
STUDY

Translated by Tim Ennis

**PRIVATIZING ELECTRICITY DISTRIBUTION:
THE CASE OF CHILECTRA METROPOLITANA***

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The present government has carried out a process of privatization covering various areas of the economy. An interesting case to study is Chilectra Metropolitana, in particular because various political sectors, including Christian Democrats and Socialists, have held the view that a company like this should be controlled by the State. This article describes the privatization of the company and its economic results during this process.

1. General Background

The privatization process the country has lived through during the current administration continues to be of interest to national and international public opinion. The changes that have occurred in ownership over the last twenty years have been of enormous importance. In this period, the country has gone from a being a mixed economy to a socialist one, later to revert to an economy where state and private firms coexist, but with greater participation of the private sector than in the period prior to the government of the *Unidad Popular*.

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I am grateful for valuable collaboration and comments by José Yuraszeck. Any remaining errors are my exclusive responsibility.

Estudios Públicos, 32 (primavera 1988). "La privatización de la distribución de energía eléctrica: El caso de Chilectra Metropolitana".

Between 1970 and 1973, in accordance with the policy of President Allende's government, the state began to intensify its control of economic activity. However, this growing state participation in the Chilean productive process really dates back to the 1920s. The sharp fall in the terms of trade after 1918, resulting from the fall in the price of nitrate —by far the main Chilean export at that time— followed by the 1929 depression, plunged the country into a deep economic crisis. This undermined confidence among the various sectors in the economic freedom that had prevailed during the dynamic 19th century, bringing as a consequence a succession of social democratic-type governments which proposed an economic model based on import substitution centered on a small domestic market, with manufacturing industry as the leading sector.

In this way, a regulatory and producer state was created which suffocated the private sector to a significant extent —a situation that reached its climax with the government of *Unidad Popular*. This government's program included setting up an "Area of Social Ownership" (involving nationalization of firms in key sectors) and a deepening of the agrarian reform process initiated during the Christian Democratic government. It is estimated that by October 1972 via seizures, violent occupations, expropriations and other mechanisms, the state was already in control of 90% of mining production, 85% of banks, 60% of large scale commerce, 52% of manufacturing industry, 84% of construction industry and 75% of workable land that had been included in the "reformed areas"¹.

From 1974 onwards, once the military government had taken power, a process of deregulation was initiated in the Chilean economy and confiscated firms were returned to the private sector, with a choice being made in favor of direct return to original owners, open auctions both national and foreign, etc. In 1974, 202 firms were handed back to their previous owners, and the remainder during the five following years. In this way the public sector as a whole reduced the number of firms under its control from 620 in 1973 to 66 in 1981. It is worth noting that although the number of state-owned firms was sharply cut, activities such as electricity generation and distribution, telephones and telecommunications, steel, nitrate and its derivatives, coal, sugar, hydrocarbons and copper were all kept under the state umbrella. In fact four important companies: CODELCO, Compañía de Teléfonos, CAP and Chilectra continued under state ownership even though they had been private firms before 1970².

¹ See Robert Moss, *El Experimento Marxista Chileno* (1974).

² See Daniel Wisecarver, "Regulación and Desregulación en Chile: 1973-1983", *Estudios Públicos*, 22 (Autumn 1986), pp. 115-117.

Thus, by 1981, although progress had been made in the denationalization of the Chilean economy, state participation in productive activities continued to play a fundamental role. This can be clearly seen in Table N° 1, below.

It can be seen that state participation in the economy in 1981 was less than in 1973, but greater than 1965. Hence the conclusion that there was still a long way to go on the road to privatization if the government's aim was to establish a market-based economy.

TABLE N° 1: PARTICIPATION OF THE ENTREPRENEURIAL STATE IN THE ECONOMY

Sectors	Share of state firms in gross value of sectoral output (%)		
	1965	1973	1981
Mining	13.0	85.0	83.0
Industry	3.0	40.0	12.0
Electricity, gas and water	25.0	100.0	75.0
Transport	24.3	70.0	21.0
Communications	11.1	70.0	96.3
Finance		85.0	28.0

Source: Cristián Larroulet, "El Estado Empresario en Chile", *Estudios Públicos*, 14 (Autumn 1984), p. 148.

The process grinds to a halt and is even reversed from 1982 onwards, when the economic crisis the country went through caused the economic authorities to halt their policy of selling state assets to the private sector. Moreover, the authorities deemed it necessary to intervene in the banking system as a way of cushioning the crisis, thereby assuming control of a large number of firms in a very wide variety of economic activities. This backward step in transferring ownership made many sectors doubt the chances of achieving a reduction in the state apparatus. However shortly afterwards, from 1985 onwards, a new stage in the Chilean economy began. In that year an adjustment policy was implemented to reestablish the country's macroeconomic equilibrium, and at the same time the authorities began to normalize the situation of firms taken over as well as proceeding with the privatization of firms remaining in state hands. The latter included the privatization of the electrical sector, which, as Table N° 1 shows, had

been untouched by the privatization policy followed until 1981³. The nature of this economic activity makes it attractive as a study in privatization, because in public-utility service industries like this the transfer of assets to the private sector might not be so easy for certain sectors of public opinion to understand. This is because there is an impression, or belief, that all public utility services should be state-owned. Accordingly, it is worthwhile studying this process, its transparency, the mechanisms used to distribute assets and the subsequent evolution of the privatized firms, so as to give an indication of the stability this particular case of privatization may have over time.

This paper focuses on the privatization process in an electricity distribution firm, the largest in this field in our country, namely *Chilectra Metropolitana S.A.* This firm was created in 1981 out of *Chilectra S.A.*

The firm *Compañía Chilectra de Electricidad S.A.* (Chilectra), a public utility firm, was created on September 14th 1921 out of the merger of Chilean Electric Tramway and Light Co., founded in 1909, and the *Compañía Nacional de Fuerza Eléctrica*, which had been operating since 1919. Between 1929 and 1931, the South American Power Co. acquired the assets and rights of a series of electrical companies operating in the central zone of Chile, grouping them together as autonomous firms; among these was the *Compañía Chilena de Electricidad Ltda.*

State participation in the firm, began in 1936 through an agreement signed by the Finance Minister and the president of the South American Power Co., approved in Law N° 5,825 of March 11th 1936, merging the companies controlled by South American Co. into the *Compañía Chilena de Electricidad Ltda.* This agreement was amended by another one, signed on October 1st 1959, and approved by DFL N° 28 in that month, in accordance with the Electricity Services Law passed that year. In the years following the merger, the company absorbed the installations of other firms operating within its franchise zone, which covered the present 5th Region and Metropolitan Area, and accounted for approximately half the population of the country at that time. Through these agreements, the state exerted an ever greater influence on this private company, restricting its scope of action and the entrepreneurial management by its original owners.

On September 12th 1945, the State became a partner in South American Power Co., by setting up an option contract of and promise of sale between the Treasury and the North American firm, for the trolleybus

³ State firms' share of the gross value of production in the Electricity, Gas and Water sector fell by 25% between 1973 and 1981. This was caused mainly by the privatization of gas distribution companies. In addition, private electricity and water distribution firms started up in sparsely populated localities.

services owned by the company. In 1960 the State controlled 15% of the firm.

On August 14th 1970, Chilectra was nationalized via the enactment of Law N° 17.323 authorizing the state development corporation *Corporación de Fomento de la Producción* (CORFO) to acquire all or part of the shares and assets of the *Compañía Chilena de Electricidad Ltda.*, through a

CHILECTRA		
Chilectra Generación (Generating)	Chilectra 5th Region	Chilectra Metropolitana

purchase and sale contract, and this eliminated all private participation in the firm. The structure of the firm remained unchanged until 1981, when it was restructured in order to separate the functions of electricity generation and distribution. The holding company *Chilectra* was formed by setting up a parent company and three affiliated firms with the following structure:

On June 19th 1981 the *Compañía Metropolitana de Distribución Eléctrica S.A. (Chilectra Metropolitana S.A.)* was set up as a public corporation, a subsidiary of Chilectra. Its shareholders were Chilectra itself and CORFO. Initial capital amounted to Ch\$ 2,500,000 divided into 2,500 shares with a nominal value of Ch\$ 1,000 each.

Looking back at this situation it seems clear the aim of restructuring was to transfer the subsidiaries to the private sector, causing the parent company, Chilectra S.A., to disappear over time. In fact, today the three subsidiaries are wholly private companies, despite the fact that initially it had been indicated that only part of the ownership would be transferred to the private sector. In the three subsidiaries employee participation in ownership is significant.

2. The company's privatization process

As was mentioned in the previous section, the *Compañía Chilena de Electricidad* was restructured in 1981. Restructuring gave rise to the *Compañía Chilena Metropolitana de Distribución Eléctrica S.A. (Chilectra Metropolitana)* and two other companies, *Compañía Chilena de Generación*

Eléctrica S.A. (Chilectra Generación) and the *Compañía Chilena V Región de Distribución Eléctrica S.A. (Chilectra V Región)*. But this restructuring had not altered the ownership of any of the firms. The three remained wholly owned by the State through CORFO and Chilectra, institutions which in 1982 held 0.01% and 99.99% respectively of the all the shares of the company. The restructuring of Chilectra did not necessarily have the aim of privatizing its subsidiaries, although restructuring may have helped to make their subsequent sale more feasible. Probably the sale of Chilectra in a single packet was seen as impossible. In any case, restructuring on its own did not ensure subsequent privatization. However, a year later DFL N° 1 (1982) was issued by the Ministry of Mining, which in its philosophy was consistent with private participation in the electric sector. Basically, this law establishes that any electricity company can demand reimbursable financial contributions, from users of any kind seeking their services, for undertaking the capacity expansion needed for generating, transporting and distributing electrical energy. These contributions are reimbursed in the form of shares in the electricity company providing the service, whether this be public or private. Naturally this provision made possible, and a marked the start of private participation in *Chilectra Metropolitana S.A.* In this way, in 1983 a small degree of private participation in the company began. DFL N° 1, 1982, also establishes that the National Energy Commission shall calculate maximum prices to be charged for energy provision, to be set via an Economics Ministry decree.

The enacting of the new General Law on Electricity Services enabled the private sector to achieve a 1.04% participation in the firm's capital by the end of 1983, an insignificant figure in itself, but one that constituted the first step towards full transfer of ownership to the private sector.

In 1984 progress in privatizing *Chilectra Metropolitana* was slow. In that year, the state reduced its share of the firm by little more than 3%, not as a result of direct sale of shares, but through reimbursement in shares for the financial contributions paid to the firm by the private sector. Private

TABLE N° 2: EVOLUTION OF PRIVATE OWNERSHIP OF THE FIRM (%)

Owners	1982	1983	1984	1985	1986	1987
Public sector	100.0	98.96	95.85	83.67	38.06	0
Private sector	0	1.04	4.15	16.33	61.94	100.0

Source: Annual Reports of the company.

participation in the firm had reached 4.15% by December 1984, as shown in Table N° 2. Reimbursable financial contributions were increasing private participation in the company so slowly that through this mechanism the private sector would gain majority control of the company only in a very long period of time (about 15 years).

Three years had elapsed since the restructuring of Chilectra and still no concrete steps had been made towards privatization of the subsidiary under analysis. If, as everything seems to indicate, the issuing of DFL N° 1 together with the restructuring of the firm was only the first step towards privatization of the electricity sector, why then did the process not make headway? Basically, the explanation is to be found in the sharp recession of 1982 - 1983 and its consequences. During those years the processes of privatization and deregulation in the Chilean economy, initiated in 1974, were detained and even put into reverse. The latter was due to state intervention in a significant part of the private banking sector and productive firms. The economic difficulties of the period complicated the political situation. The military government, determined to install the institutional framework contemplated in the 1980 Constitution, avoided taking measures that might result in significant political costs. The primary goal was to fulfill the Constitution approved in 1980, and other objectives were subordinated to this. Moreover, the economic authorities of the time were not concerned about privatizing firms, so the chances of continuing to reduce the Entrepreneurial State decreased still further.

In 1985 a new stage in the transfer of public ownership to the private sector began⁴, coinciding with a change in the economic authorities. In the case of *Chilectra Metropolitana*, the reform of the statutes that took place on September 6th 1985 became one of the key elements in finally transferring the company into private hands. The reform amended the statutes to satisfy requirements set out in the new text of DL N° 3.500 which permitted the investment of Pension Fund resources in the shares of quoted companies. In this way, the private pension funds (AFPs), and hence the workers who paid into these institutions, came to be owners of a significant part of the *Compañía Chilena Metropolitana Distribución Eléctrica S.A.* Authorization from the Risk Classification Commission, a dependent organization of the AFP Superintendency, to invest a proportion of pension funds resources in *Chilectra Metropolitana* shares was agreed on October 24th 1985. It should be remembered that the ruling legislation does not allow AFPs to invest in shares of a company more than 5% the Fund

⁴ Firms subjected to the privatization process included CAP, SOQUIMICH, ENTEL, Telex, Laboratorios Chile, ECOM, Iansa and CTC.

administered or more than 5% of the paid-up capital of the firm. By December 1987 Pension Fund Managers were holding 29.8% of the shares of *Chilectra Metropolitana*.

In addition, on October 1st 1985 a system for selling shares to workers in *Chilectra Metropolitana S.A.* was put into practice. The system made an advance payment of 50% of a worker's years of service compensation, subject to the obligation to use at least 80% of the advance to buy shares in the company. While the possibility of acquiring shares was attractive for workers, the chance to receive 10% of their total compensation in cash was also a special incentive —an incentive that was all the more important the longer the individual had been in the firm. The option of acquiring shares was extended for two months, i.e. until November 30th 1985. Shares were sold by *Chilectra S.A.* at a price equal to the average value of stock market transactions over the 30 days prior to the date at which this option began to be offered to workers: the average price of the shares sold was Ch\$ 818. The number of workers seeking the advance in compensation amounted to 1,726, representing 96% of all workers with the right to receive part of their compensation in advance as a result of having been five years in the firm. Undoubtedly, given the figures, the process of selling shares to the workers was a total success, and it explains the significant rise in the company's number of shareholders between 1984 and 1985, as shown in Table N° 3. This process of selling shares to employees was equally successful among all unions in the firm, as can be seen in Figure N° 1.

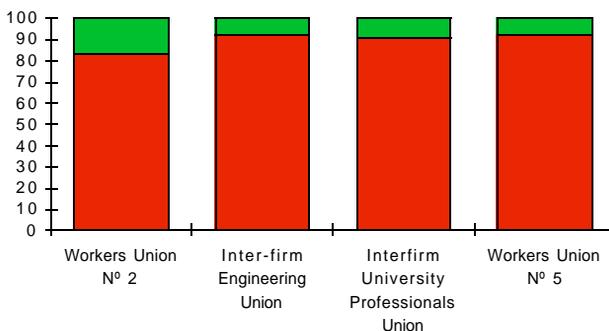
The result described above was achieved despite opposition by certain union leaders and most politicians, including Socialists and Christian Democrats. However the interest shown by their members obliged union leaders to change their initial position. The same has not happened, so far at least, with leaders of the Socialist and Christian Democrat parties, who in many of their declarations insist on ignoring privatization, stating that their acceptance or refusal will be decided under democracy.

TABLE N° 3: NUMBER OF SHAREHOLDERS IN THE FIRM

	1982	1983	1984	1985	1986	1987
Owners	2	354	1,376	4,784	6,882	8,834

Source: *Chilectra Metropolitana* Annual Reports.

FIGURE N° 1: WORKERS ACQUIRING SHARES AS A PERCENTAGE OF THE TOTAL NUMBER OF WORKERS WITH RIGHT TO COMPENSATION



The 1,726 workers who sought an advance compensation payment managed to acquire 881,337 shares, representing 7.8% of the subscribed and paid up shares of *Chilectra Metropolitana S.A.* on December 31st 1985. These measures had led to increasing private participation in the firm from 4.15% in 1984 to 16.33% in 1985. Although this was a big step forward, there was still a lot to do before one could talk in terms of a privately owned company.

Private participation in the company continued to increase in 1986, and on October 13th of that year the private sector gained majority control. On that day, the state development corporation, CORFO, which held 50.5% of the company at that time, sold a share packet equivalent to 6.5% of the company on the Stock Exchange. Thus, private-sector participation in *Chilectra Metropolitana* reached 56% of the total equity. At the same time an additional 20% advance payment of years of service compensation as at November 30th 1985 was being organized. In opting for this new advance, the worker again had to use at least 80% of it to purchase shares in *Chilectra Metropolitana S.A.* The other 20% could be received in cash, thereby providing the additional incentive mentioned above. The sale price of the shares was Ch\$ 1.050, calculated as the average price over the five days prior to opening this new offer. The option to accept this new advance

payment of compensation was held open between October 20th and 31st 1986, and on this occasion 1,778 workers acquired 366,870 shares for a value of Ch\$ 385,213,500, which represented a further 3.15% of the firm's equity. In just ten days, 98% of employees eligible to take advantage of the system did so, and 9.15% of the firm belonged to the workers during 1986. The year ended with 61.94% of the firm in private hands.

Majority control of the firm by the private sector was not accepted without arousing a certain degree of fear among the workers. The biggest concerns focused on job stability, as there was a perception that privatization would lead to staff lay-offs. However, looking at the figures for hiring since the firm's beginnings, there was no reason to anticipate redundancies: in fact the number of staff went steadily up every year, as can be appreciated in Table N° 4.

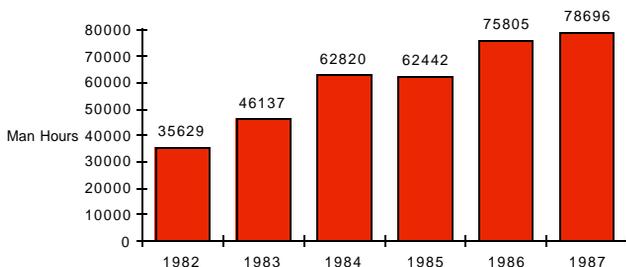
Table N° 4 : Evolution of Staff Numbers

Year	1982	1983	1984	1985	1986	1987
Human resources	2,020	2,091	2,283	2,421	2,495	2,587

Source: Annual reports of the company.

Moreover, throughout the period 1982-87 the firm has invested large amounts of time and money in staff training and development, as can be seen in Figure N° 2.

FIGURE N° 2: ANNUAL TRAINING



Without doubt the *Compañía Chilena Metropolitana de Distribución Eléctrica S.A.* has made significant investments in human capital, both in terms of people hired and in terms of training, making it highly unlikely that massive staff lay-offs will occur. At least up to now this has not happened and there are no indications that it could happen in the future.

Another concern that workers expressed related to a possible cut in wages. This was totally without foundation, for Chilean labor legislation establishes that wages are agreed through collective bargaining, and once defined cannot be raised or lowered by arbitrary decision by anybody. For that reason, it would be impossible to cut wages in *Chilectra Metropolitana*, a firm subject to collective bargaining.

1987 was the year of final transfer of the firm to the private sector, with the 38.06% of the capital still in state hands being transferred. Between June 15th and 24th 1987, the firm's employees were able to avail themselves of a further years-of-service-compensation advance equivalent to 20% of the total due. This payment came on top of those made in 1985 and 1986 with a sale price equal to the average value of the shares during the 15 working days prior to the date of sale on the stock market. This value came to Ch\$ 1,645; i.e. 56.6% above the October 1986 price and 101.1% higher than in October 1985. On this occasion, 1,718 employees, corresponding to 96.4% of the workers with the right to this option, acquired 292,126 shares. This represented approximately 3% of the company, and left state participation through CORFO at approximately 32%.

Then, on July 9th 1987, a further 1,392,000 or about 12% of *Chilectra Metropolitana* shares were auctioned on the stock market by CORFO. The highest price per share was Ch\$ 2,506 and the lowest Ch\$ 2,300. On this occasion the Security Pacific Bank acquired 10% of the company's equity to become one of its most important shareholders.

This same month the so-called "Chispazos Plan" was initiated among the firm's employees. The aim of this was to obtain an additional 20% share of the company, on the basis of the June 1987 resolution adopted by CORFO to privatize 100% of *Chilectra Metropolitana S.A.* The first offer was made for 10% of all the shares, with a sale price of Ch\$ 1,682.2 per share. A few days later, due to the interest shown by the workers, CORFO decide to sell another 10% of the company to the workers, this time at Ch\$ 1,790 per share, equal to the company's share price on the stock market.

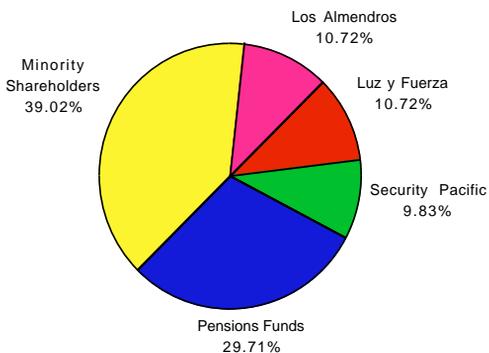
In order to gain access to these significant share packets, representing an investment of about US\$ 19 million, companies were formally set up composed exclusively of *Chilectra Metropolitana S.A* workers, who put

up capital in shares owned by them equivalent to Ch\$ 389 million. This sum was used as collateral in the financial system to obtain the loan needed to pay for the entire operation. The companies thus set up were named *Inmobiliaria Luz y Fuerza Ltda.* and *Inversiones Los Almendros Ltda.* The contributions made in putting together the capital indicated was shared as follows: 45 executives between them put up Ch\$ 117,403,650 representing 30% of the equity of the companies; the professional group put up Ch\$ 127,850,590, or 33% of the total; and administrative and operational personal contributed Ch\$ 144,085,550 representing 37% of the companies' assets.

On August 10th loan contacts were signed whereby 2,349,731 *Chilectra Metropolitana* shares were bought from CORFO. Through this operation the companies set up by the employees, *Inmobiliaria Luz y Fuerza Ltda.*, and *Inversiones Los Almendros Ltda.* became owners of 1,293,365 and 1,293,366 shares of the company respectively, and became majority shareholders with a participation of 10.88% of the equity in each case. On August 21st the share price reached Ch\$ 2,500, at which point a stock split of one old share for 15 new ones took place. The value of these shares was Ch\$ 166.67 (2,500/15). As from August 1987 the firm *Compañía Chilena Metropolitana de Distribución Eléctrica S.A.* was wholly transferred to the private sector thereby reverting to its juridical situation prior to 1970.

At 31st December 1987 the ownership of the company was distributed as follows:

FIGURE Nº 3: DISTRIBUTION OF OWNERSHIP IN CHILECTRA METROPOLITANA



The workers own about 27% of the equity of a firm whose value in January 1988 amounted to approximately Ch\$ 28,535 million⁵. Therefore, the value of the employee's share in the firm amounted to about Ch\$ 8,560 million. i.e. Ch\$ 3.4 million per worker. Obviously, this figure is not the net economic value to the worker, as the debt entered into to finance the investment needs to be subtracted out. The wealth of each worker has gone up considerably as a result of the rise in the price of the shares traded on the market. The expectation that *Chilectra Metropolitana S.A.* might be more efficient as a private firm largely explains this rise in the share value. In fact, the market price, in the absence of distortions, should reflect all the benefits associated with privatization, be they economic or otherwise.

The sale of shares to the company's employees would probably not have been so successful in the absence of an aggressive marketing campaign. Posters were printed encouraging workers to acquire part of firm, and executives themselves took responsibility for assuaging the doubts that existed among staff members. In addition, explanatory leaflets were distributed explaining the sale process. In short, a propitious atmosphere was created for workers of the firm to become interested in buying the shares. The high level of participation among workers in the process of buying out the company was also influenced by the chance of receiving a significant part of their compensation in cash as well as the expectation of increases in the value of the shares. These expectations were based on the past behavior of the shares and, as Table N° 5 shows, were fulfilled by their subsequent stock market behavior.

In 1987 the share price continued to rise, climbing to levels above Ch\$ 2,500, and as was indicated above, on August 21st, with the *Chilectra*

TABLE N° 5: EVOLUTION OF THE SHARE PRICE

Year	Average price (Ch\$)	Closing price (Ch\$)
1983	12.93	12.67
1984	15.82	12.53
1985	52.38	61.33
1986	70.26	94.07
1987	142.04	142.00

Source: Annual reports of the company.

⁵ This valuation uses the average stock market price for *Chilectra Metropolitana* shares during the month of January 1988. In the long run the stock market value of the shares should constitute a good approximation to the economic value of the firm.

Metropolitana S.A. share price standing at Ch\$ 2,500 each existing share was split into 15 new ones each valued at Ch\$ 166.67. In October, during the worldwide stock market "crash", the share price fell to Ch\$ 137, 18% down on its August 1987 level. Since then, the share price recovered slowly to end 1987 at Ch\$ 142, equivalent to a price of Ch\$ 2,130 for the old shares. Investment in equity therefore has not only allowed shareholders to become co-owners of the firm, but it has also meant significant benefits for them. In addition there are the dividends which are detailed in the next section.

The privatization of the company *Chilectra Metropolitana Distribución Eléctrica*, was successfully completed, and ownership is well diversified. The sale process was transparent and a significant number of workers were brought into the ownership of the firm. It is still very early to assess the outcome of this, but within the firm there is the impression that it will be highly beneficial for the future development of the company.

3. Economic Evolution of the Firm

The privatization of state-owned companies has had both political and economic goals. The initial aims have arisen out of a conviction that reducing the entrepreneurial state is a guarantee of greater political freedom. It is true that economic freedom is not the only condition for political freedom: indeed, our country has had significant economic freedom in recent years, but limited spaces for political activity. However, real socialisms have demonstrated that political and economic control invariably lead to totalitarianism, with absolute restrictions on all individual liberties. The political freedom that has existed, materialized through the press and radio, probably would not be so great if the current government controlled all means of production. For example, it would be sufficient to control the production of paper to put publications of the political opposition under serious threat⁶.

There can be no doubt that while there are many arguments for defending the privatization of public-sector companies⁷, one cannot ignore the fact that these are not shared by all sectors of the country. A concern arises therefore regarding the future of firms that have been transferred from the public to the private sector, especially if the present opposition

⁶ For a more detailed discussion of this thesis see A. Fontaine, "Libertad Cultural, Pluralismo Político y Capitalismo", *Estudios Públicos*, 19 (Winter 1985), pp. 71-89.

⁷ See Steve Hanke, (ed.), *Privatization and Development* San Francisco: ICS Press, (1987), pp. 23-64.

becomes the government. In this sense the transfer to workers of a significant part of the equity gives greater stability to the process, and the initiative has an undeniably decisive political impact. For one thing, it tends to undercut the foundations of Marxist exploitation theory⁸, and secondly it also reduces the chances of future expropriation of these firms, as it would be very difficult for a government to expropriate from its own workers.

From the economic point of view there is a conviction that private companies operate more efficiently than state-owned firms. In this way, the privatization of state-owned enterprises is justified in terms of the better use of the resources belonging to Chilean society. Among other things, the private firm adapts better to ever dynamic markets as their decision-taking processes are faster. In contrast, in state firms there is a whole bureaucratic apparatus which rigidifies the process of adapting to change. Privatization thus translates into the provision of an enhanced service to the community.

Now, if private enterprise is more efficient, one ought to see resource saving, or else better use of existing resources. This section aims in some way to study the firm's economic and financial evolution. It should be pointed out that a more complete analysis of the *Chilectra Metropolitana* privatization should include an assessment of any political benefits associated with it, but this has been put to one side in view of the short time that has elapsed since privatization took place⁹.

As was mentioned above, the firm *Chilectra Metropolitana S.A.* was created as a subsidiary of *Chilectra S.A.*, after the latter's restructuring in 1981. In December 1981 the assets of this new firm were worth Ch\$ 44,005 million (at December 1987 prices).

As can be seen in Table N° 6, the size of the firm, as measured by its asset value, has grown rapidly, with especially notable increases in 1985 and 1986. The company's net worth of the has behaved as shown in Table N° 7.

The growth in the firm's net worth during its first six years of independent operations has been significant, and a large part of this is accounted for by a revaluation of the company's assets to bring them closer to their true economic value. Is interesting to see the importance of net worth as an "explanation" of assets. The firm's total are 77 to 81% accounted for by the net worth of *Chilectra Metropolitana S.A.* Hence the ratios of Current liabilities/Net worth are relatively low, as can be seen in Table N° 8.

⁸ The separation between labor and capital is eliminated.

⁹ Moreover, no political swing has occurred that would put the firm the firm to the test. However, from 1989 onwards Chile will be a democratic country, and the evolution of the firm will have to watched carefully in this new context.

TABLE N° 6: TOTAL ASSETS
(CHS MILLION, DECEMBER 1987)

Year	Ch\$ million	Percentage change
1981	44,005	-
1982	45,798	4.1
1983	45,945	0.1
1984	46,207	0.8
1985	48,895	5.8
1986	58,140	18.9
1987	62,271	7.1

Source: Balance sheets of the company.

TABLE N° 7: NET WORTH
(CHS MILLION, DECEMBER 1987)

Year	Ch\$ million	Percentage change
1981	36,022	-
1982	35,434	-1.6
1983	36,114	1.9
1984	37,416	3.6
1985	39,406	5.3
1986	47,343	20.1
1987	48,053	1.5

Source: Balance sheets of the company.

TABLE N° 8: RATIO CURRENT LIABILITIES/NET WORTH
(PERCENTAGE)

Year	Current liabilities/Net worth
1981	22.2
1982	29.6
1983	26.9
1984	23.5
1985	24.1
1986	22.8
1987	29.6

Source: Balance sheets of the company.

A low debt/net worth ratio give a firm the chance to opt for significant growth, because the risk associated with new projects is relatively low. *Chilectra Metropolitana* is a relatively new firm so there is no need to make investments for equipment renewal, and this opens the way for investments in other areas or sectors of the economy. This relatively comfortable situation for the company is also reflected in the firm's acid ratio, a financial indicator that makes it possible to appreciate the company's degree of liquidity.

TABLE N° 9: ACID RATIO:
(CURRENT ASSETS-INVENTORIES)/CURRENT LIABILITIES

Year	Acid ratio
1981	1.40
1982	1.24
1983	2.42
1984	2.83
1985	2.74
1986	2.31
1987	1.45

Source: Balance sheets of the company.

Chilectra Metropolitana S.A. has maintained liquidity at more than satisfactory levels and is well placed to meet its short term obligations. This gives an indication of its capacity to confront transitory problems, which are also difficult to predict. Moreover, the firm has been raising the amount of its investments without significantly altering its ratio of Current liabilities/ Net worth, which means that many of these investments have been carried out using own resources. Table 10 corroborates this statement.

Table N° 10: Investment per Client (Ch\$, December 1987)

Year	Amount	Percentage change
1982	3,275	-
1983	2,439	-25.5
1984	2,108	-13.6
1985	3,800	80.3
1986	4,400	15.8
1987	6,900	56.8

Source: Annual reports of the company.

Table N° 10 gives the lie to one of the main objections to the privatization of public companies relating to the fact that selling established firms does not generate new investment. The evidence in this particular case points to a significant increase in investment during the privatization process. In fact, while the firm was publicly owned, investment was quite depressed; privatization raised the level of investment with a consequent effect on employment and a better service to customers.

In general the figures reported give the impression of a conservative management of the firm, which is not necessarily optimal. However, this style of management was probably needed to attract agents who would be able give greater stability to the privatization process in the long run, namely workers and AFPs. To attract workers, AFPs and other private shareholders to the firm, risk needed to be minimized. Workers had to accept the early payment of their compensation to be able to take part in the ownership of the firm. In other words, they had to renounce something that was certain (eventual compensation for years of service) and in return accept shares with their inherent risk. On the other hand, the Superintendency of AFPs, working through the Risk Classification Commission, controlled and approved all investments in shares made by pension institutions: AFPs could only buy shares in firms that met certain requirements. These requirements generally aimed at minimizing risk rather than achieving an optimum risk-return mix on the investment, so in this context its conservative management of the company was reasonable in order to achieve transfer to the private sector.

But, what happened with the efficiency of the firm? Were existing resources being exploited better? And if so, how had this been achieved? A good indicator of efficiency is the return on capital invested, which can be compared with the alternatives existing in the capital market. Table N° 11 shows the behavior of this indicator.

TABLE N° 11: RATE OF RETURN AFTER TAX

Year	Profit/Net worth (%)
1981	5.70
1982	14.90
1983	3.10
1984	4.70
1985	9.72
1986	9.70
1987	9.80

Source: Balance sheets of the Company.

The reader may note the sharp increase recorded in the company's profitability between 1981 and 1982. This was due to the implementation of a new electricity pricing policy, as from 1982, which initially set charges way above the optimum.¹⁰ Subsequently this situation was corrected, and is reflected in a fall the firm's profitability between 1982 and 1983.

Between 1983 and 1987 the ratio profit/net worth has risen to settle around 10%, which is in line with profitability in the market for capital invested in low-risk businesses. Some sectors will argue that this rise in profits has been caused by price increases resulting from the privatization of the firm. However, it should not be forgotten that electricity rates are set by law and not determined by *Chilectra Metropolitana S.A.*, and this explains, for example, the increase in energy prices between 1982 and 1983 shown Table N° 11, and which caused the drop in the firm's profitability during those years, as mentioned above. Having said that, Table N° 12 does not suggest significant changes in the real price of electricity that might account for real increases in profits. This is especially relevant considering that between 1983 and 1984 real energy prices fell, whereas the profitability of the firm went up.

TABLE N° 12: REAL ENERGY PRICES BY SECTOR OF DEMAND
(EXPRESSED IN CHS/KWH, DECEMBER 1987)

Sector	Year					
	1982	1983	1984	1985	1986	1987
Residential	16.01	13.72	13.26	16.04	15.54	16.27
Industrial	11.22	9.20	8.27	9.99	9.32	10.08
Commercial	14.95	12.73	12.05	14.47	13.67	14.34

Source: Annual reports of the company.

As can be appreciated, changes in real energy prices are not big enough to explain the significant changes in the firm's profits and hence its profits/net-worth ratios; instead the explanations seem to point in a different direction. In fact when one compares variations in operating revenues with variations in operating costs, one can find a cause. This is shown in Table N° 13.

¹⁰ It should not be forgotten that this company has natural monopoly characteristics, and in such cases theory advises setting prices equal to long-run marginal costs.

TABLE N° 13: VARIATIONS IN OPERATING REVENUES AND COSTS

Years	Variation in revenues	Variation in costs
1982-83	-7.80	12.60
1983-84	4.10	-0.01
1984-85	13.60	8.40
1985-86	7.20	6.90
1986-87	4.20	2.60

Source: Balance sheets of the company.

This is specially relevant from the period 1983-1984 onwards. Indeed, between those two years and between 1985 and 1986 the real price of energy sold by *Chilectra Metropolitana S.A.*, actually fell. In spite of this, revenue increases are greater than increases in costs, which, together with Tables N° 7 and N° 11, gives an indicator of the increase in the firm's efficiency. Typically, the average product of labor has been used an indicator of efficiency, and this is shown in the following table.

Average labor product behaves in a quite stable way, and only at the end of the period does one appreciate a tendency towards productivity increase. However, this cannot completely account for the increase in the firm's profitability. Instead, this is due to a better exploitation of existing investment. One test of this efficiency is a comparison with other important electricity distribution companies in South America. Table N° 15 makes this comparison for 1985.

Without doubt in 1985 *Chilectra Metropolitana* was in an outstanding position in the South American context. It was providing electricity

TABLE N° 14: AVERAGE PRODUCT OF LABOR (MWH/NUMBER OF WORKERS)

Year	Average product
1982	1,373
1983	1,315
1984	1,334
1985	1,292
1986	1,347
1987	1,396

Source: Annual reports of the company.

distribution with the lowest number of workers per customer and used fewer fixed assets than the other firms considered per KWH distributed.

Of extreme importance in the firm's financial results is the control of energy losses it suffers (a characteristic loss for the firm is what happens when a person illegally connects to electricity cables in the street). Although much effort and significant resources have been deployed to avoid such losses, the situation has not yet been controlled and it affects the company significantly. Table N° 16 shows the amounts involved and gives an approximate monetary value of the losses¹¹.

TABLE N° 15: COMPARISON WITH OTHER ELECTRICITY FIRMS. 1985

	Sales (US\$thousand)	Customers/ Employee	Fixed assets (US\$/KWH) of return(%)	Rate
Servicios Eléctricos de Buenos Aires	1,040,858	166	1,311	-7.3
Compañía Eléctrica de Bahía Servicios de Electricidad	175,475	189	675	2.3
Rio de Janeiro	562,808	162	535	2.8
Chilectra Metropolitana	182,372	380	180	9.7
Electrolima	142,721	228	483	-7.3

TABLE N° 16: ENERGY LOSSES

Year	KWH (million)	Percentage of energy input	Approximate value (Ch\$ million at Dec 1987 prices)
1981	580.1	16.5	8,807
1983	799.6	22.4	10,970
1984	728.6	19.3	9,661
1985	802.6	20.4	12,874
1986	887.4	20.9	13,790
1987	901.4	19.8	14,666

Source: Annual reports of the company.

¹¹ Losses have been valued at the energy selling price, which partly overestimates its monetary value, because in reality this is not its alternative cost. It should be noted that the energy buying price is not relevant price either, which instead is an intermediate price.

The cost of the losses varies between approximately 24% and 28% of gross revenue, and such magnitudes indicate the importance of solving the problem for the company's results. However, it is important to mention that there are also energy losses due to technical reasons, produced in energy transformation and transport. These amount to 13% of energy input. Nevertheless, losses due to energy theft remain high and range between 11% and 15% of the total energy Chilectra Metropolitana feeds into its distribution system.

Although it is still too soon to make an exhaustive analysis of the economic effects of the privatization of *Chilectra Metropolitana S.A.*, the figures suggest the potential of the firm is enormous. This is precisely what the stock market has shown in a notable rise in the share price. But how have shareholders, especially workers, benefited from this privatization process? Workers have benefited from the rise in the price of their shares and by the dividends distributed. To get an idea of how advantageous this policy has been we can compare three alternative investments, as at November 1987, for workers who took an advance payment of their compensation. This comparison is made based on the months in which they received the three advance compensation payments. Figure N° 4 compares the investment alternatives, detailed below, for a 50% advance, equivalent to Ch\$ 100 in October 1985. The alternatives are:

- a) Invest in shares of the company and reinvest the dividends received in shares at the stock market value.
- b) Invest in some index-linked financial instrument (UF) at an interest rate of 6% for the whole period.
- c) Reject the advance compensation payment; the fund earmarked for this is increased according to the CPI as well as real increases.

Figures 5 and 6 repeat the exercise for the advance compensation payments of 20% made in October 1986 and June 1987, respectively.

It is interesting to note that these graphs relate to November 1987, when share prices were depressed. By August 1988, share prices had largely recovered, thus making investment in *Chilectra Metropolitana* shares even more attractive.

Finally, it is worth pointing out that the improvement seen in the company's results has made it possible to substantially improve the dividend distributed per share. In the case of this firm, where worker participation is significant, it is crucial to maintain a good dividend policy, as this constitutes one of the factors that keeps the worker as a shareholder. In this respect it can be said that workers holding shares receive nearly two months' wages per year in terms of dividends alone. This means receiving 16% of total earnings for the year as result of being a shareholder of the firm.

FIGURE N° 4: PROFITABILITY OF THREE INVESTMENT ALTERNATIVES (PERIOD OCTOBER 1985-NOVEMBER 1987)

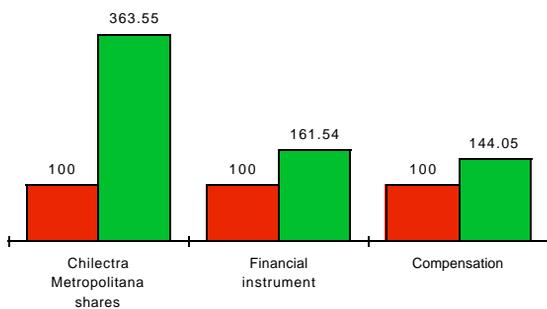


FIGURE N° 5: PROFITABILITY OF THREE INVESTMENT ALTERNATIVES (PERIOD OCTOBER 1986- NOVEMBER 1987)

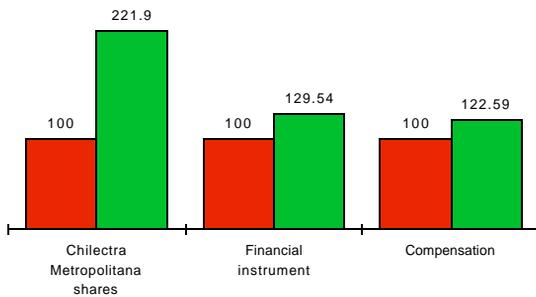


FIGURE N° 6: PROFITABILITY OF THREE INVESTMENT ALTERNATIVES
(PERIOD JUNE 1987 - NOVEMBER 1987)

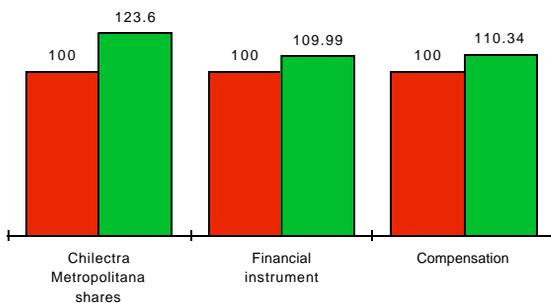
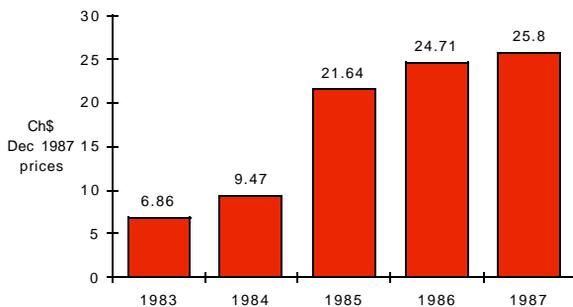


Figure N° 7 allows one to appreciate how, from 1983 onwards, the size of dividends distributed per share has gone up. Workers have maintained an interest in the firm, because it has been beneficial for them. The question remains however, what will happen when the firm does not do so well? Only time will tell.

FIGURE N° 7: DIVIDENDS DISTRIBUTED PER FINANCIAL YEAR



4. Final Considerations

This article has analyzed the privatization of *Chilectra Metropolitana*, the largest electricity distribution company in Chile. In 1982 this firm was totally state owned, but since 1987 it has been wholly owned by the private sector. The process of transferring ownership of this company is worthy of analysis. As a public utility company, it was seen in broad sectors of our society as necessarily state-owned, so it is important to study its situation for it could eventually be a target of attempted expropriation. Maybe in the end such an attempt will not be made, but the possibility should not be ruled out. The probability of this happening is related to the perceptions the population may hold regarding the quality of the privatization process and the benefits it provides to society, as well as the conceptions those responsible for implementing policies in the future have of society.

As regards the first point, it can be stated that the process of privatizing *Chilectra Metropolitana S.A.* has the advantage of having been done transparently and at market prices at every moment. Such prices are what most closely reflect the real value of a firm at a given moment. It is arguable whether the market price constitutes the most appropriate instrument for evaluating a firm, but its use in the sale of *Chilectra Metropolitana S.A.* can hardly be criticized; still less can its use be held to be mistaken. This makes it possible to limit the discussion, and it turns into an ideological debate on whether *Chilectra* should be in state hands or owned by the private sector. In this regard, as mentioned above, there are still sectors that sustain the former thesis, or at least argue that the decision should be made according to the will of the majority.

Edgardo Boeninger, a leading Christian Democrat, some time ago put forward a tentative scheme for the structure of productive ownership, in which "traditional public services, hydroelectric energy, petroleum, large-scale copper mining and possibly other mining, and development banks" should be "state firms or at least under public management"¹². Without doubt, *Chilectra Metropolitana S.A.* falls within this category, and this suggests that the Christians Democrats would support an eventual expropriation of the firm.

From the ranks of Socialism one hears voices arguing that "for the State to be able to efficiently orient the dynamic forces of the economic system in the current situation of the Chilean economy, it needs to assume

¹² Edgardo Boeninger, "Orden económico para la futura democracia en Chile", *Estudios Públicos*, 22 (Autumn 1986), p. 105.

directly, not only the traditional public services, but also part of the production of inputs of key industrial products (energy, steel, basic chemical inputs, certain capital goods) and export goods of high economic rent (minerals, cellulose, industrial fishing)¹³. Nobody can deny that Chilectra would fit in one of these categories. Therefore, it should not be surprising if in a future democracy, both the Christian Democrats and the Socialists, in the framework of their respective governmental programs, would support initiatives to expropriate firms like *Chilectra Metropolitana S.A.*¹⁴.

Certain political sectors are, therefore, in favor of the statization of numerous firms that have been privatized or reprivatized in recent years, including *Chilectra Metropolitana S.A.* Success in achieving such objectives will depend on the degree of popular support that can be raised for them. Accordingly, it is important to stress that a significant part of the population believes "it is better for large firms to be state-owned"¹⁵. In Greater Santiago 39.1% of the population indicated their agreement with this, with a similar percentage (38.5%) against it.

The evidence does not provide conclusive support for the privatization of a firm such as *Chilectra Metropolitana*, but neither does it reject such a policy. Opinions are divided and the future of privatized firms in any future Christian Democrat or Socialist government is going to depend on the benefits that private ownership and the market economy are able to provide the population. This is true because if the people see private ownership as in their interests, it will be very difficult for any government to turn back the privatization process without creating political instability along the way¹⁶.

For that reason, the fact that part of firm has been privatized into worker ownership could become crucially important in the future. Employees have really benefited from this process and are currently the owners of 30% of the equity of the company. Hence workers may become the main defenders of the privatization policy. Their shareholding participation in

¹³ Gonzalo Martner, "La Perspectiva del Socialismo", in *Orden Económico y Democracia* Santiago: Centro de Estudios del Desarrollo, (November 1985), p. 111.

¹⁴ The recent and well known declarations by *Partido por la Democracia* president, Ricardo Lagos, to various communications media, arguing that privatizations need to be ratified by majority vote, is one more proof of the possibility of attempts at expropriation *Chilectra Metropolitana S.A.* may suffer in the future.

¹⁵ See "Estudio Social y de Opinión Pública en la Población de Santiago" April-May 1988, *Working Paper* N° 102, June 1988, Centro de Estudios Públicos.

¹⁶ One example of the instability that unpopular statization measures can create is what has recently happened in Peru, following the announcement by President Alan García indicating his intention to nationalize the banks.

the company makes it more difficult for a pro-stationization government to successfully carry out an expropriation policy¹⁷.

Having said that, direct expropriation is not needed to control a company like *Chilectra Metropolitana*. Setting the energy price below its real value could damage the firm's assets in such a way as to justify subsequent state intervention to rescue it from a precarious situation. The price control alternative is an open possibility when one considers that the energy price, as was pointed out above, is set by the National Energy Commission—a government agency.

However, there are mechanisms that enable firms to protect themselves from price-setting policies. Privatization into employee ownership is one of them. Alternatively, a policy of asset diversification into non-regulated areas makes it possible to diversify and reduce investment risk. Undoubtedly this requires resources, but, as was seen in the previous chapter, *Chilectra Metropolitana* does not need to make significant investments to increase its growth potential. This has made allowed the firm to initiate a process of asset diversification to optimize the utilization of resources invested and to protect itself from possible future regulations.

To this end, the company has been restructured with a parent company, Enersis S.A., being set up as a public corporation (*sociedad anónima*) on October 28th, 1987. Currently there are three subsidiaries dependent on this parent company: Synapsis S.A., an information technology firm to which the new Enersis S.A. contributes 51% of the capital, with the UNISYS Corporation putting up the remaining 49%; *Inmobiliaria Manso de Velasco*, responsible for administering the assets of the holding company, and *Distribuidora Chilectra Metropolitana S.A.* which will take over the responsibilities of *Chilectra Metropolitana S.A.* Thus, the present structure of the company is as shown below:

ENERSIS S.A.		
Synapsis S.A.	Distribuidora Chilectra Metropolitana S.A	Inmobiliaria Manso de Velasco

In the future the firm will probably diversify into other areas in order to take advantage of investments carried out in the past and minimize the risk of politically motivated setting of the energy price. The evidence suggests that like the possibility of direct expropriation, this is a latent danger which both the firm and the country should be aware of. □

¹⁷ It would be impossible for a government of any type to justify the stationization of a firm owned 30% by its workers.