Telecommunications and the Economy in Brazil

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1. Introduction

In the last two decades, many transformations took place in the global economic system, basically due to a dynamic technological revolution and knowledge economy. Among those innovations, a special focus was given to the new information and communication technologies (ICT). As discussed by Leff (1984) and Norton (1992), the spread of ICT does not benefit only the telecommunications market, it also leads to spillover effect in other markets, which is called externalities effect. Those externalities include lowering of transaction costs that imply in sensible reductions of costs for acquiring information, resulting in an increase of production effectiveness that contributes to the economy as a whole.

In coping with the technological transformations, institutional factors have been reformed in almost all countries especially regarding the role of the public sector in managing telecommunications sector. As Coutinho et al (1995) observe, the fast technological changes basically reduce the legitimacy of the public monopoly on the telecommunications. The private sector becomes to play more important role in managing telecommunications sector. The transformation and restructuring of the telecommunications sector have taken place many countries in order to have more market competiveness in the global economy.

This paper attempts to explore the development of telecommunications in Brazil that has followed some changes in the economical and political framework during the four past decades.

2. The Development of the Telecommunications Sector in Brazil from the 1960s

With the objective of centralizing the sector, the State started to intervene in the telecommunications from the 1960s by creating some industrial and technological policies. The centralization of the sector occurred due to the poor condition within which the telecommunications services were being offered.

This centralization process started by nationalizing foreign operators and implementing the Brazilian Code of Telecommunications - Law Nº 4117, of 27 August of 1962. Through those actions, the Government intended to reach efficiency and regularity of services within the sector.

Ahead of this new scenery, a significant improvement in the services was verified for interstate and international calls. However, the local services had not presented significant improvements leading the Government to create an exclusive public entity to plan and to co-ordinate the services of national telecommunications. It was created, then, through the Law Nº 5,792, of 11 of June of 1972, the Telebrás (Brazilian Telecommunications) that had the objective to plan the expansion of the telecommunications services and to co-ordinate the management of the concessionaires in each state of the country, besides being responsible for catching financial resources for implementation and expansion of the telecommunications infrastructure.

With the Telebrás, an integrated system of telecommunications would be implanted in the domestic territory, centralizing 90% of the existing plant of telecommunications in the country. The others 10% were divided between four independent companies, however technically integrated to this new system: the Telephone Company of Central Brazil (CTBC), the only private company in the sector, operating in the region of Minas Gerais; two companies controlled by local governments, the Telephone Company of Ribeirão Preto (CETERP), in the countryside area of São Paulo, and the Services of Communications of Londrina (SERCONTEL), in Paraná; and one controlled by the state government in Rio Grande Do Sul, the Company Riograndense of Telecommunications (CRT).

During the period from 1974 to 1982, under the Telebrás System, the investments in infrastructure of telecommunications had raised significantly. For example, the annual investment reached an average of R$ 4.1 billion in the initial period of the formation of the Telebrás System (Almeida, 1998). With those actions, the Government attempted to revert, in a short period of time, the bad situation of the sector with great success.

In spite of the great improvement mentioned above, the Telebrás System was a target of strict regulation by some federal agencies, as the Ministry of Communications, that limited the freedom of the Telebrás in deciding when and where to make investments. This regulation started to adversely affect the role of Telebrás and the results it has achieved, and together with the crisis that the country was facing in the end of the 1970s, the first signs of degradation were appearing. A mass of unsatisfied users started to demand more and more technological updates and better quality and coverage of the services offered.

In the end of the 1970s, the low investments capacity by the State was a combined result of the international crisis of the oil, the increase in interest rates by the United States and the increasing movements of foreign capitals. These factors contributed for the process of nationalization of the debt of the Brazilian State, and left the government without enough resources for investments demanded by the telecommunications sector and other infrastructure areas. Thus, the virtuous cycle of the sector of telecommunications of Brazil had come to an end.

The retraction of investments seriously harmed the basic infrastructure of telecommunications; the telephone service presented high rate of congestion due to a restricted net, and many areas were uncovered. Moreover, the user who wanted to install a telephone line had to wait for a long period and finally when the installation was completed the service provided was not satisfactory.

To extend and to modernize the services of telecommunications it was necessary then, a large program of investments by the government, which already was not capable to support the high amount of money that the sector demanded. Facing this situation, the privatization and introduction of free competition would become the only way to modernize the Brazilian telecommunications sector.

3. The Privatization of the Telecommunications Sector

The process of restructuring of the Brazilian telecommunications sector that lead to the privatization of the Telebrás System was composed by six stages:

- 1995 – Constitutional Amendment that changed the Brazilian Constitution of 1988, which instituted the state’s monopoly in the sector.

- 1996 – The "Minimum Law of Telecommunications" established legal conditions for giving concession for the private sector to provide mobile telephone services.
- 1997 – The "General Telecommunications Law" established principles of the new institutional model of the sector, and created and defined the role of Anatel (National Telecommunications Agency), an independent and highly autonomous regulatory agency (Pires, 1999).
- The creation of the "General Concession Plan" that set the general parameters for competition within the sector establishing areas of operation and setting basic rules for the opening of the market.
- The restructuring of the Telebrás System that was split into twelve holding companies.
- The competitive tendering of licenses to operate 'mirror companies' in the same areas of operation as the landline telephone service concessionaires resulting from the Telebrás System, due to the legal determination that such concessions should not be exclusive.

The privatization became a reality on July 1998.

4. Results after the privatization

The change in the Brazilian telecommunications sector in the last decade from a state monopoly system in an adverse environment – frequently inefficient, and investing much less than necessary – to a new sector with a modern and competitive structure has been impressive. Some results of the privatization are summarized below (Teleco and Telebrasil, 2007):

- In the end of 2006, the telecommunications services (counting for fixed and mobile telephones and internet) were provided for 148.6 million subscribers.
- The telecommunication market of mobile phones in Brazil has faced a spectacular growth in the last 15 years, from 667 simple mobiles phones in 1990 to 105 million users nowadays.
- In 2005, 71.6% of the domiciles had access to the telephone services - fixed or mobile, consolidating 78.7% of the domiciles in urban area and 32.5% in the rural one; in 1998, year of the privatization of the telecommunications services, only 32.0% of the domiciles had access to the services; it represents an increase of almost 124% in the period.
- The production – total revenue - of R$ 143.8 billion in 2006 was the highest value of the history of the telecommunications sector in Brazil and it was equivalent to 6.2% of the GDP.
- It is important to note that operators, together, had carried out the biggest plan of investment of history in the expansion, modernization and improvement of the quality of the services offered in the Brazilian economy: R$ 141.5 billion in the decade of 1996-2006, of which R$ 86.1 billion in the last six years 2001 - 2006, being the investment made in 2001 the biggest investment already made by only one sector of the economy in one year.

5. Conclusion

The serious financial crisis in Brazil in the end of the 1970s, made it incapable of generating savings to finance the necessary investments in the telecommunications sector. It resulted in substantial losses of internal and external competitiveness, increase of the restrained demand and dissatisfaction of consumers.

The lack of public investment together with the changes in the priority of the governmental development agenda had pushed the downward trend of the investment in the telecommunications sector in the second half of the 1980s and the first half of the 1990s. From the mid 1990s, private sector come to play its role actively in the sector, putting pressure on the government to reform its policy and creates more favorable conditions for the private sector such as privatization of the telecommunications sector.

The privatization of the sector became a reality on 1998 after a long process that included the creation of a governmental regulatory agency, Anatel. The result of this privatization was the development of a modern and competitive sector and a significant expansion of the numbers of consumers and areas covered by the telecommunications services.

The next step for this work is to analyze quantitatively, by using econometric tools, the impact of the telecommunications sector on economic growth in Brazil.

References

Almeida, M.W. (1998) Investment and privatization of the telecommunications in Brazil: two perspectives from the same strategy, UNICAMP/IE, Brazil

Anatel (2007) Data of Personal Mobile Service in Brazil. Retrieved June 29, 2007 from < http://www.anatel.gov.br/ >

Coutinho, L., Cassiolato, J. E., and Da Silva, A. L. G. (1995) Telecommunications, globalization and competitiveness, *Telecomunicações, globalização e competitividade*, 1st. Edition, Vol. 1, Ed. Papirus Editora, 333 pages, Campinas, SP, Brazil

ITU (2006) World Telecommunication Indicators, Geneva, ITU.

Leff, N. H. (1984) Externalities, information costs, and social benefit-cost analysis for economic development: an example from telecommunications, *Economic Development and Cultural Change*, 32(2), pp. 255–76.

Loural, C., Filho, R., Rego, A., Oliveira, R. (2006) Technological development of Brazilian telecommunications in past decades, *Telematics and Informatics*, 23, pp. 294-315

Norton, S. W. (1992) Transaction costs, telecommunications, and the microeconomics of macroeconomic growth, *Economic Development and Cultural Change*, 41(1), 175–96.

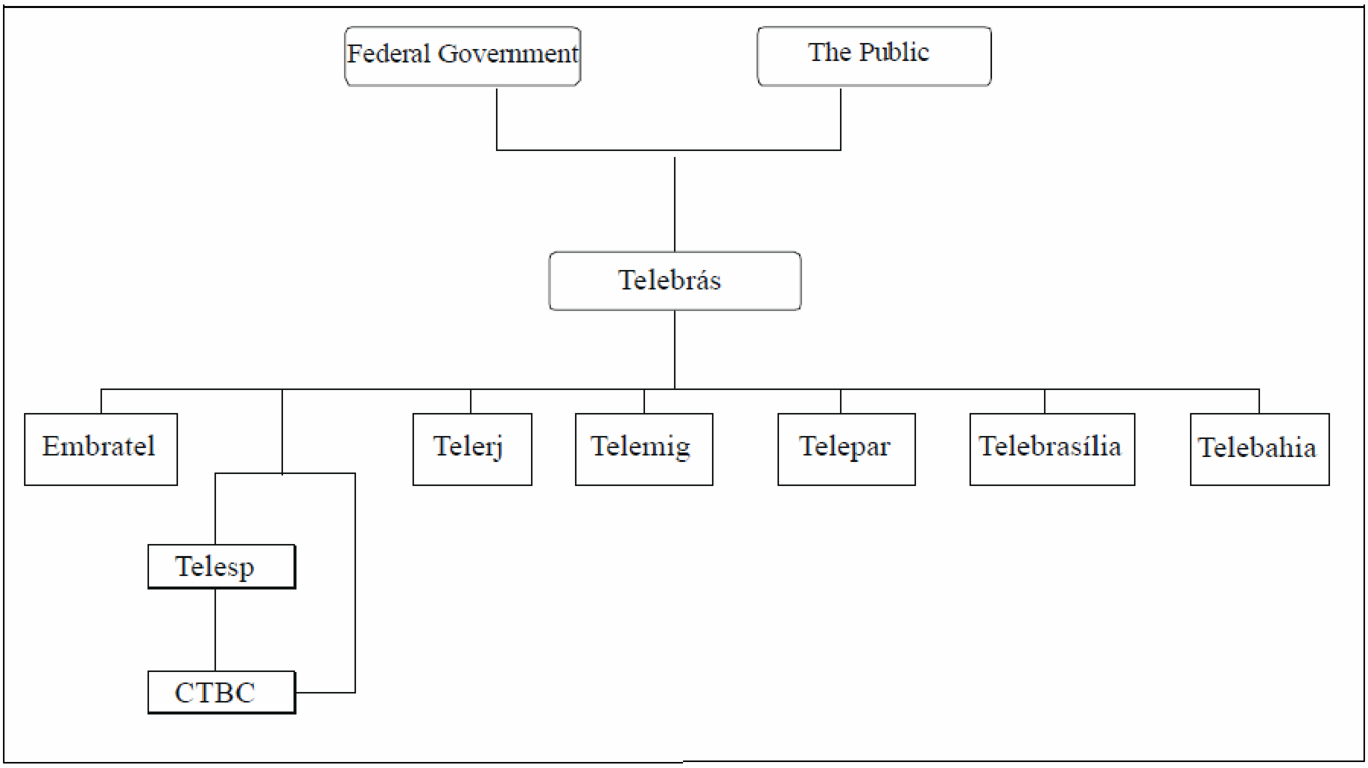
Novaes, A. (1999) Privatization in Brazil: the Case of Public Utilities, *Ensaios BNDES*, 10, pp. 111-140

Pires, J. C. L. (1999) The restructuring of the telecommunications sector in Brazil, *Revista do BNDES*, 11

Teleco and Telebrasil (2007) Results of the telecommunications sector in Brazil – Time series – 2006. Retrieved June 29, 2007 from <http://telebrasil.org.br/saiba-mais/setor-tel.htm>

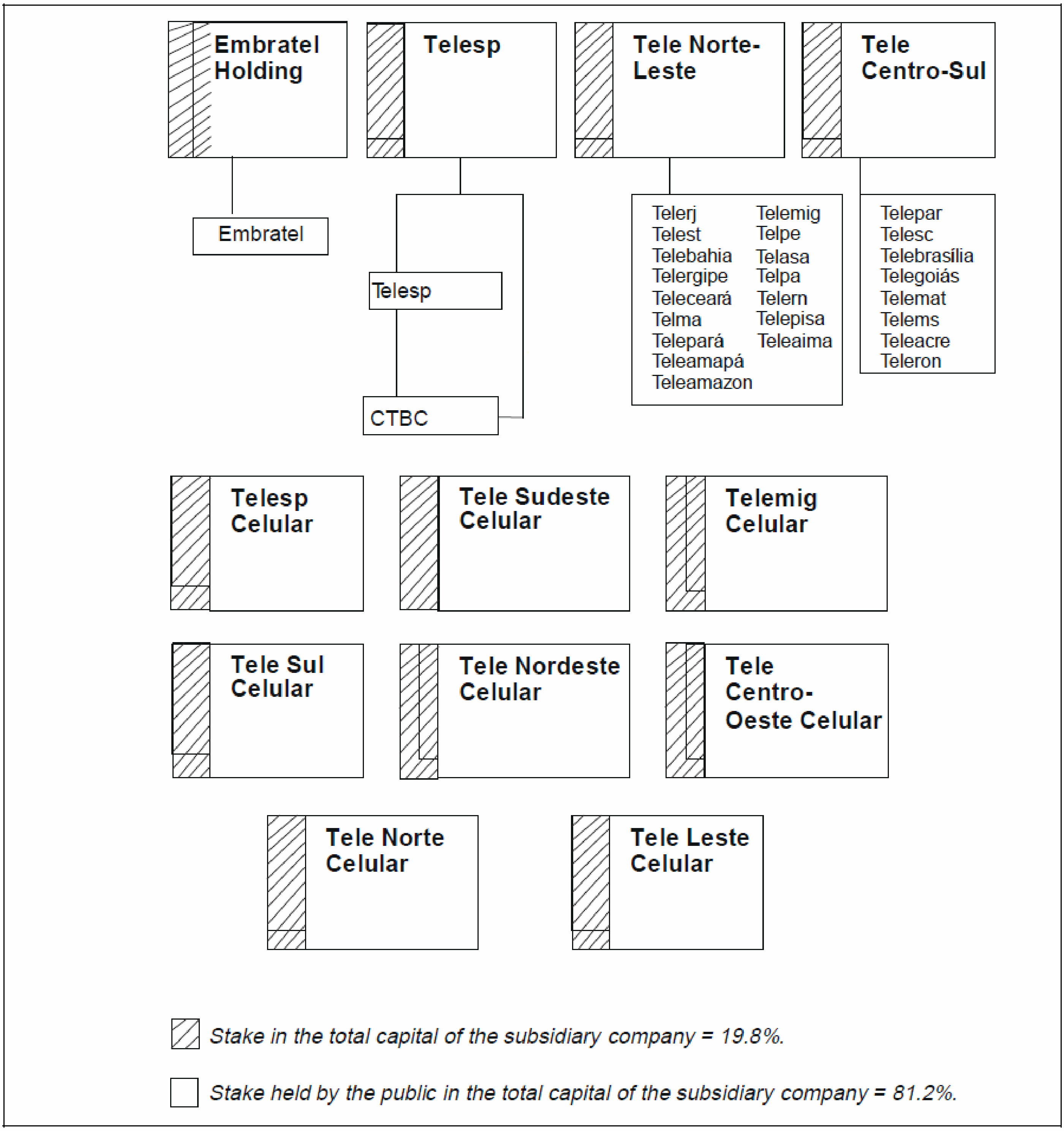
Annex

Diagram 1
Structure of Telebrás before Privatization

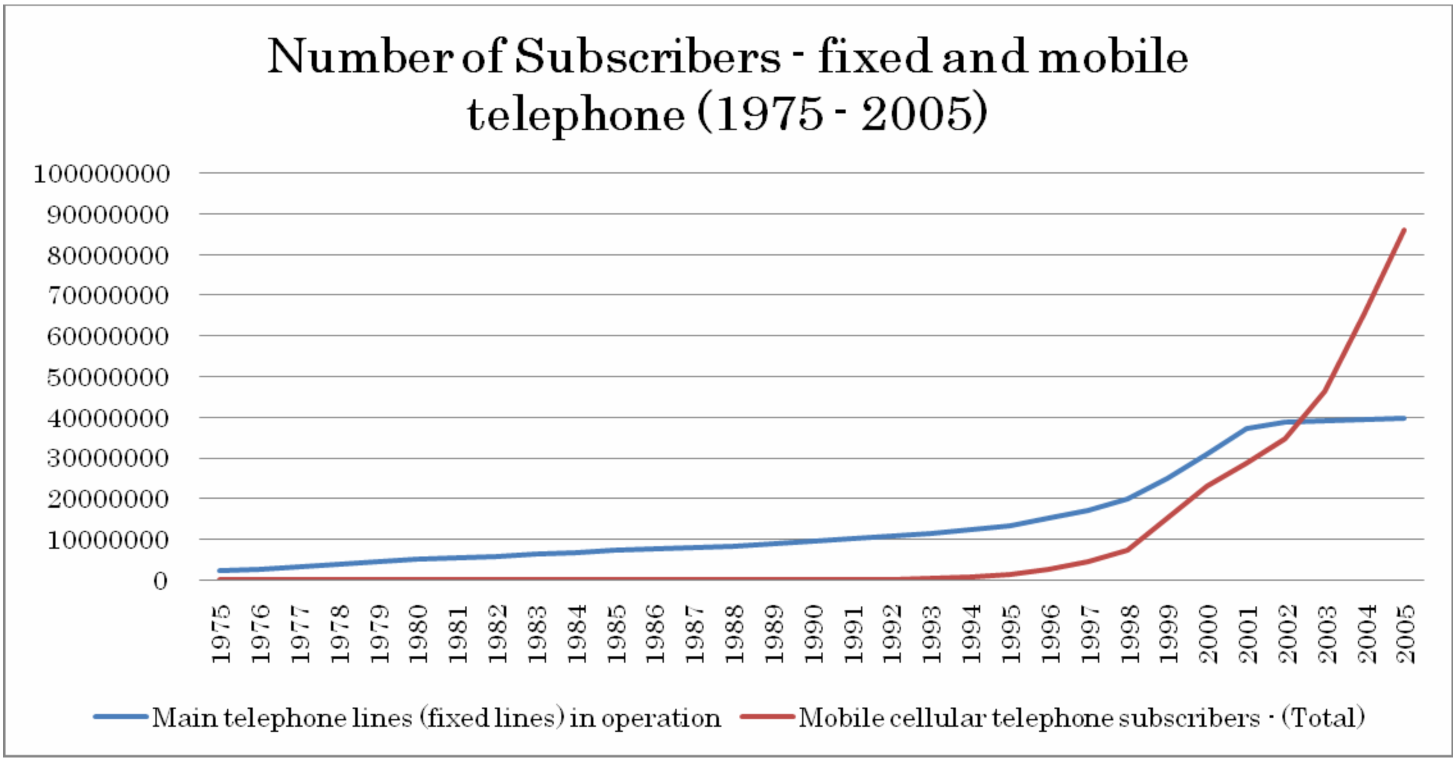


Source: Novaes (1999), “Privatization in Brazil: the Case of Public Utilities”

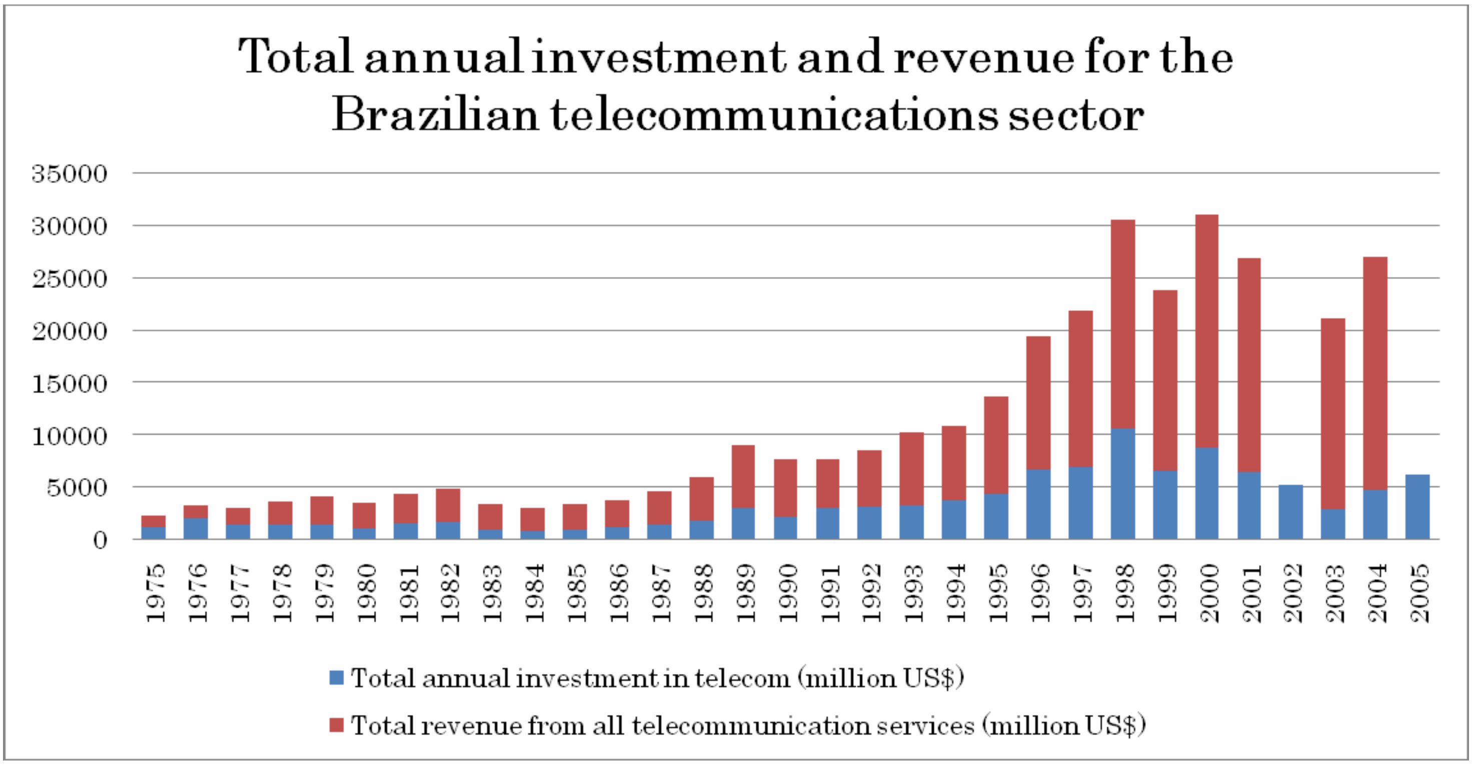
Diagram 2
The Model which Spin-off Telebrás into 12 Companies for Privatization



Source: Novaes (1999), "Privatization in Brazil: the Case of Public Utilities"



Source: ITU – World Telecommunications Indicator 2006



Source: ITU – World Telecommunications Indicator 2006