculated by the "Compañia Administradora del Mercado Mayorista Eletrico S/A - CAMMESA" and basically determined by two factors:

- capacity cost , calculated considering the probability of electricity deficit and, cost of the deficit.
- marginal cost of energy, which is equal to the full cost of the last equipment in use.

#### Energy Transmission

The electricity transport regulation is defined under two basic points:

- the transmission net has free access to all electricity suppliers, distributions companies and any large users;
- the transmission concessionaire cannot buy or sell electricity; and his tariffs are not free, it is regulated by the regulation agency.

There is one concessionaire to transmit high power electricity, named TRANSENER, that is responsible for final and correct use of transmission net and it expansion, although the net is used by one independent transport company.

The concessions contract was locked in for 95 years but divided in periods of 10 to 15 years. At the end of each period, there is new bidding, however, the concessionaire can participate in the bid process in order to continue like a concessionaire.

In sum, we can say that in Argentina, the electricity industry has three different markets:

- I. term market, where contracts are defined only by demand (distribution companies and big users) and supply (generations plants);
- II. spot market, where prices are defined each hour considering the short term marginal cost of production;
- III. electricity distribution to small users, where prices change if and when the cost of energy (generation and transmission) changes.

#### 3. The British Model

Privatization of the electricity sector in England was the largest of the state-owned public utilities privatization in England and the most complex in terms of regulatory framework.

Before the privatization process, there was a monopoly on market structure, based on Central Electricity Generating Board - CRGB, responsible for all generation and transmission of electricity at high voltage and responsible for maintaining the system. The local distribution companies had passive conduits of CEGB initiatives.

The electricity privatization process in England had three main objectives, concluded as follows:

• promote efficiency in the electrical sector through opening of business and services to competition;

- achieve public pulverization of shares;
- obtain the best value of privatized companies.

In order to achieve these goals, the privatization process must follow six basic principles:

- · decisions about electricity supply to be customer driven;
- best guarantee of customers' interests is competition;
- regulation to promote competition, oversee prices and protect customers;
- maintain security and safety of supply;
- · customers' new rights;
- o opportunities for employees and freedom for management.

The new structure of the electricity sector identifies different businesses: generation, transmission, distribution and supply, and for each one they have separate licenses, operating via "Pool", with price control of monopoly services and with franchise and contract customers.

#### The Electricity Privatization Timetable is:

#### Data Even

February 1988 White Paper setting out Government

intentions

July 1989 Electricity Act

March 1990 Vesting new companies

March 1990 Customers over 1 MW have choice of

supplier

November 1990 Sale of regional companies (RECs)

February 1991 Sale of National Power and Powergen

March 1994 Customers over 100KW have choice of

supplier

July 1996 Star nuclear companies sales process

March 1988 All customers have choice of supplier

In regulation field government, there are specifically rules to each privatized sector (electricity, water, telecommunications, railroads and airports), and specific regulation's agency but with very closed rules. The most important common point is that until markets become competitive, they must define clear and stable rules to regulate and operate these sectors

In this manner, the government created undefended agencies in which the main objectives were promote competition in privatized sectors. The Government understood that, when these sectors become competitive they would have achieve the most efficiency way to protect consumers and improve efficient and innovation.

In the natural monopolies sectors (transmission and distribution), the main goals were to create conditions which reduce economic abuse and guaranty quality of services. Each regulatory agency was commanded by one General Director, chosen by the Government, for one defined period, normally five years.

In the electricity sector, regulation is promoted by the General Director of Energy Supply - DGES, by Monopolies Commission and Margins and by the General Director of Fair Trading.

Licenses to operate plants and basic rules are administered by State Secretary. Regulatory agency works only to guaranty that rules are being followed and to improve efficiency, guaranty consumer's right, quality of services and check that concessionaires have financial conditions to promote services expansions ito ensure future demand.

The operations licenses are done by the Secretary of State or General Director (by delegation), and its terms can be changed, by agreement between parts, and approved by Monopolies and Margins Commissions, that will check if it will be good to consumers.

Licenses are specified for a certain period, usually 25 years, initially 35 years. Return licenses meet quality of services and price control obligations, accept accounting transparency, provide open access without discrimination or cross subsidization, and provide the General Director with the required information.

Licenses main categories are:

- transmission only one for National Grid Company;
- generation no price control on generators but temporary price cap on pool price agreed with General Director;
- public electricity supply monopolies sales within designated areas;

• second tier supply - sales in competitive market.

Each business is licensed separately, but one company may have several licenses.

England's approach to regulation is based on Retail Price Index - RPI - X price capping, on the spot-market pool, on entry and access to markets and yardstick performance.

#### The Spot-Market Pool.

The pool is a new system in England's electricity sector although it replaces an informal load-scheduling mechanism based on merit ordering of power plant by margin operating cost that the CEGB used.

Every day, the transmission company request offers to generations plants: National power, Power-Gen, EdF, Scotland, Nuclear Eletric and any other private generators who have entered in the market. These offers compose the supply side of the market and the transmission company range the offers in ascending order of the offer price. At the same time, the privatized distribution companies bid for load at different prices, and these bids form the demand schedule. So, for each half-hour of daily demand, a single market clearing price established by intersection of the instantaneous supply and demand schedules. This is the system marginal price (SMP).

#### The Price-Capping Model

This is a policy instrument that has been in use since 1984 and is the most stable regulatory instrument in England's electricity privatization process.

The essential principles of any price-capping are quite simple. In general, the industries in question have more than one product so the output are different.

In the electricity sector, the basic output is the kilowatt hour, but it changes hour by hour, season to season, for its consumer class and location. Each category has a different impact on production cost, on marginal cost and on the elasticity of demand. The result is a very large set of unit prices by each different characteristic of production, consumer, location and period of the year.

The production plant will have a large set of prices or tariffs, and the price-cap mechanism allows the plant to choose the optimal structure of these multiproduct price itself. To maximize profits, it can determine the individual product elasticity of demand while removing any cross-subsidization that was implicit in the pre-privatization process. All of the privatized plants have uses the freedom to rebalance their price structure after privatization.

The price-cap refers to an index of these prices, and it changes from time to time, normally each four years. The price-cap mechanism tries to guaranty that prices will rise less than the global price index. The companies only can raise prices equal to the Retail Price Index less a percentage define by the regulatory agency. The mechanism creates incentives for cost reduction by increasing productivity and decreasing operation, maintenance and management cost of production.

Although the idea was control the cost of electricity production, the profit level become the base point in the price-cap revisions. The regulatory agency, inn order to determine the right level of profits, use the cost of capital, because if the profitability is less than the capital costs the company cannot accumulate resources to invests and operate the plants.

#### **Privatization Successes:**

England's electricity privatization process creates a consumer driven sector with management free to regulate, commercial and regulatory pressures to cost reduction in one competitive market fully operational. Basically, the average household bill fell by 4% in real terms and in the industrial sector, average price fell by 10% in real terms.

The level of investments in generation was higher than in the 1980s with increased 3,5MW capacity from new entrants, more under construction investment in distribution and transmission sustained.

Quality of services had great improvements with disconnection rates down 98% since 1990, better response to faults, guaranteed standards and compensation payments introduced, technical standards maintained.

Currently, one of the main challenges to England's privatization process lies with nuclear plants, which comprise 23% of the total energy market share. Other point is guaranty that new projects of generations plants will be done and development regulation, specially price and tariffs controls and the high level of companies' profitability.

The conclusion is that England's privatization process gave substantial benefits to consumer, competition and is still developing and still remains regulatory uncertainty.

#### 4. The Chilean Model

The electricity sector in Chile, since 1980, has been experimenting great transformations in its institutional base and regulation. It has thus achieved efficiency and private participation.

Chile's electricity supply has been done through generations, transportation and distributions companies, in one integrated system, divided in four main areas:

- Central Interconnection System (SIC);
- Big North Interconnection System;
- Aysen electrical System;

#### • Magalhanes Electrical System.

Each system has different companies for each main activity - generation, transportation and distribution.

#### Institutions and Regulations

Regulation in Chile's electricity sector has three basic institutions:

#### **Energy National Commission - CNE**

One decentralized institution, directly subordinate to the President of Chile, and created in 1978. The Commission has one Board composed of seven Ministers and one Executive-Secretary. Its revenue comes from the public budget.

The Commission is responsible for planing the development of the electricity sector, forecasting the future demand for new investments, tariffs and prices' studies, controlling the dispatch centers and administrating judgments about questions releted to the dispatch centers.

#### Superintendent of Combustible and Electricity - SEC

This entity is part of the Ministry of Economy, and must ensure that regulations are being followed, especially those related to quality and the security of services supplied by distributions companies.

#### **Dispatch Centers**

These Centers are responsible for the operation coordination of electrical systems.

Chile's Regulation' system clearly separate the Sate role, primarily normalization and supervision, from the operation role held by the private sector. Besides the institutional organization mentioned above, the electricity sector has one large regulation to achieve competition and direct the State function to the sector that has natural monopolies, basically transmission and distribution.

The main legislation for the electricity sector are as follows:

- General Law of Electric Services, 1982;
- Interconnection Electricity Operation Systems Rules, 1985;
- Penalty and Feed Regulation, 1984;
- Electric Installation's Regulation, 1983.

#### **Prices and Tariffs**

In Chile, prices and tariffs policies have the following objectives:

- to reflect real costs of production, transmission and distribution of electricity energy;
- to separate natural monopolies from operation, where competition is possible and followed;
- tariffs in transportation and generation are based on the marginal costs;
- prices are regulated on distributions level, and defined as the sum of generation price and transportation fees plus the distribution margin, that is equal to the average cost of distribution;
- prices are regulated on energy transportation to third party consumers, defined as the difference between the average cost of transportation and the marginal cost;
- free prices for large users, recognized as more than 2,000 kW
- no revenue, profitability or sales guaranty to companies

The Chilean electricity model need not operate under authorizations, studies, projects or any other obligation in order to install production plants or transmission lines. The only point that anyone must follow is "The Water Code". This is the legal instrument which regulates water usage.

The legislation allows investors to ask for a concession if they are unable to agree with landowners to use the land to potential area exploration. The concession allows investors to build and operate an energy plant on land that belongs to another landowner.

#### **Distribution Process**

The concession Law defines electricity distribution as a public service. This concession creates rights and obligations to concessionaires. The concessions agreement defines the concession area and, in this area, the concessionaire must provide anyone with electricity, no matter what the level of consumption or the locations inside the concession zone.

Concessionaires must supply energy to any and all consumers. However, they receive finance support from the government to finance this investment. These loans can be repaid in 15 years with a 10 % of interest.

The quality and confiability of services are always monitored by regulation agencies and, if the level of services falls under the minimum defined by the agencies, concessionaires must pay fees and, at worst, lose the concessions grants.

#### **The Electricity Market**

The regulation and organization already mentioned allows identifying the market structure and the price system applied to each market.

#### **Product Market**

At this market, electricity is traded between generator plants. This market is a competitive one but until now has been on oligopoly market, as Chile does not, yet, have many different electricity generators. These operations (buying and selling of electricity between generators) are coordinated by the Dispatch Centers, which have the follows objectives:

- operating the electrical system with safety;
- minimizing the economical system generation cots;
- guaranteeing the use of the transmission system, promoting competition in trade energy operations.

Dispatch centers make decisions without consider for electricity generators' objectives. They do not care about individual problems, what they look for are the global market objectives. Energy's transfers between generators is value by the market shot term marginal cost, that is the relevant price in this market. If a plant operation's costs are higher than the market's marginal cost, the company, in the short term, is working in a non maximization operational level, because it can maximize profits buying energy in the market, instead producing it.

#### **Free Market**

This market is composed of large users who buy more than 2.000 kW. Large users can buy energy from any production plant or distribution company. This market is a competitive one, and the free access to transmission lines is the most important condition for this. In order to use lines from third party owners, the consumers must pay fee, to remunerate the use of transmission lines. An other important point is the number of production plants. Having various companies and producers, more competition will occur in the market.

Large users represent 34% of total demand and are comprised of 50 or more consumers classified in this category.

#### **Regulated Market**

This market is composed of household consumers and any others who consume less than 2.000 kW. These consumers can not chose their energy suppliers, because they have only one source of energy from who they can buy electricity. Because this, is one monopoly market which must be regulated. The regulatory agency defines the energy price and the quality standard.

The distribution companies do not produce electricity, so the regulatory agency must regulate two main points:

- the price of energy which generation plants sell to distribution companies;
- the aggregate value that distribution companies can receive in order to remunerate the distribution services

Electricity suppliers, although operating in a competitive market, have one part of their production sold in a regulated market, composed of consumers who demand less than 2.000 kW. This market corresponds to 60% of the total market demand.

#### **Transportation Market**

This market is present in all transactions in which a company uses transmission lines that belonging to third party owners. Considering that transmission lines are natural monopolies, the fees which consumers must pay to use the lines are regulated.

In sum, Chile's electric sector has four different electricity markets, with different agents, characteristics, prices and tariffs. The most important include:

- marginal costs defines the energy price in the production market;
- energy prices are regulated when the electricity is demanded from small consumers;
- free energy prices (defined by supply and demand) for larger users;
- · electricity transmission has regulated prices;

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#### FICAMOS SEMPRE PRISIONEIROS DE NOSSAS VITÓRIAS

#### Desconhecido

#### **B.** Recommendations from International Experiences

As mentioned earlier, the privatization of the electricity sector has undergone similar experiences worldwide. Upon studying the privatization processes of three different countries, other basic conditions will be concluded about regulatory agencies; although their functions may change from countries to country.

Basically, a regulatory agency must have the following functions:

• promote the concessions bidding. This function, however, can be exercised by the Energy Ministry, as in the England model;

- regulation must be set by the State and the regulatory agency must supervise and assure that rules are being followed by the concessionaires. However, the agency must accomplish the necessity of new rules and submit it to the Government, concessionaires and consumers.
- control the level and quality of services which concessionaires are offering to consumers;
- define and control prices and tariff regulation, where it is necessary, as in Chilean model, particularly for natural monopolies services;

The regulatory agency must develop the following activities to achieve its function:

- · develop studies to schedule the concessions bids and operate the bidding process;
- proceed with the normalization of quality services, defining standards and measuring the services that are being supplied by concessionaires to consumers;
- judge, at the administrative level, all conflicts which occur between concessionaires, consumers and the State.
- declare as public areas potential hydro lands for energy generate;

To execute all these functions, the regulatory agency must posses basic characteristics:

- operational autonomy and with power guaranty by Law to execute its functions;
- organization in order to make efficient decisions, with transparency and less bureaucracy;
- few, but specialized employees;
- highly technically competent members of the board, elected for certain period and with no relations with concessionaires and consumer unions.

#### L'IMBECILE EST CELUI QUI NE CANHGE PAS.

PIGOU

#### C. The Brazilian Electricity Sector and the Privatization Process.

The "Centrais Elétricas Brasileiras S.A. - Eletrobrás and its controlled companies, Furnas, Eletronorte, Eletrosul and Chesf, were included in the National Privatization Program by Decree 1.481, from May 3, 1995.

The electricity privatization process started with ESCELSA, the electricity distribution company in the state of Espirito Santo, and proceeded with the conclusion of Light privatization process, the distribution company from Rio de Janeiro State. These companies were the biggest state-owned distribution companies (Eletronorte still control the electricity distribution in the city of Manaus). With this initial privatization, the Government begun the process in the electricity distribution sector, and it must continue with the privatization of different distribution companies which belong to the states' government.

Recently, the government began study the new electricity sector model, that will define rules for development of the electricity sector and create operation conditions that will allow privatization of the generation plants that already exist, and while introducing potential areas, to implement new plants.

The new electricity sector model will define, either, the rules for electricity transportation, based on an open access system, that is one fundamental point to implement competition in the electricity sector.

Brazilian legislation does not allow the Government to sell the Eletrobrás group as a whole. Eletrobrás has 50% of Itaipu's Binacional capital, and Brazil and Paraguay together have one agreement that the shares cannot be transferred. Another question is Furnas, which belongs to Eletrobrás, and controls the nuclear companies. The Brazilian Constitution forbids the privatization of nuclear activities. Although these two points creates difficulties to privatize the entire electricity sector, most importantly is the Government desires to introduce competition in it, and in order to do this, must define a privatization model that avoids private monopolies.

In this manner, the government cannot sell, for instance, Chesf as a whole. It must create operation rules that allows the division of Chesf in its different plants (Sobradinho, Paulo Afonso I, II, III, IV, etc...), and sell each one separately, in order to introduce competition between the companies. Other way privatization program will create on private monopoly, that is worse than public monopoly.

Another emerging question, at the electricity sector, is the viability that privatization will guaranty new investments to supply future demand necessities. This point indicates that most important than sell the exist companies is open the sector to the new investments in the new potential areas, and besides this, star to sell the exist plants.

Consumption forecasts indicate growth rates from 4,9% by the next ten years, meaning that investments will total up to US\$ 6.0 billion per year, with 52% in generation plants, 18% in transportation lines, 22% in distribution and 8% in general installations. The state sector, companies belonging to federal and sates governments cannot invest more than 50% of this value. What this mean is that, if private sector does not invest in the electricity sector, the future demand cannot be met and thus creating one tremendous bottleneck for economic development.

The new Concession Law and the Law 9.074, that complemented the Concession regulations, created the basic conditions for implementing the new electricity sector model. The Law also defined obliging state companies to define time schedules showing how they will conclude plants that were granted to their and that were <u>stopped</u>.

In order to guaranty their concession, state companies send to the Government their plans for concluding their plant. These plans represent more than 18 projects, increasing more than 6.500 MW of power and investments some US\$ 7.4 billion. The most important project are:

UHE Porto Primavera, with 1.814 MW; UHE Caxias, with 1.000 MW and UHE Machadinho, with 1.200, representing more than US\$ 3.5 billion in investments.

In accordance with certain legislation, concessions granted to state companies for 14 hydroelectric plants were revoked because construction had <u>not yet begun</u>. The projects represent more than 6.700 MW of power and investments of some US\$ 9.8 billion. Another group of 17plants, represent 11.000 MW of power and investments of some US\$ 12.000 billion will also be revoked, and, in the medium term, reopened for bids. These projects together represent 31 new projects with 18.000 MW of power and more than US\$ 20.000 billion in new investments.

Beyond these two groups of projects (stopped or not yet begun), 15 new concessions were granted, including 04 hydroelectric, 09 new small hydroelectric and 02 thermoelectric plants, representing US\$ 500 million in investments and 250 MW of power. Two other great projects were already guaranteed the availability of the investments, representing 2.650 MW of power and investments of US\$ 1.5 billion. These projects are Itá and Serra da Mesa hydroelectric plants.

There are still eight other thermoelectric plants under study totaling 4.000 MW and investment of US\$ 4 billion and will require private capital to completed.

Together, and without considering studies of new potential areas, these projects total more than 25.000 MW of power and investment of some US\$ 30 billions, and should be completed or begun in short term in order to guaranty future consumption demand and economic development.

#### **VI. CONCLUSION**

This paper has the purpose to reveal the main results of The Brazilian Privatization Program - PND, from its outset in 1990. It also introduces the new privatization phase, which began with the Concession Law, and analyses the main international privatization experiences of the electricity sector.

As showed, the PND has achieved great results since it's beginning and already transferred 45 state-owned companies to the private sector. This paper tried to show only the main global results of the PND and evaluated its weaknesses and the points in which it must improve.

From the international experience, it identified common points that occurred during the privatization of the electricity sector in three important countries and tried to define the basic rules to be followed.

In conclusion, this study tried to prove that the key word to achieve success in the concession of public services is *credibility*. This is the most important condition in order to attract private capital to finance infra-structure projects. To do this, Brazil needs to approve stable rules and regulations while maintaining its economic stability. It also must realize that capital has no nation, comes from international sources that not only look for good projects from an economic perspective but also look for those under stable conditions of stable countries.

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#### TABLE 1

#### COMPANIES INCLUDED IN THE PND

SITUATION	EXCLUDED	PRIVATIZED	IN LIQUIDATION	TO BE PRIVATIZED
		USIMINAS	• ICC	• RFFSA
	◦ PETROFÉRTIL			
	• NITROFÉRTIL	• USIMEC	• ENASA	• AGEF
	• COBRA	• CELMA	• FRANAVE	CVRD
	• NUCLEP	• MAFERSA	• LLOYDBRÁS	MERIDIONAL
		• COSINOR		• VALEC

STATE -	◦ SNBP	• ELETROBRÁS
	PIRATINI	FURNAS
	PETROFLEX	ELETRONORTE
OWNED	• COPESUL	ELETROSUL
	• ÁLCALIS	CHESF
	• CST	
	◦ FOSFÉRTIL	
COMPANIES	• GOIASFÉRTIL	
	• ACESITA	
	• CSN	
	• ULTRAFÉRTIL	
	COSIPA	
	• AÇOMINAS	
	• PQU	
	• CARAÍBA	
	• EMBRAER	
	• ESCELSA	
	LIGHT	
	RFFSA	

• ALCOOLQUÍMICA	• INDAG		NITROCLOR
• TRIUNFO	NITRIFLEX		POLIBRASIL
• ALCLOR	• POLISUL		POLIDERIVADOS
• CINAL	• PPH		PETROCOQUE
• FCC	• CBE		• DETEN
	<ul> <li>POLIOLEFINAS</li> </ul>		METANOR
	• OXITENO		• EDN
	• ARAFÉRTIL		
	• ACRINOR		
	• COPERBO		
	ALCOOLQUÍMICA     TRIUNFO     ALCLOR     CINAL     FCC	<ul> <li>ALCOOLQUÍMICA</li> <li>INDAG</li> <li>TRIUNFO</li> <li>NITRIFLEX</li> <li>ALCLOR</li> <li>POLISUL</li> <li>CINAL</li> <li>PPH</li> <li>FCC</li> <li>CBE</li> <li>OXITENO</li> <li>ARAFÉRTIL</li> <li>ACRINOR</li> <li>COPERBO</li> </ul>	• ALCOOLQUÍMICA• INDAG• TRIUNFO• NITRIFLEX• ALCLOR• POLISUL• CINAL• PPH• FCC• CBE• POLIOLEFINAS• OXITENO• • OXITENO• ARAFÉRTIL• • ACRINOR• COPERBO

		• POLIALDEN			
		• CIQUINE			
		• POLITENO			
		• SALGEMA			
		• CQR			
		• COPENE			
		• CPC			
		NITROCARBONO			
		PRONOR			
		POLIPROPILENO			
		KOPOL			
		СВР			
SECTOR	• STEEL	• PETROCHEMICAL	• FERTILIZERS	PUBLIC     UTILITIES	• OTHERS

SOURCE: BNDES

## TABLE 2: CONSOLIDATED SALES ACCOUNTS - VALUES IN US\$ MILLION

SECTOR	COMPANY	AUCTION'S	% TOTAL CAPITAL		SALES REVENUES	OUTSTANDING	RESULT OF
		DATE	OFFI			DEBT	PRIVATIZATION
			SOLD				
	USIMINAS	24/10/91	86,1	86,1	1.941,2	369,1	2.130,3
	CSN	02/04/93	90,8	90,8	1.495,3	532,9	2.028,2
	AÇOMINAS	10/09/93	99,9	99,9	598,5	121,9	720,4
	ACESITA	22/10/92	74,0	74,0	465,4	232,2	697,6
STEEL	COSIPA(*)	20/08/93	72,6	72,6	585,7	884,2	1.469,9
	CST	16/07/92	89,5	89,5	353,6	483,6	837,2
	PIRATINI	14/02/92	72,5	72,5	106,6	2,4	109,0
	COSINOR	14/11/91	99,8	99,8	15,0	0,0	15,0
	TOTAL					2.626,3	
					5.561,3		8.187,5
	COPESUL	15/05/92	82,1	82,1	861,5	9,2	870,7
	PQU	24/01/94	58,9	50,3	287,5	40,9	328,4
	PETROFLEX	10/04/92	100,0	100,0	234,1	20,7	254,8
	POLIOLEFINAS	19/03/93	31,5	31,5	87,1	0,0	87,1
	ÁLCALIS (*)	15/07/92	100,0	100,0	81,4	5,7	87,1
CHEMICAL	РРН	29/09/92	19,0	19,0	59,4	35,0	94,4
AND	POLISUL	11/09/92	31,0	31,0	56,8	131,0	187,8
PETROCHEMICAL	OXITENO	15/09/93	15,2	15,2	53,9	2,0	55,9
	POLITENO	18/08/94	24,9	24,9	44,9	0,0	44,9

# FOREIGN CAPITAL PARTICIPATION IN THE PND

## TABLE 3

SOURCE: BNDES - , (\*) NON - FINISHED PROCESSES; TOTAL OUSTANDING DEBT INCLUDED \$7676 NOT IDENTIFED YET

	NITRIFLEX	06/08/92	40,0	40,0	26,2	9,2	35,4
	COPERBO	16/08/94	23,3	23,0	25,9	0,0	25,9
	CIQUINE	17/08/94	31,4	31,4	23,7	0,0	23,7
	POLIALDEN	17/08/94	13,6	13,6	16,7	0,0	16,7
	ACRINOR	12/08/94	17,7	17,7	12,1	0,0	12,1
	CBE	03/12/92	23,0	23,0	10,9	0,0	10,9
	COPENE	15/08/95	14,9	14,9	270,4	342,6	613,0
	СРС	29/09/95	20,8	20,8	99,6	0,0	99,6
	SALGEMA	05/10/95	29,3	29,3	139,2	0,0	139,2
	POLIPROPILENO	ND	ND	ND	82,5	ND	82,5
	PRONOR	ND	ND	ND	63,5	ND	63,5
	NITROCARBONO	ND	ND	ND	29,6	ND	29,6
	KOPPOL	ND	ND	ND	3,1	ND	3,1
	СВР	ND	ND	ND	0,04	ND	0,04
	CQR	05/10/95	36,9	36,9	1,6	0,0	1,6
	TOTAL					596,4	3.168,1
					2.571,7		
	ULTRAFÉRTIL	24/06/93	100,0	100,0	205,6	20,2	225,8
	FOSFÉRTIL	12/08/92	88,3	88,3	182,0	44,0	226,0
FERTILIZERS	GOIASFÉRTIL	08/10/92	100,0	100,0	13,1	9,3	22,4
	ARAFÉRTIL	15/04/94	33,3	33,3	10,8	5,5	16,3
	INDAG	23/01/92	35,0	35,0	6,8	0,0	6,8
	TOTAL					79,0	497,2
					418,2		
	EMBRAER (*)	07/12/94	50,5	50,5	192,2	263,4	455,6
	CELMA	01/11/91	89,1	89,1	91,1	4,5	95,6
OTHERS	MAFERSA	11/11/91	100,0	100,0	48,8	0,5	49,3
	SNBP (*)	14/01/92	100,0	90,0	12,0	0,0	12,0
	ESCELSA	ND	57,7	57,7	399,9	-	399,9
	RFFSA	VARIADOS	0,0	0,0	63,4	0,0	63,4
	CARAÍBA	24/07/94	100,0	100,0	5,8	0,0	5,8
	LIGHT	ND	ND	ND	ND	ND	ND
						268,4	1081,6
	TOTAL				813,2		
I. TOTAL					9.361,4	3990,0	13746,9
II. SALE OF MINOR	ITY SHAREHOLDI	NGS (DECREE	E <b>1.068</b> )	395,5 3	395,5		
III. GRAND TOTAL	(I+II)				9756,9	3990,0	13.746,9

		OF	CAPITAL		OF		CAPITAL
		SUBSCRIBERS			SUBSCRI	PTION	PARTICIP.
			Voting	Total	US\$	% on	IN THE
			Capital - %	Capital - %	Million	Total	AUCTION - %
USIMINAS-(1)	Oct/91	16	4,5	2,2	66,0	16,0	5,9
USIMINAS	Nov/91	29		5,1	80,3	19,5	29,9
CELMA-(2)	Nov/91	2	12,1	12,1	11,3	2,7	12,5
PETROFLEX	Apr/92	5	0,4	0,4	1,0	0,2	0,5
COPESUL	Mai/92	25	5,5	5,5	57,9	14,0	7,3
CST	Jul/92	2	0,1	0,0	0,2	0,0	0,1
FOSFÉRTIL	Aug/92	4	0,4	0,4	0,9	0,2	0,5
POLISUL	Sept/92	1	6,7	6,2	11,4	2,8	20,0
РРН	Sept/92	1	7,5	3,8	15,3	3,7	25,8
ACESITA	Oct/92	14	1,8	1,4	9,9	2,4	2,2
CSN-(3)	Apr/93	8	1,4	1,4	25,1	6,1	2,4
COSIPA	Aug/93	3	2,6	2,6	12,2	3,0	3,7
AÇOMINAS	Sept/93	3	0,0	0,0	0,5	0,1	0,1
OXITENO	Sept/93	1	8,9	7,6	27,0	6,5	50,0
PQU	Jan/94	2	0,3	0,3	1,7	0,4	0,6
CSN-(4)	Mar/94	14	0,9	0,9	22,4	5,4	17,8
ARAFÉRTIL	Apr/94	1	16,7	16,7	5,4	1,3	50,5
ACRINOR	Aug/94	1		6,6	4,5	1,1	37,1
EMBRAER	Dec/94	5	18,1	16,5	59,8	14,5	32,7
RFFSA	1996	1	0,0	0,0	63,4	100,0	100,0
LIGHT	1996	nd	nd	nd	nd	nd	nd
	TOTAL	(1991/94)			476,6	100	4,9

SOURCE: BNDES

(1) Voting Shares

(2) Non-Voting Shares

(3) 1<sup>st</sup> Public Offering

(4)2<sup>nd</sup> Public Offering

Table 4

## OFFERINGS TO THE EMPLOYEES OF THE PRIVATIZED COMPANIES

		OFFERING TOTAL	SUBSCRIPTION/ TOTAL	SUBSCRIBED VALUE	SUBSC EMPL	CRIBING OYEES
COMPANIES	DATE (*)	CAPITAL (%)	CAPITAL (%)	(US\$ MILLION)	NUMBER	US\$/ EMPLOYEE
CELMA	Oct/91	10,0	3,0	0,4	342	2 1.279
USIMINAS	Nov/91	10,0	9,6	34,0	17.822	7 1.907

COMPANIES	<b>US\$ MILLION</b>
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## SCHEDULED TO BE PRIVATIZED IN 1997

## PROCEEDS FORECAST FROM COMPANIES

## Table 5

## SOURCE: BNDES - (\*) DATES OF FINANCIAL LIQUIDATION

MAFERSA	Mar/92	10,0	9,5	0,1	2.474	48
COSINOR	Mar/92	10,0	0	0	0	0
PIRATINI	Mai/92	9,9	9,5	1,4	1.106	1.289
PETROFLEX	Jul/92	10,0	10,0	6,0	1.365	4.431
CST	Jul/92	12,4	12,4	15,2	6.086	2.491
ÁLCALIS	Aug/92	10,0	0,1	0,0	25	752
FOSFÉRTIL	Aug/92	10,0	10,0	4,9	1.971	2.500
ACESITA	Sept/92	10,0	10,0	15,1	13.191	1.145
GOIASFÉRTIL	Oct/92	10,0	10,0	0,4	676	576
CSN	Apr/93	20,0	11,9	76,0	30.504	2.491
COSIPA	Sept/93	20,0	20,0	29,4	13.682	2.149
ACOMINAS	Oct/93	20.0	20.0	44.3	5 281	8 390
						0.000
COPESUL	Nov/93	10,0	10,0	30,6	1.409	21.718
ULTRAFÉRTIL	Dec/93	10,0	10,0	6,1	1.600	3.844
PQU	Jun/94	9,8	9,8	17,6	1.447	12.190
CARAÍBA	Aug/94	20,0	20,0	0,8	907	838
RFFSA	1996	nd	nd	nd	nd	nd
EMBRAER	Dec/94	9,9	9,9	9,3	6.036	1.541
LIGHT	1996	nd	nd	nd	nd	nd
ESCELSA	Jul/95	7,7	7,7	14,8		
TOTAL			306,6	105.929	2.754	

• POLIBRASIL	100
• EDN	10
• METANOR	10
• DETEN	67
BANCO MERIDIONAL	458
• REDE FERROVIÁRIA / AGEF (1 ramaL)	ND
• VALE DO RIO DOCE	6,000
• SALE OF MINORITY SHAREHOLDINGS	555
	7,200.0

SOURCE: Coordenadoria Geral de Políticas e Processos de Privatização-SEST/MPO.