

THE DIVESTITURE OF TELMEX

Inder Ruprah

Regional Project on Proposals for Policy Reforms
ECLAC / Government of the Netherlands



UNITED NATIONS
ECONOMIC COMMISSION FOR LATIN AMERICA AND THE CARIBBEAN
Santiago, Chile, 1994

LC/L.871
November 1994

This work was prepared by Inder Ruprah, former researcher at the Centro de Investigación y Docencia Económica in Mexico, and consultant to the Regional Project on Proposals for Policy Reforms to Increase the Effectiveness of the State in Latin America and the Caribbean (HOL/90/S45). The views expressed herein are the sole responsibility of the author and do not necessarily reflect those of the Organization. This document has been reproduced without formal editing.

The author wishes to thank Bernardo Gómez Palacio of the Comisión Intersectorial del Gasto y Financiamiento, Jorge Silverstein of the Divestiture Unit, Ministry of Finance, Carlos Cassus López and Adolfo Casio Pérez, both of TELMEX, Jaime Palacio of SCT, and particularly Robert Devlin of ECLAC, who painstakingly read an earlier draft of this paper.

TABLE OF CONTENTS

	<i>Page</i>
PREFACE	5
I. INTRODUCTION	7
II. HISTORICAL BACKGROUND OF TELMEX	9
III. TELMEX IN THE EIGHTIES	11
1. Regulatory framework of the telecommunications industry	11
2. Tariffs and taxes	12
3. Taxes and the budgetary impact	13
4. Financial and economic performance	14
IV. DIVESTITURE AND DEREGULATION	19
1. What did TELMEX consist of just before privatization?	19
2. Equipment and offices	20
3. The unions and the work force	20
4. Why TELMEX was privatized	21
5. How the privatization was carried out	22
6. Government income and sale price	26
7. The Concession Title and regulatory framework	26
V. TELMEX AS A PRIVATE FIRM	29
1. Prices and tariffs	29
2. Expansion and efficiency	30
3. Quality of service	30
4. Financial performance	30
5. Taxes	31
VI. CONCLUSIONS	33
1. TELMEX as a public company	33
2. Pre-privatization restructuring	33
3. Sale process	33
4. Regulatory framework	34
5. Private TELMEX: improved performance?	34
Notes	35
Statistical tables	39
Figures	63

PREFACE

The objective of the Regional Project on Policy Reforms to Increase the Effectiveness of the State in Latin America and the Caribbean (HOL/90/S45), which ECLAC is executing with cooperation from the Government of the Netherlands, is to identify reforms that allow the States of the region to implement effective policies for pursuing the interrelated goals of macroeconomic stability, changing production patterns for attaining sustained growth, and social equity.

With this objective, the project seeks to analyse actual processes of public policy reform, from the perspective of an explicit view of State reform and how it relates to interest groups and social actors, in the context of the challenges facing the countries of the region during the current phase of their development, and the new functioning of their economies.

To achieve that objective, reform processes in different areas of public policy are analysed in a number of countries in the region that have undertaken such reforms. The areas selected are: tax reforms, privatization of public enterprises, reform of trade regimes, labour reforms and reforms in areas of social policy. The countries chosen are: Argentina, Bolivia, Brazil, Colombia, Costa Rica, Chile and Mexico.

In turn, comparative analyses -between countries- are made of reforms carried out in each of the instrumental areas selected, for the purpose of drawing lessons applicable to each policy area, on the basis of the different national contexts.

Finally, analyses of reform processes in each country are integrated into a multidimensional view of the reform of the State taking place in each of them, in order to draw conclusions about the determinants and possibilities of State-reform strategies in Latin America and the Caribbean.

I. INTRODUCTION

This document describes and analyzes the privatization of TELMEX, Mexico's telephone service monopoly, as well as the changes in the country's telecommunications regulatory framework.

TELMEX is both an interesting and challenging case study. Firstly, it has been the largest single public enterprise divested in the recent spate of privatization in Latin America in general, and in Mexico in particular. Secondly, it has become the biggest private company in Mexico, and is now a private monopoly for basic telecommunications services in Mexico. Thirdly, in contrast with other countries, an innovative privatization mechanism ensured that majority control remained in national hands but at the same time maximized sale revenue and secured an infusion of managerial experience. Fourthly, Mexico has decided to go the British way rather than adopt the United States approach. In other words, instead of employing a structural remedy -breaking up the telephone company- it used a regulatory remedy (a variant of the pricing rule based on the inflation rate plus a surcharge of x percent) as the main means of avoiding allocative inefficiency. Further, the new Concession Title (Telecommunications Act) has quantitative physical and quality-of-service targets. Finally, the privatization of TELMEX is viewed as creating a potentially dynamic sector that will have considerable economy-wide synergies.

This document is divided into four main sections. Section II briefly discusses the origins and development of the telecommunications service industry in Mexico up to and including the 1970s. Section III reviews the evolution of TELMEX during the 1980s, while the fourth section gives details of the privatization of TELMEX and the new regulatory framework for telecommunications. Section V contains a discussion of TELMEX as a private company and a comparison with its performance as a public enterprise, while the last section outlines the central conclusions.

II. HISTORICAL BACKGROUND OF TELMEX

The history of TELMEX is intimately related to the different phases of Mexico's development strategy, particularly regarding government versus private national versus foreign multinational ownership.

At the turn of the century Mexico was dominated by foreign capital, and during this period a number of telephone companies started operating under concessions. The first phase, then, covers the period up to 1958, when the telecommunications industry was controlled by foreign companies. The second phase is from 1958 to 1972, when it was Mexicanized, with TELMEX becoming a majority-owned Mexican firm in 1958. The third stage is from 1972 to 1990, when it was a public company with minority private sector participation, the Government having bought a controlling interest in 1972. The final phase is its privatization in 1990, but with Mexican control and with minority foreign participation.

The TELMEX story starts in 1948, when TELMEX was formed through the merger of Mexico's two main telephone companies, Teléfonos Ericsson (a subsidiary of Ericsson of Sweden) and Compañía Telefónica Mexicana (a subsidiary of ITT), together with about 108 independent local operating companies.

TELMEX became a majority-owned Mexican company in 1958, during the presidency of López Mateos, who took the policy of Mexicanization (majority control by Mexicans) very seriously. During his Presidency a number of firms were nationalized or Mexicanized in crucial sectors like telecommunications, electricity and petrochemicals.

During the period 1948 to 1958, however, there was increasing government participation in the company, partially to counterbalance the increasing participation of foreigners. In 1952 a Special Telephone Tax was introduced, a given percentage of which was to be returned to TELMEX as credit to finance its investment expenditure (originally as fixed debentures but later as social capital). In 1958 the government bought voting shares, and in 1963 special AA shares (in the amount of 500 million pesos, limited to government ownership) were introduced. These were equivalent to the accumulated credit given by the government to TELMEX, and were exchanged for TELMEX's debt to the State. In addition, priority in obtaining telephone service was given to subscribers who became shareholders. In 1971 the Concession Title had to be reviewed, and in that renegotiation the government bought 46% of the capital and obtained the right to nominate three representatives on the board of directors. However, effective control remained with the private sector.

In 1972 the government bought 51% of the equity and the company became a State-owned enterprise. The shareholders' meeting of that year agreed to the following:

- i) the government became majority owner, by virtue of having increased its share ownership to 51%;
- ii) the Concession Title was to be extended for thirty years; and
- iii) the Board of Directors was to be composed of six government officials, plus five directors from the private sector, and the Chairman was to be the Secretary of Transport and Communications (SCT).

Interestingly enough, the Managing Director was not changed, and the stock market took the news without any panic selling (TELMEX shares represented about 28% of its total share volume in 1971), since the nationalization was widely interpreted as a positive step. Its acceptance was also aided by the controversy over foreign involvement in Chile (the publication of confidential ITT documents regarding the political situation in that country), as it was considered a means of preempting control by "foreign interests".

The question that naturally arises is why TELMEX was nationalized. It was not in dire financial problems, nor necessarily was efficiency a criterion. The answer lies in the shift to greater direct government participation in the economy by the government of President Echeverría. This shift was due to both political and economic factors. His presidency also emphasized "technological independence", so that TELMEX's nationalization was part of a strategy to reduce dependency on the exterior and to stimulate the growth of the domestic telecommunications industry.

III. TELMEX IN THE EIGHTIES

As the sale of TELMEX is very recent, in December 1990, a conclusive "before-after" type of analysis is not feasible. However, by concentrating on the period just before the privatization, we can determine to what extent there was an announcement effect and to what extent there was a cleaning-up operation prior to privatization.

1. Regulatory framework of the telecommunications industry

TELMEX was a publicly-owned company, quoted on the stock market, with a monopoly of basic telephone services, private circuits and handsets.

Like most public enterprises, TELMEX was subject to a number of controls and checks that *de facto* resulted in government involvement in its management. TELMEX was subject to the authority of a number of regulatory bodies, sometimes with overlapping responsibilities and sometimes with conflicting criteria.

The Board of Directors was made up of a Chairman -the Secretary of Communications and Transport, six government nominees, and five private sector representatives.

The tariffs were set in consultation with TELMEX by the Secretary of the Treasury (Hacienda). The actual tariff structure and levels reflected a compromise between the conflicting goals of: (i) generating funds; (ii) using its tariffs as an anti-inflation weapon, and (iii) using them as an income redistribution mechanism. The Treasury also decided on the indebtedness of the company. The SCT was not only the regulating authority but also formally the responsible Secretariat ("Sector Head") for TELMEX, with the resulting potential and/or actual conflict between ownership and regulation, and the Secretariat also owned the satellite and related land stations which TELMEX used for international communications.

However, as TELMEX was not a "directly controlled"¹ public enterprise it avoided item-by-item budget approval by the Expenditure and Programming Secretariat (SPP) and the Congress.

2. Tariffs and taxes

The tariff structure of TELMEX was, and indeed still is, a maze of numbers and categories. To simplify the structure there are basically five tariffs (table 1): fixed charges for connection; basic rent; measured service (for local service after a given fixed number of free calls); national long distance; and international long distance.

The main characteristics were:

- i) Although nominal tariffs were increased practically every year (see table 1), telephone rates were declining in real terms over time until 1987, when this trend was reversed (see table 2). This was particularly true for local and national long distance calls, while international calls -which were indexed to the exchange rate- declined less.
- ii) There was considerable cross-subsidization, resulting in the cheapest local calls, combined with some of the most expensive international calls in the world.
- iii) Although in principle tariffs were adjusted practically every year, this took place only after considerable delay and below the rate of inflation.
- iv) Major adjustments were made in tariff levels and structure in 1988 and again in 1990.

Thus, although tariffs were increased practically every year there were also major adjustments in their levels and composition: firstly in 1988, in order to finance the plan to increase the company's network as well as in line with Mexico's heterodox policy shock of that year², and second, on 1 January 1990, just before privatization of the company. These latter adjustments were part of radical change in the tax and tariff structure related to the privatization of the company later that year.

The 1988 plan to revamp and modernize telecommunications covered the period 1988 to 1994 (see table 3).³ It included the purchase and installation of new digital switching and transmission equipment, and extension of the company's service to rural areas. The specific goals of the plan, which envisaged expenditure of US\$13.6 billion, included: (i) replacement of at least 15% of obsolete equipment; (ii) the provision of telephone service to all communities with over 50 inhabitants; and (iii) full implementation of an integrated digital network. In addition, the government allowed the interconnection of TELMEX's networks with those of MCI Communications Corp. Sprint in addition to the existing connection with ATT. Furthermore, in early 1989 a separate operating company - TELECOMM- 100% owned by the government was created to run the SCT's networks and eventually compete across the board with TELMEX.⁴

The main adjustments in 1990 however, were made with privatization in mind. This assertion is based on the fact that, first, the decision to privatize was announced in September 1989, and second, control was transferred in 1989 from the SCT to the Treasury (SHCP), i.e., the Secretariat responsible for privatization.⁵ The adjustments (see table 4)

were that local and long distance tariffs were increased radically, while tariffs for international calls were reduced as were the number of free calls.

Furthermore, at the same time the special indirect telephone tax (see below) was eliminated. The tariff increase, together with the elimination of the indirect tax, meant that TELMEX's revenues increased radically but the effective price paid by customers did not do so (see table 5). In other words, the special indirect taxes were absorbed into the tariffs charged by TELMEX for rentals, measured local and domestic long distance calls. Thus, the tariff cum tax changes were aimed at increasing TELMEX's revenue but at the same time reducing the adverse price impact on its customers.

3. Taxes and the budgetary impact

TELMEX can be considered -together with PEMEX- as an example of a public enterprise seen as a convenient source of cash, since it was subject to a special tax regime including indirect and direct company taxes. Special indirect telephone taxes were applied to TELMEX's tariffs and collected by TELMEX, in addition to VAT, in its bills sent to subscribers. The rates applied differentiated between local, long distance and international calls (see table 6).

The indirect taxes represented a big difference between the rates received by TELMEX and the rates paid by consumers. In 1989, for example, the local residential rental tariff was 50,640 pesos, plus telephone tax of 60% (30,384 pesos), plus VAT of 15% (12,153 pesos), making an effective price of 93,178 pesos, a 184% more than the tariff received by TELMEX. In 1990, the basic rental tariff was increased to 85,078 pesos (a rise of 68%). However, at the same time the telephone tax was eliminated, so that with the inclusion of VAT (12,762 pesos) the effective price paid by customers was 97,840 pesos -only 5% more than the previous tariff (see table 5).

In 1990, the special indirect telephone tax was eliminated and replaced by a new direct tax, in addition to the normal corporate tax. The new telephone tax is essentially applied at the rate of 29% to TELMEX's selected revenue, i.e., the revenue derived from rentals and local and domestic long distance calls. Although no official reason has been given to explain the percentage, we note that it represents the average of indirect taxes paid over the company's revenue for the period 1981 to 1989. From 1991 to 1996, however, 65% of the amount due can be offset if TELMEX invests an equivalent amount in network growth⁶. Furthermore, the gross amount of the telephone tax due can be deducted from the corporate tax base (the latter tax has a maximum rate of 35%). From 1996 onwards, both the telephone tax and capital investment offset will be eliminated.

Thus, if TELMEX has sufficient investment expenditure to receive the investment subsidy, and as long as income is high enough to take advantage of the income tax offset, the effective rate of the special indirect tax will be zero, as the entire telephone tax can be offset, while the direct tax rate remains at the maximum of 35%. The aim is to impose a

fiscal penalty if TELMEX's capital expenditure falls in a given year. The example given in table shows three cases: the first column corresponds to the situation without the new tax, the second presents a situation where sufficient capital expenditure effectively offsets the new tax, while the third column shows what happens when the company has insufficient capital expenditure to offset the new telephone tax. In all three cases it is assumed that income is such that the maximum corporate tax is paid⁷. Thus, with capital expenditure of 30 its total tax rate is 35%, but if capital expenditure falls to 20 the rate rises to an effective 49.6% (35% corporate tax and 14.6% special tax).

Table 8 summarizes the fiscal flows between TELMEX and the government, leaving aside the income derived from privatization (for the latter see below). As may be seen, TELMEX made a positive contribution to government finances, and received no formal subsidies. The primary source of the annual flows is indirect taxes (the special telephone tax and VAT), while TELMEX also pays direct company taxes and dividends to the government. Indirect taxes represent about 90% of all flows. The government received a high proportion of the company's receipts in most years, ranging from 23 to 38% between 1982 and 1989. In real terms, tax receipts were more or less constant between 1981 to 1987, but they increased dramatically in 1988 and 1989 followed by a sharp drop in 1990. The period in which receipts were constant reflects the fact that although real tariffs were falling, the rate of the special telephone tax was adjusted upwards to compensate for this. The sharp fall in 1990, both in real terms and as a proportion of earnings, is attributable to the tax/tariff changes in January 1990 as a prelude to privatization in December that year.

The new tax regime implies considerable loss of government revenue because: (i) the new tax is applicable only to selected revenues (it excludes connection charges and miscellaneous revenue from taxable revenue) so that it will be substantially lower as a proportion of total revenue; (ii) all the notional tax due (including the 65% subsidies) will be deductible from the corporate tax base, and (iii) the effective indirect tax will be zero up to 1995, provided that TELMEX invests enough to obtain the capital expenditure subsidy and earns enough to take advantage of the income tax offset.

4. Financial and economic performance

This section analyzes the economic performance of TELMEX. This performance is evaluated both over time as well as, where possible, in comparison with other foreign telecommunications companies.

a) Revenue and costs

Total revenues (see table 9 and figure 1) have grown since 1986 at a real average rate of 22.4%, mainly reflecting increases in real tariffs combined with the elimination of the special indirect telephone tax. Revenue can be divided into four broad categories: (i) local services (including installation, rent, measured service, and others); (ii) long distance; (iii) international (including outbound revenues as well as receipts of settlement payments

from foreign carriers), and (iv) other telephone services (directories, cellular services, sales, etc.).

As may be seen, the rebalancing of tariffs in 1990 has changed the relative importance of these categories in the total. Historically, long distance subsidized local service: in 1989, for example, international revenue was 42% and local only 20%. In 1990, however, international revenue fell to 29% and local rose to 31%. Within international revenue there has been a change between inbound and outbound income (see table 10). Two central trends stand out: (i) outbound unit traffic grew faster than real revenue growth, partially reflecting the rebalancing (reduction) of the rates, and (ii) inbound real revenue grew less than inbound volume growth, reflecting the effects of changes in the settlement agreement with ATT. The settlement agreement was based on eight different bands covering different distances to the relevant border crossing for a given destination and with different settlement rates for type and time of call. Prior to 1988, the average TELMEX charge was 95 US cents per minute while ATT's average charge was 31 cents. Thus, ATT paid 95 cents per minute to TELMEX for carrying calls from the US to Mexico, while TELMEX paid only 31 cents to ATT for calls originating in Mexico. In 1989, an agreement was reached to reduce this disparity, starting in 1990. Essentially the agreement was to set a minimum annual reduction in net settlement (TELMEX's accounting rate per minute with ATT) with the goal of reaching the US average, the reduction being based on whichever of the following is the greater:

- i) annual reduction in ATT's accounting rate per minute: 35 cents;
- ii) $(\text{net settlement}_{n+1} - \text{net settlement}_n) * 0.5 / \text{US billed MiTTs}$, until a rate of 60 cents is reached, when the agreement will be renegotiated.

Operating expenses over time, divided into four broad categories -salaries and operating costs, maintenance, depreciation and telephone service tax- are summarized in table 11. Real costs started to accelerate from 1987 onwards, with an average annual growth rate of 28% compared with an average growth of only 7% from 1982 to 1986 (see figure 2). The composition of costs, at least at this level of disaggregation, has not changed.

b) Profitability

Nominal profits after tax have -unlike many other public enterprises- been positive and increasing, almost doubling each year. In contrast, real profits after tax were stagnant in the first half of the 1980s and fell dramatically in 1986/87, when they were only half of their 1981 value, but since then they have more or less doubled each year (see figure 3). This pattern reflects the fact that output prices were falling in real terms, with not enough growth in volume to compensate for this, but from 1987 onwards real prices have increased dramatically, as has volume.

The profit rate (the profit level divided by fixed operating assets) fell from about 6% to about 2% by 1987. This was due to the fall in real profits combined with a steady

increase in operating costs. After 1987 the profit rate rose sharply to about 17% by 1991, because the increase in revenue outweighed the rise in operating costs.

c) *Efficiency and network*

Global indicators of efficiency are the two ratios: access lines per employee, and revenue per employee. Figures 2 and 3 show the evolution of these ratios over time for TELMEX. Table 12 shows the relative performance of TELMEX, which, as can be seen, was very low. However, the table includes companies responsible for both local and national networks, which in principle will have more employees per line than companies with only, or predominately, national service. Secondly, company policy regarding subcontracting (for example, in-house execution or subcontracting of many engineering functions) will substantially affect the ratios.

Furthermore, the rapid growth of the network provided for in the sale contract, means that access lines should almost double by 1995, while the employment programme suggests that telephone staff will increase only by 23% (61,200), thus giving about 160 lines per employee: roughly equivalent to European company levels.

By international standards (see table 13), TELMEX's revenue per employee is very low. However, when making this comparison it should be borne in mind that: (i) this revenue is susceptible to market conditions; (ii) there are differences in the revenue categories included, and (iii) it also reflects currency fluctuations. Nonetheless, the table suggests that TELMEX can grow about 4 times without reaching the point where purely demographic factors become a limit.

d) *Investment and its financing*

Investment was rising steadily until 1987, but thereafter it began to increase rapidly (see figure 6). The average growth rate of fixed capital formation was 12.6% for the previous five years, but 22% since that date. The acceleration can be attributed to the entry into force of the government's strategy of improving telecommunications as well as the need to upgrade and replace networks damaged or destroyed in the earthquake of September 1985. The investment was mainly financed by internally generated funds. Firstly, real fiscal flows grew substantially from 1988 onwards, so that it was not financed by the central government, and secondly there was no radical increase in debt (but see below). The internal financing was mainly derived from increased earnings due to the price rises initiated in 1988. The company also partly financed its growth by selling future accounts receivable: TELMEX sold to investors the right to receive future settlement charges that would be paid by ATT. There was no risk premium attached, since the payer was ATT. The implicit interest rate used in such transactions was typically lower than the rate at which TELMEX normally borrowed. TELMEX received US\$208 million, US\$256 million and US\$438 million in 1988, 1989, 1990, respectively. However, one important source of funds -the issue of shares and bonds subscribed by new telephone customers- was abandoned in April 1990, when the company stopped issuing shares, and in January 1991, when it suspended the issue of bonds.

e) *Financial structure*

Table 14 summarizes the basic financial ratios of the company. As may be seen, the financial structure has not undergone any radical change. The debt/equity ratio fluctuated between 0.4 and 1.1, largely because of the continuous inflow of equity, which reflects the method of payment (each new line was partially paid for by buying TELMEX shares at the going market price which were resold on the stock market or to TELMEX) and in order to maintain its 51% share the government frequently had to subscribe to new share issues. The principle source of debt was supplier credit.

f) *Quality of service*

TELMEX's service was poor. In 1989 the company had a backlog of over one million orders, of which over 80% were with the residential sector, as the tariff structure induced TELMEX to meet commercial sector demand before that of domestic subscribers. It took between 3 and 18 months to obtain a line, and the company calculates that about 49,000 telephones were out of service each day. Indeed, TELMEX headed the list of complaints lodged with the consumer protection organization (PROFECO).

IV. DIVESTITURE AND DEREGULATION

1. What did TELMEX consist of just before privatization?

The structure of TELMEX, as offered for sale, included:

i) The Directories Group: This group is dominated by the activities of *Anuncios en Directorios*, which publishes the Yellow Pages and other specialized directories in Mexico and sells advertising space. *Editorial Argos* is specifically in charge of the editorial functions involved in producing the various directories; *Imprenta Nuevo Mundo* is responsible for their physical publication, and *Operadora Mercantil* sells advertising space in various directories.

ii) The Construction Group: The construction group exists to develop sites and install plants principally for TELMEX operating companies. *Construcciones y Canalizaciones* (CYCSA) is responsible for laying cables, installing equipment and carrying out work on outside lines. *Teleconstructora* carries out installation and maintenance on local and long-distance lines. *Construcciones Telefónicas Mexicanas* (Contelmex) performs local line and telephone installation both for TELMEX and outside customers, including the government. *Canalizaciones Mexicanas* (Camex) is responsible for laying telephone ducts and providing installations to house repeaters.

iii) The Real Estate Group: The real estate group was created to purchase, administer and maintain sites for TELMEX plants, to ensure that a realistic cost for plant construction is charged to the operating divisions, and to take advantage of certain fiscal benefits. *Compañía de Teléfonos y Bienes Raíces* (CTBR) operates in central Mexico, purchasing sites, overseeing civil engineering projects for TELMEX, and also providing maintenance services. *Alquiladora de Casas* (ALDECA), also purchases sites, supervises projects and provides continuing services to TELMEX once the sites are occupied, but operates in frontier and coastal regions. *Inmobiliaria Aztlán* is a property company which leases buildings to *Anuncios en Directorios*.

iv) The Services Group: The services group was created to provide administrative, engineering, components and maintenance services for TELMEX. *Impulsora Mexicana de Telecomunicaciones* (IMTSA) is responsible for providing engineering support for network development. *Industrial Afiliada* (IASA) manufactures terminal equipment and other telephone components. *Fuerza y Clima* is responsible for maintenance of power plant and air conditioning at TELMEX facilities. *Renta de Equipo* (RESA) is principally responsible for leasing equipment to Contelmex. *Servicios y Supervisión* (SESUSA) provides

administrative services to Contelmex.

v) The Telephone Services Group: This group includes the two Telcom subsidiaries not operated directly by TELMEX. *Telnor* is separate for historic reasons, while *Radiomóvil DIPSA*, TELMEX's cellular radio subsidiary, is separately owned for regulatory reasons.

It should be noted that in 1990 eight cellular franchises were awarded, concluding an open tendering procedure which began in 1989. There are two licenses per region, outside the Federal District, with one reserved for TELMEX. TELMEX was awarded a concession only when a competitor was already operating. All non-TELMEX franchises were awarded to consortiums under Mexican control but with foreign partners. It may be noted that the accounts for TELMEX's activities in the cellular sector have to be kept separate from its main activities. However, thanks to all the concessions granted to it, TELMEX is the only company with nation-wide service on a single system, giving the company a competitive advantage.⁸

2. Equipment and offices

TELMEX had 288 commercial offices, employing about 4031 workers using a manual system to keep track of new orders, address changes, telephone apparatus sales, receipts and control of payments. Switching technology consisted of electro-mechanical (9%), crossbar (59%), semi-electric (1%) and digital (31%) installations. The electro-mechanical equipment had no spare parts and handled little traffic, while 7% of the crossbar switches were damaged. Of the outside plants, 15% of the network was more than 20 years old, and 35% between 10 and 20 years old. Thirty percent of the secondary network does not meet technical specifications, and there was a vulnerable conduit system. Key infrastructure data are given in table 15.

3. The unions and the work force

TELMEX's labour force in 1989 was 49,200 workers. It had grown by 46% since 1984, when it had 33,400 workers. About 84% are union members. They were distributed over: (i) network maintenance, 29%; (ii) equipment maintenance, 38%; (iii) engineering and installation, 8%; (iv) traffic, 25%; and (v) administrative, 10%.

The Telephone Workers' Union (STRM) is one of the most powerful unions in Mexico. Although it is affiliated to the CTM (Confederation of Mexican Workers) it has no formal ties with the ruling party PRI. In April 1989 TELMEX and the unions, with active participation of the government, completely revised the labour contracts. The main results were:

i) The 57 separate departmental agreements were replaced with one single salary scale divided into 45 levels.

ii) An agreement regarding labour force reduction through a combination of early retirement schemes, voluntary resignations, and the non-renewal of temporary employment contracts.

The Mexican privatization programme formally gives the right of first refusal to the unions of the companies concerned. In other words, by matching the best offer the union can buy the company. In addition, resistance to privatization by the unions was avoided by, among other factors: (i) the promise that unionized workers would be part owners of the company; (ii) the nomination of the union leader as head of a specially created union group; and (iii) the promise that TELMEX would create a special training facility for retraining existing workers displaced by the introduction of new technology, particularly digitalization.⁹ To that end, the Instituto Tecnológico de Teléfonos de México¹⁰ was set up. In 1990, average wages were increased by 21%: well above the national average.

Furthermore, the above "carrots" were given in a context where the government had declared Aeroméxico -a government-owned airline- bankrupt in the midst of a strike in 1989, as well as declaring the publicly-owned copper mine Cananea bankrupt in the same year.¹¹

4. Why TELMEX was privatized

The privatization of TELMEX can be considered as part and parcel of the new development strategy adopted since 1983, which has involved a radical reduction in the direct participation of the State in the economy. The official reasons advanced were:

"Telecommunications is one of the most dynamic areas of modernization worldwide, but one in which Mexico had fallen behind. Considerable investment was required to accompany the development that has been planned and to renovate technology. Channeling these resources, however, competes with the fulfillment of attention social priorities. Within this context the decision has been made to sell TELMEX" (freely translated from the first State of the Nation Report, 18 September 1989).

A privatization mechanism, it was officially argued, would ensure that:

- i) the government would maintain sovereignty over the sector;
- ii) majority control would remain in the hands of Mexicans;
- iii) the rights of existing workers would be guaranteed and workers would be invited to participate in the company's capital;
- iv) the quality of services would be brought up to international levels, and
- v) sustained growth would be assured.

Additional underlying reasons for privatization were:

i) in principle, the measure was welcomed both by businessmen and by consumers in general, given the poor service provided;

ii) although a net supplier to federal government coffers, a cash flow was needed in coming years. Thus, although TELMEX was obviously a profitable company, the big investments needed were impossible given macroeconomic, budgetary and debt limits;¹²

iv) a private telecommunications company would be more compatible with the objective of strengthening the competitiveness of Mexican companies in the export market and encouraging direct foreign investment;

iv) the country had big dollar financing needs, due to the widening current account deficit of the balance of payments, and the sale proceeds were needed to ease further fiscal deficit reductions and help in the policy of reducing the domestic public debt.

5. How the privatization was carried out

The sale of TELMEX can be divided into three major phases. The first phase, 1989-1990, includes measures to prepare the company for privatization. The following stage was in December 1990, when the controlling interest (50.1% of full voting shares) in TELMEX was sold in a closed-bid auction. The third stage was when the government sold its remaining shares in successive tranches on the Mexican and foreign stock markets. Table 17 gives a chronology of the privatization process.

a) *The First Phase*

At the beginning of 1990, the ownership structure of the issued shares was as follows (see table 16): Mexican government, 56% (consisting of AA shares only open to the government); Mexican private sector, 18% (consisting of A shares open only to Mexicans); remaining 26% held as ADRs (potentially all foreigners).

In that year the shareholders' meeting "decided" that:

i) the government would change 5% of its AA shares for A shares, thereby reducing its ownership to 51%, and change the status of AA shares from "only government" to "only Mexican";

ii) a new series of L shares would be issued, paying 1.51 for each A or AA share, thus resulting in a new structure of: 20.4% of AA shares (50.1 % of full voting shares), 19.6% of A shares and 60% of type L.¹³ The number of shares rose by 157%, from 4,241.3 million to 10,602 million (see table 16, 2nd column).

It may be noted that the stock dividend and capital dilution was aimed at achieving maximum sale revenue, while at the same time ensuring that control remained in Mexican hands. With the capital dilution, AA and A shares represented 40% of the total stock, while

AA shares, although only 20.4% of the total stock, actually represented 51% of the full voting stock. Thus, this measure also provided a barrier to an acquisition of TELMEX by an outside company or a leveraged buy-out.

Further, during 1990, as part of a general renegotiation of Mexico's foreign debt with commercial bank creditors, the government took over US\$471.5 million of TELMEX's foreign debt, while in April 1990 TELMEX entered into a forward 18-month contract for the purchase of US\$670 million (face value) of government foreign debt from an international bank for US\$248.3 million, making an advance payment of US\$114 million.¹⁴

Other preparations for privatization included tariff increases, reform of the tax applicable, and a major revision of the labour contract, all discussed in the previous section.

b) The Second Phase: The sale of the controlling shares

The formal date of privatization was December 1990 and the closed bids for the controlling shares had to be presented by 15 November 1990.

During the interim period there was an important informal pre-selection of potential buyers (both international and national) on an individual basis. The criteria used included financial solvency and knowledge of telecommunications. By October 1990, of the 14 or so firms that had shown interest, only four Mexican companies were selected. Offers were submitted, however, by consortia that included both Mexican and foreign partners.

There were only three formal offers: (i) Gentor, (ii) Acciones and Valores, and (iii) Grupo Carso. Table 17 summarizes the central characteristics of the bids that were received.

The Inter-Secretariat Commission on Expenditure and Financing decided that Grupo Carso's offer should be accepted, and informed the Group of its decision on 7 December. The criteria used were (i) sale income, (ii) management expertise, particularly of the foreign partners, and (iii) Mexican control.

The commission was provided with a valuation report by NAFINSA, the public development bank, which used as a point of reference the value of the shares on the Mexican stock market. TELMEX's shares were about 25% of the shares quoted on the stock market, and during 1990 their maximum price was 5,675 pesos per share while the minimum was 5,075. The market value taken was 21,524,378 pesos (US\$7,299.5 million), with a price/earnings ratio of 8.2 and a market/book value ratio of 1.5. In evaluating the company's value, NAFINSA also used the price of TELMEX's shares in New York (the ADR price on the NASDAQ market). There were also two studies by international consultants. One valued the firm from a financial perspective which included calculations of future business of TELMEX, and the other was a technical study.¹⁵

The major limitations of the stock market valuations were the volatility of stock markets due to the Gulf War, and the fact that the new regulatory framework had not been

published. The latter suggests although the stock market price was transparent it was inappropriate, given that it did not include all the information.

The Carso group and its associates -the strategic group- bought 20.4% of the voting shares (2,163 million shares) for the sum of US\$1,757.6 million (not through swaps), at a purchase price of US\$0.81 per share, implying a value of US\$8,615.7 million for TELMEX.¹⁶ The price paid per share was 6% above the maximum achieved in the stock market during the previous 12 months, and 3% above the closing price on 11 December. The total amount of US\$974 million + interest was payable on June 1991 (present value of US\$974.7 million) and US\$23.6 million was payable by May 1996, (current value of US\$14 million, using 10% interest rate).

The share price on the stock market implied a value of US\$8,615.7 million on 30 September 1990 (20% of the stock equalled US\$1,723.1 million). The buying group was made up of:

i) *Grupo Carso*, which paid US\$859.6 million for 10.4% of the total capital stock of the company (equivalent to 26% of the voting stock and 51% of the AA shares). The majority of the investment is owned by Grupo Carso SA de CV and Seguros de México S.A. Both are owned by C. Slim. Grupo Carso is a leading holding company involved in mining, manufacturing, tobacco and restaurants. Carso himself is an agile financial operator who had previously bought: (a) SANBORN (from private owners, 1985); (b) FRISCO (in a joint venture with Du Pont, 1986), whose average annual real sales have grown by 35% since then; and (c) NACOB (public enterprise, 1987) whose average annual sales have grown by 27% since that date).

The other two partners are foreign companies, one from the USA and the other from Europe. Not having two USA partners was politically expedient and avoided probable controversy. Their participation was as follows:

ii) *France Cable & Radio (TELCOMM)* paid US\$412.2 million for 5% of the shares. It has a track record of successfully maintaining a process of rapid modernization -15% annual access line growth over 14 years, so that its penetration is 45% of the population compared to 7% in the early 1970s.

iii) *Southwestern Bell* paid US\$485.5 million for 5% of the shares. The extra US\$73.6 million were for the option (exercised in September 1991) to purchase 5% of the non-voting shares. It should be noted that on 13 February 1990 it obtained a waiver from the courts in respect of the 1984 court order that forbade it from long-distance service. Its operating territory is parallel to the Mexican border, and its main expertise is in the development and marketing of new telecommunications services as well as cellular mobile radio.

In December 1990 the controlling group paid 50% of their offer, and the rest in promissory notes (whose value included 3% points above LIBOR) on 20 June 1991. The controlling group is guaranteed protection from hostile takeover bids, as their shares are off

limits until 1995. The Trust which holds the shares restricts transfer of ownership until December 1995. Initial controlling shareholders may transfer subject to giving first refusal to other existing controlling shareholders. The Trust also requires that the AA shares be voted in a block by the technical company controlled by Mexican partners.

The Mexican Government was advised in respect of the sale by Goldman Sachs Co., Southwestern Bell by Salomon Brothers Inc., and France Telecom by Wasserstein, Parella Co. The financial agent for the sale was NAFINSA, a government development bank.

At the same time the government sold 467 million shares to the telephone union for a nominal sum of US\$325 million (about 70 US cents per share). The package was financed by NAFINSA with an interest-bearing loan and the loan is repayable in eight annual payments beginning in December 1991, and NAFINSA holds the shares in trust.

The share structure at this point was: (i) the Government, with 25.9% of the capital stock, all in L shares; (ii) 20.4% in AA shares held by the controlling group (10.4% by the Mexicans and 10% by the foreign partners; (iii) STRM with 4.7%; and (iv) the rest held by the private sector both in Mexico and abroad (see table 16, fourth column).

It may be noted that as part of the privatization package TELMEX bought from TELCOMM a microwave transmission network for long-distance services. The appraisal value was US\$123 million (the amount added to the assets of the company), but the purchase price was US\$300 million. Thus, the government implicitly withdrew US\$177 million from TELMEX.

c) The Third Phase. Sale of the remaining shares and government income

In the phase just described, the government effectively transferred control to the private sector. The next phase includes the sale of the remaining shares still owned by the government.

On 20 May 1991 the government sold a large part of its L shares in the following manner: (i) 150,000,000 shares (1.4% of capital) directly to TELMEX via the stockbroking from INBURSA, for TELMEX employees not covered by the union; (ii) 138,000,000 (1.3%) to the Mexican public through the country's stock market; and (iii) 1,377,000,000 (12.98%) shares through an international offer on major stock markets throughout the world. The sale income was US\$1,306,875,000 with a price per share of US\$2.71, implying a value of the firm of US\$15.5 billion.

On 6 June the government sold an additional 80,000,000 (0.8% of capital) to meet the excess demand derived from the previous issue. The May and June sales meant the government had sold an additional 16.5% of the company's total capital and remained with 9.5% of the company's shares. The income from that sale was US\$104 million.

In May 1992 a further 500 million shares (4.7% of the capital) was sold, 50 million on the Mexican stock market and the rest sold worldwide, mainly in the USA, Canada, and

Europe. Income was about US\$1.36 billion, representing a price per share of US\$2.72. The capital structure at this date (see table 16) was that foreigners owned 48.5% of the capital: 10% in A shares (49% of full voting shares) and 38.5% in L shares, the Mexican strategic group owned 10.4% (51% of full voting shares) of the capital, the union and other TELMEX employees had 5.8% of the capital, and the rest was owned by Mexicans, through the stock market.

6. Government income and sale price

Government gross sale income from the TELMEX sale, by November 1992, was US\$6,286,619,810. It sold 51.1% through sealed bid auction, at a price per share higher than the average value on the stock market prior to privatization.¹⁷ By selling the remaining government shares in tranches, it sold at a higher price on successive rounds and thus capitalized on the almost quadrupling of the stock market value in the 18 months after privatization. Table 19 shows the stock market value of TELMEX. Prior to privatization the company's value was US\$1.2 billion, but by the date of the sale of the controlling shares (December 1990), the value had risen to US\$7.6 billion. Five months later, the value had almost doubled to US\$14.5 billion, and in September 1991 the value was US\$19.6 billion (see also figure 7).

7. The Concession Title and regulatory framework

Privatization involved a change in the regulatory framework. This essentially implied a revision of the General Law of Transport and a revised Concession Title.¹⁸ The Concession is for 36 years, as it is a modification of the 50 year concession originally granted in 1976. It will remain in force until 2026 and may be renewed for an additional 15 years subject to changes by SCT. Its main features include the following:

a) *Competition*

The Title guarantees TELMEX protection from competition for fixed-link telephone services until August 1996. No competing provider of domestic and international long-distance service may operate until that date. After that date the SCT may grant concessions to other carriers offering long-distance and international services, and as from 1997 TELMEX must allow other carriers to connect to its network.¹⁹ Local services will remain a TELMEX monopoly until the year 2026. Services not included in a defined basket (see below) are open to competition, including cellular telephones, private circuits, handsets, and the Yellow Pages.

b) *Tariffs*

For 1991, adjustments (real increases for a basket of services) were to be monthly (but see below), for 1992 to 1996 quarterly, and from 1997 they are also quarterly but would imply a real reduction in prices. Essentially, the mechanism is a price cap on a basket of

basic telephone services. The basket includes installation, measured local service, and long-distance, weighted by the actual value of each service during the previous period. Within the cap, TELMEX is free to decide its own rates. As from 1997, the price cap will be adjusted downward by a productivity factor of 3%. Every four years from 1999 on, SCT will adjust the price cap to permit TELMEX to maintain an internal rate of return equal to the weighted average cost of its capital.

The monopoly right and price regulation were designed to create a suitable financial environment for the achievement of given growth and quality of service targets. Not only was revenue increasing due to real price increases combined with growth in the volume of services, but also during the first five years the company would reap the full benefit of increases in productivity as there is no productivity offset.²⁰ The other objective is that local rates need to cover the cost of local service and fund TELMEX's growth, as long-distance tariffs are to fall to international levels.

c) Growth targets

Average annual access line growth of 12% is scheduled through 1994, so that there will be an increase in penetration from 27 lines per 100 urban homes (in 1990) to 36.4 by 1994.²¹ In addition TELMEX must provide minimum telephone service (at least one public telephone booth or long-distance service agency) in all communities with 500 or more inhabitants, and basic telephone service with automatic service in all towns with more than 5,000 population by the same year. Furthermore, requests for basic service must be met within six months by 1995 and within one month by 2000, while by 1998 there must be 5 telephone booths per thousand people.

d) Quality of service

The concession Title also contains service quality targets.²² These require TELMEX to install a reliable and verifiable measurement system for quality control and establish a system for receiving service complaints. The quality targets cover line quality (failures, time taken for repair), time for obtaining dialling tone, calls that go through on the first try, and operator time response, (see table 20). Quantitative measures with three global indexes (as well as targets for their components) are specified for each year until 1994.

Early termination of the concession can be decreed by SCT due to:

- i) Material and continuous violation of any part of the Concession Title;
- ii) Material failure to meet (a) service expansion requirements or (b) improvements in the quality of service;
- iii) Engagement in any telecommunications business not covered by the Concession Title and requiring prior approval by SCT;

iv) Failure without just cause to allow other concessionaires to interconnect their networks to TELMEX.

Originally it was proposed to have a Telecommunications Commission to oversee the implementation of the Concession Title. However, disagreement between the Secretariats of the Treasury (Hacienda) and Trade (SECOFI) on the one hand and SCT on the other, with respect to which Secretariat the Commission would be responsible to, led to the abandonment of the proposal. The directly responsible regulatory body is a General Directorate in the SCT. The latter Secretariat also has a temporary representative on the Board of Directors of TELMEX.²³ In principle it can demand any technical, administrative and financial information from TELMEX, in addition to the quarterly progress reports required by the Concession Title. However, it has no independent measurement capacity, and furthermore it is unclear whether the Secretariat has the resources or skilled staff to ensure an adequate flow of information from TELMEX, digest and evaluate it, and take the appropriate action. Moreover, as discussed below, given that the price cap policy was abandoned by TELMEX due to pressure from the government early in 1991, other parts of the Concession have become *de facto* part of continuing negotiations between SCT and TELMEX.

V. TELMEX AS A PRIVATE FIRM

In this section we will attempt to evaluate TELMEX as a private firm. That is, we will compare its evolution in the last two years, 1991-92, with its evolution as a public enterprise as well as with respect to the conditions set out in the Concession Title.²⁴

In January 1991, at an extraordinary stockholders' meeting, a Board of Directors was appointed consisting of a Chairman (Mr. C. Slim), 9 directors from the Mexican strategic group, 4 from SW Bell, 3 from France Cable, 2 directors representing L shareholders, and one from the Federal Government. However, most of the original director/managers of TELMEX were confirmed in their posts, including the Director-General.²⁵

TELMEX as a private firm embarked on a three-year programme²⁶ incorporating an ambitious programme of expansion which subsumed the targets set out for the company in the Concession Title. The plan involved a programmed expenditure of 26 billion pesos, and included massive expansion of the network as well as modernization of the technology used. In particular, the programme envisaged the construction by 1993 of an optical fibre network of 13.5 thousand kilometers and digitalization of 52% of the system, compared with 41% in 1991.

1. Prices and tariffs

In January 1991 TELMEX increased its tariffs for the controlled basket by 11.78%, in line with the provision in the Concession Title basing increases on the inflation rate in the previous quarter. At the same time the number of free calls included in the basic rent was reduced to 150 in January, 125 in February, and 100 for March and subsequent months. Furthermore, measured service was introduced so that the 100 free calls were limited to a total of 300 minutes, with each additional call costing 112 pesos. These adjustments meant a much sharper nominal rise in consumers' bills than that indicated by just considering tariffs. The effective increases led to considerable controversy and protests by consumers as well as members of Congress, and the outcry led to the abandonment in mid-year of the monthly increases allowed by the Concession, so that the nominal increases in tariffs during 1991 were finally less than those allowed by the Concession. Adjustments within the different tariffs continued, so that international calls fell in real terms, while rental charges and long-distance calls increased in real terms. In 1992 there was no increase in nominal tariffs, so that real tariffs fell (see table 21). The reduction in VAT led to a differential movement between the tariff and the effective charge to customers.

2. Expansion and efficiency

The growth and modernization of TELMEX's network is impressive both with respect to the Concession Title and Three Year Plan as well as with its performance as a public company. The number of lines in service increased to 6.5 million by 1992, an increase of 26% with respect to 1990. The annual increase was marginally above that specified in the Concession Title and also above the average annual growth of 9% during 1988-1990. Rural populations with telephone service increased by 72% between 1990 and 1992. The density (public phones per thousand inhabitants) targets were achieved in both years. Long-distance circuits increased by 42% by 1992, and the Three Year Plan targets were surpassed by 16% and 41% in 1991 and 1992, respectively. The integrated digital network increased 532% by 1992.

Finally, the indicators access lines per employee and real revenue per employee both show rapid improvement over their evolution during the pre-privatization period.

3. Quality of service

As regards the quality of service provided, this achieved the minimum values of the global indicators of continuity of service (ICON) and quality of service (ICAL) in 1991 and 1992, but some of the partial indicators were not achieved. For example, although the number of faulty lines fell from 9.43% to 9.12%, they were still above the 7% maximum allowed in the Concession, while the target of operators answering within 10 seconds was not achieved either. Thus, TELMEX still remains top of the list in terms of complaints received by the public consumer protection agency -PROFECO, and the number of complaints is still of the order of ten thousand daily.

4. Financial performance

Real revenues increased by 44.3%, 21.1% and 13.6% in the years 1990, 1991 and 1992, respectively. The dramatic increase in real revenues was mainly due to the tax and tariff adjustments as well as to the growth in volume. The composition of revenue has continued to change since 1990, with a fall in international calls (and to a lesser extent long-distance) revenue and an increase in the importance of local calls.

It might have been expected that TELMEX, as a private firm, would achieve major cost reductions as it improved its internal efficiency. The major labour reductions frequently observed after privatization were not used by TELMEX, and the number of its employees fell by only 2% between 1990 and 1992, but even so operating costs (wages and related labour costs) have fallen from 54% in 1989 to 41% of total costs by 1992. The growth in networks has meant a large increase in capital spending, but the company has been more aggressive in its buying tactics, has coordinated its buying programme with SW Bell and France, and has added new suppliers to its traditional sources in addition to the increased leverage it has obtained from its large planned capital expenditure.²⁷

Real profits after taxation increased by 82.2%, 77.8% and 2% in 1990, 1991 and 1992, respectively.²⁸ The sharp rises in real profits mainly reflect the effects of the tariff and tax changes in 1990 and 1991.

5. Taxes

Table 24 summarizes the taxes payable by TELMEX: (i) the special telephone tax of 29% of taxable revenue, with 65% of the tax due (49% in 1990) offset for investment. All of this tax is deductible from the corporate tax; (ii) the asset tax, all of which is deductible from the corporate tax; (iii) the corporate tax itself; and (iv) the value added tax of 15% in 1990, 14.3% in 1991, and 10% in 1992. As may be seen, although real tax payments have increased, tax paid as a percentage of revenue has continued to fall.

VI. CONCLUSIONS

1. TELMEX as a public company

TELMEX as a State-owned enterprise was, by Latin American standards, a relatively efficient, highly profitable enterprise, reflecting a competent administrative and managerial staff. Compared with most State-owned enterprises, it was less subject to day-to-day managerial interference. However, it was used by the government as a convenient source of funds, and through special taxes the government continuously withdrew large amounts from the enterprises' resources (over 30% of revenue was paid in taxes, and it received no subsidies), thus limiting its expansion and hindering improvement of the service provided.

2. Pre-privatization restructuring

The company was subjected to major restructuring prior to its privatization. The "cleaning up" carried out prior to privatization in order to make the company more attractive to potential buyers included: (i) major tax and tariff changes in 1990; (ii) labour restructuring, including a new labour contract permitting more flexible intra-firm labour movements and layoffs of employees, but with the promise that there would be no large layoffs and that a retraining programme would be organized; an offer to sell shares in the company to the union; and the reelection of the pro-privatization labour leader Hernández as union president; (iii) debt absorption as part of the Mexican governments' restructuring of its foreign debt and the Brady Plan; (iv) an upsurge in investment growth; and (v) a new regulatory framework embodied in the Concession Title which guaranteed a monopoly and an increase in real tariffs: specifically, TELMEX was given monopoly rights for fixed-link telephone service (local until 2026, long-distance until 1996), and it was to be subjected to a generous price cap on a basket of basic services, with wide latitude for determining individual prices. An innovative part of the new regulatory framework was that it provided for quantitative network expansion targets as well as quality of service targets.

3. Sale process

The TELMEX sale process had to deal with a number of problems: first, how to sell an extremely large enterprise, and second, how to resolve the conflicting goals of maximizing sale income securing and infusion of foreign managerial experience, both implying selling to foreigners, with the objective of maintaining control in Mexican hands. This was achieved by diluting the capital of the company by issuing limited voting shares so that control could

be obtained by just 20.4% of total capital. In December 1991, the controlling shares of the Company were sold in a closed bid auction. In a second stage the government sold its remaining shares in successive tranches on domestic and foreign stock markets thereby making big capital gains. Gross income from the privatization of TELMEX to date is of the order of US\$ 6.3 billion.

4. Regulatory framework

The regulatory framework embodied in the Concession Title reflects a compromise between two conflicting objectives: on the one hand, to provide a good operating environment for TELMEX, as favoured by TELMEX management and government officials seeking to maximize sale income and on the other hand, ensuring effective competition in order to obtain maximum benefits of internal efficiency and minimization of allocative inefficiency. The Concession Title heavily favours the first of these objectives, at least for the period up to 1996. Moreover, the regulation of the company's conduct requires that the regulatory body should have full independent information as well as the power -and willingness- to penalize TELMEX for violation of the terms of the Title. However, the *de facto* abandonment of the inflation minus X rule, the lack of explicit penalties in the Concession, and the fact that the regulatory body has no independent measuring facilities, suggest that in reality there is a situation of regulation by negotiation which amounts to a bargaining game between two unequal players, with a high danger of defeat of the regulatory entity.

5. Private TELMEX: improved performance?

The bottom line, of course, is whether the privatization of TELMEX has resulted in improved performance. In this respect, almost all the indicators suggest that TELMEX's performance during 1991-2 improved dramatically compared with its performance as a public enterprise during the 1980s.

However, two years after privatization top management positions have not been substantially changed, and many of the improvements in performance -for example real revenue and real profit increases, the acceleration in network expansion, and improvement in quality of service- could be attributed to the tariff and tax changes as well as to the new Concession Title. Furthermore, the "kink" or turning-point in performance indicators mainly occurred in 1987, with the 1991-92 data reflecting the accelerating improvement from that year. This suggests that the improved performance is not necessarily due to the change in ownership *per se*.

However, without privatization of the company the government would not have received over US\$ 6 billion at a critical juncture in its stabilization programme, thus giving the country a much-needed increase -directly and indirectly- in foreign reserves and government income to help in domestic debt reduction as well as freeing resources for the country's anti-poverty Solidarity programme. Moreover, without privatization there would not have been the large capital gains by foreign TELMEX shareholders which have helped

put Mexico on the map as a target for direct foreign investment and foreign portfolio investment.

Notes

¹ State-owned enterprises (PEs) in Mexico can be classified as: i) "directly controlled", i.e. PEs whose individual budget has to be explicitly approved by Congress, and ii) "indirectly controlled" PEs whose budgets are incorporated into the budget of the responsible Secretariat -the sector head. Another classification (in the Mexican Constitution) which is relevant for understanding the privatization process is the distinction between "strategic" and "priority" activities. The former is an economic activity reserved exclusively for the State, while the latter can have private participation. In the area of communications, only telegraphs and the postal service are defined as strategic. Thus, the sale of TELMEX did not require a change in the Constitution, which would have needed a two-thirds majority in Congress.

² At the end of 1987, with inflation accelerating to 200%, a stock market crash, a threatened strike by the Mexican Confederation of Workers, and a generalized feeling that the government had lost the reins of the economy, the outgoing government implemented a heterodox policy. After sharp rises in government prices and tariffs, wage increases and sharp devaluations, nominal prices -particularly the exchange rate- were fixed from March 1988.

³ The plan was an important input in the fixing of the 1990s Concession Title's targets.

⁴ By the time of the privatization of TELMEX the idea of TELCOMM as a competitor of TELMEX was abandoned, and its function was restricted to managing the SCT's networks and satellites and related land stations. The decision reflected the acceptance of the argument that it was inappropriate for the government to be a competitor as well as the regulator.

⁵ This is a general feature of the Mexican privatization process. When a decision is taken to privatize a company, control is transferred from the responsible Secretariat (the "Sector Head") to the Treasury. This involves replacing the Chairman of the Board of Directors by the Secretary of the Treasury.

⁶ In 1990 the offset was a maximum of 49%.

⁷ Note that Mexico was in the midst of a multi-year programme to reduce the maximum rate of corporate taxes. The maximum rate was reduced from 39.2% in 1988 to 37% in 1989, 36% in 1990, and 35% from 1991 onwards.

⁸ In addition, the fact that TELMEX as a private company -associated with Southwestern Bell, whose area of operations straddles the border, gives TELMEX an advantage over its competitors, particularly in the fast-growing in-bond industry.

⁹ Elections scheduled to be held in July 1991 were held one year earlier, when Hernández Juárez, who had played a very pro-privatization role, was elected for the period 1992-96. By 1996 he will have been the head of the union for 20 years.

¹⁰ By 1992 this had 9 campuses, 105 institutions and had retrained 69,900 workers.

¹¹ The treatment given to Cananea was an important signal of the government's commitment to privatization. Cananea had been a crucial centre of the workers' movement during the Mexican Revolution and was thus an important symbol of the revolution, with a strong union. The company provided free water, electricity, gas, drainage and other services to the town surrounding the mine.

¹² This has been frequently used as a reason for privatizing many state-owned enterprises. In fact, however, most of TELMEX's recent expansion has been financed by internally-generated funds. It is not an example where privatization eased an investment constraint.

¹³ L shareholders can only vote on the following matters: (i) a change in the company's line of business; (ii) a merger proposal; and (iii) a proposal to withdraw from the stock market. Note that 20 L shares are equal to one ADS, traded on the New York stock market under the symbol TMX, while one A share is equal to one ADR, traded on the NASDAQ market under the symbol TFONY.

¹⁴ In October 1991 the company interchanged with the government the debt it owed it for the bonds purchased in the futures contract. The amount subject to interchange was US\$471.5 million (face value) for which TELMEX paid US\$507 million nominal value, the differential being explained by the 7% due to the government under the terms of the interchange contract. In this operation TELMEX made a capital gain of 1,122.9 million pesos.

¹⁵ It should be noted that, as in all privatization operations, all the documentation related to the privatization is contained in a "White Book" of which there are three copies (for the Office of the President, the Comptroller, and SPP), in addition to that of Hacienda. These contain the consultants' studies used to determine the minimum acceptable price in the closed bid auction. The different techniques used are: discounted cash flow, book value, liquidity value and, where appropriate, market value. This minimum price is kept secret. The White Books are not available for public consultation, even after the sale is concluded.

¹⁶ However, taking into consideration the fact that the price paid includes an option of 541 million L shares, the price per share comes to US\$0.76 and 0.13 cents for the option, making a value of the firm of US\$8.1 billion.

¹⁷ It may be noted that the stock market price did not reflect the new regulatory framework which was published after the closed bid sale of 51.1% of the shares.

¹⁸ The General Law gives the government the right to a 50% discount on services provided by TELMEX. Only the Federal Judiciary actually uses this right, however.

¹⁹ The Concession Title is unclear, however, with regard to the price of interconnection, freedom of access and routing. As the British experience has shown, this ambiguity can cause problems. The issues are: (i) whether there is to be full interconnection for both domestic and international calls, i.e., whether subscribers can call subscribers to either network and can choose which network will convey the call; (ii) whether the interconnection charges should be equal to the normal charge for use of lines, equal to marginal cost for TELMEX of providing the use of the relevant part of its network, or below marginal cost, given the probable situation of imperfect competition; and (iii) billing procedures.

²⁰ This contrasts with the USA and UK, which have productivity effects of 3-4% and 6.25%, respectively.

²¹ It should be noted that this level of yearly growth is much greater than the levels for the USA (3-4%), UK (4-5%) and Spain (6-7%) during the last decade.

²² This was a major shortcoming of the British regulation system. British Telecom stopped publishing quality of service data just before privatization. Ofel eventually started to publish previously confidential quality of service data which showed no improvement in quality.

²³ Until August 1993.

²⁴ The before/after analysis is thus based on the year 1990 as the break point. However, the privatization of TELMEX was announced in September 1989, and during a number of "clearing up" measures were enacted during 1989-90, so that it could be argued that the break year should be 1989.

²⁵ Of the ten director/managers, only one had been changed by 1992, due to the creation of a new position of Director of Subsidiaries.

²⁶ Programa Trienal, 1991-1993, internal document, TELMEX, 1991. Desarrollo del Plan Trienal, internal document, TELMEX, 1993.

²⁷ Traditional suppliers were Ericson and ALCATEL. The company now also has ATT as a supplier, the additional advantage of this being that TELMEX hopes to preempt ATT from entering into long-distance service in 1996.

²⁸ If the capital gain effect of the debt interchange, discussed in the text, is eliminated from the 1991 data then real profits grew by 12.5% in 1992.

STATISTICAL TABLES

Table 1
NOMINAL TARIFFS^a
(pesos)

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990
Local service											
Basic rent (annual)											
Residential	576	696	780	1,392	1,392	3,132	4,872	13,428	50,640	50,640	85,078
Business	1,044	1,248	1,500	2,676	2,676	6,012	9,372	25,824	97,356	146,040	251,276
Measured service (per minute)											
Residential	0.12	0.12	0.17	0.29	0.54	0.70	1.13	3.04	8.69	8.69	100.00
Business	0.12	0.12	0.17	0.29	0.54	0.70	1.13	3.40	8.69	13.04	87.45
Long distance (per minute)											
National	4.8	6.0	7.6	13.8	21.5	26.6	46.5	125.4	274.6	420.3	820.9
International^b (US & Canada)											
Outbound	15	19	44	93	133	200	466	1,053	1,804	2,017	1,781
Inbound	-	-	-	-	-	-	-	-	-	-	2,472
International^b (rest of the world)											
Outbound	59	73	169	343	482	729	1,710	3,772	5,007	6,009	4,061
Inbound	-	-	-	-	-	-	-	-	-	-	4,104
Installation charges											
Residential	1,251	5,027	6,489	13,578	13,578	27,844	43,374	147,498	889,094	889,094	900,000
Business	1,558	7,587	8,438	17,658	17,658	36,832	57,269	195,195	1,459,028	1,459,028	1,560,000
Memorandum items:											
Consumer price index	100.0	129.7	203.3	410.4	679.1	1,071.2	1,994.9	4,624.7	11,886.1	11,886.1	15,053.9
Exchange rate (pesos/dollar)	23.0	24.5	57.4	150.3	185.2	310.8	638.8	1,408.2	2,484.2	2,484.2	2,861.5

Source: TELMEX.

^a Does not include the special telephone tax nor VAT.

^b Subject to different telephone tax rates.

Source: TELMEX.

a The tariffs do not include the special telephone tax nor VAT.

a The tariffs do not include the special telephone tax nor VAT.
b Same tariffs for residential and business, but subject to different telephone tax rates.

Table 3
TELMEX's THREE-YEAR PLAN

Objective	Effect
Add 2.3 million lines, representing 13% annual growth	Increase penetration to 8.8% of population, from 6.6% in 1990; increase percentage of lines digitally switched to 60% from 30% today
Increase labour productivity from 106 lines per employee to 137	Increase staff by approximately 3.3% of 5,000 people (25% of the pace of line growth)
Install over 100,000 public telephones	Raise public telephone penetration by 0.2%
Install 33 new digital exchanges	Replace 1,400 antiquated exchanges and improve service
Modernize outside plants	Improve quality and reduce repair expenses and failure rate, which runs at 10 times the level of U.S. systems and five times the level of Europe
Automate all 288 commercial office	Improve customer service; reduce accounts receivable and bad debts; enhance profitability
Install 13,500 Km of fiber optic network	Increase percentage of digitally transmitted long-distance lines to 75% from 55% today; prepare for competition
Expand cellular services	Increase cellular subscribers from approximately 45,000 to 200,000
Expand toll-free 800 service	Enhance revenues
Expand rural service by 2,000 communities per year	Increase rural penetration to 18,200 communities

Source: Company reports.

Table 4
TARIFFS, 1990
(pesos)

	Annual rental		Charge per minute		Installation charges	
	1989	1990	1989	1990	1989	1990
Local residential	\$50,640	\$68,139 (+35%)	0-50 local calls free; >50:\$7.24/min.	0-150 local calls free >50:\$100/min. (+1281%) ^a	\$889,094	\$ 720,808 (-19%)
Business	\$146,040		No free calls \$32.59 per call (\$10.86/min) "	<60 calls: \$39 (+259%) 60-90 calls:\$73 (+572%) >90 calls:\$100 (+821%)	\$1,459,028	\$1,249,401 (-14%)
Long distance (average tariff)						
Residential			\$ 420.3	820.9 (+95%)		
Business			\$ 420.3	820.9 (+95%)		
International						
USA & Canada			\$2,017	1,781 (-11%)		
Rest of the World			\$6,009	4,061 (-32%)		

^a For an average call duration of 3 minutes for local and 5 minutes for long distance.

Note: i) there was also an increase in the cost of obtaining a line, through the policy of selling TELMEX shares or debentures (discontinued in April 1990 and January 1991, respectively) to customers as a means of obtaining priority in the waiting list for lines.ii) (%) is the percentage increase in 1990 with respect to 1989.

Table 5
1990 EFFECTIVE CUSTOMER COST: AVERAGE TARIFFS IN 1989
PLUS TAX CHANGES IN 1990
 (pesos)

	Annual rental		Charge per minute		Installation charges	
	1989	1990	1989	1990	1989	1990
Local						
Residential	\$ 50,640	\$ 85,078 (+68%)	<150 local calls free >150:\$7.24	0-150 local calls free >150:\$100 ^a	889,094	\$ 900,000 (+1%)
+Tel. tax @ 60%	30,384	\$ 0	4.35	\$ 0		
+VAT @ 15%	12,153	\$ 12,762	1.74	\$ 15.0		
Effective charge	93,178	\$ 97,840 (+5%)	13.33	\$115.0 (+763%)		
Business	146,040	\$263,748 (+81%)	10.86	\$ 87.5	1,459,028	\$1,560,000 (+7%)
+Tel. tax @ 72%	105,149	\$ 0	7.82	\$ 0		
+VAT @ 15%	37,678	\$ 39,562	2.80	\$ 13.1		
Effective charge	228,867	\$303,311 (+5%)	21.48	\$100.6 (+368%)		
National Long						
distance:						
Residential average						
tariff			420.3	\$820.9		
+Tel. tax @ 32%			134.5	\$ 0		
+VAT @ 15%				\$123.1		
Effective charge	83.2		638	\$944.0 (+48%)		
Business avg. tariff						
+Tel. tax 42%			420.0	\$820.9		
+VAT @ 15%			176.3	\$ 0		
Effective charge	89.5		686.3	\$123.1 \$944.0 (+38%)		

^a See footnote a in table 2.
 Note: Telephone tax reduced to 0% for all categories.

Table 6
TELEPHONE SERVICE TAX

YEAR	L O C A L			L O N G D I S T A N C E			I N T E R N A T I O N A L			
	RES.	COM.	RES. & COM. ^a	RES.	COM.	RES. & COM. ^a	RES.	COM.	RES. & COM. ^a	VAT ^b
1979	60.00	60.00	60.00	35.00	35.00	35.00	35.00	35.00	35.00	---
Jan 1980	49.10	60.00	54.22	26.40	35.00	30.90	26.40	35.00	30.90	10.00
1981	49.10	60.00	54.22	26.40	35.00	30.90	26.40	35.00	30.90	10.00
1982	49.10	60.00	54.22	26.40	35.00	30.90	26.40	35.00	30.90	10.00
Jan 1983	49.10	60.00	54.22	26.40	35.00	30.90	26.40	35.00	30.90	15.00
1984	49.10	60.00	54.22	26.40	35.00	30.90	26.40	35.00	30.90	15.00
1985	49.10	60.00	54.22	26.40	35.00	30.90	26.40	35.00	30.90	15.00
Jan 1986	60.00	72.00	65.63	32.00	42.00	37.23	26.40	35.00	30.90	15.00
1987	60.00	72.00	65.63	32.00	42.00	37.23	26.40	35.00	30.90	15.00
Jan 1988	60.00	72.00	65.63	32.00	42.00	37.23	22.0	22.0	22.0	15.00
Jan 1990	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	15.00

Source: TELMEX.

a Weighted averages on the basis of:

	RES.	COM.
Local	53.1%	46.9%
L. Dist.	47.7%	52.3%
Int.	47.7%	52.3%

b Value Added Tax was reduced to 10% in November 1991. Thus, a rate of 14.32% applied in 1991.

Table 7
NEW TELEPHONE TAX AND TELMEX'S TAX BURDEN

		Without Tax	With New Telephone Tax	
			With Subsidy	With No Subsidy
(a) Qualifying capital expenditure		30	30	20
(b) TELMEX revenue		100	100	100
(c) Telephone tax	(0.29b)	0	29	29
(d) Remaining revenues	(b-c)	100	71	71
(e) Expenses		60	60	60
(f) Taxable income before telephone tax	(b-e)	40	40	40
(g) Taxable income after telephone tax	(f-c)	40	11	11
(h) Corporate tax rate	(0.35g)	14	3.85	3.85
(i) Tax credit	(0.65a)	0	19.5	13
(j) Telephone tax payable	(c-i)	0	9.5	16
(k) Total tax payable	(h+j)	14	13.35	19.85
(l) Implied income tax rate	(h/f)*100	35%	9.65%	9.65%
(m) Effective total tax rate	(k/f)*100	35%	35%	49.6%

Table 8
GOVERNMENT REVENUE FROM TELMEX^a
(N=nominal, billions of pesos; R=real, with 1986 as base)

	1982	1983	1984	1985	1986	1987	1988	1989	1990
Dividends	2	2	3	5	7	10	19	27	42
Direct taxes	6	11	3	12	21	58	329	271	182
Indirect taxes	20	39	73	106	225	614	1504	2400	2920
Total: N	28	52	79	123	253	683	1852	2697	3145
: R	267	278	266	254	253	263	471	573	523
Percent of receipts	37	35	32	33	32	32	38	35	26

^a Excluding interest payments and foreign debt interchange.

Table 9
TELMEX'S REVENUE STRUCTURE
(percent shares)

	1982	1983	1984	1985	1986	1987	1988	1989	1989
Local	16.3	14.2	19.8	18.3	13.0	14.7	21.0	20.9	31.6
Long distance	36.4	32.8	33.8	30.5	26.6	29.6	29.9	33.5	35.5
International	44.2	49.8	42.7	48.1	57.8	54.0	47.4	42.9	29.1
Others	44.2	49.8	42.7	48.1	57.8	54.0	47.4	42.9	29.1
Total	100	100	100	100	1000	100	1000	100	100
Memorandum items:									
Total cost (billions of pesos)	54.2	107.9	173.5	263.9	564.7	1489.9	3408.2	5245.8	7841.
Growth in real costs (%)	-13.8	9.9	0.8	-6.8	4.1	1.8	47.6	28.7	

Table 10
TELMEX'S INTERNATIONAL TRAFFIC AND REVENUES
(percentage growth)

	Outbound		Inbound		Total	
	Volume	Real Revenue	Volume	Real Revenue	Volume	Real Revenue
1987	4.4	0.1	14.3	16.0	11.0	8.9
1988	25.1	25.0	44.2	30.0	38.3	28.1
1989	16.4	31.8	9.1	23.1	13.0	6.6
1990	33.5	1.6	24.5	15.2	25.0	9.5

Table 11
TELMEX'S COSTS STRUCTURE
(percent shares)

	1982	1983	1984	1985	1986	1987	1988	1989
Operating costs	53.2	52.3	52.1	50.6	57.6	59.0	52.9	54.4
Maintenance	22.0	20.2	19.1	20.3	19.7	21.2	24.9	20.8
Taxes	0.5	0.4	0.5	0.4	0.3	0.3	0.5	0.8
Depreciation	24.3	27.0	28.3	28.7	22.4	19.4	21.7	24.0
Memorandum items:								
Total revenue (billions of pesos)	30.6	55.7	106.9	173.5	384.5	1052.2	2473	3530
Real revenue growth (%)	-13.7	1.7	19.8	-0.6	6.8	6.4	54.4	19.4

Source: TELMEX Annual Reports.

Table 12
PRODUCTIVITY: AN INTERNATIONAL COMPARISON

	Access Lines (millions)	Employees (A)	Employees/ Total (B)	Revenue/ Employees (US\$ 000's) (B)	Revenue/ Access Line (US\$) (A)	Lines/ Employee (A)
(As of December 1990, unless stated otherwise)						
Bell Atlantic T	17,484	68,400	78,100	147.5	743	255.6
Southwestern Bell T	12,105	58,190	66,690	134.8	743	208.0
Australia Telecom a	7,419	84,104	84,104	115.0	590	88.2
France Telecom a	26,980	156,451	156,451	101.6	590	172.5
British Telecom b	25,013	245,700	245,700	85.8	844	101.8
Telmex 1990	5,271	49,518	51,218	67.7	661	105.0
Telefonos de Chile a	0,678	7,500	7,500	41.9	463	90.5
Telmex 1989	4,702	49,203	50,903	41.3	417	95.6

Source: Warburg Securities, TELMEX Reports.

(A) Telco employees only where available.

(B) Total employees adjusted for non-Telco businesses, where Telco employees unavailable.

(T) Telcos include directories and mobile services for calculation of revenue.

a As of March, 1990.

b December, 1989.

Table 13
NETWORK GROWTH

COUNTRY			1989	1988	1987
AUSTRALIA	1	-Lines/100 Pop.	45.80	44.58	42.78
	2	-GDP/Cap.(US\$ 000's)	16.80	14.94	12.064
		1/2	2.77	2.98	3.55
FRANCE	1	-Lines/100 Pop.	48.08	46.25	44.59
	2	-GDP/Cap.(US\$ 000's)	16.90	17.00	15.85
		1/2	2.85	2.72	2.81
MEXICO	1	-Lines/100 Pop.	6.05	5.59	5.32
	2	-GDP/Cap.(US\$ 000's)	2.49	2.22	1.94
		1/2	2.43	2.52	2.74
SPAIN	1	-Lines/100 Pop.	30.04	28.10	26.36
	2	-GDP/Cap.(US\$ 000's)	9.60	8.71	7.45
		1/2	9.60	8.71	7.45
SWEDEN	1	-Lines/100 Pop.	67.41	66.36	65.24
	2	-GDP/Cap.(US\$ 000's)	22.43	21.54	19.17
		1/2	3.01	3.08	3.40
UNITED KINGDOM	1	-Lines/100 Pop.	49.94	49.32	48.54
	2	-GDP/Cap.(US\$ 000's)	20.72	19.56	18.30
		1/2	2.41	2.52	2.65

Source: Warburg Securities, TELMEX Reports.

TABLE 14
FINANCIAL RATIOS

	1983	1984	1985	1986	1987	1988	1989	1990
Short-Term Liquidity Ratios								
Current Ratio	2.3	1.7	1.5	1.8	4.2	2.4	3.2	5.8
Acid Test	2.2	1.6	1.5	1.7	4.1	2.4	2.9	5.6
Long-Term Solvency Ratios								
Net Worth/Fixed Assets	0.5	0.6	0.5	0.5	0.4	0.6	0.6	0.6
Times Interest Earned	2.5	1.7	2.4	0.8	0.9	6.8	10.0	88.9
Debt/Equity Ratios								
Total Debt/Net Worth	0.8	0.5	0.9	0.9	1.0	0.5	0.3	0.4
Long-Term Debt/Net Worth	0.8	0.6	0.8	0.9	1.0	0.4	0.3	0.4
Operating Performance and Return to Investment Ratios								
Gross Margin Ratio	0.5	0.4	0.3	0.3	0.3	0.3	0.3	0.4
Pre-tax Income/Sales	0.3	0.2	0.3	0.1	0.1	0.2	0.3	0.4
Return on Total Assets	0.12	0.11	0.08	0.06	0.05	0.05	0.09	0.16
Return on Equity	0.18	0.13	0.11	0.07	0.07	0.09	0.15	0.28
Turnover Ratios								
Sales/Total assets	0.23	0.25	0.23	0.19	0.18	0.27	0.29	0.33
Sales/Working Capital	4.45	6.97	6.39	4.56	1.35	2.19	2.56	2.08

Source: TEMEX's Company Reports.

Table 15
TELMEX: INFRASTRUCTURE DATA

	1984	1985	1986	1987	1988	1989	1990
1. Basic Telephone Network							
Installed lines (000)	3,807.7	4,060.2	4,366.8	4,656.0	4,966.5	5,500.8	6,049.1
Lines in service (000)	3,388.7	3,589.7	3,776.2	3,984.9	4,261.7	4,702.5	5,276.2
Telephones in service (000)	6,660.9	7,166.5	7,558.0	8,015.6	8,476.7	9,353.7	10,512.8
Digital lines in service (000)	37.7	132.4	272.3	456.4	564.5	1,024.3	1,456.9
Digital lines installed (000)	64.0	189.9	362.2	575.2	796.3	1,196.9	1,663.5
Long-distance circuits (Km million)	29.4	30.1	31.5	37.4	42.1	50.5	56.2
2. Telephone calls							
National L.D. calls (millions)	563.8	608.4	665.2	724.7	768.6	850.6	1,025.3
International L.D. calls (millions)	55.6	60.6	69.6	78.9	103.6	141.5	155.3
Total L.D. calls (millions)	619.4	669.0	734.8	803.2	872.2	1,002.1	1,170.6
3. Employees							
Total employees	34,688	37,487	40,662	44,700	49,995	49,203	54,969
Union members	30,364	32,452	35,005	38,066	42,663	41,521	46,434
Average employees	33,485	36,099	39,075	42,681	47,348	49,159	53,069

Source: TELMEX.

Table 16
THE CHANGING CAPITAL STRUCTURE OF TELMEX

	Pre-restruc- turing (before June 1990)	June 1990	June 1990	December 1990	June 1991	May 1992
<u>Shares (% of share capital)</u>						
"AA" Mex. Govt. only	56.0%	51.0%	20.4%	20.4%	-	-
"AA" Mex. nationals only	44.0%	49.0%	19.6%	19.6%	-	-
"AA" Mex. Strategic Group Share	0.0%	0.0%	2.0%	0.2%	-	-
"AA" Foreign Strategic Group Share	n/a	n/a	7.2%	7.2%	-	-
"A" Mex. Government	100.0%	100.0%	10.4%	10.4%	-	-
"A" Mex. residents				1.8%	-	-
"A" held as ADSs				25.9%	9.5%	0.9%
"A" STRM (Telecommunications Union)				10.8%	12.1%	12.6%
"L" Mex. Government				5.1%	-	-
"L" Scrip to Mex. residents				2.6%	-	-
"L" Scrip to ADS holders				100.0%	4.0%	-
"L" Strategic Group Option				2.163.9	-	-
"L" STRM and other employees				2,078.2	-	-
Total:				6,361.9	-	-
<u>Shares in issue (millions)</u>				1,145.1	-	-
"AA"				1,654.1	-	-
"A"				540.8	-	-
of which held directly				279.9	-	-
of which held as ADS				2,767.4	-	-
of which held under option				10,603.1	-	-
of which held by STRM					-	-
of which distributable in public offering					-	-
Total:		4,241.3				

Note: a dash (-) indicates the same value as the previous year's observation.

Table 17
COMPARISON OF BIDS RECEIVED ^a

Group	Percentage of capital (%)	Total offer US\$ million	Price per share US\$ ^b	Payment conditions US\$ millions
Gentor ^c	10.4	700	0.63	125 in cash ,575 in 6 months
Acciones y Valores, Telefónica Española, GTE	20.4	1,687.2	0.78	250 in cash 1437 in 6 months
Grupo Carso, SW Bell, France Cable & Radio	20.4	1,734	0.86 ^d	975 in cash and 759 in 6 months

^a The Group composed of Bell Canada Enterprises, Nyrex and the Mexican stockbroker Inverlat, which had been a strong contender, did not make a formal offer as it could not agree on managerial responsibilities.

^b For 865,225,200 shares.

^c This was only for the Mexican component, although it was attempting to associate with TELECOM of Italy and Cable and Wireless (UK).

^d See footnote 17.

Table 18
GOVERNMENT SALE REVENUE

Date	Buyer	Receipts US\$
December 1990	Grupo Carso	859,112,200
	SW Bell & France Tel.	898,489,580
	Employees	324,953,222
	Options: Mex. Investors	6,266,536
	SW Bell	465,773,414
	France Tel.	3,099,818
May 1991	Foreign Offering	1,876,162,500
	Mexican & TELMEX Offering	382,887,544
June 1991	Foreign Overallotments	1,090,000,000
May 1992	Foreign & Mexican Offering	1,306,875,000
Total		6,286,619,810

Table 19
TELMEX's STOCK MARKET VALUE

	Date	Stock market value (US\$ billion)
Pre-privatization	Late 1988	1.2
Privatization announced	September 1989	3.3
Privatization sale	December 1990	7.6
Combined offering	May 1991	14.5
	September 1991	19.6
Combined offering	May 1992	29.8

Table 20
QUALITY OF SERVICE NORMS, 1991-1994

Indicator (%)	Weighting	1990	1991	1992	1993	1994
1. Continuity of Service Index (ICON) comprising:	100%	80.2	83.42	86.19	87.07	87.95
Lines with faults	33%	10	8	7	6	5
Lines repaired on the same day	12%	45	48	50	50	50
Lines repaired within three days	55%	82	86	90	91	92
2. Quality of Basic Service Index (ICAL) comprising:	100%	91.1	91.82	92.54	92.9	97.72
Obtaining a dialling tone within 4 seconds	18%	97.0	97.0	97.0	98.0	98.0
Local calls which connect on the first attempt	18%	92.0	92.0	94.0	94.0	95.0
Long-distance calls which connect on the first attempt	28%	90.0	92.0	92.0	92.0	93.0
Answer by operators for 02, 04, 05, 07 and 09 services within 10 seconds	10%	90.0	90.0	91.0	91.0	92.0
Public call boxes in service	26%	87.0	88.0	89.0	90.0	91.0
3. Quality of lines and Private Circuits Index (ICIRC) comprising:	100%	20.0	40.0	60.0	70.0	80.0
Maximum period for installation of a private line (days)	33%	75	65	55	35	25
Maximum period for installation of a private circuit	33%	120	100	75	55	35
Maximum period for repair of a fault on a private line or private circuit	34%	5	4	3	2	1

Source: Diario Oficial.

Table 21
TELMEX CHARGES^a

	1990	1991	1992
Rent			
Residential	32.6	49.5	-11.9
Plus tax	-17.0	48.1	-15.2
Business	35.8	36.6	-11.9
Plus tax	-21.0	35.8	-15.2
Measured service (per minute)			
Residential	827.0	-6.4	-11.9
Plus tax	467.6	-6.9	-15.2
Business	827.0	-6.4	-11.9
Plus tax	467.6	-6.9	-15.2
Domestic long-distance			
Residential	58.4	14.8	-11.9
Plus tax	20.0	14.3	-15.23
Business	58.4	14.8	-11.9
Plus tax	20.0	14.3	-15.23
International			
Residential	-30.3	-11.4	-11.9
Plus tax	-42.9	-11.7	-15.23
Business	-30.3	-11.4	-11.9
Plus tax	-49.9	-11.4	-15.23
Installation charges			
Residential	-91.5	-0.6	-11.9
Business	-15.6	-1.6	-11.9

Source: TELMEX.

Note: For comparable data for previous years, see table 2.

^a "Plus tax" includes the basic tariff plus the value added tax for the years 1990 (15%), 1991 (14.32%) and 1992 (10%).

Table 22
PERFORMANCE COMPARED WITH CONCESSION TITLE TARGETS

QUALITY OF SERVICE		1991	1992
ICON	A	86.2	89.5
	T	83.4	86.2
ICAL	A	92.4	94.4
	T	91.7	92.4
NETWORK EXPANSION			
NUMBER OF LINES (% GROWTH)	A		
	T	12.6	12.1
DENSITY (PUBLIC PHONES PER THOUSAND INHABITANTS)	A		
	T	1.27	1.53
		1.26	1.52
MEMORANDUM ITEMS ^a			
LONG-DISTANCE CIRCUITS (MILES)	A		
	T	29.1	72.7
		25.6	51.3
DIGITAL NETWORK MILES	A	22.3	56.4
	T	17.6	26.7

Note: A = actual performance; T = target figure.

^a With respect to Three Year Plan.

Table 23
REVENUES AND COSTS
(percentage distribution)

	1990	1991	1992
Revenue			
Long-distance	28.3	23.0	20.3
International	36.2	36.3	37.8
Local	32.3	36.3	40.1
Other	1.6	3.8	3.8
Costs			
Operational	38.3	38.2	41.0
Depreciation	17.3	21.6	17.9
Maintenance	20.9	22.5	23.9
Telephone Tax	23.5	15.7	15.4
Memorandum items:			
Growth in real costs (%)	37.8	6.6	12.5
Growth in real revenue (%)	44.3	21.1	13.6

Source: TELMEX Annual Reports.

Table 24
TELMEX's TAXES
(billions of pesos)

	1991	1992
Corporate tax	1081.8	1005.8
Asset tax ^a	92.2	215.7
Special telephone tax		
Nominal ^b	3864.3	4966.4
- Offset ^c	2510.9	3228.2
= Tax actually paid	1353.4	1738.2
VAT ^d	2330.3	2070.4
Tax as percentage of revenue	29	23

Source: TELMEX Annual Reports.

^a Completely offset in corporate tax.

^b 29% of selected revenue.

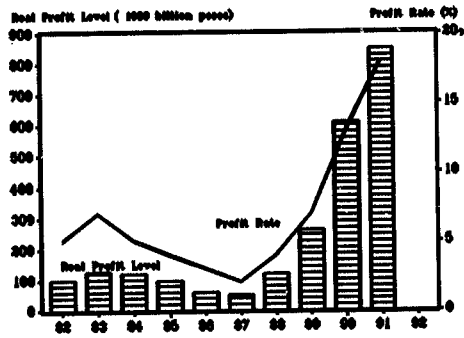
^c For eligible investment expenditure.

^d 14.32% in 1991 and 10% in 1992.

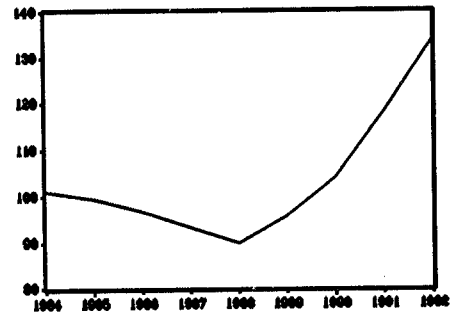
Note: See table 8 for previous years

FIGURES

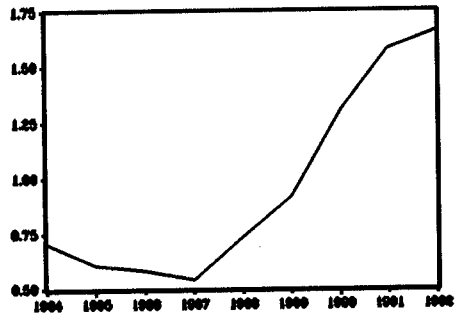
GRAPH 1: TELMER'S REAL PROFIT LEVEL and PROFITABILITY



GRAPH 2: ACCESS LOANS PER EMPLOYEE



GRAPH 3: REAL INCOME PER EMPLOYEE (1000 PESOS)



GRAPH 4: GROSS REAL CAPITAL FORMATION (BONES)

