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Obligation or Opportunity?:
A study into the goal of universal service
under Chile's privatized telecommunication sector

by
Constanza Alvarado, B.A.

A thesis submitted to
the Faculty of Graduate Studies and Research
in partial fulfillment of
the requirements for the degree of

Master of Arts

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School of Journalism and Communication

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Thesis Supervisor

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Abstract

This thesis examines the issue of universal service under Chile's privatized telecommunication sector. Since the military coup of 1973, Chile has undergone massive political, economic and social reforms. Specifically, the creation of a body of technocrats, labeled the "Chicago Boys," heavily influenced the organization of the telecommunication sector. Altogether, the neo-liberal philosophy adopted under the military dictatorship of General Augusto Pinochet contributed towards the suppression of civil society and the creation of a sector that is characterized by a static regulatory structure, SUBTEL. With the return to a democratic government in 1990, the implementation of a democratic communication system was, once again, enabled. Altogether, Chile is a distinct case study for examining policies enacted to foster universal access and universal service under a market structure.

Obligation or Opportunity?

**A study into the goal of universal service under Chile's privatized
telecommunication sector**

Technological advances are amplifying the supply and range of services and repeatedly altering the telecommunications sector, forcing regulatory bodies to adapt to new realities. Amidst the wide array of services available, the goal of universal service has been pushed to the top of many agendas, a concept long associated with the public monopoly structures that once claimed to ensure its provision. As Colin Blackman (1995) has noted, the concept of universal service has shifted from being an *obligation*, under the public monopoly structure, towards becoming an *opportunity* under competitive market conditions, a model that is characterizing markets in developed and developing nations alike.

The public monopoly structures, which marked the telecommunication landscape for decades, were often identified as the guarantor of universal service, although this aspect has recently been rethought. When the concept of universal service was first coined in 1907 by Theodore Vail, it was initially conceived as a means of interconnecting competing networks (Mueller, 1997). Over the years, however, this concept has shifted to the contemporary vision of universal service as a telephone in every home.

With the liberalization of market structures, deregulation and privatization of telecommunication sectors, and innovations in technology, this concept has become a pillar of telecommunication policy and a basic necessity in modern society, as policy makers adopt universal service as a social policy goal. The implementation of universal service, however, has been rendered difficult in spite of claims regarding the role of communication technology as capable of creating a global community. In fact, universal service has become a prominent issue in light of the increasing patterns of wired cities that characterize global communication and capital flows.

The telecommunication sector has long been considered to embody the potential for building and strengthening national economies in order to participate within a global economic framework, described as an “engine of growth and progress” (Maitland Commission, 1984, p. 3). In fact, in 1994, U.S. Vice- President Al Gore presented his vision of a *Global Information Infrastructure* (GII), a network that would connect the world through the means of the information highway, allowing all nations to reap the benefits of the information revolution. Only those who partake within the global flow of capital, information, and communication, however, can enjoy the benefits of the revolution. The global economy, then, is slowly emerging as a web of exclusionary, strategic economic centres instead of unified, global flows of capital and information. Although the concept of a global economy is global in scope, in reality it only constitutes specific economic centres from around the world, thus becoming hubs on the global map. Electronic spaces and power, in turn, are shifting as wired cities create nodal points of connected participants within the larger communication map, while the rest of the nation remains disconnected from these flows (Sassen, 1998; Winseck, 2001). Interestingly, contrary to studies in communication and capital flows that are demarcated along the North-South divide, this trend includes both developed and developing nations alike.

For instance, in 1984, the Maitland Commission highlighted the gap that exists in communication infrastructures between industrialized and non-industrialized countries, based upon the traditional North-South axis, and called forth the need to connect these “disconnected” nations to the global flow of information. For the most part, this commission was grounded within an economic framework that was based upon the belief

that “where information flows, so does commerce,” rather than one based upon a democratic communication system (Maitland Commission, 1984, p.3).

The exigencies of being included in global flows of capital and information have promoted efforts to foster the growth of a global information infrastructure (Kennard, 1998). Such efforts have focused on the privatization of the telecommunication sector and the liberalization of markets as a means of generating investment into telecommunication infrastructures. In fact, the liberalization process is seen as increasing potential investment opportunities in the telecommunication sector, and depicted as able to “increase quality and reliability of service, extend access to many people not covered, accelerate innovation especially to business users, and overall increase efficiency and reduce prices” (Wellenius and Staple, 1996, p.1). The issue that emerges is how universal service can be fostered under a privatized environment, characterized by a market structure with competitive conditions and the creation of a regulatory environment, a trend that has swept through the telecommunication sector in numerous nations.

The telecommunication sector has witnessed three distinct approaches towards privatization, a process that often operates independently from the liberalization of the market. These are depicted as privatization with full competition, as in the case of Chile, privatization with phased-in competition, and liberalization of the market without privatization (Pisciotta, 1997). A country's facility to privatize, and ability to attract investors and restructure the market, is a process heavily influenced by political and economic reasons.

Generally, the 1980s witnessed a widespread wave of privatization of strategic sectors, including telecommunications, defined simply as the private ownership of a

previously state-owned enterprise, and the liberalization of the market, the lowering of entry-barriers, in a vast number of industrialized countries. Privatization was most notable under Margaret Thatcher's government, with the privatization of *British Telecom* and *Cable & Wireless* in the United Kingdom, and subsequent introduction of competition. Although it had been depicted less as an economic objective than as a guise for political goals by the Conservative Party in an effort to "change public attitudes and shift the center-ground of British politics to the right" (Dobek, 1993, p.31), Thatcher's politics proceeded to create a wave of transformation throughout developed and developing nations alike.

The United States also liberalized its telecommunication sector, *AT&T*, and liberalized the market by opening the long-distance and international market to competition. Although privatization carried out in industrialized countries, like Britain and Japan, were initiated as a means to re-regulate the sector in favour of corporate use, this trend continued, though under very different pretexts, with the privatization of various public utilities by numerous developing nations in the late 1980s and into the 1990s.

In the case of Latin America, many nations opted to follow through with this process mostly due to the aftermath of the debt crisis in 1982. These nations included Venezuela, Peru, Argentina's *Empresa Nacional de Telecomunicaciones (ENTel)* and Latin America's biggest privatization to date, Brazil's *TeleBrasil*, (*Telebras*), in 1998. However, not all of Latin nations' privatizations have been heavily driven by debt, as is evident in the case of both Colombia and, particularly, Chile.

Both these nations managed to skirt debt-reduction exercises during the 1980s due to debt-swapping strategies, well-managed economies, good credit, and in Chile, a strong state. Colombia succeeded in becoming a prominent economic hub, more importantly, Chile has become a model of efficiency that fellow Latin nations look to in terms of its stringent development strategies.

Spearheading the trend toward privatization in Latin America, Chile paved the road toward privatizing its telecommunications sector and was commended for its overall transformation, since “no country in the world, not even in Margaret Thatcher’s Britain, [had] privatization been carried as far as it has in contemporary Chile” (Galal et al, 1994, p.181). Yet, there were massive social, political, and, economic costs underlying Chile’s privatization, which has made it one of the more distinct cases in Latin America.

Prior to the debt crises of 1982, the military regime (1973-1989) had already outlined and begun implementing strategies for privatization. Perhaps the more distinct features of the Chilean telecommunications sector can be noted by the liberalization of the market and the subsequent introduction of competition into the basic and long-distance markets, and the creation of a regulatory body in 1977, before the actual privatization of the main operators in the mid- 1980s.

As many of the Latin American privatization experiences reveal, the economic and political factors underlying the process, and it’s timing in conjunction with the liberalization of the markets, have proven to be instrumental in the overall ability to follow through until the end. In these terms, the political and economic factors in Chile facilitated the ability for the state to proceed with privatization, since the military dictatorship provided guaranteed protection from political, institutional and even social

pressures for the Chicago Boys to implement reforms. De Castro, one of the major figures in the Chilean neo-liberal revolution admitted, “Public opinion was very much against us, so we needed a strong personality to maintain the policy” (Collins & Lear, 1995, p.44).

Yet, even with the privatization of the telecommunication sector and the subsequent incorporation into the larger global flow, a gap remains between those living in the wired cities and those at its margins. Castells (1996) refers to this condition as a financial mirage, and notes that “the price for incorporation [into the global economy] has been very high: a substantial proportion of the Latin American population has been excluded from such dynamic sectors, both as producers and consumers” (p. 131). This has also been unveiled as a pattern in the provision of basic communication in the peripheral regions of wired Latin American cities.

Altogether, the issue at hand is whether the goal of universal service can exist in the market structure of the Chilean communication system. This thesis argues that Chilean policy-makers, coinciding with the return of a democratically elected government in 1989, have only recently adopted the contemporary vision of universal service. The notions of universal access and service, as tenets of a democratic communication system, can be fostered within a democratic environment. Throughout the Popular Unity period, there were gains in efforts to connect the Chilean population under the public monopoly structure. Yet, CTC’s monopolistic practices and the sector’s continual lack of regulation were making progress difficult.

The neo-liberal reforms of the Pinochet dictatorship, however, brought about drastic changes in Chile, impacting the telecommunication sector. Specifically, it

expedited the deregulation and privatization of the sector, essentially providing the groundwork for the eventual implementation of a democratic communication system that promotes policies of *universal access*, defined by implementing public telephone networks in rural communities through a telecommunications fund based upon a public bidding contest.

National teledensity figures throughout Latin America reveal a yawning gap between the city and rural regions. While saturated markets characterize many of the core city centres (economic hubs) many outlying, less prominent centres have relatively low teledensity figures. In fact, Stehmann (1995) noted there is a higher discrepancy within the region of Santiago, the nation's capital, than there is between the regions themselves. This is due to the fact Santiago is densely populated with an estimated five million residents, mostly business users, while the rest of the nation make up the rest of the nine million inhabitants.

This contrast is not just particular to Chile. In fact, the disparity in teledensities between the city centres and rural areas is also a characteristic of fellow Latin nations. For instance, Brazil, considered to be Latin America's economic and technological powerhouse, had 16.47 main telephone lines per 100 inhabitants in its largest city, Sao Paulo, while maintaining a teledensity of only 8.74 main lines for the rest of the country, in 1998. Santiago, Chile's capital and economic hub, averages 28.11 main lines while the rest of the country has 15.15 main lines per 100 inhabitants (ITU, 1999). In the 1990s, then, Chile officially began to develop and implement policies to diminish the stark discrepancy that marks those living in the city with technological access and means, and those without, in the outlying and rural regions.

As this brief review suggests, the goal of universal service has a long way to go. However, Chilean state and regulatory bodies have worked together to establish alternate ways to diminish the disparities that characterizes this sector. Furthermore, in the last twenty years, the Chilean telecommunication sector has gradually shifted from a market characterized by plain old telephone service (POTS) to a market featuring new technology that offers value-added network service (VANS), such as the Internet. The Internet market, in particular, has blossomed due to the increasing number of users, and been incorporated as part of Chile's goal towards universal service, as highlighted by the *Enlaces* project.

This thesis examines the goal of universal service under Chile's privatized telecommunication sector and the nature of the relation between the state and the regulatory body before, during, and after privatization.

The first chapter briefly traces the roots of universal service and of globalization, and reviews the processes of privatization, including the underlying political and economic factors that have driven Latin nations to privatize. As well, four models of privatization are also presented, thus helping to understand the diverse approaches of Latin American countries to privatization. The rise and decline of the public monopoly in Latin America and Chile, specifically, are also reviewed providing the larger context within which the case of Chile is examined.

The second chapter outlines the historical background of Latin America and Chile. More specifically, the neo-liberal model promoted by the ruling body of technocrats governing Chile's economy, labeled the "Chicago Boys," will be discussed.

With the tools provided by political economy, the free-market model is examined, and the state's continuing role in the telecommunication sector outlined.

The third chapter traces the historical roots of telecommunications in Chile from 1851 to 1973. The telephone and telegraph initially developed under private interests in 185. The telegraph, however, developed under the state while the telephone remained under private interests until it was nationalized, from 1974 until its privatization in the mid-1980s. As this chapter illustrates, the development of communication systems in Chile was subject to the economic imperative of private interests, and thus universal service was not a driving incentive in the overall development of the national communication infrastructure.

Chapters four and five examine the two stages of Chile's privatization efforts. First, chapter four reviews the first stage of privatization, detailing the three distinct phases and legal wrangling involved in privatizing the telecommunication sector. The first phase, dating from 1973 to 1976, is marked by the military coup d'état and General Pinochet's creation of a police state. Phase two takes place during the debt crisis, 1976 to 1982, unveiling the social and economic costs behind claims of a Chilean economic "miracle." During this period, the telecommunication sector witnessed the emergence of a formal, although static, regulatory body. The third phase, 1982-1989, reviews the actual privatization of the major telecommunication operators in Chile.

Chapter five, then, examines stage two, the post-privatized period between 1990-1999, marked by the transition to a democracy in 1990, with the election of President Patricio Alwyn, bringing to an end to the repressive 17-year military regime, and characterized by the reawakening civil society. In light of these changes, the objectives

and proposals initiated to foster goals of universal access and service are discussed. At the same time, this period also marks the continued consolidation of CTC (*Compañía de Teléfonos de Chile*) as a major player in the Chilean telecommunication market, an era also characterized by increasing vertical integration. Altogether, with the assistance from the state, CTC has played an integral role in contributing towards the *Chilean Telecommunication Development Fund*, a fund created as a means to fostering universal access and service in Chile.

In sum, the structure of the sector and the variety of services that now characterize Chile's telecommunication landscape in the 1990s are contributing to closing the gap that exists between those living within the Metropolitan region of Santiago and those in the outlying areas and regions. The ultimate goal of universal service has now become an *opportunity* for major operators, notably CTC, to not only assist in the development of communication infrastructure throughout the nation, but also grant the means to maintaining its dominance in the sector.

As this thesis intends to illustrate, Chile's path towards the privatization of its telecommunication sector holds important lessons not only in regards to the consequences attached to the economic policies implemented, but more importantly, as a means to fostering universal access, in order to achieve the goal of universal service.

**Privatization trends in the
Latin American telecommunication system**

The concept of universal service has shifted over decades from being an interconnection technology, to a pillar in telecommunication policy, and an explicit goal of privatization. Under these circumstances, it is essential to examine whether in fact it is a reality. At the same time, it is imperative to discuss the validity of universal service in light of the pattern of wired cities.

Altogether, this chapter briefly reviews the shifting nature of universal service and of that of wired cities and globalization. This will provide the larger context within which the motivating factors behind Latin America's drive to privatizing their industries are discussed.

Universal service: from technology to vision

Universal service only recently became a pillar in the development of contemporary communication policy as a vision of an all-encompassing national telephone network capable of connecting its citizens, a vision that dates back to 1975. The origins of this concept, however, were conceived not as a public good, but rather in terms of interconnecting competing systems.

In 1907, the concept of universal service was introduced in reference to network competition between the multiple telephone systems that had characterized the American telephone industry in the early 1900s. According to Mueller (1997), universal service was proposed as a means for both Bell and other competing telephone systems to interconnect their networks. This inevitably sparked a feud between the respective companies' visions, thereby initiating a fierce race to wire the nation. As a result, "penetration and geographic coverage in the United States, particularly in rural areas, made the most rapid gains in that

period” (Mueller, 1997, p.8). From this perspective, the concept of universal service simply implied being “everywhere,” rather than being provided to everyone.

Over the years, however, the term shifted to encompass “everyone,” since extending the Bell interconnection system would attract subscribers and provide a means to stall its main competitors (Dordick, 1991). As Dordick notes, this shift was reflected in Vail’s vision of a network being established under “One system, One policy;”

... a common policy, common purpose and common action; comprehensive, universal, interdependent, intercommunicating like the highway system of the country, extending from every door to every other door, affording electrical communication of every kind, from one and every place to every one at every other place (quoted in Hadden, 1991, p.63).

Evidently, the original conception of universal service varies from the mythic construction as a social goal that was used to defend the public monopoly system (Garnham, 1997).

Originally, the public monopoly was based upon the POTS model that was to provide services to city and rural users alike, based on the notions of interconnectivity, availability and equity (Graham and Marvin, 1996). The rise and subsequent entrenchment of a monopoly in specific utilities, like the telephone, was deemed suitable based upon the benefits it incurred and protection it provided, which eventually came to legitimate the role and structure of the public monopoly in society, as briefly outlined below (Duch, 1991, p. 18-20).

Universal service is considered one of the most significant attributes of the public monopoly, deemed a social benefit and considered a political goal. Under the public monopoly structure, the government was able to intervene if “creamskimming” occurred, a process whereby certain regions were under served due to the high cost of servicing in the area.

A public monopoly is also seen as a justified means for ensuring the protection of public utilities since they provide services that contribute to the overall public good, based upon a non-exclusionary principle and zero-marginal costs often associated with services provided by the government. The public monopoly, then, was conceived as a justified means for ensuring services such as universal service. Moreover, communication technology has a long tradition as a strategic industry within the military. So, government dominion over public utilities are considered necessary due to the public monopoly's importance as part of the larger national security and defense infrastructure.

At the same time, the public monopoly is also seen as protecting public utilities from the establishment of foreign capital within the same sector. It essentially curtails any foreign investments and is considered to serve as a safety guard in order to enable national enterprises to flourish. In the case of Chile, political upheaval and economic reform proceeded to dismantle the public monopoly model, once considered to be the "raison d'être" of universal service (Hadden, 1991; Mueller, 1997).

The contemporary vision of universal service developed alongside the market model, as new technologies offered the ability to access remote regions and populations; while also offering enhanced, value-added services according to the needs of the subscriber at competitive prices (Graham and Marvin, 1996, p.21, 40). Yet, it is essential to examine whether universal service, as a social policy goal, can in fact be a reality in light of the pattern of wired cities.

'Global village' or 'wired cities'

The concept of globalization is conceived as capable of wiring nations together,

similar in concept to Marshall McLuhan's global village. In fact, McLuhan (1996) compared the bond technology generated to that of the biological nervous system in its organic ability to create a social bond (p.248). Traces of this imagery can be found as early as in the invention of the telegraph, a technology that was thought to have the power to "create one neighborhood of the whole country" (Babe, 1990, p.36), as well as in the telecommunications sector, referred to as the "nervous system of an emerging global information economy" (Petrazzini, 1995, p.2). In the age of globalization, the advent of new communication technology, such as the Internet, is largely perceived to serve as a means of promoting a sense of unification by connecting users on a global scale.

In other words, the impetus underlying globalization has been the promotion of a universal essence, heralding advents in communication technology as embodying breathtaking potential and claiming to encapsulate the essence of democracy. The flow of information is no longer one-way in a borderless world. For instance, developing nations have successfully voiced their presence on a global scale and proceeded to undermine cultural imperialist traditions, using communication technology as a vehicle in what has also been termed "reverse cultural imperialism" (Sreberny-Mohammadi, 1991, p.121). In fact, the concept of regionalization has emerged as a derivative of globalization, an aspect that has altered the traditional marketplace with the presence of multi-country markets bound by language and culture (Straubhaar, 1997; Sinclair, 1998).¹

Communications infrastructure also has the potential to contribute towards the global economy by facilitating the transmission of information, for instance, with banking and

¹ For instance the Latin American "telenovela," and the subsequent creation of a global market.

financial services. The ease with which such transactions are carried out amongst industrialized nations, and the capital it can acquire,² emphasizes the importance for developing nations to reform their telecommunication infrastructure in favour of a strong system with the potential to become a hub on the larger global communications map (Colomba et al, 1990). Caught in the hype of globalization, many economists have gone so far as to claim the interplay of economics and communication technology as being possible to “free humankind from age-old miseries” (Tabb, 1999, p.4). Reality, on the other hand, reveals a different picture.

The telecommunications sector, in particular, has been immersed in deterministic accounts that emphasize its ability to generate wealth. In the bigger picture, this process may certainly be applicable considering the speed in which foreign investments have infused the telecommunication sector of many developing nations with new capital. Upon closer examination, however, the precise nature of these capital flows reveals the increasing trend towards a reconfiguration of transnational flows, as select cities are being wired to the international flow of information. An image that contrasts sharply to the all-encompassing notion of a global information society that is normally associated with telecommunications (Winseck, 2001).

The globalization phenomenon has also succeeded to blur national borders, commercialize culture, increase the power and penetration of international corporations, and magnify the growing inequality that exists amongst industrialized and developing nations in

² Since reforms began in the 1980s, the telecommunications sector has raised more than US\$104 billion between 1981 and 1991 (Sonnenschein and Yokopenic, 1996).

regards to universal access and service of basic communication technology.³ From this perspective, claims heralding the processes of globalization hardly seem reasonable when many do not have access to basic communication systems, essentially side-swiped to the dirt road of the information highway.

Furthermore, globalization has proceeded to penetrate the overall structure of the communication industry, and promoted the increasing trend towards vertical and horizontal integration that have consequently formed synergies and multinational enterprises. These industries have transcended national boundaries, altogether challenging and eroding traditional regulatory policies. Foreign capital flowing over the border would certainly serve as an indicator of a potential, prosperous telecommunications market that would eventually be wired to the larger, global community. The reality, however, reveals a trend that has essentially reconfigured transnational spaces towards wired cities (Sassen, 1998; Winseck, 2001).

Transnational spaces can be examined as having developed according to colonial traditions, evident with the increasing trend in which European corporations have infiltrated the telecommunications sector in South America and other developing countries (Winseck, 2001). This has been facilitated by the liberalization of domestic markets that have welcomed multinational corporations and permitted foreign empires to extend into developing nations. For instance, Spain's national telephone company, *Telefónica S.A.*, has holdings throughout

³ For instance, Kwame-Boafo (1991) has noted the challenges Sub-Saharan Africa has faced in attempting to establish communication and telecommunications infrastructures in black African countries. Difficulties emerged due to the polarized gap of "information rich" and "information poor," and extending service has proved challenging due to its "predominantly rural and oral society, and the region's dependency on foreign sources and transnational corporations for all its communication hardware and software" (Sussman and Lent, 1991, p. 121).

Europe (Spain, Austria, Portugal, and Morocco) and a strong presence in Latin America, including Argentina, Venezuela, Chile, the first of *Telefonica*'s acquisitions in Latin America, Perú, Brazil, Puerto Rico, and El Salvador.

Such trends have only encouraged transnational corporations to continue transcending national borders and tap into less saturated markets. Saturated teledensities in the domestic markets of large telecommunication carriers, namely in North America and Europe, have propelled larger corporations to invest into developing sectors that hold high potential gains due to low teledensities (Sonnenschein and Yokopenic, 1997). For instance, of the 670 million telephones that were reported to be in service in the 1980s, 75 percent were concentrated in the top eight industrialized countries (Petrizzini, 1995). In contrast, the potential that lies in developing sectors is reflected in the fact that Central and South America average 5.3 main telephone lines per 100 inhabitants, compared to North America and Europe where penetration rates average 50.9 and 36.8 main telephone lines per 100 inhabitants, respectively (ITU Report, 1999). Yet, this poses detrimental effects to the development of democratic communication and becomes a pertinent issue as corporations penetrate less saturated markets based upon economic objectives, rather than to further democratic means. In other words, transnational corporations will provide communications to those sectors of the market deemed profitable to them, and not necessarily in an effort to provide connection to all sectors of society.

At the same time, transnational spaces have also been reconfigured according to capital flows. This becomes evident as major city-centres become hubs for financial transactions, thus having updated technology in order to interact on a global scale. In

effect, citizens living within these hubs have access to current technology, becoming the “haves” of the information society. As a result, the emergence of wired cities shifts the spaces of power characterized by the traditional North-South divide that marked relations between industrialized, First World countries and less developed nations. In fact, many Latin American cities once considered part of the underdeveloped segment of the world are becoming pertinent economic hubs. Major cities are becoming the commercial centres whereby information and capital concentrate, and are being integrated into the global transactions of information and capital, such as Mexico City, Mexico and Sao Paolo, Brazil (Winseck, 2001).

Although the presence of multinational corporations have proceeded to wire major cities throughout the developing world onto the larger global communication network, the issue that arises is whether those living outside the “nucleus” of such activity are also connected. The divide that had once characterized relations between industrialized and developing nations as centre and periphery has shifted to polarizing citizens between city-centres and rural, urban sectors of the same nation. This disparity in the means and access to technology depicts a “new geography of centrality and marginality,” as wired cities, the centre of all activity, become detached from regional demands (Sassen, 1998, p. xxv).

Increasing population toward city-centres has also contributed to the increasing polarization of society, with the “metropolization” of Santiago, the capital of Chile (Dockemdorff et al., 2000). Since the 1930s, there has been a steady influx of the population towards the nation’s capital. A process that continues to increase due to the industrial, financial, and commercial changes and activity that has swept through Santiago between 1930

and 1990.

The underlying premise of globalization towards creating a wired world has proved to be a fruitless venture, since communication flows are being increasingly mapped and shaped by political and economic factors. Instead, the emergence of global and wired cities has demystified the binding power often associated with technology and shifted the concern regarding *global* “haves and have-nots” into the *national* realm (Winseck, 2001). In this respect, with the privatization of the telecommunications sector, the goal of universal service has emerged as a panacea for reaching out to marginalized sectors of the population.

Yet, attempts at privatizing have not been without difficulty. This is due to the fact there are a number of political, economic, and social dimensions to be considered before privatizing the sector and liberalizing the market.

Telecommunication trends: Privatization, Deregulation, and Liberalization

In spite of the fact that there has been an increasing global trend to privatization, the process itself is not universal. In fact, privatizing the telecommunication sector has proven to be a complex process involving various actors, such as the state, labour unions, consumers, and investors that can affect the outcome. Although many nations have opted to privatize public utilities, their reasons for doing so are as varied as the nations themselves.

As Petrazzini (1995) has noted, even countries with similar development profiles and economic motivations have had varied results, as in the case of Latin America. The disparity in results is affected by two elements, the *nature* and the *role* of the state, which contribute to the facility of the privatization process.

The first element is the autonomy of a state, and whether the state can distance itself

from the pressure presented by labor unions, local interest groups, or larger corporations during the process of telecommunication reform. In other words, when the state is concerned with redistribution of resources it will more likely generate dissent among its corporate users, than when it concerns itself with capital accumulation, whereby it will encounter resistance from local interest groups. Essentially, the more isolated the state is from any social pressures the easier it is to adhere to its own agenda. Such “strong states,” or authoritarian governments that arise from major political changes such as military coups, drastically insulate the state from societies characterized by weak and fragmented opposition parties and civil society groups, thus providing the state with room to manoeuvre and altogether reinforce its autonomy.

Secondly, the concentration of power within the state further contributes to the privatization process. Essentially, this consists of a unified body of policy-makers that can share and be able to follow through together towards a projected vision. This body must also be a tightly knit group with a concentrated level of power, since dispersion of power can seriously affect the outcome.

In the case of Chile, a military coup in 1973 brutally ousted the Socialist government of Salvador Allende (1970-73). The ensuing military dictatorship forcefully de-politicized and fragmented civil society. Throughout these political changes, a body of technocrats was introduced to govern over Chile’s economy, discussed in more detail in chapter two. The combination of these two elements has proven essential in Chile’s drive to privatization, and provides a sharp contrast to Argentina’s initial attempt. Although also under a military regime (1976-1983), the authoritarian government was not centralized, which essentially led to

“escalating bureaucratic infighting, resulting first in a slow-down and then in a complete halt of most privatization projects” (Petrazzini, 1995, p.63).

The hostile political climate in Chile enabled the privatization of the telecommunication sector in the 1980s without dissent from unions, workers, or consumers. In this sense, the military regime and technocrats ensured the reform of numerous Chilean utilities and institutions, a process that came with an enormous social cost and with numerous criticisms. In particular, during the second phase of privatization, the regime was criticized for using privatization as a tactic for Pinochet to win votes prior to the plebiscite in 1988. At the same time, he was criticized for using it as a means to consolidate power in case he lost the plebiscite, and even as a means to affiliate with the neo-liberal wave that was passing through industrialized nations (Hachette and Lüders, 1993, p.43).

The social conditions during the Chilean regime were extremely volatile, as media structures experienced a high degree of censorship and civil society in general was stripped of any political power. Hachette and Lüders (1993) claim that Chile’s objective was economic in scope, in its goal to “decentralize economic power in order to permit the emergence of a free and participatory society. Privatization was considered a necessary condition for the existence of an effective market economy” (p.44). This adhered to the neo-liberal philosophy that promoted individual freedoms and private property. Yet, as Collins and Lear (1995) effectively note, such claims were paradoxical in nature.

To the Chicago Boys, the only kind of freedom that mattered was individual economic freedom, which (Chicago Boy leader) de Castro argued was best guaranteed by an ‘authoritarian government’ with its ‘impersonal’ method of exercising power. Their definition of economic freedom was highly selective: businessmen were ‘free’ to move capital and raise prices, but workers were not ‘free’ to present collective demands or strike for better working conditions (p.44).

In light of this, privatization and reforms were implemented in a culture of fear, and essentially served a political objective and an economic purpose. Yet, not all Latin nations had similar profiles or incentives.

In general, privatization in Latin America was heavily motivated by the debt crisis of 1982 and implemented under different political, economic and social conditions. Consequently, not all nations witnessed the same results in the aims of privatizing their telecommunication sector, evident with the cases of Mexico and Argentina (Petrazzini, 1995). It is essential then, to review the politico-economic conditions that initiated Latin America's path towards privatization.

The debt crisis in Latin America

Latin America not only experienced a wave of political changes throughout the 1960s, 70s and 80s, it was also afflicted by a debt crisis considered to have been the Second Great Depression as a result of careless spending and fruitless investments throughout the 1950s, 60s and 1970s. The debt crisis was sparked when industrialized economies were hit by a recession and low interest rates in the 1970s, thus prompting international banks to lend to Latin American governments. Yet, the mismanagement of these loans succeeded to further indebt certain Latin nations to the private, mostly American, banks. For instance, Argentina's feud with Britain over the Falkland Islands impelled the military regime to infuse its military sector. Venezuela invested portions of its loans into fruitless ventures, while Chile and Mexico proceeded to incur massive foreign debts (Castells, 1996).

Unproductive investments and "misguided" attempts at development with "padded" projects had prompted many Latin American nations to fall further into a debt trap,

subsequently aggravating their already unstable situation. By 1979, it became difficult to service the debt of many countries in Latin America on account of rising international interest rates, leaving many nations to resort to bank loans. Since there was no infusion of capital into Latin America by the early 1980s, national economies began to collapse, accompanied by increasing unemployment rates and political and social unrest.

It finally came to a halt in 1982, following Mexico's announcement it could no longer service its debt. Afterwards, and one by one, Latin nations declared their debt crises to the financial community, having incurred a total debt of US\$300 billion in loans (Franko, 1999). This prompted international agencies, such as the International Monetary Fund (IMF), to structure plans to facilitate debt payments, with interest rates within a determined period, in the first phase of adjustments. Specifically, the IMF proposed a restructuring policy whereby a nation would control inflation, by reducing government spending, tighten credit and money supply and lower real wages, as well as privatize strategic public utilities.⁴ Yet, the period between 1983 and 1985 was made even more difficult due to the contradictory lending adjustments that were planned on behalf of multilateral agencies, including the World Bank and Inter-American Development Bank (Collier et al, 1992).

In assisting Latin American nations adjust to the debt crisis, in 1985, U.S. Secretary of the Treasury, James Baker, proposed an alternate policy based on a programme that would revitalize the national economy, based on "growth oriented policies rather than of recessionary adjustment" (Collier et al, 1992, p.125). This new policy inevitably called for

⁴ The diagnosis and policy proposed by the IMF was considered a cookie-cutter solution that neglected to take into account the specific economic characteristics of each country, proposing to "contract the economy without changing the structural problems within the economy" (Franko, 1999, p.94-108).

structural reforms of public utilities with financing from commercial banks and international agencies. This plan was significant due to the fact it proposed to initiate growth within the nations themselves, steering away from the previous policy proposals. Yet, this plan was considered “too little, too late,” as it did not fare well with some nations that kept falling deeper into crises.

Four years later, in 1989, the Brady debt reduction programme was implemented with the focus on initiating stable national growth with three options: decrease the debt, extend the period of payment, or, infuse capital. In order to be considered into this program, nations had to demonstrate strong political will and a solid record in structural reforms. It is important to note both Chile and Colombia avoided formal debt reduction exercises due to responsible economic management. In fact, by 1991, Chile had successfully paid its dues to the banks without undergoing the formalities of the Brady plan (Collier et al., p.125). A significant element that arose from the Brady plan was the fact foreign investors considered this would provide safe economic, as well as political, conditions for future investments that would allow new capital to infuse the Latin American economy (Franko, 1999).

In sum, the 1980s were referred to as the “lost era” (Molano, 1997, p.1), a period depicted by a recession, hyperinflation, foreign debt, a balance of payments crises, and intense pressures from multilateral agencies pushing towards privatization. In fact, the World Bank was severely scrutinized for having misleading, and “orchestrated,” lending habits in its relations with developing countries, and whose pressure was perceived as “increasingly draped in the language of privatization and liberalization” (Urey, 1995a, p.

113). The debt crises of 1982 inevitably alarmed Latin nations and the international financial community. The repercussions of these developments were felt globally (Barton, 1997).

By 1988, various Latin American countries announced their plans to privatize numerous national utilities, including airlines, electric power, gas, and oil companies. Between 1988 and 1993, six nations privatized their telephone sector, nine privatized their national airline, and four proceeded with the privatization of electric, railroad, and water industries (Ramamurti, 1996). Evidently, most Latin American countries began to experiment with the idea of privatizing strategic state-owned utilities as a means of getting out of debt. By privatizing the industry, the host nations were proposing to not only pay fiscal debts, moreover, they were also signalling the “green light” to potential international investors, while at the same time improving management and regulation in the overall sector (Sonnenschein and Yokopenic, 1996). Additionally, governments felt motivated to reform their industry as a means to gain popular support. To some nations facing the alternatives of raising taxes, the option of privatization was seen as the only profitable solution.

Yet, the trend towards privatizing the telecommunication sector has not been embraced by all regions in the same way. For instance, while many industrialized nations have proceeded to privatize the sector, and at times liberalizing the market as well, regions like Western Asia have continued to retain state control of this sector. The reasons underlying this particular strategy surround fears for national security, the lack of pressure on the sector to improve upon itself, the fear of unemployment accompanying reform, and the fact state

monopolies have greatly profited from managing such strategic sectors (Noam, 1997). At the same time, privatization in Africa has been relatively difficult to introduce since many nations are hesitant to grant foreign capital access to this strategic sector, and furthermore, many nations are simply reluctant to relinquish control. Consequently, the option to privatize the sector in these countries has been carefully implemented as a means to reduce national debt or as a means to seek foreign expertise and capital (Noam, 1999).

The reasons for privatizing an industry in Latin America, on the other hand, have been mostly debt-driven. For instance, with the heavy burden of external debt and with the failure of earlier minor reforms, the Mexican government initiated privatization of state owned enterprises that included the liberalization and deregulation of markets. Also, in the case of Argentina, failed attempts to privatize and mounting economic crises contributed to Menem's decision to restructure the Argentine telecommunication sector.

In the case of Chile, however, privatization was considered an important part of the larger structural changes that derived from incorporating the free-market economy model as proposed by the Chicago Boys ⁵. Prior to examining the conditions underlying Chile's privatization, the nature of Latin American, and Chilean public monopoly structure will first be reviewed.

Nationalization and the public monopoly in Latin America and Chile

Originally, foreign interests within a competitive and unregulated environment marked the inception of the telegraph and telephone in most of Latin America (Lasagni et al, 1988; Baur, 1995). However, with the uncertainty reflected in the social and economic conditions

⁵ The history behind the Chicago Boys and their neo-liberal policies will be detailed in Chapter 2.

after the Great Depression, accompanied by the bleak conditions following World War II (1939-1945), nationalization began to mark various aspects of industrial sectors by the late 1940s in most of Latin America.

Nationalization was adopted by numerous nations as a coping strategy and a means of injecting internal growth. Yet, as Baur (1995) has further noted, the reason underlying the rise of the public monopolies in Latin America was in part due to the inability for utilities to sustain competition. As a result, the public monopoly emerged along with an increased role of state, whereby government regulation came to substitute competition, and the sector was characterized by price fixing and conditions for service (Baur, 1995, p. 41-42). Subsequently, this further hindered the development of telecommunications in Latin America, as nationalized telecommunications industry were characterized by stagnant conditions, afflicted with long waiting periods for telephone lines; dated technology, thus an absence of modern services; poor service quality and reliability; artificially low prices; call congestion; and limited territorial coverage (Ramamurti, 1996; Wellenius, 1993).

Chile's inclination towards the nationalization of industries peaked under the socialist administration of Salvador Allende (1970-1973), a strategy that was meant to reconstruct class and property relations as part of the peaceful path towards Socialism (Oxhorn, 1995).⁶ Accordingly, the nationalization of industries would provide a certain amount of capital that could be channelled towards other government programs. Though numerous companies and corporations had already been under state-control throughout the previous administration of

⁶ Allende's economic platform, an administration based on democratic, pluralist and libertarian traditions, consisted of a "four-pronged" strategy that increased the role of the state, which included income redistribution, expansion of government programs and services, state control of key industries, and the extension of land reform (Valenzuela, 1978, p. 50).

Eduardo Frei (1965-1970), an administration that was characterized by a mixed economy, there was an aggressive acquisition of corporations under Allende, with the primary assistance of CORFO (*Corporación de Fomento de la Producción*), a state-owned holding corporation and bank fostering economic development. By the end of Frei's administration, the state had acquired fifty companies, including companies considered crucial to the industrial operation of the country such as electricity (*Empresa Nacional de Electricidad*), steel (*Compañía del Acero del Pacífico*), and petroleum (*Empresa Nacional de Petróleo*) companies.

By the end of the Allende administration more than five hundred companies and corporations had been transferred into the hands of the state, including commercial banks, with the assistance of CORFO's strategic management skills (Glade, 1991; Valenzuela, 1978). Throughout this sweeping tide of nationalization, the Allende government also proceeded to aggravate ties with the United States, evident with the nationalization of the copper industry of which the United States held controlling interests (Valenzuela, 1978; Desjardins, 1974). The role of CORFO, established in 1938, served a dual role as an agent in expanding state intervention in a process once described as occurring through "investments, loopholes in Chilean laws and outright seizures," until 1973, whereby it became a pivotal agent in the drive towards privatization (Glade, 1991, p.20).

Unlike other strategic sectors that came to be characterized by an increased role of the state, the Chilean telecommunication sector remained, for the most part, under private ownership, with the exception of ENTEL in 1964. Although this sector was also characterized by lack of regulation and competition, each of the major companies providing services, such as local telephony, national and international network services, and, telex and

telegraphy, came to monopolize their respective markets.

For instance, local telephony was provided throughout all of Chile under the monopoly structure of the *Compañía de Telefonos de Chile* (CTC), with the exception of region X that was serviced by *Compañía Nacional de Telefonos* (CNT), and region XI, serviced by *Compañía de Telefonos de Coyhaique* (COY) (Colomba, 1990). Domestic long-distance services was provided by the only nationalized company, *Empresa Nacional de Telecomunicaciones* (ENTEL), dominating the international long-distance arena, and most of the national long-distance market. Telex and telegraph services were considered an exclusive of the monopoly of *Telex- Chile*, also privately owned. The rise of the public monopoly in the telephone and telegraph sector in most of Latin America had become common due to the considerably high cost associated with establishing telephone service, and the additional costs of establishing a new infrastructure.

By the 1960s and 1970s, however, the structure of the public monopoly soon began its demise in Latin America, partly due to the pressures from technological advances and mostly from economic constraints. There was an increasing demand for modern services that could not be satisfied due to the low percentage of investments into nations. At the same time, the public sector had been characterized as more of a bureaucracy than a business, which resulted in high costs in expansion and operation, poor maintenance and slow response to changing demands. In light of the bureaucratic nature of the system, it became stagnant within the administration of the sector itself, with non-competitive career opportunities, and a lack of incentives to improve customer service. More importantly, the liberalization pressures from international organizations, as well as debt and lack of investment capital, contributed towards

the demise of the monopoly and reform of the sector. Yet, as the case of Chile illustrates, political and economic forces working within the country contributed significantly to the demise of the monopoly.

Privatization of Chile's telecommunication sector

Three criteria guided the privatization of the public sector, throughout the implementation of neo-liberal policies, under the command of the Chicago boys. The first guideline, labelled the "Darwinian law", stated that efficient, productive private interests that could survive the turmoil of the marketplace would contribute towards a healthy economy. The second rule depicted a non-existing role of the state in the affairs of a private firm. In other words, should the foreign enterprise encounter financial difficulties, it would have to be accountable for its own actions. The final rule underlying the privatization of the public sector surrounded the acquisition of debt, as private firms were encouraged to take on debts. The neo-liberal policies presented by the Chicago Boys greatly influenced the manner under which the public sector was dismantled and privatized in Chile.

Privatizing various corporations and companies was perceived as the pragmatic means of reviving the economy from the aftermath left by the coup. Since Chile's impetus towards privatization was not strictly debt-driven, it opted to revamp its economy based upon its free-market orientation and its stringent policy objectives consisting of: increasing economic activity while decreasing the role of the state from regulatory and development functions; allow increased trade and financial flows; and, depoliticize economic decisions, in the form of eliminating public monopoly unions (Glade, 1991; Valenzuela and Valenzuela, 1986). It has been the process of reform, as deployed by the Chicago Boys, that highlights Chile as a

distinct economic, political, and social, study. Both the public and social sector have been subject to drastic neoliberal reforms, including social security, health and education, and have experienced an increase of foreign investments. Throughout the privatization and liberalization, one element has proven pivotal in the process: timing. The privatization of a sector relies upon the management of a process that requires the creation of a market structure while at the same time, creating a regulatory environment. This is essentially reflected in the dual process of privatization alongside the liberalization of the market. The timing of this process has been depicted into four different approaches to privatization (Pisciotta, 1997).

The first approach consists of *privatization with full competition*. This model encompasses the liberalization of the market, a lowering of barriers in order to allow for intense competition, while providing room for the creation of a regulatory body, or anti-trust enforcement, in order to maintain the proper dynamics. Essentially, countries that have taken this route, such as Chile, have responded with lower prices of corporations and companies, and an increase in private interest and investments. *Privatization with phased-in competition*, the second model, comprises a period in which there is limited competition, or sustained exclusivity rights in basic telephone services. Since this model phases-in competition over a period of time, there is room for contestation on behalf of civil society, consisting of local interest groups, rendering this model vulnerable to local pressures, and hindering the chances to complete the process. The third model consists of *liberalization without privatization*. This cautious approach, as the name implies, reaps the benefits that come with the liberalization of the market, without the risk that accompanies an actual privatization. As a result, then,

there is an increased role of the state to maintain price reform, in order to ensure competition. The fourth, and final model is *private sector participation without privatization or liberalization*. This approach consists of attracting investment, such as franchises or concessions from national operators, in order to implement services in the host country (pp. 340-345). Altogether, the internal dynamics within a nation and industry-specific variables play a pivotal role in the model that is chosen.

The privatization of the telecommunication industry consists of the transfer of the state-owned company into private hands, while eventually liberalizing the markets. In the case of Chile, the nature and concentration of power of the military regime facilitated the process, in light of a repressed civil society and a complete concentration of power in a body of technocrats. These political and economic changes, however, proceeded to establish the foundation for a democratic communication system promoting universal service with the transition to a democratic administration in the 1990s. In order to examine the Chilean case, it is essential to review the political economy of communication in order to understand the dynamics in the marketplace.

**Theoretical background:
Neo-liberal economics and the “Chicago Boys”**

The neo-liberal philosophy Chile has adopted since 1973 has revealed an interesting set of dynamics that has resulted in the privatization of numerous utilities and firms. This philosophy is characterized by the strong role of the market and diminished state intervention in the economy, and associated with economic scholars such as Friedrich von Hayek and Milton Friedman. Having reviewed, in the previous chapter, the rise and decline of the public monopoly it is essential to now examine the underlying principles that have shaped the development of Chile's economy and its subsequent impact on the telecommunication industry. An overview of the historical relations between Latin America and its northern counterpart, the United States, will first be discussed. These relations heavily influenced the development theories and communication policies that framed Latin America for decades. Specifically, it impacted the nature of the Chilean economy for more than a decade, through the ideas and prescriptions of the Chicago Boys. The tenets of political economy will be reviewed in order to discuss the free market model, followed by an overview of Chile's transition towards a neo-liberal model as promoted by the Chicago Boys. Altogether, the tools of political economy will serve to situate the discussion of the role of the state in regards to the telecommunication industry.

Foreign relations, Modernization and Dependency models: A policy review

Foreign relations with the United States have undoubtedly influenced the tone of the development policies framing Latin America over the years. This can be traced to as early as the 1800s, with the United States' preoccupation with Latin America as a potential threat to its own national security, claiming concern for its security due to its geographic proximity to the Caribbean, Central, and Latin America. More importantly,

however, the U.S. was interested in creating a hemisphere that was free from external and hostile powers. The colonial rule of the New World by the Spanish and Portuguese in the 1500s had created unequal relations with the indigenous people inhabiting Latin America, evident by the imposition of Christianity and Europeanization of life.¹ Although Latin American nations broke away from their colonial past throughout the course of the early 19th century, they were shortly cast under the shadow of the United States, under the auspices of the Monroe Doctrine.

The Monroe Doctrine of 1823 served as an historical marker to recreate colonial relations between Latin America and the United States. This doctrine opposed foreign intervention in the Western Hemisphere by excluding Europe from the future development of the New World, thereby granting the U.S. rights to adopt the colonizing role. The implications of this doctrine clearly benefited the United States in its vision of constructing a “Western Hemisphere Ideal” that subsequently served to endorse oppressive relations with Latin American nations. In effect, this doctrine created a paternalistic relation with Latin America that supposedly assured “Latin American independence with United States security”, yet, essentially paving the way for interventionist and aggressive policy towards Latin America (Molineu, 1990, p.17).

Interventionist policies were, at the time, conceived within the vision of a Pan American movement, a union concocted by U.S. Secretary of State James G. Blaine in 1889. This vision sought to create an image of unity among Caribbean nations, Central and Latin America, a vision that further endorsed intervention on behalf of the United States since it was believed there were common values and goals between the two

¹This process displaced native indigenous culture with European culture (Garcia Canclini, 1993).

Americas. Essentially, the notion of the Western Hemisphere was conceived as nations constituting part of the same family. Yet, attempts to create an equal economic and political partnership only served to generate tension between the two Americas, as the United States defended its position despite Latin American histories, goals and proposals.

The United States, however, did initiate policies for ameliorating relations with Latin America in the early 1900s, in response to critiques of U.S. intervention. This began in 1928, with the Clark Memorandum, which repudiated United States intervention in Latin America. This was followed by president Franklin D. Roosevelt's "Good Neighbour Policy" in 1933, an attempt to re-establish good relations with Latin America consisting of non-intervention, and establishing a hemisphere based on solidarity, peace, and co-operation. This initiative inspired the US to co-operate with Latin America to generate "hemispheric interdependence" (Valdés, 1995).

In light of this, there was an increase in demands from Latin American nations to the U.S. for technology and economic assistance. As a result of the favorable climate and conditions, the U.S. launched the first co-operative agreement with Latin America, whereby American technicians and administrators were deployed to various Latin American nations. These relations were considered beneficial for Latin America, as governments received assistance on a broad range of fields. At the same time, United States' involvement in Latin economies, and in the political realm, increased as a means to create an integrated economic sphere of the Americas, but, more importantly, to develop and maintain suitable conditions for their own interests. Such intervention became evident with their presence in the oil and raw materials industry, especially with

U.S. interests in the copper industry in Chile, as well as manufacturing of goods, such as telecommunications equipment factories.

Specifically, Chile's relations with the United States had been relatively distant throughout the 1800s, primarily due to the fact that, like other Latin nations, Chile had close economic ties with Europe. By the early 1900s, relations began to intensify as Latin nations began to witness an increasing U.S. profile in the telecommunications arena, with the introduction of the American International Telephone and Telegraph Company (ITT) that held interests in various countries, including Argentina, southern Brazil, Chile, Cuba, Mexico, Peru, Puerto Rico and Uruguay, both as a telephone service provider and equipment manufacturer, providing equipment to Argentina, Mexico, and Chile. Its presence proved detrimental to the stability of many nations.² In fact, ITT took over *All America Cable and Radio*, a major player in the implementation of international telegraph submarine cables in Latin America, the development of which is discussed in more detail in chapter three, as an attempt to "operate an international system of communication" (Baur, 1995, p.175). In fact, by the 1920s, ITT's presence in the Latin American telecommunication landscape had been strongly criticized and considered harmful since it had been perceived as an extension of the Monroe Doctrine. Argentinean president Hipólito Yrigoyen expressed concern of the impending American domination of Latin American communication systems, stating:

It is evident that the powerful North American group had the firm intention of putting into the hands of Yankee capital all the means of communicating of the countries of South America, and thus extending the Monroe Doctrine to economic

² ITT's covert involvement in destabilizing Chile's Socialist government has been well documented (Desjardins, 1974).

dominion, a thing which they have not dared to apply until now except on the political field (Baur, 1995, 176-7).

ITT's presence as a telephone operator in most Latin nations, with the exception of Chile, began to diminish prior to the Second World War, having encountered financial difficulties.

With the end of the Second World War (1939-1945), the European Recovery Program, otherwise known as the Marshall plan, was initiated by the United States as a means of providing foreign assistance. In 1949, then, President Truman launched the Point Four initiative, marking the beginning of long-term government policy initiatives to transfer "modernity" to developing regions. This program was described as "a bold new program for making the benefits of our (U.S.) scientific advances and industrial progress available for the improvement and growth of underdeveloped areas," contributing towards "freedom, democracy...world peace and other vaguely defined good things" (Valdés, 1995, p. 83-4).

This transferring of modernity to underdeveloped areas was the essence of modernization theory, which consisted of reproducing Western ideals and values in the Third World. According to this perspective, the Western way of life was considered modern and advanced in contrast to underdeveloped nations, which were deemed traditional and "backward," and in need of guidance. According to this theory, the prescription for change required an underdeveloped country to adopt modern attitudes and beliefs, similar to those held by modern, industrialized nations. The incorporation of technology into society was considered the appropriate path for underdeveloped nations towards modernization.

This model was soon revealed as being biased, since it “obfuscated the historical and political economic bases (...) while protecting exotic and deprecating colonial folklore about Third World peoples and poverty” (Sussman and Lent, 1991, p.2). In other words, this model incorporated a myopic view of development in Latin America, altogether neglecting to consider the historical dimensions existing within a nation, while at the same time being technologically deterministic. With claims of universal validity, based upon a behavioural and micro-sociological analysis, this model was critiqued for undertaking an “a priori” approach to underdevelopment since empirical evidence gathered simply illustrated the prescribed objective (Valenzuela and Valenzuela, 1998). Furthermore, while this model was supposed to have promoted and ushered underdeveloped countries towards prosperity, it only increased poverty and led to the deterioration of social services.

Dependency theory emerged in reaction to the shortcomings of modernization theory and the ethnocentric conception of developing countries as being inherently underdeveloped and backward in comparison to industrialized nations. In contrast to modernization theory, the dependency model depicted economic development in Latin America as the result of a series of historical phases. According to Dos Santos (1998), the history of Latin America has encompassed three forms of dependence. The first form was depicted by colonial dependence, whereby European colonial relations dominated financial and commercial capital flows. The second was a financial- industrial form of dependence, taking place in the 19th century, in which hegemonic centres controlled flows of capital. Finally, the post-war period was marked by multinational dependence. This is specified as being a technological- industrial form of dependence, characterized

by foreign industries penetrating the domestic markets of underdeveloped, and developing, nations alike.

Perhaps the most important aspect that developed from this history of dependence is reflected in the fact it is believed to have conditioned international relations between the peripheral and the dominant centres. This dependence affected the political, economic and social structures of peripheral countries. In effect, it has proceeded to reconfigure the nature of their capital accumulation forcing them to accommodate their position within the larger scope of global economic relations. So, in this regard, the dependency condition has been defined as the following:

The situation in which a certain group of countries finds its economy affected by the development and expansion of another economy to which its own is subjugated. The relation of interdependence (...) takes the form of dependency when some countries (the dominant ones) can expand and further themselves, while other countries (the dependent ones) can only act as a reflex to that expansion, which can act positively or negatively on their immediate development. (Lindstrom, 1998, p.25).

Although dependency theory provided a platform within which to understand the workings of the global political economy, the structuralist school of thought emerged from the dependency model, focusing specifically on the Latin American region.

Structuralism emerged in the 1950s as a branch of the dependency model with CEPAL (Comisión Económica para América Latina), the United Nations Economic Commission for Latin America (ECLA) based in Santiago, Chile. Characterized by a period of self-awareness, brought on by the process of decolonization and impact of the great depression on the economy over the course of the century, Latin American governments were encouraged to play an active role in promoting development in the

region. This school of thought emerged as a means of re-interpreting Latin American history, thereby generating proposals geared towards economic growth and development.

Under the command of Raúl Prebisch, its first director, this school of thought gelled these sentiments by focusing on explaining Latin America's underdevelopment as the result of the inequalities that had existed in trade relations between Latin America and industrialized nations. This essentially condemned the colonial and capitalist relations of foreign domination that had previously characterized the Latin American economy. In other words, this school of thought used the exploitative, historical dependent commercial relations between developed and developing nations as its premise for situating Latin America's underdevelopment within the larger capitalist economy. In light of this, CEPAL focused on accelerating industrialization in Latin America through the Import-Substitution-Industrialization (ISI) policy.³

In sum, dependency theory was based on a structural and macro-sociological perspective, which consisted in examining the interaction of nations within the larger global system. Specifically, this entailed taking into account the political and economic links that existed between the periphery and the centre. In so doing, it sought to explain the underdevelopment of Latin America partly as the result of the "expansive nature of capitalism" (Valenzuela and Valenzuela, 1998, p. 264; Wallerstein, 1998). Altogether, the objective of dependency theory, and structuralism in particular, presented an alternative to the Anglo-European tradition of modernization theory that had framed

³ ISI represented a shift away from the "outward orientation of export promotion" towards developing internal sources of economic growth, national production for national consumption, with the help of the state. This policy entailed an active industrial policy (with the formation of state-owned enterprises); protectionism (in the form of high tariffs); and fiscal policy (in the form of state subsidies and the entry of transnational corporations. This would seem to undermine the purpose of ISI in reducing dependency, however, these entered under ISI terms and conditions) (Franko, 1999).

developing nations for decades, offering a richer explanation of underdevelopment in Latin American nations, all the while highlighting its traits of self-reliance and intellectual autonomy.

In the realm of communications, the dependency model had also served to contribute towards altering the structure of imbalance and domination between industrialized and developing nations and the flow of information. This is depicted by the development of a new information and communication world order in the 1970s.

The need for democratic communication became evident in the tense debate surrounding the role of communication on an international level. Developing and industrialized nations alike found themselves immersed in controversy regarding the free flow of information doctrine presented by the United States in its relation with the United Nations Educational, Scientific, and Cultural, Organization (UNESCO), the United Nations third largest agency that promotes collaboration among nations.

The influence of the United States' in UNESCO was evident in its contribution of 25 percent towards UNESCO's budget. At the General Conference in 1970, UNESCO adopted a resolution inviting member states to take the necessary measures to counter propaganda. Consequently, the concept of a new information order surfaced, as developing nations called for a more balanced flow of information. The United States was opposed to the resolution, as it was concerned this would hinder its broadcasting potential in developing regions,⁴ and maintained its position for a "free market" doctrine. Naturally, this was based on its liberal philosophy since it was already considered an

⁴ As depicted with the United States Information Agency's implementation of Voice of America throughout Central Europe and Cuba.

ideological superpower, and claimed the upper hand in its relations with developing countries on a global scale.

This inevitably created a rift between UNESCO and the United States. The disparity in agendas led to the withdrawal of the United States from UNESCO in January 1985, stating “trends in policy served the political purposes of member states, rather than the international vocation of UNESCO” (Preston, 1989, p.10). The United States maintained dominance over the distribution of resources, and developed communication policies according to the promotion of its liberal philosophy.

The 1970s indicated a break from the traditional imperialist paradigm that had been imposed by the Western powers, evident with the demand for a New World Information and Communication Order (NWICO). In a backlash against the liberal philosophy and free-market approach of the Western industrialized nations in the arena of communications, less developed nations pushed to the foreground the need for a more democratic means of information flow. Criticisms of the free-market doctrine came under severe attacks by many Latin American scholars, speaking out against American domination in all forms of media.⁵ In light of this, the MacBride Commission captured the essence of less developed nations call for a “right to communicate as well as to receive information” (Sussman and Lent, 1991, p.12). The right to democratic communication became an all-encompassing issue that remains at the core of communication policy in developing nations today.

⁵ Mattelart and Dorfman (1970) provide a cultural analysis of the effects of American imperialism and commercial exploitation in the Disney comic strip of Donald Duck in the Chilean context. At the same time, Channel 13, the television channel owned by the University of Chile, was also critical of the American doctrine. It identified with the left-wing political position, criticized the US role in the Chilean communication media and the commercialization of the media in general, and cancelled its agreement for US programming in the late 1960s in attempts to increase domestic content (Fox, 1997, p.122).

The political history that underlies the foreign relations between the two Americas has also affected the development of foreign and communication policies between them. Dependency theory was considered to have characterized the essence of autonomy, yet, it gradually tapered off in light of the increasing tendency towards neo-liberalist policies various Latin American nations, such as Chile, were embracing in the 1960s. At this point, then, it is essential to examine the tenets underlying political economy in order to understand the assumptions and attributes of the neo-liberal model.

Tenets of Political Economy

The root of political economy can be traced to the realm of economics as being conceived as pertaining to the “natural order of things,” essentially depicting the economic sphere as being governed by natural laws created by the “the Almighty, Être Suprême” (Lewinski, 1931). Yet, economics severed its ties with natural law and evolved towards a “positive” science, with the emergence of the French Physiocrats in the eighteenth century. As François Quesnay (1694-1774) explained, economic phenomena were subject to positive laws instituted by a sovereign government. Since the Physiocrats developed a natural economy, based upon a tier-class system, agriculture was conceived as the only source of wealth (Lewinski, 1931, p.36-40). Their belief in positive law, and the *laissez-faire* philosophy ⁶ coined by French Physiocrat Frédéric Bastiat, marked an important contribution to understanding the relation between the state and society, introducing classical political economy as a science of investigation (Stark, 1994).

⁶ As the essence of free trade, the *laissez-faire* doctrine was summarized by the Marquis D’Argenson in 1751, when he stated “To govern better, one must govern less” (Keynes, 1926, p.19).

Classical political economy continued to evolve as a means of explaining the function of the markets with laws governing the production, distribution, and exchange of wealth, depicting the concepts of value, price and cost. Equally important was the concept of value as being constituted in productive labor, an aspect that was developed further by Karl Marx. The foundations for the neo-liberal philosophy, however, can be traced to the work of Adam Smith.

One of Adam Smith's major contributions to political economy was linking the notion of individual liberty with economic freedom, depicted in *Wealth of Nations* (1776). Briefly, Smith promoted the notion of political freedom as the freedom to pursue an individual's self-interest, restricted only by another's freedom. This was emphasized with the notion of the 'invisible hand,' which has been interpreted as the promotion of competition, with the hand acting as the regulator of the actors within the system. At the same time, Smith offered the concept of a division of labor as contributing towards the overall wealth of nations, "as output increased, cost per unit would fall and living standards would go up" (Tabb, 1999, p.35). Smith's contribution towards the laissez-faire doctrine of the free market and minimal state intervention generated debate. This became the foundation for the liberalist ideology, characterized by the separation of the political from the economic sphere. Yet, depicting the free market as existing separately from the state was also criticized for being conceived under artificial conditions and based upon highly restrictive assumptions. Not surprisingly, there were diverging streams that emerged from Smith's perspective, including Keynesian economics.

In sharp contrast to Smith, John Maynard Keynes promoted state-intervention in the economic sphere. The economic and social conditions in the 1930s generated mass

unemployment, altogether creating dismal conditions in England and various other industrial countries. In light of this, Keynes rejected the premise that states undertake a limited role in the economic sphere. Instead, he called for state intervention in order to increase spending during recession periods to stimulate investment and industrialization.

Criticisms of this approach were rampant, as scholars from the laissez-faire school of thought considered this policy approach as a “partisan” control of economic activity and confusing money with wealth (Minchinton, 1969). In spite of this, the Keynesian revolution persisted. Specifically, it took on a critical role towards deflationary ⁷ policies that had been implemented to control the economic depression. Essentially, Keynes argued for an active role of the state since the economic system would not naturally fall into equilibrium. In light of this, Keynesianism was soon considered a prescriptive policy, becoming the primary form of economic management adopted by many nations, like the United States and Britain.

Yet, by the end of the 1940s, the weaknesses of Keynesianism began to surface due to its tendency to overlook the consequences of inflation. Moreover, Keynesianism continued to face criticism in light of the global recession that was taking shape into the 1970s. Its erosion was further aggravated with the publication of Milton Friedman’s *Capitalism and Freedom* (1962), establishing the foundation for the monetary revolution. In due course, the monetary economics of Milton Friedman and Friedrich von Hayek, Keynes adversary throughout the 1930s, provided an alternative approach that not only

⁷ Deflation is defined as the decline in the average level of prices. Inflation is the rise in the average level of prices.

penetrated the economic realm, but the political and social spheres as well, altogether establishing the platform for the neo-liberal revolution in Chile.

Monetary economics, defined simply as the policy of regulating the economy with regards to inflation, by increasing or decreasing the amount of money in circulation, gained an increasing role within international financial circles such as World Bank and the International Monetary Fund (IMF) (Mosco, 1996). The basic tenets underlying Friedman's approach consisted of elements from Smith's conception of the market, essentially arguing competition will regulate the market. Not surprisingly, state intervention is viewed as the main source of problems in the process of development. Friedman's concept of *free-private enterprise exchange* merges three aspects that promote the autonomous function of the market: the private ownership of capital, private management of economic enterprise, and, competitive enterprise. By excluding the state from directly intervening in this realm, Friedman assigns the state the role of setting "the rules of the game." In so doing, the government is granted minimal rights, diminishing the influence of political authority in the economic sphere.

The essence of the Chicago tradition that emerged in the 1960s was clearly characterized by a profound rejection of Keynesianism, inevitably inheriting tenets of the liberalist tradition underlying the work of Adam Smith and relying heavily on the monetary economics of Milton Friedman. These economists fully embraced this economic model, characterized by the full introduction of a competitive free market, as the solution to Chile's development problems and a means to serve U.S. interests. In other words, since the late 1930s, Chile had adopted an increasing trend towards state intervention in the economy. The neo-liberal model, in contrast, proposed to eradicate the

state from the economic realm. In order to review the characteristics underlying the Chicago tradition of neo-liberal economics that was implemented in Chile's economy, a brief account of the origins of the agreement between the Chicago School of Economics and the Universidad Católica de Chile will be assessed.

The Neo-liberal Revolution in Chile: The 'Chicago Boys' and monetary economics

The inception of the neo-liberal model into the Chilean economy was first promoted as a project by the International Co-operation Administration (ICA)⁸ in 1955, and created with the assistance of the United States government and foreign aid programs, the University of Chicago Department of Economics, and, the Universidad Católica de Chile, backed by a conservative group from within the business sector (Valdés, 1995). This project came into effect shortly thereafter, lasting between 1957-1964, as part of an inter-university agreement between the Universidad Católica de Chile and the University of Chicago. The goals of this agreement were considered two-fold. The explicit intent of this contract was perceived simply as an opportunity for the United States to export its "modernity," as well as to "right the balance of University economics in Chile and introduce pluralism into the profession" (Valdés, 1995, p.129). The latent objective, however, was understood as a means to transform the country's heavily interventionist pattern of the economy that had carried on over the years.

The period of the 1950s and 1960s in Latin America was marked by a strong structuralist undercurrent, as a result of ECLA, and this inter-university agreement was conceived as a means to promote U.S. interests and counter the nationalistic and

⁸ The initial sum provided by ICA to start this program was US\$375,000, with grant contributions worth US\$19,000 also coming in from the Rockefeller foundation (Valdés, 1995, p. 138).

structuralist sentiments being felt throughout the region. The University of Chicago, and the Department of Economics, were specifically interested in initiating the program not only as a means of curbing the emergence of development theories being proposed, but more importantly, as a means of experimenting with economic theories while receiving financial assistance from the United States government. Graduates from this university would essentially serve as a vehicle for the transfer of ideology from the United States into a country that was perceived vulnerable to Keynesianism or socialism (Valdés, 1995, p. 14, 49).

Chilean economists essentially inherited a unique doctrine from the Chicago tradition by establishing a new classic paradigm in to the history of Chile's economic policies. Marking the beginning of a new époque, these Chilean scholars, soon labelled the Chicago boys (see Table 2.1, below), brought with them a radical approach to economics that severely deviated from a nation whose history had been characterized by a powerful and interventionist state in matters pertaining to the economy. Expanding, and later breaking from the traditions set out by the founding fathers of the Chicago economics like Frank H. Knight, Jacob Viner and Henry Simons, this Chicago tradition was deeply immersed within the notion of individual freedom as the core value of an economic system. Accordingly, then, Chicago economists adhered to an economic discourse characterized by the concepts of instrumentalism and human capital.

The first concept adopted from the Chicago tradition was an instrumentalist approach to economics. This was considered a logical and empirical approach that rests upon the idea that theory alone could be used for analyzing economic problems. The

Table 2.1:

The principal actors behind the “Chicago Boys” who occupied key positions in the government of Chile:

Sergio de Castro **	<ul style="list-style-type: none"> • Considered leader of the group • Former dean of School of Economics (Universidad Católica) • Advisor to Ministry of Economic Affairs • Minister of Economic Affairs April 1975- December 1976 • Minister of Finance 1977-1982 	
Pablo Baraona **	<ul style="list-style-type: none"> • Advisor to Ministry of Agriculture • Minister of Economic Affairs Dec. 1976- 1978 • President of Central Bank • Minister of Mining • Former director of School of Economics (Universidad Católica) 	
Sergio Undurraga	<ul style="list-style-type: none"> • Economist with Universidad Católica de Chile 	
Emilio Sifuentes	<ul style="list-style-type: none"> • Linked to business groups 	
Manuel Cruzat		
Juan Braun		
Alvaro Bardón **	<ul style="list-style-type: none"> • Undersecretary for the Economy • CORFO official • President of Central Bank and Banco del Estado • Deputy Minister of Economic Affairs 	<ul style="list-style-type: none"> • Linked to centre-right PDC political party (Partido Demócrata Cristiano)
J.L. Zabala	<ul style="list-style-type: none"> • Chief of Study Department, Central Bank 	
Andrés Sanfuentes	<ul style="list-style-type: none"> • Advisor to Central Bank and Budget Agency 	
Juan Villarzú	<ul style="list-style-type: none"> • Budget Director 	
Rolf Lüders **	<ul style="list-style-type: none"> • Bi-Minister of Economic Affairs and Finance 	
Sergio de la Cuadra ***	<ul style="list-style-type: none"> • President of Central Bank • Minister of Finance 	
Carlos Cáceres *	<ul style="list-style-type: none"> • President of Central Bank • Minister of Finance and of the Interior 	
Jorge Cauas *	<ul style="list-style-type: none"> • Vice-president of Central Bank • Minister of Finance 	
Cristián Larroulet	<ul style="list-style-type: none"> • Advisor to ODEPLAN (State Planning Agency) • Chief Cabinet Minister of Finance 	

Martín Costabal	• Budget Director
Jorge Selume	• Budget Director
Juan Carlos Méndez	• Budget Director
Alvaro Donoso	• Minister Director of ODEPLAN
Alvaro Vial	• Director of National Institute of Statistics (INE)
José Piñera	• Minister of Labor • Minister of Mining
Felipe Lamarca	• Director of Tax Agency (SII)
Hernán Büchi *	• Banking Supervisor • Deputy Minister of Health • Minister Director of ODEPLAN • Minister of Finance
Alvaro Saieh	• Advisor to Central Bank
Joaquín Lavín	• Advisor to ODEPLAN
Ricardo Silva	• Chief of National Account, Central Bank
Juan Andrés Fontaine	• Chief of Study Department, Central Bank
Julio Dittborn	• Deputy Director of ODEPLAN
María Teresa Infante	• Advisor to ODEPLAN • Deputy Minister of Social Security • Minister of Labor
Miguel Kast **	• Minister Director of ODEPLAN • Deputy Minister of Labor • Vice-president of Central Bank

*** Economists that did not study at the University of Chicago but were active participants in the neo-liberal transformation.**

**** Main figures behind the “Chilean Economic Revolution”**

Sources: Valdés, J.G. (1995). *Pinochet’s economists: The Chicago school in Chile*. Cambridge: Cambridge Press; Silva, Patricio. (1991). Technocrats and Politics in Chile: From the Chicago Boys to the CIEPLAN Monks. *Journal of Latin American Studies* Vol. 23, No.2, pp. 385-410.

validation of theory was put to the test through empirical testing, marking a radical shift from the tradition established by Knight. The faith in “economic science” that was undertaken by the scholars emphasized the minimal role of the state in the economy, which was concerned solely for the public order, since it was “limited to repressive duties and dealing with extreme poverty” (Valdés, 1995, p.5).

Accompanying this objective was the development concept of human capital, an aspect that was considered critical to the Chicago doctrine’s exportation to Latin American countries. Accordingly, human capital referred to the knowledge of economics and technology management. This was considered more essential than capital and labor in the goal of increasing the gross national product (GNP).

Yet, the development of the Chicago neo-liberal doctrine shifted considerably from the initial tenets of the Old school of thought in regards to public utility regulation, as the old Chicago school regarded the public monopoly as challenging the fundamental freedom of society, considered the “great enemy of democracy”. Even the regulation of monopolies was perceived as “half-hearted, sporadic and principle-less...misfortune for all concerned” (Samuel, 1976, p.313). On the other hand, the New school of thought initiated by Friedman shifted considerably, from perceiving any form of regulation as detrimental to society, towards choosing the private monopoly structure as the lesser of the evils.⁹ According to Friedman, the private monopoly structure was more flexible to the forces of change.

⁹ Friedman (1962) expressed this as the following:

When there are technical conditions which make a monopoly the natural outcome of competitive market forces, there are only three alternatives that seem available: private monopoly, or public monopoly, or public regulation...I reluctantly conclude that, if tolerable, private monopoly may be the least of the evils (Samuels, 1976, p. 314).

Altogether, these tenets underpinned the proposed liberalization of both domestic and international markets, the increased privatization of industry, and a diminished role for the state (Silva, 1991). In fact, this set the foundation for the ensuing seven modernizations project under the Pinochet regime that would affect both the public and private sectors of society, introducing “the rules of neo-liberalism in all spheres of society” (Silva, 1991, p. 395). Briefly, these seven modernizations referred to introducing new labor legislation, transforming the social security system, municipalization of education, privatization of health care, internationalization of agriculture, transformation of the judiciary, and the decentralization and regionalization of government administration (Silva, 1991).

Therefore, the Chicago doctrine inevitably affected all aspects of the Chilean landscape. Overall, the economists that returned to Chile were opposed to any policies geared towards protectionism, and focused specifically on three policy areas: international trade, foreign aid, and, the cultivation of market institutions. These scholars took up various academic positions within the Catholic University of Chile, as well as in the governmental sector and within political parties. In fact, during the Frei administration (1964-1970), various economists held positions in the economic sector, which facilitated the later formation of technocrats that would take over the economy in 1973.

Political economy of communication: The state and telecommunications policy

As the neo-liberal model clearly depicted, the role of the state was reduced in order to emphasize the role and function of the market, a pivotal aspect to national development. Yet, as Evans (1985) warns, conceiving the state as weak and strong

neglects to focus on the state organizations and powerful social actors that hold extensive influence in the overall autonomy of the state. State autonomy, then, must be examined in its interactions to society. The role of the state in the realm of telecommunication regulation, then, must be regarded beyond the dualistic notion of regulation and deregulation in which it has traditionally been framed, and be conceived as constituting the interplay of both the market and state.

Rather than just states or markets, Mosco (1988) identifies four potential forms of governance for the regulation of telecommunication: government regulation, private competition, expert boards, and, corporatism. Briefly, regulation lies at one end of the spectrum, and depicts an equal representation of interests, while corporatism represents different sectors of businesses. Private competition emphasizes market interests, while on the other end of the spectrum lie expert boards, which provide a source of social control.

It is important to note that the role of the state is present throughout these modes of governance, yet its degree varies depending on the form of governance. Furthermore, structures of power layer the modes of governance that depict the role of the state. This is illustrated by the pluralist view, which promotes competitive market place solutions; the managerial view that focuses on a concentration of power within a few elites; and the class perspective, which focuses on power relations in capital accumulation. Altogether, this provides the groundwork for understanding the interactions taking place between the role of the state in light of the trends affecting the telecommunication sector.

The case of Chile has been referred to as a dualist state, as two contrasting systems existed as one. Specifically, this refers to the rationale represented by a technocratic bureaucracy, which promoted business and economic freedom, while on the

other hand, there was a disregard to human rights and political freedom. Altogether, the authoritarian regime that characterized the nature of the state and the powerful body of technocrats governing the economic realm provide a textured account into the relation of the state and market beyond the traditional sense.

Furthermore, the dynamics that frame relations between the state, market, and the telecommunication sector are depicted in various forms: commercialization, liberalization, privatization, and internationalization processes. Briefly, *commercialization* is conceived as being primarily business-oriented, whereby the state replaces regulation based on public interests, with demands that are more specifically geared to the needs of the market. The market is clearly favoured in this relation, and perceived as “supporting one class of users” (Mosco, 1996, p. 202). In contrast, *liberalization* depicts a process whereby the state actively participates to increase the number of players in the industry in order to increase market competition. In so doing, it serves to lower prices and expand services. *Privatization* consists of the selling of stocks of an enterprise to private interests, either domestic or foreign, and also entails the elaborate process of creating a market, as previously noted by Pisciotta (1997; Chapter 1). *Internationalization* is the creation of strategic alliances, which assists in the creation of a communication network. In essence, these processes highlight the varying intensities of both the state and the market in the regulation of the telecommunication industry. In sum, the nature of the relation that exists between the state and market has become pivotal in the development of policies governing the telecommunication industry.

Throughout the chapter, the historical review of Latin American and United States relations illustrated the shifting balance of power that framed policies and theories

emerging from the region over the years. The underpinnings of political economy have also provided a platform upon which to situate the characteristics of monetary economics that swept through many Latin American nations, specifically in Chile. The next chapter, then, will review the historical, legal and political developments surrounding the inception of communication technology in Chile.

Development of the telegraph and telephone in Chile (1851- 1973)

The telecommunication industry in Chile has both private and public roots.

Initially, telegraphy began under private interests, yet its early development progressed largely under the hands of the state. The development of submarine cables, and the ensuing telephone technology, however, developed largely under private interests, until switching into the hands of the state in 1974 until 1986, when it was placed back under private ownership with the privatization of the sector. ENTEL, however, was state-owned from its inception in 1964 until its privatization in 1986. This chapter intends to cover the progress of this sector from its inception in 1851 to 1973, the year of the military coup, all the while highlighting the role of the state throughout its development.

In the 19th century, the railroad was a vital component for connecting city centers and opening the country to new ventures sparked by the growth of Chile's natural resources, essentially creating the skeleton path for the telegraph. American entrepreneur William Wheelwright, president of the Pacific Steamship Navigation Company (PSNC) in Chile, built the first private railway in 1851, which connected Copiapó and the port of Caldera. Financed by rich miners and traders, this railroad was extended towards the north in order to secure access to the mines, an industry that would prove fruitful in the later expansion of the railroad (Collier and Sater, 1996, p. 84). It was not until October 1852 that the first railway, a mixed venture between the government and private investors, was established between Santiago and Valparaíso with the *Ferrocarril entre Santiago y Valparaíso*, (FCSV), connecting the capital to one of the major ports in Chile. By 1869, the *Ferrocarril del Sur* (FCSur), another mixed venture, had been established. The line connected Santiago to the southern cities of Talca, Concepción, and the Bío-Bío region, including a line between Talcahuano to Chillán. With a license granted by the

government in the early 1850s, basic telegraph services soon began to operate alongside the railroad (Oppenheimer, 1977; Collier and Sater, 1996).

Again, William Wheelwright emerged as a key player in developing the private telegraph system in Chile in the early 1850s (Johnson, 1948).¹ With a decree awarded by the administration of General Manuel Bulnes to Wheelwright's company, the *Compañía de Telégrafo Magnético entre Valparaíso y Santiago*, the telegraph was introduced in Chile on February 15, 1851. With the official inauguration of a line between Santiago and Valparaíso taking place April 23, 1852, Wheelwright was granted an exclusive eight-year franchise to construct lines to the northern and southern regions of the country following the path of the railroad.

Yet, in 1854, the state got involved and began the construction of a line between Santiago and Talca, one of the more prosperous agricultural regions at the time. The state's initiative and involvement to compete in the telegraph industry was sparked by Wheelwright's financial difficulties during the construction of the Santiago- Talca line. The state began to play an increasing role in providing telegraph services by sparking competition with well established private companies, for instance, by installing a line that ran alongside Wheelwright's successful Santiago and Valparaíso line. Over time, however, it became evident that competing alongside this established line inevitably generated a loss in revenues for both players, an aspect that was further aggravated with the outbreak of the Spanish War (1866-1871).

¹ The physical progress of the telegraph, and later implementation of submarine cables, can be traced by referring to diagram 1 in the Appendix.

In a manner similar to the development of the railroad, the state maintained its role in the development of the telegraph by sustaining the cost involved in the implementation of a national network, which eventually led to Wheelwright relinquishing control and turning his company over to government management. Altogether, this led the Chilean government to incorporate the state telegraph lines as part of the Postal service, only to be transferred and developed under the private ownership of TELEX-Chile S.A. in 1986. Originally, TELEX-Chile was formed in 1859 as a division of the State Post Office, providing telegraph services. In 1981, however, *Law 18,016* terminated the legal existence of the Post and Telegraph Service and created in its place the Chilean Post Office and *TELEX-Chile Comunicaciones Telegráficas S.A.*, the legal successor of the state telegraph service.

It was throughout the construction of the Santiago-Talca line, however, that the importance of finance surfaced as an issue in the development of communication infrastructure. This sentiment was reflected by the Minister of Interior, Geronimo Urmeneta, whom recommended to Congress the need for capital to be set aside from the national budget to further develop the communications network in Chile.

Interestingly, telegraphy in Chile progressed greatly for purely strategic purposes. Prior to the Spanish war, the Chilean government rapidly expanded the telegraph network northwards. By 1865, the city of La Serena was added to the Santiago-Valparaíso line, and by 1866, the line had connected to major cities in the Northern and Southern regions of Chile, including Caldera, Copiapó, and Lota. Once again, during the war of the Pacific (1879-1883) with Bolivia and Peru, the government ordered the extension of the telegraph from Caldera to Antofagasta, an aspect prompted by the “exigencies of war”

(Berthold, 1924, p. 18). This included extending into various towns that had yet to be connected to the trunk line, such as Arica, Chile's northernmost town, Iquique, and across the border into the Peruvian towns of Tacna and Tarata, which later became the battleground for the war with Peru (Melo, 1998). Between 1871-1881, the state telegraph network had expanded tremendously, with "1,339 kilometers of new military telegraph wire...1,264 kilometers of existing wire reconstructed...and 25 new telegraph offices opened" (Berthold, 1924, p. 18; see Table 3.1).

Table 3.1: The development of the telegraph between 1871- 1881

	1871	1881
Number of Offices	40	108
Kilometers of Wire	4,500	8,784
Number of Telegrams Transmitted	84,000	273,000

(Source: Victor Berthold (1924). *History of the Telephone and the Telegraph in Chile 1851- 1922*. New York: American Telephone and Telegraph Company, p.18).

The end of the war was accompanied by a surge in the economy, and so between 1881-1890 the state telegraph system became the recipient of increasing amounts of capital from the government. Between 1881-82, the amount granted to this sector jumped from 98,000 pesos to 132,000 pesos, respectively. By 1890, the state's contribution had more than tripled, with 369,000 pesos towards the development of the national telegraph system (see Table 3.2, below). This essentially provided for the further expansion of the telegraph network and the implementation of a solid telegraph infrastructure. This web was extended beyond territorial boundaries, as Chile negotiated with Argentina, and later Bolivia, to interconnect their respective terrestrial telegraph systems across the border.

Table 3.2: State's contribution into the development of the National Telegraph, 1881-1891

Year	Budget Appropriation (Ch. Pesos)	Total Extension of Wire (km)
1881	98, 000	8, 784
1882	132, 000	8, 943
1883	141, 000	10, 106
1884	173, 000	10, 319
1885	214, 000	11, 836
1886	229, 000	12, 147
1887	264, 000	12, 147
1888	275, 000	12, 505
1889	288, 000	12, 577
1890	369, 000	13, 355

(Source: Victor Berthold (1924). *History of the Telephone and the Telegraph in Chile 1851- 1922*. New York: American Telephone and Telegraph Company.)

By the first centenary of independence in 1910, the Chilean telegraph system consisted of 28,411 kilometers of wire that spanned from the core of Santiago and Valparaíso, towards various peripheral cities and regions along the coast, altogether served by 352 offices. Though the state had openly participated in the development of the national telegraph system, it opted out of the development of submarine cables and international telegraphy, which continued to evolve under private interests.

Installation of Submarine Cable in Latin America and Chile: 1870-1880

The expansion of submarine cables in Chile and Latin America, in general, reflected a fertile ground for international cable companies to claim a stake and increase their grasp of the world communications market. The arrival of international telegraphy into Chile was initiated by two Chilean brothers, Juan and Mateo Clark, who first installed the rudimentary foundation of submarine cables for international telegraph service in 1871 (Johnson, 1948). Under the *Compañía del Telégrafo Transandino* (Transandine Telegraph Company) the Clark brothers laid an underground cable through

the Andes Mountains. It would only be two years later, when Brazil laid its submarine cables in 1874, that Chile would gain immediate access to information from the rest of the Americas and Europe. This was clearly reflected in the content of the Chilean national newspaper *El Mercurio*, once it began to transmit news directly from Europe.² A year later, in 1875, Chile was put in contact with the United States and Europe via the transandine cable through the Andes, provided by the British *River Plate Telegraph Company* that connected through Brazil. In due course, a Havas- Reuters office was established in Valparaíso in 1875, placing Chile within arm's reach of the Americas and the world (Collier and Sater, 1996).

Yet, the installation of submarine cables throughout Central and South America proved to be an area of competition, monopolization, and expansion between two major players in international telegraphy; essentially becoming a joust for a stake in Latin America.

The major submarine cable companies that developed cables in Central and Latin America were, for the most part, American and British, competing with one another to tap into a market that could further expand their communication empires. One of the major players in the Latin American scene was the British company, *Eastern and Associated Companies*, with a strong presence on the Eastern coast and Southern cone of Latin America. Its affiliates consisted of the *Brazilian Submarine Telegraph Company*, *Western and Brazilian Telegraph Company*, and the *West Coast of America Telegraph Company*, and they held concessions in Argentina, Brazil, Chile, Peru, and Uruguay.

² Chile's geography and communication infrastructure had isolated it from the "Old World" over the years. In 1838, for instance, the Chilean newspaper *El Mercurio* ran the coronation of Queen Victoria four months after it had taken place (Collier and Sater. 1996. p.85).

With operations based in Brazil, *The Western Telegraph Company* heavily monopolized cable traffic along the eastern coast of South America. This company was then able to stretch into the West Coast with a land line that had been established between Argentina and Chile, thereby allowing access into Peru. Yet, it was not successful in conquering the Northern and Western part of South America due to the presence of the *American Central and South American Cable Company's* stranglehold in the area.

As the main competitor, the *Central and South American Telegraph Company* developed a strong presence throughout Central America as well as in the southern cone. Set up in 1879, the *Central and South American Telegraph Company*³ opened its cables along the Pacific Coast, beginning its service in Mexico, throughout El Salvador, Nicaragua, Panama, Colombia, Ecuador, and terminating in Peru. Evidently, this company came to dominate the Pacific coast of Central and South America, soon holding concessions in Argentina, Chile, Colombia, Ecuador, El Salvador, Nicaragua, Panama, and Peru.

In the case of Chile, developments in communication rapidly expanded with the installation of submarine cables in the hands of British and American commercial interests, and the competition sparked between the two. In 1874, the British *India Rubber, Gutta-Percha and Telegraph Works Company, Limited* entered the Chilean market as one of the major submarine telegraph service providers, establishing a trunk line throughout Chile (Berthold, 1924). In 1874, the Chilean government authorized Mr. C.S. Stokes, a representative of the company, to lay and operate a submarine cable

³ In 1918, the *Mexican and Central and South American Telegraph Companies* merged to form *All America Cables* (Berthold, 1924).

between Caldera and Callao, Peru, while establishing cable landing points along the way. In 1875, submarine telegraph cables further extended the initial line between Caldera and Callao by adding a line connecting Valparaíso to the trunk line, and later a line that linked Coquimbo to La Serena.

Between 1877 and 1894, the *India Rubber Gutta- Percha and Telegraph Works Company* further expanded the skeleton network of submarine cables throughout Chile, since they were authorized to lay and operate a cable between Valparaíso, Punta Arenas and Puerto Montt, in addition to installing an intermediate cable station on the island of Chiloé. It was in 1877, the Chilean government approved the transfer of its concessions to the *West Coast of America Telegraph Company, Limited*, an affiliate of the British based *Eastern and Associated Companies*. The company subsequently proceeded to implement submarine cable telegraphy throughout the Southern Cone. Using La Serena as the connecting hub from the south, cables were laid in Peru, beginning in Chorrillos, to Mollendo, into the northern points of Chile, including Arica, Iquique, Antofagasta, and heading southwards through La Serena, to Valparaíso and Talcahuano. This company essentially operated nearly 2,041 nautical miles of cable throughout Chile (Schreiner, 1924), further expanding the scope of Chile's international services. With the objective of linking the coast of Chile and Peru, this company succeeded in linking Valparaíso to Lima, as well as joining Lima to the trunk line of the *Western and Brazilian Telegraph Company* (Baglehole, 1969; Berthold, 1924).

In 1890, however, *The West Coast of America Telegraph Company* was confronted with American interests in Chile. The *Central and South American Company*, who had already installed cables through to Valparaíso, terminated a traffic agreement it

had with the British affiliate. In so doing, the American company proceeded to purchase the Chilean *Compañía del Telégrafo Transandino*, which enabled it to access Buenos Aires, Argentina, and consequently, establish a link into Europe. Incidentally, the British formed the *Pacific and European Telegraph Company* in 1892, in order to compete with the American commercial interests in an attempt to entrench its position in Chile. By 1920, then, there were two British companies providing telegraph companies, *West Coast of America Telegraph Company* and *The Pacific and European Telegraph Company*, altogether competing with the national telegraph company, *Compañía de Telégrafo Nacional*, and the American *All America Cables* (Table 3.3; Baglehole, 1969).

Table 3.3:

Telegraph Companies operating in Chile, 1920	Principal Office	Number of Offices	Telegrams transmitted
All America Cables, Incorporated (U.S.)	Iquique	8	261, 200
Compañía de Telégrafo Nacional (Chile)	Santiago	2	140, 000
West Coast of America Telegraph Company, Ltd. (U.K.)	Valparaíso	11	158, 900
The Pacific and European Telegraph Company, Ltd. (U.K.)	Valparaíso	2	66, 300

(Source: Victor Berthold (1924). *History of the Telephone and the Telegraph in Chile 1851- 1922*. New York: American Telephone and Telegraph Company.)

As Baur (1995) has indicated, the interest in installing cables in Central and South America became a struggle between the American and British monopolies. The implementation and expansion of submarine cables and the foundation for a communication system for most Latin American nations, however, proved to be “luck of the draw.” In other words, both American and British cable companies strategically

decided where to develop connecting points to maximize traffic coming from the Americas. These foreign companies held the resources and capital to develop submarine cables in profitable locations that were suitable for them. Not surprisingly, national governments had a limited influence or say in the negotiation of landing rights, implementation, and subsequent development of submarine cables. These conditions explain the varied development of communication systems between countries within both Central and Latin America (Baur, 1995).

The intent to develop communication networks in Central and Latin America flourished as an incentive driven by national and business interests, rather than an interest in developing a communication infrastructure throughout the continent. As Elihu Root Jr. of *All America Cables* once noted:

Now, the attitude so far has been, both on the part of the British and the American lines, that they would get what monopolies they could for themselves and, where it was possible, break up the monopolies of their rivals, and so far as the British foreign office has actively assisted the British lines and the American State Department had actively assisted the American lines. It is a question of getting what you can for your country and yourselves (quoted in Schreiner, 1924).

In light of this, it became evident that national governments could simply grant concessions to the interested commercial cable company. Since private corporations determined which nation would serve as a main source of traffic for both the American and British hubs, national governments could simply facilitate the landing rights for the installation of cables, as well as the transit of official telegrams. Accordingly, once foreign companies approached national governments and demanded exclusive privileges, the state was confronted with the option of either rejecting the offer, or accepting the conditions set by the company.

Had Latin American nations opted to reject the offer by commercial companies to land cables, it could have contributed to arresting the national development of the industry from enjoying technical developments, and taking part within the larger international communication map. At the same time, nations would also be excluded from reaping the advantages of having a competitive system that accompanies inviting one commercial company to initiate service. In other words, by choosing one company, its competitor would eventually be prompted to enter and break into the established monopoly. Competing cable companies, it was well known, would only relinquish their monopoly concession if it meant gaining access to telecommunication markets in other parts of the world. This was considered the standard “trade-off” between national governments and the commercial cable companies, since national governments had neither the capital nor technology to be initiating, implementing, and connecting into the larger world communications map.

Therefore, as the development of submarine cables in Latin America has illustrated, the inception of a communication infrastructure was limited to the resources and capital delivered by the foreign commercial companies.

Inception of the Telephone in Chile: 1880-1973

While developments in telegraphy were connecting Chile with the rest of the world, the telephone soon emerged onto the Chilean landscape in the early 1880s. In 1879, José D. Husbands first attempted to introduce and promote the telephone in Valparaíso, but was unsuccessful due to the war taking place between Chile, Bolivia, and Peru. It was only in 1880, when J.D. Husbands obtained a patent from Thomas Edison granting him the legal rights to introduce and promote the telephone for ten years in

Chile, that the telephone was finally introduced. Later that same year, the President of Chile signed a decree for a telephone license to be granted to the *Compañía de Teléfonos de Edison (CTE)*. At the same time, the government also granted the company a national concession, permitting it to provide telephone service throughout the country. Initially, *CTE* began by providing local service in the Metropolitan region as well as in Valparaíso. By 1881, then, there were 250 telephones in service in Santiago.

In 1884, Husbands recruited U.S. capital and changed the name of *CTE* to the *West Coast Telephone Company*, independent from the British *West Coast of America Telegraph Company* operating cable service in Chile. In so doing, the national concession was then transferred over to this new company. At the same time, the government also granted the *West Coast Telephone Company* concession rights to provide long distance lines. Essentially, the company was now extending its service from local operations within Santiago, Valparaíso, and Concepción, to long distance service, such as between Santiago to San Fernando with the assistance of the six railroad companies that were still providing telegraph service.⁴ Over the years, the communication landscape slowly began to witness small, privately- owned companies emerging near mining and agricultural centers throughout Chile, such as *Compañía Nacional de Teléfonos de Valdivia* in 1893, with 55 phones in service.

After operating as the *West Coast Telephone Company*, the company was renamed in 1889 to the *Chili Telephone Company, Ltd. (CTC)*, with 2,809 telephones in service mostly in the Metropolitan region of Santiago, and Valparaíso (Berthold, 1924).

⁴ The following were railroad companies providing telegraph services in Chile (1920):

Not surprisingly, CTC became the key provider in both local and long distance telephone service throughout Chile into the 1900s. During this period, there were an increasing number of subscribers contributing to its success due to the swelling population shift towards city centers such as into Santiago, Valparaíso, and Concepción. In fact, between 1881 and 1889, the number of telephone subscribers had increased from 250 to 2,907 telephones (Melo, 1996). Perhaps one of the more interesting aspects during the development of the telephone was the lack of regulation despite the increasing trend of state intervention in Chile throughout the 1930, an aspect that would later prove both challenging for market players, while also considered an attribute of the Chilean sector. Prior to assessing the state of the telecommunication sector, the history and nature of state intervention will first be reviewed.

State intervention and the telecommunication sector

The trend toward state intervention was not new in Chile, considering, historically, that it had a record for having a heavily interventionist state in matters relating to the economy, a pattern traced back to the period between the War of the Pacific (1879) and the Great Depression of 1930. The victory of the war had launched Chile into the “nitrate age,” firmly establishing a dominant market of mineral exports that stimulated growth in commerce, urban construction, and a period of industrial expansion. This period also witnessed an expanding role of the state in the economic realm in order to protect domestic goods from external competition.

The Anglo-Chilian Nitrate and Railway Company, Ltd., Empresa de Ferrocarril de Antofagasta a Bolivia. The Taltal Railway Company, Ltd.. The Chilian Transandine Railway Company. Empresa de Ferrocarril Transandino por Antuco, and, Compañía de Arauco. Limitada.

The Great Depression of the 1930s also had major repercussions on the Chilean economy. Specifically, it reduced its exports, prompting Chile to adopt import-substitution policies as a means of encouraging industrial growth in light of the dismal conditions plaguing the region. In this respect, development soon involved an expanding role of the state. More precisely, the state adopted the role as a promoter of business activity in the private sector, as well as the industrialization process, and as an economic agent.

This pattern of state intervention continued throughout the years, and consolidated with the establishment of CORFO (*Corporación de Fomento de la Producción*), the state development corporation, reviewed in chapter one. In fact, CORFO was a key element in founding Chile's most important firms over the years, and used strategically by the state as a means to manage companies and industries to manipulate matters pertaining to the economy, such as "income distribution and achieving other non-entrepreneurial goals" (Glade, 1991, p. 20). CORFO retained control of certain companies and firms during their nascent years, while others were sold to the private sector once they became profitable.

In contrast to its role in the economy, the state had remained absent throughout developments in communications. By the 1930s, CTC had established a strong presence throughout Chile, having strategically bought out smaller companies that threatened its domination over the years. Accordingly, CTC enjoyed exclusive concessions, such as contracts with the government to provide official telephone service. Throughout its growth, CTC established a strong center in the Metropolitan Region, and various other commercial centers that were also wired such as Valparaíso, thereby leaving the

peripheral regions for local companies to develop, such as *Compañía de Teléfonos de Coyhaique* (COY), in the eleventh region. The Chilean telephone industry had initially begun under a competitive environment, but over the years, CTC strengthened its hold in the local services market due to the lack of regulation. The telecommunication industry then, was characterized by minimal intervention. This became evident in 1925 with the *General Electric Services Law*, the first legal marker focusing on the telecommunication industry. This law was simply a recognition of the growing telecommunication industry, stating the need for increased attention into this sector, and involvement on behalf of the state. Yet, the state's only role, at that time, was to grant licenses to operators, simply reflecting the government's lack of regulation and interest towards the telecommunications industry. Consequently, these conditions proved favorable for CTC to establish its monopoly due to the lack of regulation, and subsequent wavering of government policies.

The government's "backseat" position continued in 1927 with Colonel Carlos Ibañez's approval for the International Telephone and Telegraph Corporation (ITT) to acquire a stock of CTC, a share it held until 1973, and its renaming as the *Compañía de Teléfonos de Chile*. In effect, ITT held a big stake within Chile as a private investor of a sector that has been deemed part of "national security." In spite of the pattern of state intervention that had gained increasing momentum during this period, regulation and state intervention in the telecommunication sector continued to be minimal. The times the state did interfere only reinforced CTC's position as a legal monopoly, evident with the government's decree of 1930.

The statutory contract of Law 4,791 (DFL 244 of 1931)⁵ introduced a unique arrangement between the government and CTC. The new decree law granted CTC a 50-year national concession, with unlimited renewals every 30 years. This concession was initially intended to cover the nation of Chile, however, there was no obligation to ensure mandatory service or interconnection requirements in any particular area. Furthermore, the administrative and financial aspects were left to the discretion of the company, with CTC management responsible for setting rates and accounting procedures. The only requirement was for CTC to “provide the public with a modern and efficient system based on available technology” (Melo, 1998, p.206). With ITT as the parent company, and since ITT operated a manufacturing plant in Santiago (*Standard Electric*), CTC benefited from its access to modern telecommunication equipment.

The results from this agreement, however, were not promising. There were extremely long waiting lines for the installation of telephone lines, reflected in the startling jump in the number of telephones that went into service in the span of twenty years. In effect, between 1934 and 1954, the number of telephones in service jumped from 44,354 to 141,275 respectively. As a result, various local start-up companies assisted in the demand, considering there were 63,266 outstanding requests (Baur, 1995). However, while these companies contributed immensely in meeting demand, CTC’s technology was far more advanced, and so its network also became the “bottleneck” for the flow of traffic that stemmed from these companies, inevitably eliminating them. In due course, then, CTC’s position was cemented in the local services market, controlling more than ninety percent of the market, while the rest was managed by smaller, local

⁵ DFL refers to a decree, a judicial decision made by a ruling body, with the force of law.

companies, such as *Compañía Nacional de Teléfonos* (CNT) in region X, *Compañía de Teléfonos de Coyhaique* (COY) in region XI, and *Empresa Telefónica Municipal* in region I.

In 1959, the DFL 4 modified the *General Electric Services Law*, which made the law more applicable to the telecommunications industry. This law elaborated on various aspects of the industry, stipulating that no single monopoly could dominate the industry, and concession periods could run between 30-90 years providing the companies interconnected with each other. Additionally, the companies had to comply with regulated accounting standards. This law also created the *General Directorate of Electric, Gas, and Telecommunication Services* (GDEGTS), the first regulatory body pertaining to telecommunications that was responsible for setting tariffs and rates. Although this law could have modified the 1930 decree that CTC used as its guideline, CTC refused to comply with these conditions and continued to operate under the original framework of 1930, altogether maintaining its privileges. Again, attempts on behalf of the state to regulate this sector were unsuccessful, and criticisms of this regulatory framework continued to emerge based on the fact it was still too vague and weak in nature since CTC continued to act according to the 1930 contract.

Altogether, CTC's powerful position, the poor state of telephone service, and the weak regulatory body in place created tension and dissent from various areas, including sectors of the government and private industry alike, such as the *Institute of Chilean Engineers*. The government had expected CTC to satisfy its demands in both local and long distance services, yet it had been unable to do so due to CTC's lack of capital. This became evident in the realm of long-distance, since this service was operated manually,

with calls connected by operators, and therefore required specific amounts of financing and resources (McMorrow, 1999). Altogether, both sectors agreed that the state of the telecommunication industry was inadequate, and the existing contract established between CTC and the state was considered detrimental to both the national and public interest (Baur, 1995). Essentially, they called for state intervention, and the creation of a state enterprise to assist in the development of an adequate national telephone network.

By the early 1960s, state intervention had become part of Chile's economy. Briefly, the Frei (1964-1970) administration increased the role of the state as a means of modernizing the economy. Although this was reflected in the agrarian reforms, it was made even more evident by the nationalization of the copper industry. Also referred to as "Chileanization," the government assumed a majority of shares in all the major copper mines that were owned and operated by U.S. interests (Valdés et al., 1990). By the end of this administration, forty- four companies had been acquired, holding a majority of shares in various others.

In 1961, then, CORFO established a Telecommunications Committee that undertook the task of providing the Chilean economy with a solid infrastructure for national and international communications, providing an alternative telephone service to that of CTC. In effect, this committee implemented and projected a ten-year plan that would see the creation of a company that would provide CTC with competition on a variety of services, including local, long-distance, telegraph and telex services. This resulted with the creation of the *Empresa Nacional de Telecomunicaciones* (ENTEL) in 1964.

As a subsidiary of CORFO, and funded by the government, ENTEL was in charge of implementing a microwave network trunk throughout Chile, as well as providing national and international satellite links.⁶ Since CTC had dominated the local arena of telephone service, ENTEL took over the provision of national long-distance telephone service, shortly dominating the long-distance and international telecommunications market. Both companies created a monopoly in each of their respective markets. These events marked a change in the policy towards the telecommunications industry, since the state directly intervened to become an owner and competitor within the industry itself, instead of limiting itself to the role of a regulator.

Since ENTEL had established an updated telephone network, the government decided to invest in a program to expand and modernize CTC, in 1967, through a contract with ITT. This resulted in an agreement that divided ownership of CTC between the state and ITT.

State intervention continued through the administration of Eduardo Frei, culminating under the Socialist administration of Salvador Allende (1970-1974).⁷ Briefly, the Allende administration continued the momentum of nationalization, although guided by different goals. The economic platform underlying this government was primarily concerned with the structural changes in the economy to prepare for the “road to

⁶ Chile became the first country in Latin America to become a member of the International Telecommunications Satellite (INTELSAT) with ENTEL as the representative.

⁷ With the victory of Allende and the Unidad Popular (UP) in 1970, Chile was soon ostracized from the international financial community. Krueger and Bates (1993) outline Kissinger’s strategy to destabilize the government as the following: “loans from the U.S. were cut off and pressure exerted on the multilateral agencies to limit credit to Chile. The CIA was authorized to spend up to \$8 million to ‘destabilize’ the Allende government. And lastly, ties were strengthened with Chilean opposition groups, especially the military” (p.86).

socialism,” consisting of the expropriation of large industrial firms, farms, and banks, in addition to the redistribution of income.

Accordingly, the state acquired numerous companies and firms in the three years altogether contributing to the creation of the “Social Property Area” (Bates and Krueger, 1993, p. 80), including mines from the American Kennecott and Anaconda corporations, and numerous banks. In addition to already owning ENTEL, this trend proceeded to include other telecommunication industries, such as *Teléfonos de Valdivia* and *Teléfonos de Coyhaique* that were purchased by CORFO, and *Empresa Telefónica Municipal* operating in Arica that was already under partial state control.

Interestingly, CTC remained under private interests until 1974. In 1971, the government intervened to take over CTC management and assets, but CTC was not nationalized until after the coup when CORFO acquired the whole of ITT’s share of the company, finally transferring from the hands of private investors to those of the state (Melo, 1994).

Specifically, CTC only fell into the hands of the state in 1974, after the military coup as opposed to ENTEL, which was a product of the state. Throughout this period, CTC continued to maintain a firm grip on the local services market, maintaining more than 90 percent of the nations telephone lines and providing local telephone service to approximately 77 percent of the national territory. The goals of the Allende administration towards the telecommunication sector revealed a concern with technical developments, consisting of integrating existing interurban and international networks, forming independent government businesses for the operation of the sector, centralizing sectorial planning in CORFO, and, creating a domestic equipment manufacturing

industry (Melo, 1998). The number of new lines installed in the period between 1970 and 1975 increased by 82,000, from 258,000 to 340,000. At the same time, the number of lines in service also increased by 64,000 during the three years of the Popular Unity, and the initial “transitional” period of the regime between 1970 and 1975. Interestingly, these numbers contrast with figures throughout the dictatorship. The number of lines only increased by 67,000 between 1975 and 1980, with 55,000 more lines in service during this period. Figures remained relatively low until the regime ended, whereby the number of installed lines jumped from 800,000 to 1,059,000 between 1989 and 1990. Teledensity figures in 1970 reflected a low penetration rate with only 4.1 telephones per 100 inhabitants however, it remained relatively low, with 7.4 telephones per 100 inhabitants in 1989, in light of reforms taking place (Table 3.4).

Table 3.4:
Selected Growth Indicators, Compañía de Teléfonos de Chile (CTC) 1970-1990
(in thousands)

<i>Indicator</i>	<i>1970</i>	<i>1975</i>	<i>1980</i>	<i>1985</i>	<i>1986</i>	<i>1987</i>	<i>1988</i>	<i>1989</i>	<i>1990</i>
Installed lines	258	340	407	550	585	615	634	800	1059
Lines in service	241	305	360	505	528	548	592	646	812
Telephones	353	434	550	719	749	770	820	895	1096
Telephones per 100 inhabitants	4.1	4.7	5.4	6.4	6.6	6.7	7.0	7.4	8.9
Automation (% of total)	86.5	89.0	92.1	95.5	96.1	98.0	98.5	99.3	99.6
Digitalization (% of total)	0.0	0.0	0.0	34.1	36.8	36.0	37.9	51.1	64.0
Pending applications	3	12	114	151	219	230	236	284	308

Source: Galal et al. (1994), p.255.

It is not until the early 1990s, in the re-democratization phase, that teledensity figures increase from 6.5 to 12.7 in the first five years and the sector reformulated to reflect the new political climate, with the introduction of telecommunication policy fostering universal service and universal access, discussed in chapters five.

This chapter summarized the political and legal development of telecommunication in Chile, and conditions for the arrested development of Latin America, and Chile's, telecommunications systems. Once foreign interests had implemented the rudimentary framework, the need to create a national telecommunication system in Latin America was largely driven by the need for national governments to unite fragments of systems into a single national network. Furthermore, national governments rarely had the infrastructure to fully implement a network so the needs of the national governments were always subject to the interests of foreign companies and capital.

The Frei and Allende administrations highlighted the shifting gears of the state, characterized by a mixed economy and heavy nationalization, respectively, as the telecommunications sector unveiled a weak regulatory framework that essentially allowed CTC to remain entrenched as one of the main operators of basic service. Consequently, the creation of a state-owned telecommunication industry, ENTEL, depicted the state as an active agent within the industry, instead of the traditional role of regulator, taking a backseat role in the regulation of the industry.

There were several reasons for the Chilean government, and Latin American telecommunication industries in general, to keep the telecommunication industry under the wing of the state. To begin with, with the military in power, and for purposes relating

to national security, it was in the interest of the nation if this sector, and all its activities, were under the control of the state. For fiscal reasons, the income of a nationalized industry was perceived to provide significant revenues for the state.

The goal of universal service, however, was not an issue driving the development of the sector, as a result of private interests concern for profit, the state's initial lack of regulation, CTC's subsequent monopoly, and its inadequate service provision that have marked the Chilean telecommunication industry. Only in the last decade (1990- 1999), with the return to a democracy, has the concept of universal service entered the Chilean telecommunication arena as an issue of concern and interest. The telecommunication system in Chile, up until the 1960s, was characterized by a legal monopoly expected to keep up with modern technological developments and meet the demands of local and long-distance demands. Yet, this industry soon underwent drastic waves of change, between 1973-1990, shifting from the phase of nationalization towards privatization, discussed in the following chapters.

Stage I:
The Privatization of the
Chilean Telecommunication Sector
(1973-1989)

Chile has often been described as the “economic miracle” of the Southern Cone, due to reforms brought about by the privatization of industries and liberalization of the economy. The military regime that brutally came into office by a coup d’état in 1973, and the technocratic advisers that assembled policies promoting trade liberalization, fiscal restraint, and control of prices, severely disrupted the democratic nature that had come to characterize this nation. Chile’s path towards privatization was perceived as a practical means for reviving the economy that had proceeded to slump throughout the late 1960s and into the 1970s. By the early 1980s, privatization was also seen as a political strategy: the privatization of industries limited the amount of control for the following government, while at the same time, it was also a means of gaining the support of an increasing number of small property owners (Bates and Krueger, 1993). Altogether, the privatization process simply reflected the ideological principles promoted by the Chicago Boys, under a strong state, into all aspects of Chilean society.¹

Throughout these changes, the telecommunications industry witnessed some of the most drastic changes under the regime, not only due to the political and economic reforms, but also in regards to the legal implementation and reinforcement of the regulatory body, SUBTEL, and the subsequent liberalization of the sector. Altogether, these elements contributed towards spurring on competition while at the same time establishing a window of opportunity for the later development of universal access, and the establishment of a framework for universal service. This chapter reviews the two waves of privatization that affected numerous sectors, including telecommunications

¹ The drive towards privatization affected the full spectrum of Chilean society, including social security and public health services, and the environmental sectors, such as forestry and mining, in addition to utilities (Collins and Lear, 1995).

(1985-6), in the period of 1973-1989. More specifically, the political, legal and technological developments that accompanied these changes will be assessed as well. These aspects will be discussed within the three phases that have marked the regime.

Phase I reviews the general restructuring of institutions and the introduction and application of economic principles to Chilean society during this “transition” period, from 1973-1976. Phase II will discuss the deregulation of the sector, and the formulation of a regulatory body, as well as the impact of the debt crisis that marked the end of the first wave of privatization. Phase III picks up from the end of the debt crisis and examines the actual privatization of the industry.

Briefly, the principle underlying the reform process was geared towards transforming the role of the state. The private sector developed along the lines of a “Darwinian” law, which called upon producers to be efficient and competitive in nature. According to this view, only those who were truly efficient would survive and contribute towards the economy. At the same time, under these conditions the state would not inherit any debts incurred by the firm, since profits and losses were now considered “private.” In fact, services rendered to the public sector were at times suspended in certain instances when there was an outstanding bill to the government. In certain cases, government-owned firms were charging delinquent customers 150% of the current interest rate for a delay on the outstanding bill in the goal of making the public sector more efficient. Nevertheless, the private sector was encouraged to take on foreign or domestic loans. Considering these firms were operating within a competitive environment, it was their responsibility to be aware of any repercussions in the process of incurring debts (Melo, 1998; Valdés, 1995).

The privatization process occurred in two waves with two rounds taking place prior to the debt crisis of 1982 and two afterwards. The first round began in 1974, and consisted of restoring expropriated firms, as 202 of the 259 firms were restored to the original owners. The second round involved privatizing most of the other firms under state control, mostly financial institutions with 180 firms auctioned off between 1975-82. With the debt crises, things were put on hold since few buyers had the capital to bid for firms.

Following the crisis, the second wave of privatization took place with Hernán Büchi stepping in as finance minister in 1985. The third round consisted of privatizing banks, but the most significant and controversial was the fourth round. The controversy pertained to the fact that these firms had been considered appropriate for public control, they were profitable and well managed, and the process was criticized for its political aims, since it was all taking place just prior to the return of a democratically elected government. Prior to the fourth round, in 1981, the following industries were under government control:

...83% of mining output, 12% in industry, 75% in public utilities, 21% in transport, 96% *in communications* and 28% in finance. Rather than privatize these firms, the government would impose new operating requirements that would increase their efficiency and profitability (emphasis added, Bates and Krueger, 1993, p.106)

It is in this last round that the telecommunications sector was transformed.

Phase I: Adjustments in the “naïve” phase, 1973-1976

The coup d'état that brought General Pinochet into power in 1973 was followed by a sweeping tide of reforms that reinforced a police state. The first years of the regime have been referred to as the naïve phase of the economic neo-liberal revolution, as the

Chicago Boys began to occupy posts within the government, and the most radical reforms enacted. In so doing, they gained increasing control in the process of executing their theories in society, and established links between the public sector and industrial powers (Valdés, 1995), while at the same time, stripping civil society of its strength.

With a goal of “reversing 50 years of Chilean history,” the regime’s approach towards the economic sector was characterized by repression throughout society. Though Chile had experienced two previous brief military dictatorships in its past (1891, 1924-32), none had witnessed the violation of basic civil liberties that accompanied this regime.

Whereas previous military interventions had almost always left Chile’s Congress intact, the 1973 coup...closed Congress, outlawed political parties, and stripped labor unions of their bargaining rights as well as their organizational base. Freedom of speech, press, and assembly were tightly restricted (Bates and Krueger, 1993, p. 81).

One of the primary objectives of the regime was to repress all aspects of society, an element successfully attained by “disarticulating all forms of collective behavior” (Oxhorn, 1995, p. 65). This was clearly depicted in the statistics reflecting political activity throughout the Popular Unity period and the military regime. Union activity was radically diminished throughout the reform process in Chile, in contrast to reforms taking place in other Latin American countries, such as Argentina where labor unions shaped the privatization process in the telecommunications sector (Petrazzini, 1995).

The composition of union activity during the Allende period was the highest it had been since the early 1960s, with 29% of the work force affiliated with a union, up from 11% in the early 1960s, and 18% during the Frei administration. This contrasts with the 12-15% participation during the 1980-5 period, and only 10.5% unionization of the

labor force in 1987. Yet, the actual participation in strikes perhaps demonstrates this issue more vividly. Again, the Allende period witnessed a high percentage of labor strikes, with 16% of the work force democratically participating, a jump from 4% in the early 1960s. Not surprisingly, strikes were stifled throughout the Pinochet regime, with only 0.4% participation in strikes during the 1980-5 period. Organized labor was severely weakened under the regime, a direct result of the regime's introduction of the 1978 *Plan Laboral* (Laboral Plan), which promoted the fragmentation of the labor movement, limiting union strength, and placed constraints on collective bargaining in favor of employers (Bates and Krueger, 1993; Oxhorn, 1995).

Not surprisingly, since all forms of political activity had been stifled throughout the regime, once the reform process began to take shape in the utilities sector, there was hardly any opposition. As Bates and Krueger (1993) note, any open resistance would have been considered suicidal, "for workers in state firms, transfer to the private sector was presumably less threatening" (Bates and Krueger, 1993, p. 106). Consequently, the method in which certain utilities and firms were privatized reflected this social fear as workers themselves were incorporated into the process, referred to as "capitalismo popular" (popular capitalism).

In more concrete terms, this method involved selling stock of the firm to individuals, including the workers and management of the firm itself. This simply reflected the government's commitment to reform, set in place with the *Declaración de Principios del Gobierno* (Declaration of Government Principles), a proclamation affirming "where there is private business interest the government should not be involved as a business" (McMorrow, 1999, p. 756). More specifically, there were two laws that

promoted “capitalismo popular” and paved the way for privatization. These were Law DFL 2, 758 of 1979 that offered pension incentives for employees, allowing bonuses to be paid in stock, and Law 18, 372 which allowed advanced compensation agreements, particularly in the case of ENTEL. This aspect will be highlighted throughout the privatization of the telecommunications industry.

Throughout the early years of the regime, the telecommunications sphere fell under the Ministry of National Defense, working alongside the Management Directorate on issues regarding tariffs, technical, legal and concession regulations. Although CORFO maintained majority holdings in most of the industries, shown in table 4.1, it was the Directorate that held the administrative control of the telecommunication industries since it operated within a specially created office under CORFO called “Holding de Telecomunicaciones CTC-ENTEL,” (Melo, 1998).

Table 4.1: Enterprises and banks controlled by CORFO, 1973-1980

	1970	1973	1980
Non financial enterprises	46	460	23
Banks	0	19	1
Total	46	479	24

Source: Bates and Krueger (1993), p.104.

Since one of the goals of this regime was to reduce government involvement,² CORFO was gradually stripped of its powers as a producer and promoter of economic activity.

² These policy goals involved a reduction of the public sector, minimizing government regulatory influence on the economy, and lastly, eliminating the role of the government in direct production and as a body promoting development. In this respect, the state was left to simply deal with “extreme poverty” (Valdés, 1995, p. 24).

This aspect proved to be damaging to smaller businesses in mining, agriculture, and industrial companies.

During this phase, the telecommunication sector underwent several significant adjustments, such as placing CTC under the wing of the state. In 1964 ENTEL had originated as a subsidiary of CORFO, and so there were no major changes entailed in its ownership structure. Interestingly, CTC, which had been jointly owned by the Chilean state and ITT in 1967, had remained untouched by the sweeping trends in nationalization that had taken place under the Allende government. Instead, under Allende, the *General Directorate of Electric, Gas, and Telecommunication Services* (GDEGTS) had simply taken over CTC's management and assets. It was only in 1974, after the coup, that CTC came under government control as ITT's 80% share of CTC was fully appropriated by CORFO under Law 801 (McMorrow, 1999; Melo, 1994; 1998).

At this time, there were initial attempts at reforming basic service. In these first years, the government granted licenses to smaller companies to provide basic service to rural and underserved regions. This provided CTC with some competition, considering it was supplying 90% of basic service to the population. Yet, since CTC dominated the provision of basic telephone service, and since many of these new smaller companies used CTC's network, they were eventually run out of business, essentially repeating the earlier experience of the early 1930s. Those that managed to stay afloat continued to be wrangled in lengthy legal disputes with CTC regarding revenue sharing from the network, predatory pricing and other regulatory practices the government was unable to handle, due to lack of resources and experience (Bitran and Serra, 1998). Continuing with the tradition that had marked the telecommunication industry since its inception, the

pattern of minimal regulation inevitably contributed to the inability to sort through these and other pertinent issues. This pattern, however, yielded in the next phase of privatization, with the creation of SUBTEL.

Phase II: Deregulation of the industry and the economic crises, 1976-1982

This particular phase is significant due to the implementation of the free-market principles that slowly began to take effect on the economy. This period was characterized by stabilization efforts, which witnessed the slow down of the economy in the first years of the regime, and was soon followed by a surge of continued expansion of the economy in the late 1970s, prompting many to refer to this period as the “Chilean miracle.”

Throughout the 1970s, the regulatory regime of the telecommunication sector was revealed as inefficient, with outdated technology, and weak. Telecommunication was considered fundamental to the economy, and capital was needed to update the network. The upswing that was apparently taking place in the economy was soon reflected in the regime’s actions within the realm of telecommunications, as it sought to liberalize the sector in order to attract private capital to update the sector. The process of liberalization, depicted as the strategy whereby barriers are lowered in order to enhance a free market economy with an increased role of private investments, began with the introduction of a regulatory body in order to create an inviting environment in light of the changing nature of the economy (Melo, 1994).

In 1977, the *Subsecretaría de Telecomunicaciones* (Office of the Undersecretary of Telecommunications, SUBTEL) within the Ministry of Transport and Telecommunications, was established to replace the first regulatory body, the General Directorate of Electric, Gas, and Telecommunication Services (GDEGTS), previously

created under the General Electric Services Law in 1925. GDEGTS had proven to be weak in regulating the industry, as discussed earlier in chapter three, and SUBTEL simply reflected the changing of gears in regards to the telecommunication sector. The creation of SUBTEL dealt more specifically with issues pertinent to the industry itself.

Precisely, SUBTEL was, as it continues to be, responsible for preparing policy proposals and coordinating telecommunications in the country; setting and formulating technical standards and overseeing their implementation; administering the spectrum; representing the country in international organizations and agreements; processing applications for concessions and licenses; applying administrative sanctions, and, rate regulation (www.subtel.cl). SUBTEL's mission statement details the promotion of quality service and price that contribute to the overall economic development and quality of life in Chile, in a healthy and competitive environment. Furthermore, it has also established numerous strategies to follow through with the mission, including strengthening the regulation of the sector, promoting user rights', and increasing the geographic scope and penetration of public telephony. These duties fall under the six divisions that cover certain aspects of the sector: the judicial division, promotion of competition, treasury, concessions division, technological development, and administrative division.

Although the legal restructuring was considered progress in light of previous attempts at creating a regulatory body, the issues that fall under SUBTEL's jurisdiction are purely technical in nature. In other words, compared to other regulatory structures that balance consumer and corporate interests with market demands, SUBTEL specifically deals with technical issues that facilitate competition, whereas the economic

aspects of the industry, like regulating tariffs, are dealt with by anti-monopoly tribunals. This has inevitably been conceived as a “liberal” approach towards the regulation of the sector. Perhaps more importantly, it also depicts a de-politicized structure, essentially reflecting the strength of the state and its control of telecommunication as a vital sector, evident with the actual structure of the tribunals, which fall under the scope of the state.

These tribunals, created in 1973 as a result of Law Decree 211 which classified any act tending to impede free competition as an infraction, following the neo-liberal approach, are each responsible for the promotion and protection of free competition (Bitran and Serra, 1998). They are comprised of the Comisión Preventiva (Preventative Commission), the Comisión Resolutiva (Resolution Commission), and the Fiscalía Nacional Económica (National Economic Prosecutor’s Office). Each Commission consists of five members who hold a two-year term, and the President of the Republic appoints the Prosecutor.

Briefly, the Preventative Commission identifies and proposes measures to remedy situations that may be harmful to the performance of free competition, which can be appealed to the Resolution Commission. The Resolution Commission hears cases proposed by the Preventative Commission, and holds the power to investigate these cases, impose fines, and terminate contracts. At the same time, it can also order the Prosecutor to take legal action against conduct detrimental to free competition, which can also be appealed in the Supreme Court. In turn, the Prosecutor has the power to order investigations on any monopolistic activity, it must follow through with the rulings set forth by the Resolution Commission or the Supreme Court, and is subject to restrictions

of the public sector. The weakness that surfaces, however, lies in the system's lack of autonomy. These anti-trust tribunals have affiliations with outside authorities, thereby leaving the validity of certain judgements open for question. In addition to the Commissions lack of expertise, this can create for lengthy delays and continued anti-competitive behavior (Bitran and Serra, 1998).

In line with previous attempts at regulating this sector, SUBTEL's introduction was considered progressive in intent, but due to its static nature, it left much to be desired. In other words, the nature of SUBTEL fell in line with the neo-liberal philosophy that emphasized competition as a form of regulation. The sector continued to be regulated by DFL 4 of 1959 the first regulatory body that had not yet been revoked. Yet, it was in late 1977, in a complaint against CTC's anti-competitive practices that reforms began to take shape in the sector, as the basic phone services market was pried open for other companies to enter. More importantly, this policy perhaps offered the first window of opportunity towards promoting universal access, since it removed an incumbent barrier that had severely impeded competitors to enter the market in light of the continued demand for phone lines. CTC continued to install lines in the Metropolitan and surrounding regions between 1975 and 1977, increasing from 434,000 to 466,000 (Melo, 1998). Moreover, demands for the installation of a phone line intensified, and waiting lists and waiting time grew.

The grounds for this accusation surrounded Article 17 of CTC's General Regulation that stated only the equipment managed by the company would be connected to their network, which considering their coverage and control in the area, excluded most competitors. CTC had, until then, enjoyed the exclusive rights to connect subscribers who

abided to their technical requirements, not permitting users to sell or sublet the line.

Criticism grew in regards to this practice and, in light of the increasing waiting lines, CTC was accused of controlling the situation to create the demand for its own benefit.

This monopolistic practice prompted the Preventative Commission to step in and file for the complainant, thereby opening the equipment market that had been up until that time been dominated by CTC. This decision allowed users to buy or lease equipment from other companies. Equally important was the opening of the basic services market for smaller companies to tap into certain areas of the central regions that had experienced a shortage of lines. Inevitably, CTC was required to comply with the decision to an open and competitive local services market, reflecting the spirit of the National Telecommunications Policy that was introduced in 1978.

This policy was a public declaration and served as the blueprint for the subsequent reforms to take place in 1982. This policy established the framework for a fiercely competitive system provided by private players with the aim of reducing anti-competitive behavior and practices. In other words, the state would only interfere under certain conditions. More precisely, this policy dictated obligatory interconnection technology whereby other systems could interconnect in order to create an integrated network. In order to provide service, this policy also promoted the growth of the market by granting a license to all interested parties to operate granted they complied with the technical requirements.

As a result of this policy, the Metropolitan region of Santiago later witnessed the emergence of two phone companies, *Compañía Telefónica de Manquehue* (CTM) and *Complejo Manufacturero de Equipos Telefónicos* (CMET), to operate in the higher

income areas of the nation's capital. CMET operated areas within the Metropolitan region, as well as region V and VI, while CTM operated in the Metropolitan region, an area previously controlled by CTC. In light of the changes taking place, the government prohibited CTC from further investing in those regions in order to promote the growth and success of these companies. Incidentally, these areas had also incurred a high demand from subscribers inevitably yielding high initial profits.

This policy led to strengthening the legal and regulatory environment in the telecommunications arena, despite the fact it did not have legal standing and was considered "operationally inconclusive, general principles with no specific rules" (Melo, 1994, p. 149). Regardless of these aspects, it nonetheless served as the formal legal base for the *Ley de Telecomunicaciones* (Telecommunications Law) in 1982.

The *Telecommunications Law of 1982* officially repealed the old *Electric Utilities Law*, DFL 4 of 1959, by outlining the state as responsible for both the regulation and the provision of telecommunication services and infrastructure. This law stipulated that no exclusive concessions would be given to telecommunication providers, market participants were only required to interconnect with other providers in order to obtain a license, and, though the mention of tariffs was minimal, it would be based on the principle of free-tariff setting unless otherwise indicated. This law was significant in liberalizing the market, as the barriers were slowly being dismantled now that more than one enterprise could provide service in the same geographic zone

Yet, the law did not specify the nature of the concessions, and did not elaborate on how costs would be divided in regards to the obligatory network interconnection requirement, altogether generating debate between new phone companies and CTC. From

the view of prospective investors, this law embodied shady areas that left them unable to project returns.

Economic reforms had illustrated measurable success in the late 1970s, and the restructuring of the telecommunications sector also reflected this optimism. In fact, the early 1980s were considered the high point of the regime whereby the economic reforms that were implemented by the Chicago Boys were generating projected results.³ This sentiment was echoed in Pinochet's address in September of 1980, stating his proposed objectives for the future as the following:

...to create a million new jobs, build 900,000 homes, enable one Chilean in every seven to own a car, one in every five to watch his own television, and *one in every seven to install a telephone* (emphasis added, Valdés, 1995, p.35).

This was an optimistic projection considering there were only 5.4 telephones per 100 inhabitants in 1980, the majority of which was concentrated in the Metropolitan region of Santiago and Region V. This was evident since only 3.7 percent of the total population had a telephone in 1983. In fact, compared to fellow nations, Chile had the fifth highest telephone penetration rate, after Colombia (4.4%), Brazil (4.65%), Venezuela (6.2%), and Argentina (7.7%), while Ecuador (3.0%), Bolivia (2.3%) and Peru (1.8%) had much lower rates (Stehmann, 1995).

Abundant foreign loans had given Chile the illusion of growth. Adhering to the free-market philosophy, Chileans were encouraged to borrow billions since the private sector would recycle these dollars into other investments. As Collins and Lear (1995)

³ Although economic reforms were hailed for their success, there was also a social cost attached to the process, as the period of 1975-1981 witnessed an increasing unemployment rate, which averaged 18% (three times the average during the 1960s), the impoverishment of social sectors, extreme poverty, and growing income inequality. These reforms also contributed to the de-industrialization of Chile, since industrial production declined 11% between 1973-1983 (Oxhorn, 1995, p.69-73).

note, most of the borrowed capital was being *invested* on consumer goods, like Mercedes Benzes, rather than machinery or other equipment that could have increased Chile's economic output. Essentially, "the belief prevailed that a foreign exchange crisis was impossible because the debt was mainly private and thus would be efficiently used" (Collins and Lear, 1995, p.63).

So, when the 1982 debt crisis severely cramped the international economy, it also marked a change in gears in the regime's reform plans. Although the early 1980s had indicated the forthcoming international recession, Chile's economists had adopted the monetarist "do nothing" policy. In other words, their actions simply reflected their belief that the market would automatically readjust itself. The financial crisis peaked in early 1983, as the recession caused the Chilean government to contract the economy, cutting expenditures, and to assume the debts of private banks in order to avoid the collapse of the nation's financial system. In fact, the contraction severely damaged Chilean exports, as the copper prices fell from 99¢ (U.S.) per pound in 1980 to 67¢ in 1982, the number of bankruptcies tripled, and the unemployment rate hit a high of 30 percent (Valdés, 1995, p.28). Not surprisingly, this crisis abruptly ended the naïve phase of the regime, and unveiled the economic policies as existing within a larger economic system and vulnerable to the international recession, contrary to the belief they would go unaffected. De Castro, the leading Chicago economist who had spearheaded numerous reforms, stepped down, marking the symbolic end to this era.

Phase III: Privatization of the telecommunication sector, 1982-1989

Despite the turbulence experienced from the debt crisis, privatization efforts swung into full motion in 1982 with the sale of *Compañía Nacional de Teléfonos* (CNT)

and *Compañía de Teléfonos de Coyhaique* (COY), operating in regions X and XI, respectively. CORFO, who had been holding the interests, sold the shares of these two regional phone companies in a public bidding to VTR, Chile's long established international telex operator owned by five foreign companies. This precipitated the fourth round of privatization of traditional large state-owned firms the government had previously objected to divesting in the early 1970s, and placing them back into the hands of private actors. This round encountered some controversy since the firms being considered for privatization had been, up to that point, property of the state and had proven to be profitable and well managed. Nevertheless, this round was considered one of the largest privatization rounds in terms of monetary value. Initially, the goal for this second wave was projected as entailing the gradual privatization of 23 firms. By the end of 1988, however, this list had expanded to include 33 firms, including the two major telecommunication companies, CTC and ENTEL, and Telex-Chile. Moreover, legal challenges towards privatization resulted in slight discrepancies from the initial goals set by the government (Table 4.2).

Table 4.2: Goals and results of the privatization of public enterprises, 1985-9

Firm	Goals of privatization (%)				
	Sept. 1985	Dec. 1986	Dec. 1987	Sept. 1988	Mar. 1989
CTC	30	51	100	100	100
ENTEL	30	30	51	75	100
TELEX	49	100	100	100	100

Firm	Actual Privatization (%)			
	Dec. 1986	Dec. 1987	Sept. 1988	Mar. 1989
CTC	11	25	75	86
ENTEL	30	33	51	72
TELEX	100	100	100	100

Source: Bates and Krueger (1993), p.109.

In April 1985, the government took the first symbolic step to testing the process of privatization in telecommunications, selling only 0.04% of CTC's shares (Melo, 1998). Though the government had considered breaking CTC into regional companies prior to privatization, such as AT&T's breakup into "baby bell" monopolies, this idea was soon abandoned. The rationale for abandoning such a plan was that investors would not be interested in a fragmented company. In a similar fashion, CORFO also began to sell limited amounts of its stake of ENTEL. CORFO held 99.97 percent of the company, and agreed to sell 30 percent of the company over a span of 5 years. Altogether, the principal buyers of both these companies consisted of employees and management, in accordance to the laws that had been implemented in the late 1970s (Table 4.3).

Table 4.3: Methods of Privatization and Buyers of Major Telecommunication Companies, 1985-89

<i>Enterprise</i>	<i>Year of initial Privatization</i>	<i>Method of Privatization</i>	<i>First Buyers</i>
CTC	1985	<ul style="list-style-type: none"> • Stock market • Direct sale to workers • Auction 	<ul style="list-style-type: none"> • Various Investors, Pension funds • Public sector employees • Foreign Investor

ENTEL	1986 investors,	• Stock market	• Various
		• Direct sale to workers	pension funds • Own workers, Chilean military
		• Expropriation settlement*	• Small investors
TELEX-Chile	1986	• Auction	• Foreign investor

* In 1987, a law was passed to settle the claims of farm owners whose land had been expropriated during the Allende administration. *Source:* Galal et al. (1994), p.190-191.

In 1987, CORFO opened its doors and invited international bids for a stake of 30 percent of CTC under two conditions, first, the bidder had to commit to an ownership of 45 percent, and the second, the bidder had to purchase more than 10 million “B” shares of CTC, shares held by minority shareholders. The two interested parties were *Corporación Bond* and *Telefónica de España*. The Australian investor, Alan Bond, outbid Telefónica, and acquired the share in 1988. This proved controversial since CORFO had proceeded with the transfer despite private shareholders challenging CTC’s approval of Bond’s acquisition of 10,440,204 B shares, ultimately giving him a majority on the board. In the end, the courts rejected the proposed claim, finding CORFO’s action to proceed with the transfer as legal. Bond then continued to purchase additional shares, obtaining a 50.1 percent of CTC’s stock. To conform to Chilean legislation, which states that no shareholder can hold more than 45 percent of total capital stock, Corporación Bond had to reduce its share.

In 1990, Telefónica de España acquired Bond’s 49 percent share of CTC for US\$392 million, adding to the 20 percent share it had already acquired of ENTEL in 1989. In the case of ENTEL, Law 3500 had specifically restructured the pension system to make it private, enabling employees the option of buying shares of ENTEL. Not

surprisingly, the majority of its shares were sold to employees, none of which could hold more than 5 percent.

So, when Telefónica purchased its stake of ENTEL, the Preventative Commission stepped in and ruled Telefónica's position as detrimental to competition in the long distance market since ENTEL was the dominant provider, and ruled it could only have holdings in one company. Telefónica challenged this complaint, claiming its share did not grant them a controlling interest in ENTEL, moreover, it was the behavior of the company in the marketplace that was important, and not necessarily their equity structure. Regardless, in 1993, the Supreme Court ruled Telefónica sell one of its interests, consequently prompting them to sell its share in ENTEL.

This phase also witnessed additional changes in the legal framework of the telecommunications sector. In 1987, DFL 1 was introduced, which amended the Law of 1982, and focused on three issues that had been previously left unanswered or not very well defined. These consisted of procedures for setting monopoly tariffs, service obligations for public telephone companies, and subscriber financing of new investment.

According to Chilean legislation, tariffs are settled only under monopolistic conditions. Under this new amendment, the Prosecutor was granted the power to oversee the setting of tariffs in the industry. It had the authority to examine the situation and decide whether a service was being offered under monopoly conditions, and to set the tariff accordingly.

A tariff would be fixed only under two conditions. It must be a public telecommunication service, (local, long-distance, or international), and it excluded new technologies such as cellular phones, leased lines, and intermediate services. Second, the

specific market had to be qualified as unfair by the Resolution Commission, thereby bringing the issue forth to the Prosecutor. Should the government have to set the tariff, it would be based on incremental costs and be reviewed every 5 years. Other services would have the rates set by the market. This particular section was significant in specifying conditions and procedures regarding tariffs, considering the Law of 1982 made minimal mention of them, and when it did, it simply mentioned that monopoly services could prompt the state to intervene and set the tariff.

Secondly, this new amendment also obligated concessionaires to provide services to meet the needs of the community in urban areas within two years of a request.

Although there was a 10 year transition period before this was to come into effect, it would drastically reduced the waiting period that was as long as 8 to 9 years in the early 1980s (Stehmann, 1995). Lastly, telephone companies were given the option of charging subscribers a fee, which covered the average investment cost per line, and in turn, they would be given shares of the company. This framework, which continues to regulate the industry today, has provided some direction for companies in the provision of services.

The restructuring of the legal framework, which had successfully liberalized the sector for the subsequent privatization of CTC and ENTEL, has altogether created a new environment for potential growth. Furthermore, the emergence of technological advancements has also unveiled a window of opportunity for operators to provide services at lower cost, such as the multi-carrier system introduced by SUBTEL, and the cellular telephone.

Briefly, in 1989 SUBTEL announced its plan to incorporate a multi-carrier system in the long distance market, reducing ENTEL's dominance, while making the long-

distance market more attractive to foreign investors. Essentially, this technology was based on the principle of enabling equal access to numerous operators to satellite and local networks and applied into a market considered to hold great growth potential. The potential of the long-distance market lies in the lower fixed costs of network installation compared to that of a local network. Inevitably, this sparked debate that even caused division in the anti-trust tribunals. The debate involved CTC's use of this multicarrier system that granted its entrance into the long-distance market. There were concerns that CTC would reap the benefits of operating in both local services and long distance. In particular, smaller companies and ENTEL raised the issue that CTC could use its local network "bottleneck" infrastructure to prevent equal access to the network.

The Preventative Commission dealt with this case first and concluded that in order to establish free competition, it was essential for basic service operators to be excluded from the long distance market, even if they adopted separate subsidiaries for each service. The Resolution Commission, however, ruled in favor of CTC's complaint, deciding that CTC be allowed to enter the market. According to this Commission, the regulatory structure was strong and vigilant enough to control any anti-competitive behavior that may take place. Yet as Bitran and Serra (1998) note, even the judicial authority is not equipped, nor familiar with the bargaining process and for the conflicts involving technological or economic issues. In fact, anti-trust agencies are hesitant to apply preventative measures, such as sanctions. Subsequently, these firms have, and continue to acquire, "significant political and social leverage" (948).

Furthermore, in the determination to provide and protect competition, the government has mistaken its "pro-market stance with condoning abuses of market

power...a result of its dual role as promoter of economic growth and economic regulator” (Bitran and Serra, 1998, p.960).

In sum, by buying its workers and staff through traditional and popular capitalism, the privatization process avoided any potential roadblocks. In so doing, this method successfully won the approval of their workers, by incorporating them into the process and making them accountable for the success of the company. Moreover, since there was no free press or politicking allowed, goals and procedures were easily implemented. Despite claims of the Chilean “miracle,” it proved to be more of an illusion as Chile was also incurred debt as a result of the free-market policies of the Chicago Boys. Furthermore, public enterprises were sold at minimal prices, providing a ‘quick fix’ to boost the government’s finances, “in the need to offer the private sector an attractive deal” (Bitran and Serra, 1998, p.962).

Despite the illusions, the structure of the market of a market was created such that universal service could be an opportunity for major operators in the 1990s marked by the liberalization of the marketplace, and changes to the regulatory framework.

In the case of Chile, and Latin America in general, the concept of universal service has gained increasing importance in the region in light of the disparity that exists not only within the region of major cities, like Santiago, but equally important, between the regions of Chile. As the discussion in previous chapters has illustrated, the concept of universal service was never an obligation in the history of Chilean telecommunication development. In fact, Chile has only recently adopted the expressions of providing *universal access* in the last decade with its redemocratization, and has proposed *universal service* as a long-term goal, a concept construed as inherent to the process of deregulation

**Stage II:
Post-privatization, redemocratization
and the goal of universal access
(1990-1999)**

and privatization. The goals and proposals framing universal service as an opportunity are discussed in the next chapter.

The transition to a political democracy, with the democratically elected government of Patricio Aylwin in 1990, marked the end of the repressive 17- year military regime, a period that also witnessed the end of the privatization process in most sectors and the return of a politicized state and society. This aspect became evident with the amendment of certain social and labor policies to reflect the changing principles of the new government. For instance, the 1978 *Plan Laboral* was changed so that the restoration of unions, workers rights and working conditions, among other reinstatements, once again became possible (Mesa-Lago, 2000). With the re-democratization of Chilean society, the state began to actively participate in the formalization of goals towards universal service and universal access in the telecommunications sector. This chapter proposes to briefly review the legal and technological developments that have affected the telecommunication market structure in the 1990s, and assess their implication to the goal of universal access in Chile. A discussion of the programs implemented towards fostering universal access in telephony, as well as the Internet, will follow.

Briefly, the changing political, and subsequent economic environment, have proven to be attractive conditions for investors, as Chile has witnessed an increasing number of foreign investments since 1990. Investments in the transportation and communication sector have steadily increased from \$2.4 million in 1990, to more than \$69 million in 1998 (INE, 1999).

In light of these changes, this period is also marked by an increasing number of operators emerging into the telecommunication market to compete in both new and traditional telephone services. The competition that marked this sector was the result of

both legal and technological developments that have created “liberal” conditions, enabling entrants to tap into previously unfeasible markets. For instance, the amendment to the Law of 1982 continued to lift entry barriers, opening the market in what has been referred to as perhaps the most liberal telecommunication regime in the world (Stehmann, 1995).

After the privatization of the main players in the late 1980s, the liberalization of the industry in the 1990s witnessed the participation of foreign investors in the sector. This is due to the fact Chilean policy imposes no restrictions on foreign ownership, evident with the entrance of the American South Western Bell that has become one of the major players within the telecommunications market.

As a result of new technology and lax regulation, the Chilean telecommunication sector has also witnessed an increasing trend towards vertical integration, which has allowed new entrants to compete with the more established players in the traditional services market, while at the same enabling dominant players to tap into new markets and services.

Altogether, these changes can be conceived as initiating a framework whereby the division between communities and regions throughout Chile can be diminished, since the largest city and nation’s capital, Santiago has a teledensity of 28.11, while the rest of the country has a teledensity of 15.15. An estimated 30 percent of the Chilean population is concentrated in the densely populated Metropolitan region of Santiago, the economic hub of the country the majority of which are business customers. Approximately 85% of the population live in major city centres throughout Chile (www.ctc.cl/). The rest of the population is scattered throughout the nation, whereby numerous rural communities

barely have an infrastructure to connect onto the national network. The low penetration rates in the peripheral regions, then, indicate an unsaturated market with immense potential for public infrastructure. This pattern is not exclusive to Chile. In fact, neighboring nations in the Southern Cone also reveal a higher teledensity in its major cities compared to the rest of the country

Table 5.1: Teledensity figures in the Southern Cone (thousands), 1998

	Teledensity Largest City	Teledensity (rest of country)
Argentina	25.29	13.32
Chile	28.11	15.15
Brazil	16.47	8.74
Uruguay	34.70	18.30

(Source: *ITU Yearbook of Statistics 1989-1998*, 2000)

The polarization in teledensities that has characterized the flow of information in Chile has prompted the democratic state to implement a program towards developing public telephone networks in the peripheral regions of Chile, fostering the development of universal access throughout the country. This program has been in effect since 1995, with the mission to continue until every region and community has at least one public payphone. Universal service, thus, has become a long-term goal in the sector.

Post-privatization and the Regulatory Regime, 1990-1999

By the early 1990s, the majority of the telecommunications industry players had been privatized, either by the selling of stocks to employees or through a private investor. Of particular significance, this period also witnessed the birth of various subsidiaries from the dominant players, with joint ventures amongst competing players, and newcomers, altogether sparking competition in both the local and long-distance telephone markets. The legal structure that allowed for this development was the revision to the

Telecommunication Law in 1994, which stipulated competition between the private operators in *all* the segments of the market.

Ley 19,302, an amendment to the *Telecommunication Law of 1982*, was incorporated in March 1994 and designed to continue liberalizing the sector by lifting entry barriers, while promoting fair competition. Specifically, this law enabled other players to enter the long distance market. This essentially saw the entrance of local service operators, like CTC, into the long-distance market and vice-versa. Additionally, decree 95 also granted CTC, who had previously been forced to use ENTEL's system in order to provide long-distance services, the rights to bypass ENTEL's access charges and high tariffs. This decree, then, enabled CTC to establish its own fees, essentially increasing charges on line rental fees and subsequently undermining ENTEL's dominance in the long-distance market.

Furthermore, this law enhanced the direct distance dialing (DDD) service that had been introduced earlier in 1980. This amendment now enabled the customer to enter a three-digit code and choose their preferred carrier prior to making the call, or by pre-subscribing to a particular carrier. The larger underlying aim of this modification was the elimination of cross-subsidization practices that industry monopolies commonly practiced in the late 1970s.

Technological developments continued to generate new services and new markets for competition, with the introduction of a "Calling Party Pays" system in the wireless mobile services, which, not surprisingly, generated debate. This time, CTC initially argued against this feature due to the fact it would establish wireless mobile services as a closer substitute to the fixed telephony, not an unfounded concern in light of the

increasing number of cellular users in Chile. Chile has a relatively high percentage of cellular subscribers, as 24 percent of all telephone subscribers are cellular users.

Although this is not as high as other upper middle income countries, it falls within range of Argentina and Brazil (Table 5.2).

Table 5.2: Cellular Subscribers in the Southern Cone (thousands), 1998

	Cellular Subscribers (per 100 inhabitants)	Cellular Subscribers as % of total telephone subscribers
Argentina	7.81	27.8
Chile	6.50	24.0
Brazil	4.68	28.0
Uruguay	5.96	19.2

(Source: *ITU Yearbook of Statistics 1989-1998*, 2000)

In sum, while the regulatory framework was becoming more liberal in scope, the monopolies that had become entrenched in the basic services and long distance market were slowly being challenged. In creating a competitive environment whereby licenses are non-exclusive in nature, mandatory interconnection requirements were obligatory for all operators entering the market, and cross-subsidizing practices reduced, it becomes difficult for a market monopoly to sustain itself. Instead, the problem that has plagued the sector has been the setting of prices and a firm's rate of return. The issue stems from the fact the Ministry has separated prices from the firm's actual cost, which brings forth the problem of how to come to an agreement on the actual cost that is accrued by a firm.

Initially, with CTC, local service rates were metered and consisted of a monthly fixed charge and a variable charge that varied according to "peak" and "off peak" periods, such that a firm would attain a pre-established cost rate of return. In this way, tariffs were based on marginal costs. The problem, however, remains that local prices

have increased substantially over the years, and the consumer has not partaken in any of the gains CTC has acquired. It becomes evident that this issue stems from the fact there is no standardized methodology in place for calculating costs, which has only magnified the regulator's difficulty in obtaining a firm's cost data. In other words, since the cost of a firm depends on customer density and traffic per line, regulators would require actual data from the firms in order to establish rates.

In the end, the lack of transparency (the unavailability of information on behalf of firms) has prevented price reductions in basic service, emphasizing SUBTEL's weak status as a regulator. On the other hand, prices have been drastically reduced in the services market where competition has emerged, such as the long distance market. With the multi-carrier system sparking competition into the long-distance service arena, rates are set according to each carrier, and are not fixed, which has resulted in dramatic price wars that have benefited the consumer.

Vertical Integration and Mobile Telephony

Although the monopoly markets that had long characterized the telecommunication sector are slowly being challenged with the lax regulatory framework and by new entrants, the regulatory regime is enabling entrenched companies to tap into other, lucrative segments of the communications market. By 1995, CTC had entered the long-distance services market and in 1998, CTC had attained more than 30 percent of domestic long-distance and 20 percent of the international long-distance market, equivalent to ENTEL's share. In fact, the legal promotion towards fair competition was facilitated by the technological advancements that characterized the telecommunication market. Chile's modern infrastructure began to take shape in 1986, and by 1994, the full

digitization of switches were completed, only second in the world after New Zealand, and ahead of neighboring countries in the Southern Cone (see table 5.3, appendix).

According to Coloma and Herrera (1990), there are financial, legal and technological implications involved in the decision to integrate into another realm of services. The regulatory regime implemented over the years has provided an inviting environment for potential operators. Yet, they have also been plagued with multiple legal disputes, in light of the increasing trend towards vertical integration. Technological advancements have facilitated the provision of services in other markets while lowering costs, as the number of operators competing in the long-distance markets attests (see table 5.4, appendix). Although vertical integration can be defined simply as the process whereby components of an industry's production process are owned by one company, in the realm of the telecommunication market, this form of integration involves the crossing over into other products and services, strengthening a hold within the overall sector. CTC is the most illustrative case of vertical integration in Chile's telecommunications sector, changing its name in 1995 to *Compañía de Telecomunicaciones de Chile*, in order to reflect its growth.

Both CTC and ENTEL have created subsidiaries to tap into the various telecommunication services markets, including the cellular market in the form of *CTC-Móviles* and *ENTELPCS*. Cellular service began operations in Chile in the early 1980s with CIDCOM. In 1981, the government granted a mobile and cellular telephone concession to *Telefonia Movil CIDCOM*, a private company comprised of both local and North American investors. Using International Mobile Tracking System technology (IMTS), CIDCOM originally based itself in Santiago and extended into Valparaíso,

Concepción, and the highway between Santiago and Rancagua. CIDCOM offered wireless service to rural areas within its service area that line networks could not reach.

In 1988, the government granted both CIDCOM and CTC a concession to serve the more densely populated areas in the Metropolitan region and Region V. Over the years, the mobile services market witnessed an increasing number of players and potential revenues, with 18, 500 cellular lines in service and more than 35,000 subscribers on the two systems by 1991, and shows no signs of relenting.

Overall in Chile, there has been a dramatic increase in subscribers between 1991 and 1999, jumping from 35,000 to 2,261,000, respectively. Upon further examination of the regional statistics, the increasing momentum the mobile services are gaining becomes more evident, such as in Region I, II and XII which have leapt from having no subscribers in 1991 to providing 66,290, 78,010, and, 15,176 subscribers, respectively, with cellular service in 1999. As expected, the Metropolitan region saw the biggest increase from 23,737 in 1991 to 1,316,302 in 1999. Altogether, Chile's cellular telephone penetration surged from 6.5 cellular phones per 100 inhabitants in 1998 to 15 in 1999 (see table 5.5, next page).

In 1996, CTC joined its subsidiary, *CTC- Móviles*, with *VTR – Celular* to create *Startel*, becoming the only cellular company with a nationwide license. By 1997, CTC bought VTR's share and gained 99.9% control of the company. Although various other players have also entered this market, including ENTEL, Bell South, and Chilesat (see table 5.4, appendix), CTC has continued to increase its profile and services, and remained the major player in the industry.

Table 5.5: Number of Cellular Subscribers per Region, 1991-1999

Region	1991	1992	1993	1994	1995
I Region, Iquique	0	0	409	1,648	4,166
II Region, Antofagasta	0	0	494	1,759	4,396
III Region, Copiapó	0	0	144	1,026	894
IV Region, La Serena	421	973	1,267	1,659	3,294
V Region, Valparaíso	5,393	8,771	11,925	16,205	24,095
VI Region, Rancagua	1,159	2,269	4,049	4,334	5,778
VII Region, Talca	1,234	2,638	3,779	4,493	6,080
VIII Region, Concepción	1,842	4,381	6,468	6,849	10,034
IX Region, Temuco	761	2,008	3,262	4,135	4,422
X Region, Puerto Montt	1,589	4,000	5,971	6,792	11,107
XI Region, Coyhaique	0	0	0	0	0
XII Region, Punta Arenas	0	0	190	311	494
Metropolitan Region, Santiago	23,737	39,398	47,228	66,480	122,554
Total	36,136	64,438	85,168	115,691	197,314

Telephone Penetration **0.3** **0.5** **0.6** **0.8** **1.4**

(Source: www.subtel.cl/)

Table 5.5: Number of Cellular Subscribers per Region, 1991-1999 (cont'd)

Region	1996	1997	1998	1999
I Region, Iquique	6,405	8,705	20,228	66,290
II Region, Antofagasta	5,515	10,298	24,284	78,010
III Region, Copiapó	1,977	2,522	8,538	19,932
IV Region, La Serena	6,205	9,303	23,614	63,124
V Region, Valparaíso	39,787	47,203	97,620	219,957
VI Region, Rancagua	12,668	13,199	29,340	66,229
VII Region, Talca	9,537	12,678	31,317	89,192
VIII Region, Concepción	20,282	21,458	64,652	163,310
IX Region, Temuco	10,648	9,101	21,647	78,534
X Region, Puerto Montt	15,761	20,572	40,581	76,926
XI Region, Coyhaique	176	750	1,510	7,705
XII Region, Punta Arenas	871	2,451	5,752	15,176
Metropolitan Region, Santiago	189,542	251,500	964,248	1,316,302
Total	319,474	409,740	964,248	2,260,687

Telephone Penetration

2.2

2.8

6.5

15

(Source: www.subtel.cl/)

The mobile services sector, however, offers a different market environment from the basic telephone sector. Characterized by a duopoly, the government only grants two concessions for two companies to operate per geographic zones (regions) at any one time in the mobile market, although the prices are determined by the companies themselves. The structure of the mobile market, then, grants smaller companies the opportunity to gain a share of the market alongside other dominant players, for an extended period. This regulatory structure has attracted many into providing cellular service, since it relieves both acting players of any pressure to compete against new incoming players and guarantees revenues, considering they are established as one of the main players in the geographic zone (Coloma and Herrera, 1990, p.61).

Although this represents a cost-effective means for tapping into a market, anti-competitive practices have also surfaced as a result of vertical integration. These particular risks emerged prior to CTC's merger with VTR, whereby CTC was bundling services from an unregulated company, *CTC- Móviles* and cross-subsidizing it with revenue from its basic telephone company. Specifically, CTC was offering a "superphone," which entailed offering cellular subscribers to have their calls from their fixed line forwarded to their cellular phone. Bell South issued a complaint to the Resolution Commission regarding this practice, and CTC was fined US\$ 142, 500. At the same time, the Commission also recommended that subsidiary companies be organized as stock companies, in order to allow for the overlapping in markets (Bitran and Serra, 1998). Throughout many of the legal, and technological, developments that have taken place, CTC has continually challenged the barriers of the regulatory framework and

managed to maintain its dominant position as one of Chile's prominent telecommunication firms.

In the last decade, CTC extended into numerous markets through strategic alliances with various industries, to become Chile's principal telecommunication and information systems provider. In 1997, CTC became the only operator to have coverage throughout most of the regions in Chile. Additionally, the increasing presence of the Internet since the late 1980s has also prompted CTC to form strategic alliances with REUNA (Red Universitaria Nacional—Chilean Universities Network) to provide national Internet services, as well as with SONDA S.A., the principal information systems provider in Chile.

In addition to CTC's dominant presence in the telecommunication industry, and its contribution towards the implementation of public telephone networks throughout the various unsaturated regions of Chile, CTC has also acquired a stake of Chile's cable television market. Altogether, CTC has come to epitomize the process of vertical integration. This becomes evident upon examining CTC's share of the telecommunication sector, as Table 5.6 clearly illustrates.

Table 5.6: Overview of CTC's Market share in the Telecommunication Sector

<i>Sector</i>	<i>Number of Participants</i>	<i>CTC Market Share as of Dec. 1998</i>
Basic Telephony	8	89% of lines in service
Long Distance		
National Traffic	10	2,647 million minutes
International Traffic	10	594.0 million minutes
Mobile Telephony	4	58% of lines
Public Telephone	7	33% of public telephones

Cable Television	2	43% of subscribers
Internet Access (ISPs)	26	35% of residential service 50% of commercial service
Data Transmission	6	46% of revenues

(Source: www.ctc.cl/)

CTC, then, has taken advantage of new technological developments that have emerged in the marketplace, extending into other services while forming significant alliances with key players from other aspects of the industry. This pattern is sure to continue in light of SUBTEL's plans to introduce three new technologies into the telecommunication sector by the year 2001: fixed wireless technology, local multi-point services, and third-generation wireless technology.

The first consists of fixed wireless telephony, which would allow basic service operators to provide urban and rural regions in Chile with faster installation, larger bandwidth and at lower investment costs. Local multi-point distribution service is also currently being reviewed, as is third-generation wireless technology that will potentially replace analog and digital mobile telephony. Altogether, these developments will undoubtedly continue to expand traditional services in the Chilean marketplace. More importantly, it will also provide a larger window of opportunity towards achieving the long-term goal of universal service, an aspect that has blossomed under the democratic administrations.

Universal Access and the Telecommunications Development Fund

Historically, CTC's dominant monopoly position in the provision of basic services created a disparity throughout Chile, which saw the concentration of basic

services in the Metropolitan region, and the surrounding Regions V, VI and VII that include the major cities of Valparaíso and Concepción, due to the fact these regions were, and continue to be, more densely populated than outlying regions, and prove more profitable in the long run. This discrepancy is evident upon examining the number of lines per Region. The Metropolitan region (1,774,407), Region V (342,248) and Region VIII (254,254) have the highest number of telephone lines per region, compared to Region III (31,217) and Region XI (15, 099), as Table 5.7 illustrates on the following page.

This prompted the government to take an active role in satisfying the need for telecommunication infrastructure in the outlying regions. Therefore, the *Telecommunication Law* was amended in 1994 to make universal service an explicit long- term goal.

In this amendment, the government established the *Chilean Telecommunication Development Fund*, which provides subsidies to companies committed to developing telecommunication networks in rural and urban sectors scattered throughout Chile in the form of public telephone networks. Working with an initial fund that is the equivalent to approximately US\$ 3 million, SUBTEL identifies isolated areas in need of basic telephone service and solicits bids from service providers to offer services in such areas. The provider that bids the lowest subsidy is then awarded the contract for developing a public telephone network in that area. The success of this program can be depicted in financial terms as follows:

The fund has spent only \$2 million (US dollars, in 1997)—half of its budget—and drawn private investments of \$40 million, which will pay for the installation of 1,285 rural public telephones at an average cost of \$1,634 a telephone. Compare that with the bad old pre-competition days of the 1980s, when the government

Table 5.7: Telephone Lines in Service per Region, 1991-1999

Region	1991	1992	1993	1994	1995
I Region, Iquique	25,863	40,969	46,938	47,772	53,427
II Region, Antofagasta	34,729	51,470	50,394	51,116	56,976
III Region, Copiapó	13,677	16,546	20,020	14,966	22,267
IV Region, La Serena	23,912	34,060	40,561	47,673	49,307
V Region, Valparaíso	136,280	160,902	177,165	188,663	222,846
VI Region, Rancagua	26,186	37,315	44,062	46,669	56,033
VII Region, Talca	31,927	36,493	43,409	44,928	49,535
VIII Region, Concepción	88,695	97,326	116,954	123,896	144,051
IX Region, Temuco	28,835	31,241	36,340	40,044	46,967
X Region, Puerto Montt	33,780	40,393	45,223	47,623	67,213
XI Region, Coyhaique	3,942	4,226	4,602	4,872	6,401
XII Region, Punta Arenas	15,913	21,734	22,619	23,105	25,445
Metropolitan Region, Santiago	593,042	711,201	872,398	953,066	1,090,695
Total	1,056,781	1,283,876	1,520,685	1,634,393	1,891,163

Telephone Penetration

7.9

9.4

11

11.6

13.2

(Source: www.subtel.cl/)

Table 5.7: Telephone Lines in Service per Region, 1991-1999 (cont'd)

Region	1996	1997	1998	1999
I Region, Iquique	63,969	71,313	79,132	73,585
II Region, Antofagasta	68,219	77,260	89,107	98,329
III Region, Copiapó	26,661	29,598	33,417	31,217
IV Region, La Serena	59,037	67,010	77,115	75,942
V Region, Valparaíso	266,820	301,333	341,691	342,248
VI Region, Rancagua	67,090	77,055	87,577	89,925
VII Region, Talca	59,310	67,617	77,379	83,896
VIII Region, Concepción	172,476	222,537	252,760	254,254
IX Region, Temuco	56,235	77,711	92,114	95,662
X Region, Puerto Montt	80,476	112,436	129,439	137,990
XI Region, Coyhaique	7,664	11,455	14,198	15,099
XII Region, Punta Arenas	30,466	33,185	36,851	36,245
Metropolitan Region, Santiago	1,305,919	1,544,776	1,735,918	1,774,407
Total	2,264,342	2,693,286	3,046,698	3,108,799
Telephone Penetration	15.6	18.3	20.4	20.6

(Source: www.subtel.cl/)

paid \$6 million to the incumbents to install a mere 300 rural payphones, at an average cost of \$20,000 a piece (Wellenius in *The Economist*, 1997).

Although certain companies have catered specifically to these regions over the years, like Compañía de Coyhaique (COY) and Compañía Nacional de Teléfonos (CNT) that have been operating in regions X and XI, respectively, due primarily to CTC's absence in the regions, the teledensities in these regions still indicates the need to implement infrastructure.

The first round of bids was initiated in 1995, inviting private investors to participate in the process. Applications indicated a high degree of interest in the development of public telephone networks in rural areas in the first three bidding rounds (Table 5.8, next page). Between 1995-1997, this program proceeded to implement numerous projects in hundreds of communities and has provided thousands access to public telephones (see appendix, table 5.9-5.9.2). This is outlined in more detail in tables 5.10-5.10.2 (appendix), which also highlights CTC's participation in this program. In fact, of the five bidding contests that have been held between 1995-2000 CTC has participated in all five contests, and was awarded 17 of the 27 available projects in 1999 alone. Not surprisingly, the number of public telephones increased by the thousands between 1995 and 1998, from 10, 000 to more than 13, 000 (see table 5.11, next page).

The use of the Internet has also increased substantially over the years, gaining more profile in light of CTC's alliances with information industry players, as well as other joint ventures between telephone operators and industry firms like Motorola (*Telecom Chile*), and Qualcomm (*Chilesat*). In fact, by 1999, approximately 7 percent of the Chilean population, 1.2 million, were using the Internet, and estimates project that

Table 5.8: Number of Initial Applications for implementing Public Telephone Service in Rural and Urban regions, 1995-1997

Region	Rural / Urban 1995		Rural/ Urban 1996		Rural/ Urban 1997	
I	41	6	90	23	16	5
II	24	96	18	64	23	36
III	44	29	33	75	24	23
IV	254	29	179	66	233	66
V	258	160	262	183	242	144
VI	370	111	423	115	196	67
VII	336	42	547	166	252	110
VIII	257	93	657	229	370	165
IX	274	83	461	116	420	155
X	449	146	339	98	254	63
XI	30	48	79	83	47	3
XII	12	1	66	25	36	26
R.M.	80	193	349	444	186	357
Total	2,429	1,037	3,503	1,687	2,299	1,220

(Source: www.subtel.cl/)

this number will double by the end of the year 2000 with more than two million Internet users, representing 15 percent of the population. In 2000, Chile had the highest penetration rate in Latin America, with 5.6 Internet users per 100 inhabitants, a 10 percent penetration rate, while the rest of Latin America has 2.7 users per 100 inhabitants, representing 3 percent (www.emol.cl/). It is also important to note, in spite of the high penetration rates, 56% of computers are primarily used for business, while only 31.3% account for personal use. Nevertheless, this technology is becoming increasingly important as a means of connecting to the larger global communications map, an aspect the Chilean government has taken note of through its investments in efforts to foster universal access with Internet technology.

The government's commitment to fostering universal access and universal service was reinforced by one of the recommendations of the Brunner Commission report of 1994. This report depicted the Chilean school system as in dire need of modernization, prompting the government's decision to implement Internet technology in the Chilean educational system. This served as the platform upon which the *Enlaces Project* was launched.

Initially, *Enlaces* began as a pilot project in 1992, involving twelve schools in Santiago and was based upon the curriculum of industrialized countries that incorporated information technology into the classrooms. Once in full swing, this project received funding assistance from the Ministry of Education, with a loan from the World Bank, and has proceeded to web together an increasing number of schools in the Metropolitan region of Santiago (Rosenblut, 1998).

Table 5.1.1: Telecommunication Statistics in Chile (thousands), 1989-1998

	Main telephone lines / 100 inhabitants	Public Telephones	Waiting list for main lines	Estimated Internet users
1989	4.98	13.4	284	--
1990	6.57	17.0	310	--
1991	7.93	17.0	241	--
1992	9.48	19.0	314	5.0
1993	11.04	18.2	198	10.0
1994	11.34	9.9	117	20.0
1995	12.74	10.9	52	50.0
1996	14.92	11.3	72	100.0
1997	16.10	12.4	97	150.0
1998	18.57	13.5	58	250.0

(Source: *ITU Yearbook of Statistics 1989-1998, 2000*)

Specifically, this project connects schools onto a wide area network (WAN) through a computer, which enables student access to various databases and numerous software programs. At first, there was only one computer per school. Within the year, there were three. In 1995, more than thirty universities from across the country began to participate in this project by providing technical assistance through RATE (*Red Universitaria de Asistencia Técnica en Informática Educativa*) (www.enlaces.cl/). In 1998, there were 1,745 schools incorporated onto the web, 1,267 primary schools, and 478 secondary schools, with the intention to extend to rural schools. By 1999, the number of schools connected to the Internet increased to 6,500 schools.

At the same time, however, this project began to incur high costs. With locally metered access to the Internet, certain schools were faced with exorbitant telephone bills, which has rendered continued access onto the Internet more difficult. In light of this, CTC has become an active member in introducing information systems throughout primary and secondary schools in Santiago by installing Internet lines, access facilities, and free Internet traffic for all schools throughout Chile by 2003.

It has become evident that the government has taken an active approach to developing a nation that is “information rich”. In effect, the telecommunications sector is increasingly becoming an essential industry contributing towards the growth of the national economy. CTC, alone, has increased its market value from US\$ 741 million in 1990 to US\$ 4, 739 million in 1998, and in terms of market contribution, CTC provided 11% of the 3.4% GDP growth in 1999 (www.ctc.cl/). By implementing projects and funds geared towards the information economy, the state has shifted gears and is beginning to actively participate in efforts designed to improve the sector.

The Chilean telecommunication market has come to reflect the changing nature of the state, with the implementation of universal service and universal access policies. Although the market is highly dominated by CTC and its strategic alliances, the government has taken advantage of its strength as a major industry player, and taken an active approach to implementing modern infrastructure to underserved sectors.

Conclusion

The development of communication systems in Latin America, in general, evolved from private roots. Universal service, then, was never been part of this hemisphere's development goals. It was only in the last decade that the concept of universal service emerged as a pertinent issue, an explicit goal of the privatization process. The introduction of competition as an accompaniment to the processes of privatization and liberalization called into question the public monopoly structure, and its guise of universal service. The re-democratization of Chilean society in the 1990s, however, provided the appropriate climate to formalize universal service policies.

Chile's experience can be described as a model of efficiency. Specifically, Chile's path was marked by a free-market model implemented by a body of technocrats, under the authoritarian Pinochet regime. These political and economic conditions created a police state and subsequently a repressive society, facilitating the privatization process. The Pinochet regime expedited the process of privatization with the assistance of a leading body of economists, and a dramatic application of the neo-liberal model onto all sectors of society. In these terms, the regime established the *groundwork* for the implementation and fostering of the long-term goal of universal service under a democratic administration.

Reforms in Chile altogether created a static regulatory body, SUBTEL, which dealt strictly with the technical issues of the sector. The juggling of consumer and corporate interests with the demands of the market was a responsibility that fell within the jurisdiction of the Resolutive and Preventative Commissions, acting under the command of the government. Although the regulatory structure is static in nature, it is

nevertheless conceived as liberal in approach, as foreign investors benefit from its lax regulations.

With the return to a democracy, a democratic communication system was formalized. Working together with the state, CTC, and other telecommunication operators, SUBTEL has fostered universal access by connecting the outlying regions with public telephone networks to the wired city of Santiago. At the same time, the liberalization of the market and deregulation of the long-distance market has proceeded to diminish the gap that exists between those living in Santiago and those in its periphery. The goal of universal access has become feasible in light of the structure and policies implemented along the way.

In the 1990s universal service in basic telephony has been recognized as an *opportunity* for both operators and consumers alike. For major operators, most notably CTC, the provision of basic infrastructure in underserved areas provides an extension of their empires, since they subsequently gain rights to serve that market. While at the same time, disconnected citizens scattered throughout the nation are provided with a means to wiring to the larger communication map.

With the introduction of the Internet, and as Chile's Internet population rapidly increases, the *Enlaces* project has emerged as a means to incorporate this technology into schools, and further the goal of universal access. Yet, in contrast to the *Telecommunication Fund*, which has proceeded to implement public telephone networks in the various districts and regions throughout the country, the *Enlaces* project has only focused on connecting those schools primarily in the Metropolitan region of Santiago. Not surprisingly, Internet use and technology is concentrated in the wired city of

Santiago. Although the mission of the *Enlaces* project is to further extend its scope to include other schools in the periphery of Santiago and eventually, schools from across the country, the issue of disconnected citizens remains. The pattern of “haves” and “have-nots” continues with Internet technology, calling for further research into the goal and progress of universal *access* and *service* with Internet technology in Chile.

Appendices

Diagram 1:

Table 5.3: Percentage of Digital Main lines for the Southern Cone, 1986-1998

<i>Country</i>	<i>1986</i>	<i>1987</i>	<i>1988</i>	<i>1989</i>	<i>1990</i>	<i>1991</i>	<i>1992</i>	<i>1993</i>	<i>1994</i>
Chile	36.8	36.0	37.9	51.1	64.0	70.6	76.0	99.8	100.0
Uruguay	2.0	17.0	33.0	53.0	58.0	63.0	--	--	--
Brazil	0.9	2.8	6.0	10.3	13.7	16.0	--	--	--
Argentina	0	0	9.1	11.1	13.8	17.0	--	--	--

(Source: *ITU Yearbook of Statistics 1989-1998*, 2000; Molano, 1997)

Table 5.4: Major Telecommunication Operators in Chile

	Basic Services	National Long distance	International Long distance	Cellular Service
Compañía Nacional de Teléfonos, Telefónica del Sur S.A.	✓			
BellSouth Chile, S.A.			✓	✓
Chilesat, S.A.		✓	✓	✓
Compañía Telefónica Manquehue S.A.	✓	✓	✓	
Complejo Manufacturero de Equipos Telefónicos	✓	✓	✓	
Telefónica de Coyhaique S.A.	✓	✓	✓	
VTR Telecomunicaciones S.A.		✓	✓	✓*
CTC	✓	✓	✓	✓*
ENTEL	✓	✓	✓	✓

* Indicates the merging of the two subsidiaries to form *Starnet*

Table 5.9: Overview of the Total Results by region for Public Telephone Service, 1995

Region	Projects	Number of Communities	Inhabitants	Assigned Subsidy (Ch. \$)	# in operation
I	--	--	--	--	--
II	3	10	1,515	48,151,626	10
III	3	7	1,300	58,015,276	7
IV	6	240	67,209	447,877,333	240
V	4	70	27,253	62,141,068	70
VI	2	10	2,525	19,304,949	10
VII	3	76	28,013	72,044,703	76
VIII	2	19	5,961	0	19
IX	5	107	40,818	0	71
X	6	151	54,112	16,955,055	4
XI	6	13	1,834	82,628,824	13
XII	--	--	--	--	--
R.M.	2	23	9,527	28,672,969	23
Total	42	726	240,067	835,791,803	543

(Source: www.subtel.cl/)

Table 5.9.1: Overview of the Total Results by region for Public Telephone Service, 1996

Region	Projects	Number of Communities	Inhabitants	Assigned Subsidy (Ch. \$)	# in operation
I	--	--	--	--	--
II	--	--	--	--	--
III	1	43	9,321	370,900,544	43
IV	--	--	--	--	--
V	1	119	57,161	0	--
VI	1	180	103,192	0	--
VII	3	313	144,853	0	203
VIII	4	361	135,593	0	28
IX	4	290	104,576	0	14
X	3	185	59,541	0	--
XI	--	--	--	0	--
XII	--	--	--	--	--
R.M.	1	141	1,476,560	--	--
Total	18	1,632	761,893	370,900,544	288

(Source: www.subtel.cl/)

Table 5.9.2: Overview of the Total Results by region for Public Telephone Service, 1997

Region	Projects	Number of Communities	Inhabitants	Assigned Subsidy (Ch. \$)	# in operation
I	3	25	4,730	611,206,121	19
II	2	9	1,602	172,000,000	8
III	--	--	--	--	--
IV	1	44	11,500	120,000,000	--
V	3	88	29,563	60,000,000	13
VI	4	227	122,727	230,000,000	62
VII	4	369	147,864	125,000,000	--
VIII	8	309	87,453	222,027,789	--
IX	7	264	77,773	451,279,145	55
X	9	165	47,006	400,019,675	56
XI	2	2	3,452	40,948,289	2
XII	3	18	2,705	295,801,621	18
R.M.	5	265	133,040	0	91
Total	51	1,785	669,415	2,728,282,640	324

(Source: www.subtel.cl/)

Table 5.10: Results of the First Round of Bids by city for Public Telephone Service, 1995

Name of Project	Region	Number of communities	Company
Mejillones	II	2	CTC
Antofagasta	II	6	CTC
San Pedro de Atacama	II	2	CTC
Chañeral	III	1	CTC
Caldera	III	1	CTC
Copiapó	III	5	CTC
Coquimbo	IV	56	CTC
Tongoy	IV	1	CTC
Monte Patria	IV	3	CTC
Punitaqui	IV	98	CTC
Illapel	IV	75	CTC
Papudo	IV&V	25	CTC
Limache	V	29	CTC
Colina	R.M.	12	CTC
Casablanca	V	8	CTC
San Antonio	V, VI&R.M.	27	CTC
Hualene	VI & VII	33	CTC
Curepto	VII	49	CTC
Quirihue	VII & VIII	19	CTC
Angol	VII, IX	24	CTC
Traiguén	IX	40	CTC
Curacautín	IX	10	CTC
Loncoche	IX, X	44	CTC
Valdivia	IX, X	44	CTC
La Unión	X	39	CTC
Osorno	X	56	CTC
Futaleufú	X	3	CTC

Table 5.10: Results of the First Round of Bids by city for Public Telephone Service, 1995 (cont'd)

Name of Project	Region	Number of communities	Company
Palena	X	1	CTC
Quellon	XI	1	CTC
Puerto Cisnes	XI	1	CTC
Coyhaique	XI	4	CTC
Puerto Aysen	XI	5	CTC
Puerto Ibañez	XI	1	CTC
Chile Chico	XI	1	CTC

(Source: www.subtel.cl/)

Table 5.10.1: Results of the First Round of Bids by city for Public Telephone Service, 1996

Name of Project	Region	Number of communities	Company
Vallenar	III	43	CTC
Los Andes	V	119	CTC
Buín	R.M.	141	CTC
Rancagua	VI	180	CTC
Talca	VII	110	CTR
Linares	VII	144	CTR
Cauquenes	VII	59	CTR
Bulnes	VIII	213	CTC
Coronel	VIII	29	CTR
Los Angeles	VIII	82	CTR
Lebu	VIII	37	CTR
Angol	IX	38	CTR
Victoria	IX	46	CTR
Traiguén	IX	67	CTR
Temuco	IX	139	CTR
Puerto Montt	X	42	CTR
Castro	X	102	CTR
Quellón	X	41	CTR

(Source: www.subtel.cl/)

Table 5.10.2: Results of the Second* Round of Bids by city for Public Telephone Service, September 1997

Name of Project	Region	Number of communities	Company
Pisagua	I	17	MEGACOM
Tocopilla	II	2	CTC
Diego de Almagro	III	2	CTC
Ovalle	IV	46	CTC
La Serena	IV	19	GENEVA
Quillota	V	27	CTC
La Ligua	V	23	CTC
Cañete	VIII	24	CTR
Nacimiento	VIII	15	CTR
Los Laureles	IX	24	GENEVA
Loncoche	IX	20	GVT
La Union	X	12	GENEVA
Entrelagos	X	16	GENEVA
Osorno	X	48	GENEVA
Panguipulli	X	23	GVT
Paillaco	X	20	GVT
Valdivia	X	20	GENEVA
Puyuhuapi	XI	1	CTC
Puerto Natales	XIII	2	CTC

* The second round of bidding used the leftover funds from the first round.

(Source: www.subtel.cl/)

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