

Technological Revolution,
Deregulation, and
Privatization: The
Argentine Case

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Chapter XI

Argentina

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TYPOGRAPHER : ENTel is the correct spelling!

Just before privatization, Argentina boasted a fairly well developed network in relation to other countries with similar GDP. There were more than 10 lines per 100 people in 1989, a rate much higher than the Latin American average.

However, the average concealed huge regional and social inequalities, poor quality, and lack of diversification of services. In short, there was significant telecommunications underdevelopment. As a state-run company, the principal operating telco, ENTel, engaged in chaotic investment planning and deficient selection of equipment providers, which increased operating costs and discouraged emergence of an efficient national equipment sector.

Privatization of ENTel in late 1990 modified not only the provision of services but also the possibilities open to the equipment industry. If the new private owners comply with the established goals, the public network will expand,

quality of services will improve, tariffs will increase, and changes in the tariff structure will benefit commercial users at the expense of residential ones.

0.1 Background

Argentina lies at the extreme south of the American continent, facing the Atlantic Ocean. It covers 2.8 million square kilometers (excluding territory in Antarctica and the islands located on its maritime platform) and is inhabited by 34 million people (July 1994 estimate), mostly of European origin. Approximately 86 percent of the population lives in urban centers, and over 40 percent is in the province of Buenos Aires and the Federal District, which includes the city of Buenos Aires. Annual population growth is under 1.2 percent.

Since December 1983 the country has been governed by democratically elected authorities; an unusual situation for a country characterized by political instability.¹ Before then, coups were the norm for decades. The military

1 Between 1940 and 1980 the average tenure for ministers, secretaries of state, and governors was 13.7 months, 12.2 months, and 14.1 months, respectively. This pattern was even more

governed during 22 of the years 1930-83, and some of the civilian regimes can be fairly characterized as totalitarian.

The country is a republic divided into 23 provinces and a federal district. The National Constitution, which dates from 1853 (although with many amendments) establishes three branches: an executive, led by a president with fairly broad powers; a legislature comprised of a bicameral congress; and a judiciary, with a supreme court as its highest authority. The president is chosen by an electoral college for a six-year term. There are 48 senators (2 from each province and the federal district) serving nine-year terms, with one-third elected every three years. The Chamber of Deputies has 257 members serving four-year terms, with half elected every two years. The number of deputies representing each province is proportional to the population.

The Partido Justicialista, an umbrella organization of Peronist political groups, has controlled the Senate since 1983 and the lower house since 1989. The Radical Party or UCR (Union Civica Radical) is the second major political force.

pronounced at certain parastatal companies or regulatory agencies between 1970 and 1990: the average tenure of head officials was just 9 months (Oslak 1990; Petrazzini 1991).

The president, Carlos Saul Menem, a Peronist, was elected in 1989 and re-elected in 1995.

0.2 The Economy

Argentina's economy ranked with a number of European countries, and was the most developed in Latin America, by the late 1920s. Growth up to then was based primarily on agriculture -- first exploiting grazing land (cattle and sheep) and then, from the late 19th century, also crops such as wheat. Over half the country is in agricultural use, an extremely high percentage that reflects the fact so much of the country -- including the famous Pampas -- is suitable for grazing and farming. Industrial activity dates from the turn of the century, but the bulk of expansion came in the 1930s when import-substitution activities became the predominant mode of industrialization.

Slow growth and chronic macroeconomic instability -- including several periods of hyperinflation -- characterize the economy from the 1940s until the 1990s.² Beginning in the late 1940s the government expanded its direct role,

2 Consumer price inflation for 1965-73 is estimated at over 26%

becoming an increasingly important investor and a source of subsidies.

Protected from foreign competition, a heterogeneous manufacturing sector with a distorted evolution of technological innovations and structure, and oriented primarily to the domestic market, has emerged. Before 1987 most exports were commodities, while manufacturers needed to import intermediate and capital goods. This meant periodic crises related to balance of payments constraints, with disastrous consequences for economic stability and inflation.

In March 1976 a coup led by Lieutenant General Jorge Videla changed the path of Argentina's economic history. Between 1976 and 1981 the government abandoned long-standing protectionist policies and implemented a variety of economic measures that resulted in economic opening. Foreign direct investment, profit remittances, capital repatriation, and technology transfer were liberalized, and tariffs were cut. However, many old habits of state involvement continued. Thus, there were new industrial promotion programs that, among other things,

annually. During 1973-80 the annual rate was over 182%, and was over 328% during 1980-90 (World Bank 1991, p 21). The 1989 rate was 3080%, but was only 7.4 percent in 1993 and 3.9 percent in 1994.

allowed production of intermediate goods -- in particular, paper, petrochemical, and iron and steel -- to remain protected from foreign competition. The number of foreign firms shrank, and large, diversified domestic economic groups increased. The latter largely benefited as providers of goods and services to the state or through the participation in industrial promotion plans. Funding these plans and covering deficits of state-owned companies were a major source of government deficits, which ranged between 6 and 18 percent of GDP during 1978-83, and thus of government debt.

These economic policies had, as a political background, widespread repression of political opposition, including the slaughter of several thousand people. This enabled the government to impose a significant reduction in real wages.

Involution of the productive system, crumbling living standards, surging foreign debt, and Argentina's defeat in the Malvinas (Falklands) War contributed to the fall of the military regime in 1983. A weakened and divided junta allowed elections in October, and, in an upset, Raúl Alfonsín of the UCR was elected president and gained a majority in the Chamber of Deputies. The Peronists elected more provincial governors, and this allowed them to control the Senate, whose members are selected by the provinces.

The new government faced an external debt of US\$45 billion that the public sector had either incurred or assumed. Attempts to address the country's macroeconomic instability were belated. The Plan Austral of June 1985 sought to stabilize prices. It, as well as its successors, had brief periods of seeming success. The August 1988 Plan Primavera was the first attempt to link stabilization and structural reform.

A new surge in the already chronic inflation led to President Alfonsín resigning in July 1989, 6 months before the end of his term, in favor of the winner of the May 1989 elections Carlos Saul Menem (Partido Justicialista). The Menem cabinet adopted a tight stabilization program. As before, programs started well but then fell apart, and there were several changes of economic advisors. However, the government was steadily putting in place institutional and other reforms that would support stabilization and growth.

Two major elements of the new economic policy have had important effects on Argentine industrial structure, and the telecommunications sector in particular. First is implementation of the July 1989 Law on the Reform of the State, which is rooted in a privatization program for state-owned enterprises and state assets. Second is the decision to integrate Argentina in a regional common market -- Mercosur -- with Brazil beginning in 1995. Uruguay and Paraguay were

subsequently added. Mercosur has been developed in the framework of the country's adherence to the Brady Plan. (The foregoing summary draws in part on Chudnovsky 1989 and CEI 1992.)

In 1993 GDP was estimated at about 251 billion pesos (29 percent higher than in 1990, adjusted for inflation), exports were US\$12.7 billion (US\$11.5 billion) and imports were US\$16.0 billion (US\$8.0 billion). Foreign debt had increased to US\$74 billion in April 1994 from about US\$54 billion in 1990, reflecting both accrued interest on old debt and new lending based on renewed optimism about the prospects for the country.

1 Early Development

Argentina's first telephone company -- Unión Telefónica del Río de la Plata -- was created in 1886 by British capital. In 1929 the International Telephone and Telegraph Corporation (ITT) purchased it and, until 1946, provided telecom services in most of the country. That year the government bought the rights and assets of the company and created Empresa Mixta Telefónica Argentina. Then, in 1948, the government restructured the firm, creating Empresa Nacional de

Telecomunicaciones (ENTel), owned completely by the state.

ENTel, its predecessors, and direct successors have supplied telecom services to most of the nation, including international service. The exceptions are the provinces of San Juan, Mendoza, Salta, Tucumán, Santiago del Estero, and Entre Rios, where the service provider is Compañía Argentina de Teléfonos (CAT), a subsidiary of LM Ericsson. Until the mid 1980s, Ericsson had two subsidiaries, CET (created in 1916) and CAT (created in 1927), both connected to ENTel's network for long distance service. CAT absorbed CET in 1989.

2 Service in the Late 1980s and Early '90s

ENTel, with 3.1 million lines in operation (and capacity for 3.5 million) in 1989, handled 95 percent of Argentina's total telecommunications traffic. Besides local, long distance, and international telephone services, it offered telex, telephoto, fax, data transmission (Arpac), broadcasting of radio and television, leased circuits for telephone and telegraph, and leased fixed and mobile rural radio systems. The company also was a member of Intelsat and Inmarsat, and provided earth-satellite links through stations in Balcarce and Bosque Alegre.

The Argentine telecommunications system has long been characterized by regional and social inequalities, technical heterogeneity, and poor service. Large portions of the population and most economic activity are concentrated in a few provinces, and, within them, in large urban centers. Thus, in 1987, the Federal District had some 19 percent of the country's population, produced 27 percent of GDP, and had some 32 percent of total telephone lines. Three provinces (Buenos Aires, Santa Fé, and Córdoba) collectively boasted 47 percent of the population, 48 percent of GDP, and 50 percent of lines. The rest of the country held 34 percent of the population but produced 25 percent of GDP and had only 18 percent of lines.

Taking network distribution by per capita income, the top 10 percent (annual average income over US\$9000) had 55 telephones per 100 people, while those with incomes below US\$2300, US\$1300, and US\$750 had 13, 6, and 3 telephones per 100, respectively (CPU-FOETRA 1988).

ENTel's system combined at least 11 telephone technologies and 3 telex technologies operated with a variety of software. This network architecture obviously increased operating costs, and impeded use of digital technologies for centralizing repair and maintenance operations (Herrera 1989).

There was a marked and persistent inability to respond to demand --

unsatisfied demand remained high for several decades. During the years 1960 to 1985 when connection cost was marginal, demand remained constant at 45 percent of all lines in operation, according to ENTel data. Some customers waited 12 to 14 years to have a telephone installed in their homes; others never got one. Believing they would never get one, many did not bother to sign up. After 1985, when connection costs increased to approximately US\$600, unsatisfied demand dropped to one quarter of all lines in operation.

In terms of service quality, in 1989 ENTel had over 14 million requests for telephone repairs and other service deficiencies. This means the average telephone was out of order several times during the year. Extensive failures occurred in both the local and long distance transmission systems (Petrazzini 1991).

2.1 Financial and Planning Problems

Investment and network expansion restrictions, coupled with a procurement policy that led the company to pay prices much higher than those offered in the international market, pushed ENTel to search for financial aid. Since the company was not allowed to borrow in the domestic market, its external debt rose

steadily for a long time. During the 1980s, the length of loans was reduced and alternative sources of financing evaporated. This put further economic stress on the company.

In 1985, through a plan called Megatel, ENTEL tried to overcome the situation. The main goal was installation of 1 million new lines. Purchasing the required equipment would be financed in advance by those requesting service. However, as a solution to the company's financial problem the plan was insufficient. Two estimates were used to establish the connection price per line: the number of potential customers and the price ENTEL would pay for the needed equipment. As it turned out, the hardware was more costly than estimated and the number of users signing up for connections was lower than expected. The high prices resulted from the fact that the company agreed to pay extremely high interest rates on vendor-financed purchases. This complicated the financial situation of ENTEL even further. In 1989 ENTEL suspended tax payments to the central government, contributing to the government's already substantial deficit.

Ultimately, ENTEL's financial problems related to the fact its tariffs were never paired with the "unreasonably" high level of its costs. The costs were related to two interrelated facts: a lack of investment planning, including the absence of control over work in progress, and the character of ENTEL's relations

with its equipment providers.

Lack of investment planning is evident throughout ENTel's history.

Expansion of the public network came in spurts. For example, during the 1970s delivery of lines was as low as 6000 in 1975 and as high 200,000 in 1979. The degree of randomness in ENTel's works was so high that, even during the limited periods when an official Work Plan was in effect, the number of unplanned projects executed equaled 55 percent of planned ones. Further, the planned projects were only occasionally finished on schedule.

The company lacked controls to monitor implementation, physically and financially, of its Work Plans, nor did it have the means to assess the interaction among different projects. It was, therefore, unable to visualize how delays and problems in any one project affected the plan as a whole. The inability to predict bottlenecks meant a total lack of coordination between the pace at which ENTel received equipment from its providers and the time needed to incorporate it into the public network. This caused persistent difficulties in coordinating connection of new users to the network when new switching systems were purchased or old ones expanded. Connections could be done only by ENTel until 1979, when new regulations allowed competition in construction of the local loop. Of course lines not connected to a user had a negative economic effect because the equipment

went unused, and thus failed to earn its planned income.

2.2 Regulation

The legislative basis for regulation is the 1972 Telecommunications Law (19,298). The law grants the executive branch considerable power to control the development of telecommunications while leaving other branches -- in particular, the Congress -- with a secondary or marginal role (Baur 1991).

ENTel was under direct control of the Communications Secretariat (SECOM). The main task of the agency was development and implementation of communications plans and control of service provision (Presidential Decree 2483). In the state's hierarchical structure SECOM was part of the Ministry of Services and Public Works. ENTel's executive manager and other top officials were appointed by the president of the nation. Therefore, the managerial structure of the company was tightly tied to politics.

ENTel was subject to the decisions of seven or more government agencies, which usually had contradictory policies and projects for the company and for the sector in general. The Ministry of Economy, for example, oversaw ENTel's budget; the Ministry of Labor set the salaries of company employees; the

Secretary of Industry decided the purchasing of equipment; the Ministry of Services and Public Works generated policies for public services and controlled their provision; and the Communications Secretariat crafted policies for the sector in general, and for the company in particular. Tariff rates were decided by the Ministry of Economy and by the country's president, based on the political needs of the moment.

"Unconsulted" decisions, meaning those taken at the company level, often upset or contradicted goals pursued by higher strata of the administration. Therefore, new institutions (such as the Directorio de Empresas Publicas) were created to mediate and exert some control over the performance of state enterprises. The result was complete chaos. The executive manager of ENTel had to manage the company on a daily basis while surviving in a loaded political environment (Petrazzini 1991). It is no wonder that in the 30 years before privatization there were 12 presidents and 28 executive managers.

3 Procurement and the Equipment Industry

As a state company, from its creation in 1948 ENTel was subject to "compre

nacional" (national procurement) requirements that granted preference to local providers. These were in fact a small, already-established group of transnationals in switching, transmission, and terminal equipment coexisting with a relatively marginal group of local firms that produced mainly for domestic private users. In 1978 employment by domestic equipment makers peaked at 8000; it had fallen to 5000 by 1984, the last year from which there are aggregate data.

For most of its history, ENTel's monopsonistic procurement power contributed to its having just two local suppliers of switching equipment and telephone sets. These were Compañía Standard Electric Argentina (CSEA) and Equitel, subsidiaries of ITT and Siemens. Ericsson also produced equipment locally. Its presence was relatively marginal, however, being limited primarily to supplying its subsidiaries, CAT and CET, which together operated about 10 percent of the Argentine network.

Ericsson and a predecessor of ITT began local production at the end of the 1910s. Note that ITT continued as a supplier even after its operating company, the predecessor of ENTel was nationalized. Siemens entered the market as a domestic producer in 1954. Seven mostly European transnational firms dominated the public transmission equipment market.

ENTel's practices created important barriers to the entry of new

transnational firms, and also marginalized local companies as potential suppliers. No doubt this was a factor leading the latter to produce radio equipment for the private market. The status quo was justified by the government on the same grounds as regulatory and protectionist policies in developed countries: the existence of important economies of scale, the need to guarantee the continuity of repair and maintenance of the network, and the advantages that first entrants have in regard to network knowledge.

Despite state intervention on behalf of transnational providers, their position could not be characterized as secure. For example, in 1973, during a Peronist period, the telecom transnationals operating in the country had their contracts to provide equipment to ENTEL revoked by Congressional action (Law 20,743). This practically paralyzed the industry until the military coup in 1976. (Herrera 1989, p 114-26.)

For mainly political reasons, throughout its history ENTel concentrated most of its equipment purchasing in short periods of time, generating strong demand shocks in the local industry. These surges generally were followed by periods of contraction, which sometimes almost halted procurement initiatives. This boom-bust pattern had a strong influence on the nature and structure of the industry. Until the late 1970s competition based on price or product

differentiation was almost irrelevant. Rather, precedence, reduction of costs, idle production during long periods of time, and research and development focused on the adaptation of products and factory lay-out to local conditions were among the requisites to stay in the market.

Contracts between ENTel and its providers did not directly require technology transfer or high levels of local content. Despite this, during the period in which electromechanical technology dominated (that is, until 1979) there was an increase in local content in the production of switching equipment. This resulted mainly from high levels of competition. The firms tried to capture the externalities generated by the machine tool sector, which had highly skilled labor that could be used in the production of telephone equipment.

Between 1975 and 1978, 20 new firms with majority domestic capital entered the industry. Many oriented production to assembling PBXs. They were small and employed engineers working for relatively low wages, generally less than half what transnationals paid. These new firms produced a limited amount of PBX equipment, copied from foreign models two or three generations behind the technological frontier. They used mostly imported parts, so the level of local content was low. After 1979, several abandoned local production and disappeared or shifted into marketing imported equipment. They were unable to compete in a

context of increasing technological innovation, lowering of tariffs, and sharp drops in foreign exchange rates.

3.1 The 1979 Policy Shift

Between 1979 and 1983, during the military regime, the government encouraged new foreign capital to enter the Argentine telecom market. As part of this, in 1979 ENTel decided to take advantage of a favorable exchange rate and trade liberalization to purchase all kinds of imported equipment. In each case, ENTel agreed to buy the latest version of technologies operating telcos in industrial countries were using only marginally and for testing purposes. This early incorporation of digital technologies from many different suppliers generated a very heterogeneous network architecture.

In 1979 provision of 660,000 lines was opened to international bidding. ITT, Siemens, Philips, Fujitsu, Ericsson, Hitachi, NEC, Thomson, GTE, and Italtel all showed an interest. This led to real price competition among the equipment companies, something that had been absent, and it created instability among traditional equipment providers. In Argentina, as elsewhere, Japanese firms tended to offer the best prices. As a consequence, in 1981 a consortium of

NEC and the local group Perez Companc, Pecom-Nec, won half the equipment market. The consortium committed itself to locally produce one-third of the equipment (by value).

Only because ENTel included non-price criteria to justify retaining its two traditional providers were ITT and Siemens able to keep a quarter of the market each. The justification was that these companies had been operating in Argentina for more than 60 years, they were currently in full production fulfilling previous contracts with ENTel, and they knew the systems already installed very well, which was considered very important for future installations. This re-established market precedence as an entry barrier.³

3 "Economies of precedence" originate in a firm's early entrance into a market. Precedence is particularly important when the market is based on the establishment of networks, because it is necessary to achieve compatible technical standards and a detailed knowledge of the demand profile. In telecommunications, for example, early entrants have competitive advantages because late-comers must make their equipment compatible with the existing network. The

The decision to favor Pecom Nec at the expense of Fujitsu, which had offered equivalent terms, signalled foreign firms that it was important to make alliances with local capital to acquire lobbying capabilities. Indeed, the decree awarding part of the market to NEC states that Fujitsu was passed over because, among other reasons, Pecom-Nec had a majority of local capital and that the company had previous contracts with ENTel (including providing repair services and Buenos Aires' "digital belt.") Fujitsu's only relation with ENTel was an agreement lending a switching system.

When an elected government took power in December 1983, the contracts derived from the 1979 bidding had not been completed and a long process to renegotiate the terms for the delivery of equipment began. The Argentine authorities were unable to profit from the new competitive conditions in the international market. Instead, after several years of negotiations, the government ended up agreeing to prices well above the international market.

In 1985 the national switching equipment industry reverted to having just

imposition of technical standards is one axis around which competition between North American and European equipment companies is structured.

two firms. Siemens bought ITT's local subsidiary, CSEA, leaving the market divided equally between it and Pecom-Nec.

Between 1978 and 1983 five companies (Politronix, Ambil, DGT, Mocoreta, and Soldyne) took advantage of the low price of imported electronic parts to launch small and medium switching systems using local technology. These were generally "semi-electronic" -- hybrids of integrated circuits and mechanical switches. Local content, equivalent to 50 percent of direct costs, was confined almost exclusively to circuits, power supplies, cabinets, and assembly (Chudnovsky 1986). The firms were able to stay in the market with less sophisticated systems because of the pricing practices of the transnationals. The gap between the foreign firms' import and sale prices was so wide, local producers could find market niches for their low-priced products.

Politronix, founded in 1980 entirely with local capital, is a particularly interesting example of a new company. It started with 40 employees, including a strong group of engineers. One of its first jobs was producing a round electronic keyboard for Equitel, which used them in equipment sold to ENTel. The strategy was to use the benefits obtained from the relationship with Equitel to finance research and development. Politronix expected that this R&D would allow it to enter the PBX market with products adapted to local demand and conditions.

3.2 Promoting a Domestic Electronics Industry

During the 1980s government policies aimed at the electronics sector not only were adopted in an incoherent fashion, they lacked an institutional framework that would have turned them into an effective industrial development tool. In telecommunications, conflicts of interests within the governing UCR translated into instability and short tenure for government officials in charge of the sector.

In January 1985 the Secretary of Industry proclaimed Resolution 44, which offered financial benefits, primarily tax breaks, to firms undertaking development of a domestic electronics industry (see Azpiazu, Basualdo, and Nochteff 1988). Participants were selected by bidding, and some of the most important transnational informatics companies, most associated with local firms, were among the winners. Resolution 44 was followed by a number of poorly articulated and contradictory regulations that distorted the original spirit of the project. This was particularly true in regard to the role local capital was supposed to have.

In 1986 the team appointed to lead SECOM (the Communications Secretariat), which had participated in the elaboration of Resolution 44, conceived an integrated plan for the electronics sector based on the proposals of the 1983

National Commission of Informatics. ENTel's procurement power was turned into an active promoter of the technological development of companies with domestic capital.

In March 1986 ENTel was authorized by Presidential Decree 428 to open bidding for the selection of local equipment providers, mainly in relation to the Megatel network expansion plan. A wide range of items from high-capacity electronic switching systems to terminal equipment for users was to be put out for bid. SECOM defined the required activities related to research, development, and engineering, as well as the periods over which projects would be completed. The allocation of orders for each item was based on the price of the product, level of local content, and product and process technology.

Preference was to be given firms offering to meet the required levels of local content in shorter periods, or to achieve higher level of content than those required by the government. The companies had to be located in the country, with preference given to firms formed with majority local capital. The bidding was never opened. In July 1986, the secretary of communications who created the project resigned. Decree 428 was cancelled. The newly appointed secretary and his team completely changed the policy, dropping local-company preference and reviving traditional arrangements.

3.3 The Mid to Late 1980s

The Alfonsín government in 1987 established a new criteria for the selection of providers. This was a response to the "tied aid" policies of governments of industrial countries. They would lend money on favorable terms on condition the loan recipient used it to buy equipment from companies of the lender country. France was very aggressive in this regard, and in September 1987 the Argentine government publicly announced the possibility of including Alcatel Thomson as a third switch provider. Then, in December the governments of Argentina and Italy signed an agreement that set the basis for a possible joint venture between companies of both countries to take over digitalization of the Argentine network.

Interestingly, the threat of a third company led Siemens and Pecom-Nec to do more than reduce prices. For a while the state emphasized price criteria, while the transnational companies argued in defense of the national industry and its labor market. The corporations went as far as to launch an advertising campaign declaring their intention to increase technology transfer far beyond what was required.

The agreement with Italy also brought about changes in the strategies of other suppliers. A cartel, Union Transitoria de Empresas (UTE), including most

of the companies operating in the country was formed. It designed a digitalization project for the national network and reached an agreement with the state on prices and market share. In fact, ENTel faced the rather bizarre situation of the initiative having been taken by the equipment providers, usurping from the state its role in defining the expansion and restructuring of the public network.

4 Privatization

The first steps towards privatization came in 1976, when, responding to directives from the Ministry of Economy, ENTel's managers started to transfer installation to the private sector. After 1983, the civilian government continued this transfer and started privatization of new services such as mobile telephony, telephone circuits, and data transmission in downtown Buenos Aires (where the national financial system is concentrated). The UCR administration also liberalized equipment provision.

The right to provide cellular telephone service in the Federal District was granted in 1989, through bidding, to the Compañía de Radiocomunicaciones Móviles SA, formed by three foreign and two national firms (Bell South,

Motorola, Citibank, IECSEA (Macri group), and SICOM (BGH group)).

4.1 The Circumstances

The spread of new technology and institutional changes occurring within the industrial countries -- the United States, Great Britain, and Japan, in particular -- were important in shaping Argentine telecommunications during the 1980s, and especially influenced the nature of ENTel's privatization process. These factors have continued to affect its development in the 1990s.

The existence of substantial global idle capacity at large transnational equipment producers during the 1980s led them to increase exports and to apply pressure to seek changes in the sourcing policies of state companies that had protected a small set local suppliers. At the same time, the appearance of new services, plus the lowering of barriers to entering equipment production and providing certain existing services, threw into question the existing institutional structure, which was designed primarily to regulate a monopoly whose basic function had been simple voice transmission.

The decision of the Baby Bells in the United States and of various European companies to responded to changes in the structure of their home

markets by extending operations beyond their borders resulted in their having a serious interest in the privatization of telecom services in undeveloped countries (Herrera 1990).

Even though these circumstances -- relatively internal to the telecommunications sector -- were extremely important, one must recognize that in Argentina the privatization of ENTel was determined above all by other matters which were, in a certain sense, way outside the arena of the telecom industry.

Since the 1940s the operations of many companies had been linked to their ability to win state subsidies and privileges. This increased the country's fiscal imbalance, a process that was exacerbated when, in 1982, the government decided to "statize" the private debt that many of these companies had incurred. Argentina was unable to service this debt (Basualdo 1986).

The Peronist government that took office in July 1989 proposed a restructuring of the state apparatus that would allow simultaneously for near-term relief from the country's grave economic crisis and for payment of public foreign debt. These efforts provided continuity to similar strategies pursued in the 1983-89 period by the UCR government. Restructuring meant the government would reduce its direct and indirect roles in the economy, and this included selling state-owned companies. Because the debt and fiscal crisis are closely tied together, the

technique used for privatization involved the state trading equity in public enterprises for its external debt.

ENTel constituted the test case, and the government put great political importance on its success. Privatizing the telephone company would not only be proof of the government's willingness to honor foreign debt, but also of its ability to actually make loan payments.

4.2 The Process

The Alfonsín government announced, in 1988, its intention to sell 40 percent of ENTel's shares to Telefónica de España (TEF). The plan was blocked in Congress by Peronist deputies -- the same ones who later voted in favor of President Menem's privatization proposal.

Thus, in July 1989, just after Menem took office, Congress, with the support of Peronist and UCR legislators, approved the Law on the Reform of the State, which allowed privatization of state companies. It also gave the president extraordinary powers. All this aroused hostile protests. Unions, for example, started a mobilization against ENTel's privatization. In Buenos Aires, several telecom union leaders in favor of partial privatization were expelled from the

union. Argentine equipment providers, in association with some groups from the financial sector, offered to replace TEF as a private partner of ENTel.

In response, Menem issued decrees that reduced the possibility of effective challenges to the privatization process (Petrazzini 1991). Measures included dismissing many of the ENTel workers who had struck in opposition to privatization.

In January 1990 the government sought tenders for 60 percent of ENTel's shares, with a base price of US\$214 million in immediate cash (US\$100 million for the northern region and US\$114 million for the southern region) and an additional US\$228 million paid over 6 years beginning 3 years after the takeover. The winner would offer the most Argentine foreign debt (counted at face value plus accrued interest), with a minimum of US\$3.5 billion (Presidential Decree 62/90). Just before the plan to privatize ENTel was announced, Argentine debt traded at 12 percent of its face value, with payment of capital scheduled for the 21st century. Subsequently, it rose to a plateau of approximately 30 percent.

Of the remainder of the company, 10 percent was reserved for employees and 30 percent was reserved for later sale to the public. In short, the government would completely, and fairly quickly, divest itself of its entire interest in ENTel, retaining neither a "golden share" or even a minority stake. However, the

employee shares are still under state control, and there is no agreement on who will be the beneficiaries, in what way they will be transferred, or when.

ENTel was sold discharged of liabilities and debt, except for commitments to employees and certain obligations to equipment providers and users. This meant the state retained US\$1.5 billion in debt, part of which was retired with the cash from the sale of the company. Of the debt, approximately US\$900 million was owed domestically. Certain assets, including those for services prior to the transfer and the capital contributions made to Intelsat and Inmarsat, also were kept by the state.

The decision to divide the network into northern and southern parts was a political one taken by the executive power. It was made against the advice of the international consulting firm hired by the government to report on the most suitable privatization process.

The winning bidders, announced on 8 November 1990, agreed to submit debt of US\$2.3 billion (plus US\$100 million in cash and US\$177 million in promissory notes to ENTel) for the southern region and US\$2.7 billion (plus US\$114 million in cash and US\$202 million in promissory notes to ENTel) for the north within 90 days of ENTel being handed over. Note that all of the cash and debt were for the benefit of the government, none of it was new capital for

telecommunications. The buyers must meet a set of requirements regarding expansion of the network, quality of service, and the like, which are discussed later.

4.3 The New Structure

Transfer of ENTel took place 8 November 1990 and resulted in four new firms. Basic telecom services are offered by Telefónica Argentina (Telefónica) and Telecom Argentina (Telecom), companies formed as successors to ENTel's southern and northern regions, respectively. CAT renewed its license, but entered negotiations with the new companies to sell its system. This occurred in 1992.⁴

4 Telecom took the south part of the Federal District and 5.8 percent of the telephones in Buenos Aires province; it has licenses for Catamarca, Córdoba, Corrientes, Chaco, Formosa, *Entre Ríos, Jujuy, La Rioja, Misiones, *Salta, Santa Fé, *Santiago del Estero, and *Tucumán. Telefónica took the north part of the Federal District

Telefónica and Telecom own equal parts of Teleintar, which provides international service, and of Startel, which offers "services open to competition," the most important of which are mobile radio telephone, mobile maritime radio, telex, data transmission within the national boundaries of Argentina (ENTel's Arpac data packet switching network became part of Startel) and value-added services.

Besides ENTel's assets, the companies acquired monopolistic rights for 7 years (extendible to 10) to provide basic domestic local and long-distance service in their corresponding zones as well as all types of international service through Teleintar. During the monopoly period third parties are allowed to install point-to-point private lines, but they cannot resell capacity and may install such systems only if Telecom or Telefónica do not provide the service within 180 days.

The companies will face a competitor in the cellular phone market, and there are no prohibitions on the entrance of new operators in value-added services.

and 94.2 percent of the lines in Buenos Aires; it is licensed for Chubut, La Pampa, *Mendoza, Neuquén, San Luis, *San Juan, Santa Cruz, and Tierra del Fuego. Provinces marked with an * were served by CAT until 1992.

Independent companies are allowed to offer urban telephone service in areas located more than 15 kilometers from a central office if Telecom or Telefónica are not interested in providing service in the area within a year.

After their monopolies expire, Telecom and Telefónica will be eligible for licenses to provide, outside their regions, data transmission services and other value-added services in competition with other suppliers, as well as offering the services contained in their original licenses.

4.4 The Winning Bidders

The winning bidders are consortiums: Nortel SA won Telecom and Cointel SA won Telefónica. Nortel initially was held 30 percent by each of STET, France Cables et Radio, and the Perez Companc group; JP Morgan & Company owned 10 percent. Cointel was owned 33 percent by Telefónica Internacional (a wholly owned subsidiary of Telefónica de España (TEF)), 57 percent by Citibank, and 10 percent by Techint. Note that each consortium comprises at least one telephone company, an Argentine conglomerate, and a US bank. Citibank leads the committee of Argentina's creditors and JP Morgan is among the country's largest creditors.

STET, France Cables, and TEF are operating telcos with related companies that produce telecom equipment. STET, owned by the Italian state, holds the Italian Reconstruction Institute (IRI), which has 20 million lines in Italy and operations in Germany, the Netherlands, the United Kingdom, and the United States. Italtel, another subsidiary of STET, for years sold transmission systems to ENTel. France Cables et Radio SA, controlled by France Telecom and associated with Alcatel, has 28 million lines in France. During the years of UCR rule and with the support of the French government, it tried to make itself into a third ENTel equipment supplier. The Spanish government owns 40 percent of TEF, which operates 11 million lines in Spain. TEF has a very aggressive, expansionist policy in other European countries, as well as in the former Soviet Union and Latin America. Sintel, a subsidiary of TEF, sold ENTel the Arpac data transmission network.

The Perez Companac and Techint groups each include more than 50 companies, covering a wide variety of activities. For Perez these include naval construction, food processing, petrochemicals, constructions, electronics, financial operations (two banks), and services. Techint operates in iron and steel, construction, and various other areas in the primary, service, and financial sectors. (See Acevedo, Basualdo, and Khavisse 1991).

During the period of import substitution, both collect substantial state subsidies under various industrial promotion plans and as providers to the state, mainly in the construction sector. Both were responsible for significant amounts of debt that the government assumed in 1982. Subsequently, they have been involved in the debt-for-equity privatizations of various state enterprises -- oil, highways, and railways among others.

Perez is associated with NEC, which entered the Argentine market in 1978 by selling ENTel a digital network and later became one of the two providers of switching equipment to ENTel. Techint, which besides having been one of the principal installation subcontractors for ENTel, has been collaborating with Italtel and Teletra on a project financed by a credit line of US\$135 million granted by the Italian government to digitalize the telephone network. This means Telefónica and Telecom are associated, through Italtel and Techint, respectively, on a project supplying transmission equipment.

4.5 Public Offering and Capital Structure

In December 1991 the government's remaining 30 percent interest in Telefónica was sold to the public in an international stock offering. A similar offering of

Telecom stock was delayed until March 1992 because the company would not provide the information needed to produce a prospectus. The Telefónica offering brought the government US\$800 million, Telecom brought US\$1.2 billion. Both companies trade in the United States on the New York Stock Exchange (as American Depository Receipts) as well as in Argentina.

Each company has three classes of shares. Class C shares, representing 10 percent of the equity, have been retained by the government to be distributed to company employees, although the procedure has yet to be determined. Class B shares, 39 percent of total equity, are fully transferable and so are the shares that trade publicly. The actual public float represents 30 percent of equity; class B shares representing 9 percent are held by the controlling consortium. All the class A shares (51 percent of equity) are held by the controlling consortium. They are transferable only with the prior consent of the regulatory body, Comisión Nacional de Telecomunicaciones (CNT). Each consortium thus owns 60 percent of the total equity.

The transfer contract requires meeting certain expansion goals in the area of basic services. It also establishes a requirement that Telecom, Telefónica, and Teleintar assure the continuance, regularity, equality, and availability of service delivery to the public in their respective areas. Thus, the consortiums cannot disconnect any town from the national satellite service. If there are other efficient telecommunications alternatives, they have to be approved first by CNT.

By the end of 1996 Telecom must install 609,500 lines and Telefónica, 623,920. To extend their monopoly to 10 years (the end of 2000), the figures are 810,710 (about 33 percent higher) and 792,850 (about 27 percent higher), respectively. Connecting users to 205,000 lines bought by ENTel but not allocated to any particular customer counts as part of the installation requirement, as does connecting 90,000 lines already assigned and paid for by end users and connecting lines bought with credits from the Italian and French governments (US\$60 and US\$135 millions, respectively).

Each company must provide at least 13,000 public or semi-public telephones. The new lines must be distributed nationwide, with a specified minimum number in each province. The planned distribution (for a 10-year monopoly) assigns metropolitan Buenos Aires (the Federal District) 41 percent of the new lines, with the provinces of Buenos Aires, Santa Fé, and Córdoba

receiving 34 percent. This could reduce regional concentration, given that the rest of the country began the period with only 18 percent of lines, but will be getting 25 percent of new ones. However, growth greater than the expected level could result in regional reconcentration along the axis Buenos Aires, Santa Fé, Córdoba, because there are no specific obligations regarding geographical distribution of any expansion above the minimum.

Certain quality goals also must be met. These involve efficiency in completing calls, speed of the response in services involving operators, reduction in the number of failures in external and internal plant, and reduction in delay time for repairs. (For public or semi-public telephones, these goals are suggested, not obligatory.) The transfer contracts stipulate that, year by year until 2000, these quality parameters will be met, and by truly imposing these guidelines a definite improvement will be seen in the Argentine network, even though it still will not have reached the average efficiency levels of networks in industrial countries.

By September 1994 Telefónica and Telecom had installed 2.2 million lines of which 1.7 million were in service (see Table 1). Overall, by then the companies had already exceeded the expansion goals for 1996. Parallel to the network enlargement was a process of modernization, including substitution of

advanced technology, which is reflected in the increase in digitalization from 13 percent to 62 percent between November 1990 and September 1994. In October 1995 Siemens AG announced a contract to provide more than 1 million lines of its EWSD digital switching system and 5000 kilometers of fiber-optic lines, to be installed by the end of 1997 by various Argentine telcos.

Combined with the lay-off of more than 4900 at Telefónica and almost 4600 at Telecom, this allowed for a substantial increase of efficiency: the ratio of lines per employee went from 75.7 to 154.5. The percentage of lines not in service fell from 4.91 to 0.19 percent, and the delay to repair a damage line went from an average of 23 days to an average of 3 days. CNT has had difficulty collecting suitable data on other aspects of quality of service. Table 2 shows the amount invested during 1990-94.

5.1 Competitors and Interconnection

Since the early 1980s it has become progressively clearer that creating an environment fostering effective competition depends as much on the possibility of interconnection between networks as on the conditions under which potential competitors get access to the basic network (Noam 1989; Helm and Yarrow

1988).

During their monopoly periods (until 1997 or 2000) Telecom, Telefónica, Teleintar, and Startel are required to interconnect their networks, and they can arrange with independent local network companies and with the holders of domestic point-to-point connections the conditions and prices of the interconnection. Telefónica and Telecom are required to allow access to the public network for companies that want to provide services that create a competitive environment. And, in all cases, the cost of connection and the use of the network must be "normal," not "discriminatory," even though these terms are nowhere defined.

There were five point-to-point international data networks that had begun operating during the ENTel period. They are not allowed to connect to any national or international network during the period Telecom and Telefónica have monopoly rights. When Teleintar's right to monopolize provision of international data and voice transmission runs out, it must agree with its competitors on the conditions under which network connections will be made and rates will be set. If the firms involved do not reach an agreement, the regulatory agency will intervene.

Interpretation of the contracts signed by Telefónica and Telecom has

generated an untenable level of confrontation between them and CNT over the issue of interconnection. The situation reached a decisive point in June 1995 when the Ministry of the Economy, Works and Public Services dismissed all of CNT's directors and its president. The courts reinstated them, but the government has appealed; the matter was unsettled at the time of this writing.

∞∞ The intervention was directly linked to controversy surrounding CNT Resolution 1197 of 9 May 1995, which rejected the 5 October 1993 agreement by Telecom and Telefónica regarding conditions for their provision of data services, telex, value-added and other services to Startel. CNT ruled, among other things, that all agreements between Startel and the operating telcos regarding interconnection and basic services must be submitted to CNT for approval. Because Startel is owned by Telefónica and Telecom, the judgment emphasized the need for independent review. In intervening, the Ministry indicated it felt CNT was over-stepping its mandate.

5.2 Tariffs and Cross-Subsidies

The majority of countries modifying their telecommunications regulatory systems have sought to end most cross-subsidies on the grounds it is unfair for some users to subsidize others. Argentina generally has run counter to this approach. The only prohibitions established at the time of privatization relate to using earnings from basic services to subsidize international service, and using monopoly services to subsidize competitive services (basically domestic value-added services).

Indeed, the explicit objective of having international services provided by a monopoly owned by the companies that regionally monopolize basic domestic services was to allow expansion of the domestic network using revenue from international calls. In 1990 when Maria Julia Alsogaray, head of ENTel and in charge of its privatization, reported to the Communications Commission of the Chamber of Deputies, she stated "the reason not to deregulate the provision of international services at this time is the lack of maturity of the public network. The revenue drawn from international calls are needed to develop this network, which is still very inefficient" Similarly, Telecom and Telefónica are required to use the profits from Teleintar to achieve expansion goals and to improve their

networks (Decree 62/90 Clause 7.8.5).

5.3 Tariffs

Under the privatization agreement, installation charges are up to 50 percent of the direct cost of the line for residential service and 100 percent for others. The concept "direct cost" is broad. It includes, among other things, land, buildings, switching equipment, energy nodes, and access to the long distance network and urban switching.

The transfer contracts extensively cover tariffs. The procedures they establish have led to domestic and international long distance prices that are quite high by world standards. This negatively affected not only companies -- especially transnationals -- that were intensive users, but even families.

Tariff levels have been a source of conflict between the companies and the government since April 1991 when the Law of Convertibility was passed. This law tied the currency to the US dollar, prohibited price increases, and required businesses to reduce prices to their August 1990 levels. However, the government could not impose the law on the new telephone companies. Although the pulse price (similar to message units) stayed lower than what the privatization

agreement stipulated, it was 21.5 percent higher than it would have been if the law had applied, and the companies kept the right to raise rates (even retroactively) to the levels that the transfer contracts granted them.

A new agreement was ratified by decree on 28 November 1991, a year after privatization. The basic monthly charges for a commercial line were reduced about 40 percent and were increased about 50 percent for a residential line. Overall, this probably had a neutral effect on the telephone companies' earnings. To help offset the increases for users, the state reduced by five points (from 16 percent to 11 percent) the value-added tax charged on telephone tariffs.

One of the most important changes was dollarization of rates. Twice a year, on April 1 and October 1, rates are adjusted according to the Consumer Price Index in the United States, regardless of what is happening with inflation in Argentina. Amounts due are converted into Argentine pesos at the exchange rate on the billing date.

In 1995 London based National Economic Research Associates conducted a study for the government on rate restructuring. A draft released in September called for increasing local and reducing long-distance rates while maintaining overall profits. The increases would be particularly high in metro Buenos Aires, where local service is substantially less than elsewhere in the country. The new

rates would more closely link costs and rates, which is seen as a necessary step for opening the telecom market to competition.

Beginning in November 1992, installation charges have been reduced. In 1997 they are to be at a level not exceeding the average in countries with mature networks (estimated at US\$250), and the prices paid by residential and commercial users will be the same. In August 1995 connection costs were US\$750 for commercial users and US\$500 for residences, compared to US\$1800 and US\$900, respectively, in 1992.

A few months after the new agreement, the companies and the state were again in conflict. This time the issue was the mechanism for awarding the second mobile cellular telephone band. The Secretary of Finance, against the wishes of Telecom and Telefónica, insisted that, like the first band, the award should be by competitive bidding. At the end of February 1992 an agreement was reached. The companies could have direct access to the second band -- that is, without undergoing a competitive process -- but they had to reduce, by an average of 3 percent, long distance rates and speed up the timetable for reduction of installation charges. Reducing installation charges was something the companies had already decided to do anyway. They had estimated that maintaining the allowed levels would mean demand would soon be insufficient to sustain the expansion and

modernization plans they had proposed.

6 The Equipment Industry in the 1990s

Liberalization of the supply of terminal equipment in 1988 and privatization of ENTel in 1990 imply significant changes which might upset the relative and the absolute positions of manufacturers with factories in Argentina. During the negotiations on the conditions of privatization, worried established suppliers looked for ways to assure their position vis-à-vis potential purchasers, who wanted to avoid imposed purchasing policies.

In January 1990 it was decided that ENTel's new owners would be required to honor existing work and service contracts, and, though only for the first 18 months after privatization, equipment purchase orders. ENTel, from January 1990 until consummation of its sale, would not assume new purchasing debts or permit payables to accumulate.

The Italian and French governments mobilized to defend the interests of their equipment companies and succeeded in forcing the Argentine government to step back. Thus, in June 1990, the state allowed ENTel to sign contracts with

Italian and French suppliers for up to US\$200 million in equipment, and the new owners have to honor these agreements (Decree 1130/90). These ended up being an obligation to firms related to the consortiums. Thus, the Italian credit involved, among others, Techint and Italtel as suppliers.

ENTel's suppliers were able to get the company to accept delivery of equipment and materials while privatization was being negotiated, without regard to the company's work plan. Two things made the suppliers realize the speedup was good business. First, the new owners would have to accept delivered equipment whether they wanted it or not; it could not be returned. Second, when payment was deferred, the interest rate ENTel paid greatly exceeded the market rate, so such debt constituted an excellent financial deal for suppliers.

There had been an official declaration that the amounts earned with the sale of ENTel would be used to pay its debts. However, a Presidential Decree on 30 March rejected that position, saying that the money will be used for health, education, justice, and defense. But Siemens, in July 1991, was able to collect US\$60 million from the Argentine government against outstanding debts. The German chancellor personally lobbied President Menem for payment.

Although Telecom and Telefónica cannot build terminal equipment, they can buy it for lease or resale to their customers. All manufacturers whose

equipment has been approved by the regulatory authorities have access to the terminal equipment market under non-discriminatory conditions and can sell directly to users. Moreover, Telefónica and Telecom can provide installation and maintenance of terminal equipment only under competitive conditions.

The transfer contracts say that when the total cost of equipment purchases exceeds US\$500,000 per year, purchases should be undertaken by "bidding or other competitive processes" (Decree 62/90 Clause 15.6). When it does not involve a price difference greater than 10 percent, the companies are obligated to give preference to the existing national industry when selecting suppliers. A "national industry" is a firm with a minimum local content of 40 to 60 percent, the exact level depending on the item. Inputs of national origin include labor, research and development, product engineering (including quality control), and software. CNT is to define the levels, but as of July 1995 had not done so and, in general, had failed to effect the conditions related to purchases of equipment from the national industry.

This section of the contracts is, at first glance, quite shocking because of what it implies in terms of state interference in the purchasing policies of private companies. Designed to mollify the local business community, including subsidiaries of multinational firms with factories in Argentina, it is not necessarily

effective. Years of experience by state corporations in dealing with national purchasing requirements show that there are ways to exclude those the company does not wish to buy from (Aspiazu, Basualdo, and Nochteff 1988).

Analyzing purchases by Telefónica and Telecom during 1991-94 shows a tendency to bring in at least a third supplier while continuing to purchase from the most important of ENTel's local suppliers, even where the suppliers are not related to the consortiums' owners. The continuation of purchases beyond the formal requirements agreed to with the government is probably related to two things. First is the benefit of not confronting firms that have the capacity to lobby federal authorities. A struggle with equipment producers might provoke a backlash in a period of great vulnerability for the services providers because the regulatory framework is still unsettled. Second, it is likely that, for some time to come, economies of precedence will carry weight, as there really is a necessity to make equipment compatible, to have a detailed knowledge of the network, and the like.

Related to this is the possibly greater ability of companies already in the country to respond immediately to a significant increase in demand, partly because of otherwise idle capacity (Herrera 1992 May). In this view, it is likely that transnational manufacturers, going beyond what is strictly dictated by their

cost structures, would keep factories in the country as an element of political pressure on purchasing decisions of Telecom and Telefónica. This is being done elsewhere by large international equipment producers. For example, Siemens has joint ventures in Poland, the Czech Republic, Slovakia, Romania, Hungary, and Ukraine which grant it advantages in competing for contracts in public telephony.

Transnationals in Argentina also are producing in Brazil and sometimes in Mexico and other Latin American countries. For this reason, if one bets on the success of current government initiatives to create regional trading blocs (Mercosur, for example), it is possible to imagine a restructuring, consistent with the implementation of complementary production plans among subsidiaries installed in different countries. Or there might be closure of some plants considered redundant. After all, foreign direct investment for equipment production in Latin America was only done when the government required it for access to the market; the size of the local markets otherwise did not justify it (Herrera 1992 May).

Nevertheless, it is possible during the mid 1990s that there may be space for activity by small and medium local firms producing parts or items used as customer premises equipment -- particularly telephone sets and PBXs. The advantages these firms can count on (besides geographic location and continued

trade protection) are the costs outsiders incur developing software to adapt products to the Argentine network, as well as to the characteristics of the end user. Despite ongoing liberalization, tariffs of up to 50 percent remain on some items.

7 The Regulatory Authority

The conditions for the sale of ENTel were established prior to deciding some crucial aspects of the regulatory framework. Privatization anticipated promulgation of a telecommunications law, but occurred while the law's content was still the subject of discussion in Congress as to what the mandate of the regulatory body was to be.

The president is in charge of setting the basic outline for sectorial development, with the regulatory body being in charge of supervising the carrying out of these plans. The regulatory body is the Comisión Nacional de Telecomunicación (CNT), created in June 1990 by Decree 1185/90. According to its statutes, CNT is responsible for regulating, controlling, and supervising the delivery of all telecom services (excluding radio): seeing that the quality and expansion goals established in ENTel's transfer contracts are met; and overseeing

rates. CNT's role regarding rates is limited to proposing a pricing framework to the Secretary of Communications, who makes the actual decision, and to supervising implementation by the companies of the decisions.

In the name of protecting the public good and the rights of consumers, CNT is the administrator of the electromagnetic spectrum (excluding radio); has control over licensing (although new licenses that grant monopoly rights can only be granted by the executive); guarantees networks interconnectivity (by resolving conflicts within 10 days); verifies there is no anti-competitive conduct against users of the satellite system; and is obligated to protect Teleintar's rights. CNT also has powers of confirmation regarding equipment purchases, and in some cases will supervise the purchasing policy of a service company to verify that a competitive selection process is used.

CNT's director is appointed by the country's president. A tax of 0.5 percent of earnings (net of taxes) from provision of telecom services finance the agency.

The contrast between the size of the tasks assigned CNT and its lack of personnel and infrastructure is truly notable. Since the privatization of ENTel, CNT has been conspicuously absent from any defining of the principal issues involving national communications. None of the important disagreements that

have arisen between the state and the private firms have involved CNT in their resolution. Essentially, this is because this regulatory body consists of an "unarmed police" assigned to oversee measures taken by policy makers which occur outside its area of control.

CNT is nonetheless in the midst of controversy. In November 1994 the Secretary of Communications, with the agreement of the Minister of Economy, tried to approve a price restructuring in which the CNT did not have any participation and which was opposed by most CNT directors. ADELCO, a consumer advocacy group, also objected. The protests produced intervention by the courts. In June 1995, as discussed earlier, the executive removed all of CNT's directors and its president. That action also was appealed to the courts, who found for the existing directors, but the government has appealed. Both matters remain undecided as of July 1995.

In addition to this picture of management crisis and conflict among different government levels, the CNT lacks the human and financial resources to make an independent evaluation of compliance by the companies it supposedly supervises. It does not even have the power to compel the firms to deliver information necessary to correctly make such an evaluation.

In the first half of 1990, in anticipation of CNT's creation, the Secretariat

of Communications, up until then in charge of the design and implementation of federal policies and of the control of companies operating in the telecommunications area, was downgraded to a subsecretariat. Some two months after privatization, on 31 January 1991 it was dissolved altogether and its approximately 400 employees were dismissed, with a large number of its laid-off technicians ending up in the private sector. With this, the state was almost completely emptied of technical personnel with telecommunications experience.

Subsequently, the Ministry of Economy and the Ministry of Works and Public Services were merged to create the Ministry of Economy, Works and Public Services. A Secretariat of Public Works and Communications was created and a Communications Subsecretariat was re-establishment. This did not alleviate the situation.

8 Outlook

A look at the future of Argentine telecommunications must recognize that, in the context of structural weakness in the state's regulatory capacity, Telefónica and Telecom have been given monopolistic powers for as long as until 2001 not only

for provision of basic domestic local and long-distance telephone services but also, through Teleintar, all types of international services. In addition, the two companies own Startel, which offers services in areas where competition is permitted. Further, subsidies from international to domestic service are required.

For users the primary result of privatization has been higher rates. In compensation, the consortiums have expanded the network and worked to improve service quality. Additionally, it is hoped the new regulations will lead to the entrance of new suppliers of domestic value-added services.

Argentine equipment producers have benefited from privatization because of the substantial investment being made in new plant and equipment. Although free of the previous requirements to buy locally, the operating companies have in fact increased imports only somewhat. This is in part because from the first moment of the post-privatization period the new telcos have paid prices much lower than those paid by ENTel. For example, in 1991 Siemens and Pecom Nec sold Telecom 25,000 lines at US\$240 each, in line with the international market, and much lower than ENTel had paid during the two previous years. To the extent these cost reductions do not translate into proportionately lower prices for service and the "extra" profits are only partially used to modernize and expand the system, there is a redistribution of resources favoring the companies themselves,

in detriment to the end user and some equipment suppliers, who may be forced to undergo a complete restructuring.

8.1 Potential Instability?

In contradiction to the contention privatization necessarily stimulates competition (which, in turn, brings benefits such as a lowering in the cost of international telephone service), in Argentina, if the present regulatory framework remains unaltered, it is very likely that there will be a tendency towards a consolidation of Telefónica, Telecom, and Teleintar.

As far as attracting new companies is concerned, a rate structure could emerge that, added to the award of the second mobile telephone band to Startel, creates an environment of discriminatory linkages against potential competitors in the delivery of value-added services. The possibility of consolidation relates to the existence of economies of precedence, the possibilities for cross-subsidies (see Helm and Yarrow 1988), and the absence of regulatory bodies with real supervisory powers (which includes, among other things, a lack of government control over the rate structure).

Indeed, some CNT directors assert it is obvious Telefónica and Telecom

have been building a large fiber-optic network, using profits from monopoly services, to obtain an advantage in providing value-added services and entering the market for cable television when the period of exclusivity, during which they can provide only telephone voice services, ends. >I

Argentina never developed a system of controls on the cost structure of ENTel. Nothing indicates that the privatization process has changed this. On the contrary, CNT does not have the resources to independently evaluate the cost structures of the new private companies, which have been reluctant too provide information. This is important because, if the government intends to allow market entry to new service providers, CNT must have precise information on the cost structure for each service, and to know in detail the type of demand that the companies face in each segment of the market (Helm and Yarrow 1988; Noam 1989; OCDE 1988). From the fragmented information CNT has had access to, some of its directors infer that the internal rate of return on assets used of the basic services companies was above 40 percent during 1992-94. This is obviously higher than the 16 percent proposed as acceptable by the government in 1990.

If one thing characterizes the regulatory framework that emerges from the privatization of ENTel, it is its potential instability. Even though the weakness of the CNT leaves the individual consumer in a virtually defenseless situation, some

groups negatively affected by the Telefónica and Telecom monopolies are also very powerful. These groups can, in many cases, count on the support of the governments of industrial countries, and they are ready to do battle to obtain a regulatory environment that will permit them to operate under better conditions than currently exist in the Argentine market.

Among other things, they could succeed in imposing institutional changes that favor users of international data transmission services hurt by the current Teleintar rates; users who want access to services not offered by the system; companies that the legislation left on the margin of the Argentine market; cable television companies that want to get into international data transmission; and suppliers of equipment excluded by the purchasing policies of the private companies.

An example is the Supreme Court decision that, since December 1994, has allowed companies providing international "call back" services to enter the market. Teleintar argued that the decision damaged its monopolistic rights. In 1994 the US telecom company MCI bought the largest Argentine cable TV company (Cablevision) with the goal of competing against the local telcos, and MCI seems ready to contest the monopoly of Telefónica and Telecom when they end, probably not until 2000, given the companies' success so far in beating their

mandatory targets for expansion and service quality. The discussions about the scope of the rights of Telefónica and Telecom, including pricing, have divided the Argentine government, as seen in the dismissal of CNT directors in June 1995.

Within two years of privatization, some major users and equipment suppliers had begun to exert effective pressure on federal officials. On the user side, a crucial example is that of the directors of the primary foreign news agencies operating in Argentina, which, in the name of the Associated Press, France Press, Agenzia Nazionale Stampa Associate, Deutsche Presse Agentur, United Press International, and Reuters, in 1992 delivered a document to the president of the Senate's Commission for Free Speech (Comision de Libertad de Expresion del Senado).

The document contends that "the privatization of communications in a monopolistic form and the lack of official regulation" limits freedom of the press because the license holders seem to be taking "restrictive and regulatory" steps in regard to journalistic activity and "are limiting and blocking the delivery of information to the media in Buenos Aires and the interior and limiting and blocking the international dissemination of Argentine news." It also claims "the Comision Nacional de Telecomunicaciones is not functioning, there is a failure to expedite licensing for operating antennas for private use, a rate structure for the

IBS linkages is missing, there is no regulation for setting tariffs on the receipt of information of public interest on the part of the license holders, and there is discrimination in the use of international satellites for the receipt of public-interest information."

Domestic equipment producers, including the subsidiaries of multinationals, expressed themselves publicly in 1991 through the Argentine Chamber of Telephony and Related Fields (ACTRF) and the Argentine Chamber of Electronics Industries (ACEI). They spoke in "defense of the industry, of its technological qualifications, and of national sources of work." ACTRF wrote the CNT accusing the telcos of violating the decree obliging them to give preference to Argentine industry. ACEI asked members of the Communications Commission of the Argentine Congress for legislation obligating the telcos to buy a major part of their equipment in the country. It obtained the support of the Commissioner, who tried to gain the support of the Minister of the Economy. This mobilization is probably a reason the companies have continued to purchase a significant portion of their equipment from ENTel's politically well-connected traditional suppliers.

Given this outlook, the future of domestic equipment producers is uncertain. They have been benefiting from the modernization and expansion of

the network, even though their sales are at lower prices than when imports were restricted. As the Mercosur agreement reduces trade barriers between Brazil and Argentina, transnationals may build, or consolidate existing, facilities in just one of the two countries. Brazil is the larger market, so regional consolidation may work to the detriment of an equipment-making industry in Argentina. In any case, as part of a regional economic market with Brazil, Paraguay, and Uruguay, Argentina's economic, and technological evolution will have a strong influence on the development of telecommunications in Latin America.

Argentina

Table 11.1

Basic Indicators of the Argentine Telecommunications Network

Companies Telefonica and Telecom 1990/1994

	NOV. 90	SEPT. 91	SEPT. 92	SEPT. 93	SEPT. 94
INSTALLED LINES	3471283	3629939	4256643	4967588	5637837
ANNUAL VARIATION*		158656	626704	710945	670249
LINES ON SERVICE	3086964	3199190	3682145	4091804	4834073
ANNUAL VARIATION*		112226	482955	409659	742269
DIGITAL LINES	460284	559000	1189499	2270390	3488923
ANNUAL VARIATION*		98716	630499	1080891	1218533
PUBLIC PHONES	22549	25690	36500	47254	56844
ANNUAL VARIATION*		3141	10810	10754	9590
NETWORK					
DIGITALIZATION	13.26%	15.40	27.90	45.70	61.88
WORKING PERSONAL	40772	35286	36293	33736	31289
ANNUAL VARIATION		-5486	1007	-2557	-2447
LINES ON SERVICE	75.7	90.67	101.46	121.29	154.5
PER EMPLOYEE					

50.7% of the total new lines were installed by Telefónica, while the rest were installed by Telecom (regarding the lines already operational, Telefónica had 51.5% of the total).

* THE VARIATION IN 1991 WAS MEASURED IN RELATION TO THE
PRIVATIZATION OF ENTEL (NOV.1990)

SOURCE: OWN PRODUCTION BASED ON DATA FROM THE CNT.

Argentina

Table 11.2

Investments of Telecommunications Companies

November 1990 - December 1994

(Million of dollars)

TELECOM	\$2,745.3	
TELEFONICA	2,728.9	TELEINTAR
	112.1	
STARTEL	33.4	
TOTAL	\$5,619.7	

SOURCE: CNT