UNIVERSITY OF CHILE
INSTITUTE OF INTERNATIONAL STUDIES
UNIVERSITY OF BERN
WORLD TRADE INSTITUTE

International Trade Commitments as Agents of Reform: The case of mobile telecommunications in Chile

Francisco Prieto[1] Stalin Martínez[2]

Santiago of Chile
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[1] WTO Chair Chile.
[2] WTO Chair Chile. Master in International Strategy and Trade Policy, University of Chile.

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INTERNATIONAL TRADE COMMITMENTS AS AGENTS OF REFORM: THE CASE OF MOBILE TELECOMMUNICATIONS IN CHILE[3]

ABSTRACT

The paper analyzes the evolution of mobile telecommunications in Chile in the period 1982-2012, in a context of radical changes in the macroeconomic management of the country. In particular, the deep changes in its trade and foreign investment policies. Such policies have been marked by a rather unique shift towards a comprehensive privatization program, a deep regulatory reform accompanied by a progressive opening of its trade and investment policies. These changes had a profound effect on the country´s resource allocation as well as in its international competitiveness, relative prices, and income distribution patterns. Based on historical records and recent data available for the sector, the study presents a detailed analysis of each of these topics, and how they have been influenced directly by a number of unilateral reforms and, indirectly, through the implementation of commitments derived from the subscription of multilateral and bilateral trade and cooperation agreements.

Since many of the regulatory and institutional reforms have preceded the adoption of international commitments it is interesting to examine to what extent these agreements have led the reform process or their role has been more directly associated with the mooring of these changes in a context of increased transparency and legal certainty.

In addition, the study also examines the following questions: to what extent these domestic reforms complemented with the implementation of international trade and cooperation commitments have resulted in a truly competitive environment for the industry, generating adequate conditions for an effective attraction of investment and technology, improving its regulatory and institutional framework for a rapidly changing service industry? Have all of these changes favored the provision of improved quality services, lower rates and a substantial enlargement of the territorial and social coverage of mobile voice and data services?

After an introductory section, the second chapter provides a chronological description of the evolution of mobile telecommunications regulatory framework in Chile . The third section describes some of the key

[3] This paper is result of a research project conducted at the WTO Chair of the University of Chile in the framework of the SECO partnership agreement between the University of Bern`s World Trade Institute and the University of Chile.

international preferential as well as multilateral trade and cooperation commitments Chile has subscribed and their impact over the sector. The fourth chapter presents a set of indicators showing the impact of these reforms on industrial competition, service quality, the evolution of voice and data service rates as well as its territorial and social coverage. This exercise relies basically on domestic and international data, whenever available, from various sources. Finally, the last chapter presents the main conclusions of the study and identifies some of the unfinished business in the Chilean telecom reform agenda as well as the main challenges facing this industry.

KEY WORDS

Mobile telecommunications, preferential trade agreements, economic and legal reform, competitiveness and price.

A. BACKGROUND

In the current global economy, trade in services has become a fundamental part of world trade. As its global demand growths, services had led the diversification of the exportable basket of various countries. This expansion has allowed an increase in people`s welfare under a market economy (Méndez, 2010). In this scenario, telecommunications have played an important role, even described as the starting point or a stepping stone for development (Mora, 2009). Due to its high dynamism, some jurist are aware that law will never be able, regarding regulations, to anticipate its innovation (Ovalle, 2007). Within the industry, in the late years mobile telecommunications have shown the high innovation levels (ITU, 2007). With its evolution, changes in consumption, social and industrial patterns have arise. Now-a-days, mobile telecommunications are subject of multiple and various expectative (Méndez, 2010). For politicians, it`s an opportunity to enhance development with universal access; for productive sectors, its perceived as a sector with almost unlimited demand; for social welfare, its assume to be the mean in which new patterns of relationships and data generation will arise.

Meanwhile it is necessary to mention that the current state of mobile telecommunications in Chile is the result of a series of profound changes in her regulatory and institutional framework. These changes have had a remarkable impact on the industry, being part of a long process of reform, carried out basically in two stages: the first, in line with the unilateral adoption of a comprehensive and coherent free market policy, and the second derives from the country´s negotiated liberalization, which starts at the multilateral level and then progressed at a preferential level, through free trade and cooperation agreements in various forums (Prieto et al, 2010).

As result of this reform process, changes in the industry’s competition environment mobile telecommunication, as well the territorial/social coverage and quality and tariffs services are observed. According to IESE, Chile ranks second, in the region, in the number of cell phones per habitants (Wayerless, 2012); OECD stats shows that regarding mobile broadband growth, Chile ranks fourth, with a variation of 138%, from 7.3 connections per 100 habitants in 2010 to 17.4 connections in 2011 (La Tercera, 2012); the addition of virtual mobile operators will enhance competition in the market, as new business models will compete with traditional operators (La Nación, 2012). Due to these conditions, the World Economic Forum has situated Chile first in terms of competitiveness, were "exist a strong relation between mobile telecommunications and competitiveness" (Diario Financiero, 2012).

Regarding quality and price, lately the sector has experienced negative changes. The industry`s customers complaints grew in 2012 to 38.800 compare

to 23.670 the year before. According to a study released by the Undersecretariat of Telecommunications (SUBTEL) and the National Consumer Service (SERNAC) the complaint index grew from 1.1 to 1.6, becoming the segment-industry with the most number of complaints in Chile. When analyzing the service price, OECD shows that mobile phone cost are the highest amongst the countries that compose the organization.

Literature has not properly covered this phenomenon, just considering it a complementary subject when analyzing broad telecommunications. Therefore, question such as: To what extent Chilean openness reform impacted the mobile telecommunication sector? or In which stage of the reform the mobile telecommunications sector was most impacted?

B. THE CASE OF CHILE: POLICIES, NORMS AND INSTITUTIONAL REFORMS

After the military coup of 1973, the Chilean State experimented a profound reform process, which looked up to a change in the trade policy model towards a liberal, free market economy. Therefore, tariffs and nontariff barriers were suppressed granting similarly favorable conditions for national and foreign investment, liberalizing exchange and financial markets, amongst other policies were implemented.

The purpose of this new policy was to establish a market economy, with hegemonic presence of the private sector, as the new development strategy included a reduction of the State intervention and more power to free market forces (DIRECON, 2009, p.58). In this policy framework regulatory and institutional reforms, that anticipates commitments to be negotiated are implemented in various sectors, including telecommunications -and mobile telecom. These domestic reforms later will help the implementation of international commitments. The most significant changes in this process are:

Tariffs policy: In 1974 the average tariff was almost 100%, with 57 different tariff rates ranging from 0% to 220%. Extra tariffs and NTB were enforced for various goods, including deposits, prohibitions and quotas. For 1979, the applied tariff was uniform and set to 10%. Also, all nontariff barriers were eliminated.

Opt for a uniform tariff in addition to a tariff reduction ".. .in correspondence with the neo-liberal conception of avoid any selectivity in the instruments of economic policy" results "that charges at border for the purchase of goods from abroad..."will become"...the same for final or intermediate products, raw materials or capital goods." (DIRECON, 2010, p.59). This of course creates a scenario that is positive for the industry, allowing in relation to the Chilean mobile telecommunications sector even though it did not exist to date, that I will be formed around telecommunications in general a new ecosystem of business, which at the time of birth the mobile industry was already in conditions more mature and positive in terms of trade and investment.

Investment policy:

Investment policy from DL600 that establishes national treatment to foreign investment, that would prevent discrimination in favor of the national capital, It´s was thought this mechanism as a stimulus to capital inflows. Then also entered force Chapter XIX of the compendium of standards of international changes of the Central Bank of Chile, "... which allowed the conversion of

external debt and the privatization of several enterprises in the mid-1980s..." (Ibídem) including most of the telecom operators that would then initiate mobile operations.

It was thus that Chilean regulator oriented by the neoliberal perspective unilaterally undergoes the process of reforms of first and second generation, producing changes in the normative and institutional structure that positively impact across sectors, including mobile telecommunications favoring his birth and early development as it will see later.

Between "finals 1970's and early 1980 starts in Chile the privatization process of the telecommunications companies that were in the hands of the State, granting various concessions to new private companies from 1980 onwards for the provision of telecommunications services."

In 1974, was dictated the ***Declaration of principles of the Government of Chile*** which entered into force the principle of subsidiarity of the State This faculty in which the State "... only directly assumes functions that individuals or intermediate companies are not able to fulfill adequately or also because of its strategic importance, requires the State to take charge of them."
In 1977, It was dictated Decree Law N ° 1762, concerning the creation within the Ministry of transport and telecommunications of the ***Sub-Secretary of telecommunications***, as a technical body through which would exert its powers in the matter.
In 1978 the Ministry of transport and telecommunications adopted the "***Policy National Telecommunications***" (from Supreme Decree No. 423), has policies of long-term, with rules that govern to the Ministry and services, institutions and companies related with the State. The exploitation of telecommunications services are available to third parties other than the State, through concessions and permits granted by him.
In ***1982***, (October 02) It was dictated Law N°18.168, that creates the ***Telecommunications General Law***. This norm provides a clear "…independent treatment and organic to the telecommunications…"
The Constitution and the law "...provide finally the principles and standards for the
development and operation of telecommunications services by particulars, to who recognizes and guarantees the right to develop any economic activity
which is not contrary to morality, national security or public order, respecting the rules governing such activity, without the State can arbitrarily discriminate in economic matters", and thus the companies can to install and exploit of telecommunications services through concessions, permits and licenses granted by the sectorial agency.

In 1985 (04 March) is published Supreme Decree No. 119 of 1984, which established the ***General Regulations of Telecommunications***. Subsequent amendments to the Telecommunications Act have tacitly repealed part of this Regulation.

Source: Authors elaboration from Ovalle, José (2001).

In recent years Chile has been among the "... most advanced countries of Latin America in the field of telecommunications, and may display a highly competitive market with a wide range of services and technologies that are available in most developed countries, which has given it to Chile the designation of being a true "laboratory" of telecommunications, currently of great interest and presence of important foreign investors." (Ovalle, 2001).

C. INTERNATIONAL COMMITMENTS

C.1. World Trade Organization: Multilateral Standard.

As it is well known, the General Agreement on trade in services was the first instrument that would address this field from a multilateral perspective. It provides an intense work program covering a wide range of topics. During the Uruguay Round (1986-1994), shrank for the first time commitments with respect to telecommunications services, primarily in respect of services of added value. Then in the negotiations subsequent, the members treated basic telecommunications services, as such mobile telecommunications. Since then the members have consolidated new standards and also contracted new commitments, either bilateral or unilaterally.

As well as negotiations aimed at further liberalization of international trade in services began in 2000 (WTO, 2002). By 2012, a total of 108 WTO members have made commitments to facilitate trade in telecommunication services, within them Chile. This includes the establishment of new telecommunications companies, foreign direct investment and cross-border transmission of telecommunications services. Of these, 99 members have pledged to expand competition in the basic telecommunications services (e.g., fixed and mobile telephony, real-time data transmission, and the sale of the leased circuit capacity). In addition, 82 members of the WTO have pledged to meet the regulatory principles set out in the "Reference Paper", a guide to the reform of the sector that largely reflects "best practices", instrument which, initially, was not signed by Chile, but then consents to its normativeness.

In relation to its commitments WTO, in part it standout: offer of free competition in national market for all basic telecommunications services, including mobile services, and services by satellite. In the Chile case, It has not taken commitments on the provision of basic telecommunications, in mobile services. Revised your offer It observe that It undertook to comply with the regulatory principles of Reference Paper.

The telecommunications sector has a double function: is an independent economic activity sector; and it is a fundamental means of realization of other economic activities (for example, electronic monetary transfers). Annex of telecommunications It stipulate that Governments must ensure that foreign service providers have access to networks of public telecommunications, without discrimination (WTO, 2002).

Chile is among the countries that have adopted liberalization measures on its own initiative before and after the latest multilateral negotiations, As

country aspires, It is taken into account at the time to celebrate of commitments on market access for services in new processes of negotiation (WTO, 2002).

MULTILATERAL STANDARD
Chile

Mode 1	**Mode 2**
International Call	International Roaming
Mode 3	**Mode 4**
DFI	Mobility Intra-firm

Multilateral special regime about telecomunications:

Observed in the schedules of commitments agreed in 1994 and 1997

Disciplines on Market Access: *Levels of commitments*
Mode 1: Full Commitment.
Mode 2: Not Commitment.
Mode 3: Conditional upon obtaining a permit given by Subtel.
Mode 4: Not Commitment, except as provided in the horizontal commitments section. Mobility intra-enterprise (with commercial presence) of specialized personnel whose two previous years has played in the organization.

Disciplines on National Treatment: *Levels of commitments*
Mode 1: Full Commitment.
Mode 2: Not Commitment.
Mode 3: Conditional upon obtaining a permit given by Subtel.

Mode 4: Not Commitment, except as provided in the horizontal commitments section. Mobility intra-enterprise (with commercial presence) of specialized personnel whose two previous years has played in the organization.

Commitments in Telecommunications Sector:

1) On Basic Telecommunications Services (1997): only domestic and international long-distance basic telecommunications services: (a) Telephone services, (b) Packet-switched data transmission services, (c) Circuit-switched data transmission services, (d) Telex services, (e) Telegraph services, (f) Facsimile services, (g) Private leased circuit services, h) Domestic and international satellite services and satellite links/capacity. - Mobile/cellular services: personal communications services, paging services, mobile data transmission services; y

2) On Valued-added Telecommunications services (1994): On-line information retrieval Electronic mail Facsimile Data processing.

Observed in Annex telecommunications:

When applying article III of the agreement, each Member shall ensure that it is available to the public the relevant information on conditions affecting access to networks and public telecommunications transport services and the use of the same, including: rates and other terms and conditions of service; specifications of technical interfaces with such networks and services; information on bodies responsible for the preparation and adoption of standards affecting such access and use; requirements for connection of terminal equipment or other equipment; and notification, registration or licensing requirements, if any.

Observed in Reference Paper:

Institutional Disciplines

1) Pro-competition:

-Prevention of anti-competitive practices, be maintained appropriate measures in order to prevent those suppliers which, individually or together, are important suppliers, can to use or continue using anti-competitive practices.

-Safeguards: anti-competitive practices is understood: to) engaging in anti-competitive cross-subsidization of; (b) using information obtained from competitors with anti-competitive results; and (c) not put timely to available from other service providers technical information about essential facilities and commercially relevant information which they need to provide services.

2) Interconnection: Users of a provider can communicate with users of another supplier and to access services provided by another provider, regarding which specific commitments are undertaken. The interconnection with a major supplier will be ensured at any technically feasible point in the network. This interconnection will facilitate: **a)** On terms and conditions (including standards and specifications) and rates which are not discriminatory, and it will of a quality no less favorable than that provided for its own like services or for like services of non-affiliated service suppliers or for its subsidiaries or other affiliates; b) In a timely fashion, on terms, conditions (including standards and specifications) and cost-oriented rates that are transparent, reasonable, taking into account the economic viability, and are sufficiently unbundled so that the supplier need not pay for components or facilities of the network that does not require for the provision of the service; and **c)** Upon request, at points in addition to points of net termination points offered to the majority of users, subject to charges that reflect the cost of construction of necessary additional facilities; **d)** Publicity and transparency, the procedures applicable for interconnection shall be accessible to the public. As well as the agreements of interconnection or a reference interconnection offer, carried out by a major supplier.

3) Universal service: countries can to unilaterally define the kind of universal service obligation which wish to maintain. This does not means that can to go contrary to competition. It is important provided that regulations are administered in a transparent and non-discriminatory manner and with neutrality in competition and not more burdensome than necessary for the kind of universal service defined by the Member.

4) Criteria for Licensing.

5) Independence of the regulatory authority: the regulatory body shall be independent of any supplier of basic telecommunications services, and will not respond to it. The decisions of the regulatory body and the procedures applied will be impartial with respect to all participants in the market.

6) Allocation and use of scarce resources: objectivity, opportunity, transparency and non-discrimination are the criteria for allocation and use of scarce resources, as frequencies and numbers.

Source: Authors elaboration from WTO, 2012.

C.2. Free Trade Agreements: Bilateral Standard

As it is well known, under this modality of treaty Chile has led to an important part of their trade relations, more specifically through free trade agreements (FTA). In they there is chapters that address the theme of telecommunications and especially mobiles, central theme of this study, reason by which It is shows then the standard consolidated bilaterally by Chile and in the table n ° 1 it is reference to each of the agreements.

C.2.1. Disciplines on Trade of Services

There are some treaties that provide broader coverage that others international treaties. There are cases where it is reproduces the reference paper. But in general provides rules on Market Access and National Treatment.

In issues of access to and use of networks and public telecommunications services, in general remained the level of flexibility to apply regulatory required standards to safeguard the responsibilities of suppliers of public telecommunications services and protect the integrity of the telecommunications network.

The chapters contain rules on dominant providers, interconnection, licensing, allocation of scarce resources and universal services, which aim to safeguard competition and incorporate concepts such as rationality and non-discrimination.

These also contain disciplines on transparency, which aim to find publicly available measures relating to access to and use of public telecommunications services.

In addition It is provided conditions for the provision of enhanced services or value-added. Also rules about monopoly and transparency among other subjects. And new issues such as: normalization, unbundling, co-location (co-location), resale, number portability, parity of dialing, interconnection, leased circuit services and others.

C.2.1.1. Institutional Disciplines

In addition to the rules on transparency, there are specific guidelines on establishment of committees and commissions to define rules in the sector. For example, Subtel and the Korean Communications Commission held "Agreement of recognition mutual for la evaluation of la conformity the equipment of telecommunications" (MRA), in order to harmonize the rules on the standardization of communications equipment.

C.2.1.2. Disciplines on Intellectual Property

Also are provided for rules covering topics related to mobile telecommunications, such as the liability of ISPs for copyright violations. These disciplines were originated on the occasion to data traffic as a new pattern of consumption in the sector, exponential phenomenon that operates by mobile broadband. These disciplines were then established in the 20.435 law (art. 85) amending the law 17.336.

C.2.1.3. Disciplines on e-commerce

There topics that are regulated, as electronic supply of services and tariffs to digital products ensuring non-discriminatory treatment between digital products. Currently in some cases the chapters are considerably outdated in this point, because the technologies have evolved very rapidly. Also is important this topic in mobile telecommunications because such as in the point about intellectual property this function it is used through of mobile broadband a new business model for the mobile industry.

C.2.2. Commitments on Trade of Goods

The trade in goods, in this case mobile devices, is essential to the performance of the sector, through them, the service is operating and demand develops their consumption patterns. For this reason States parts in The FTAs provide tariff preferences in this sense.

It is observed that those preferences are enjoyed when it comes to mobile devices operating under heading 85.17, from Customs Tariff, and description: telephones for cellular networks "mobile telephones" or for other wireless networks

This market has great dynamism in terms of prices, volumes and competition, as you will see in the next section.

D. THE CASE OF CHILE: MEASURING THE RESULTS

D.1. Market structure (Competitors and tariffs)

Brief history of subsector in Chile: from limited 450Mhz to virtual operators.

The subsector comes into operation by the initiative of Cid communications limited[4], a private equity firm, which began activities at the beginning of the 1980s. On that occasion CID was granted the concession for to operate the band of 450 MHz frequency, in the cities of Santiago and the 5th region. Later on in the decade the company was granted a concession for 850 MHz.

The full privatization process of telecommunication started in the nineties decade, allowing for the entry of new actors, who at the beginning focused their interest on the digitalization of the physical network, a process that would be completed for the whole in 1993. In that period CTC Chile whose the next enterprise to take parts in the bidding off the 850 MHz. frequency bands (late 80´s). Later, in 1991 Entel enters the mobile sector and create the first regional company with covering the cities of Santiago-Concepción area.

Later the 1.900 MHz band is bid, the one where the referred phone operators get a granting. In the case of Entel it starts operations in this strip in early 1994 by deploying and experimental network, while CTC[5] developed its mobile telephony operation in a strategic association with VTR cell by merge (1st merge of the sector). There is where Startel Celular is formed[6] and the spectrum all them had available gets concentrated. This band allowed the PCS (personal communication service) to get operational. For that moment the mobile telecommunications business model was only being developed at the voice traffic service, no SMS, nor data, however at later 1994 Entel introduced the GSM (Global System Mobile, in Spanish is Sistema Global para comunicaciones móviles) standar technology which allows clients to connect to their computers from their mobile phones and use a same telephone number to communicate in different countries.

Years later, already in 1997 arrives to the country a new competitor called Chilesat PCS and it gets the granting to operate the 1900 MHz band too. For that moment two would be the number of technologies that the PCS will use in Chile. It's about the GSM (Global System Mobile Communications) by Entel

4 It was created in 1980, had as founding partners to: Cidcomm International, Inc., a company based in California (USA), and consultant to inter-American Development Ltda., a Chilean society. Pursuant to Decree N ° 278, on December 9, 1981, from the Ministry of transport and telecommunications, receives concession to operate in the Chilean radio spectrum. Changed its company name in 1988, called CidCom S.A., then in 1994 it changed to BellSouth Cellular S.A. and a year later was named BellSouth communications S.A. [On line] <http://bit.ly/13on5zM> [Retrieved 11/006/2012].

5 In 1990 it was acquired by Telefónica Spain and renamed Telefónica CTC Chile.

6 In 1999 it turns into Amistar and in 2000 in Telefónica Móvil. In 2009 the mobile telephony operation comes to be part of the Movistar enterprise.

PCS, y CDMA (Code Division Multiple Access) by Chilesat PCS.[7] This last one changed its social reason in 1999 for SmartCom PCS, later in 2005, gets in the country the Mobile America which is acquired later and its name is changed to Claro, homonym of the other companies that are part of their network in Latino America.

For the year of 2004 the spanish society Telefónica Móviles S.A. buys the assets of BellSouth Corporation[8], by This merge the viability of the operation is consulted to the tribunal for defense of free competition who approves it[9], asking to third parties for the bidding of a part of the spectrum, concentrated as a product of the operation[10]. The acquirer of the same would be the Claro enterprise[11]. Months later Telefónica also acquires the 55% of the Telefónica Móvil of Chile to the Compañía de Telecomunicaciones de Chile S.A at that time. As it already had the 45% it turns the owner of the 100% of the subsidiary. Finally "…in july of 2007 the legal merge of Telefónica Móvil de Chile and Telefónica Móviles Chile S.A., remaining this last one as legal successor, known today by its commercial name- Movistar-"[12].

So far mobile operators with network (MON) that shared the sector at national level were Telefónica, Entel and Claro, but in 2012 two new operators got in: Nextel and Vtr[13] and besides the so called virtual mobile operators appeared[14], These last ones not only listed as new market agents, but they come to bring in a new business model, because they would not operate under their own infrastructure, but to negotiate with the operating companies to use their networks. According to Branson, Richard (Mobile Virgin's CEO) a Little time before getting into the Chilean market, indicated that "… a virtual operator is basically a company which gets in a sells relation with some of the of biggest carriers in Chile, such as Movistar, Entel, Claro and also Nextel and it buy them voice minutes, data and messages through a commercial agreement, and that information is taken and services and products are rebuild for our clients, selling under the brand "Virgin", and so we would become partners of the carrier who decides having a relation with us …"[15]

[7] La Tercera (1998) PCS en Chile: Un nuevo capítulo en telefonía personal. Mouse magazine [On line] <http://bit.ly/XbArfa> [Retrieved 01/09/2012].

[8] Comes to the Chilean market also lending mobile telephony services, such as landline and at long distance. Its mobile subsidiary focused at the beginning in enterprises and executives reaching the third place. Then it focuses on low income segments, commercializing low cost devices.

[9] Decision of the TDLC (04/01/05) Operación de concentración entre empresas: Telefónica Móviles y Bellsouth [On line] <http://bit.ly/Wjlk54> [Retrieved 15/01/2013].

[10] Bnamericas (2005) Aprueban fusión de Telefónica Móvil y BellSouth con restricciones [On line] <http://bit.ly/Zypnbs> [Retrieved 10/08/2012].

[11] Canal Ar (2012) Suspenden licitación de banda Movistar en Chile [Online] <http://bit.ly/XDsgYE> [Retrieved 29/11/2012].

[12] History of Telefónica [Online]<http://bit.ly/13on5zM> [retrieved 26/10/2012]

[13] Albarracín, Álvaro (2012) "Operadores Móviles Virtuales en Chile: ¿dinamizadores o continuadores?". Revista Virtual América Economía del 05/07/12.[Online]< http://bit.ly/J4v6Na> [Retrieved 13/12/2012]

[14] Estrategia online (2012) El Año del Despegue de los Operadores Móviles Virtuales en Chile. [Online]<http://bit.ly/rXsnSS>[retrieved 10/10/2012]

[15] Centro de Libre Competencia (2011) "Virgin pidió a Subtel licencia como operador de telefonía móvil y ya busca ejecutivos en chile" Pontificia Universidad Católica de Chile. [Online]<http://bit.ly/XZ7FKA> [retrieved 17/09/2012]

To initiate operation in the country the VMO must also ask for a granting before the sectorial regulatory agency[16], even when it does not give them frequency in the spectrum to dispose of an infrastructure to regulate under the none forced disaggregation values of mobile networks, it means that Chile by following the global trend operates"…the free negotiation of the disaggregation between operators, and leaving the regulators intervention only a last resort."[17]

This new market rises in the industry, when over the Chilean mobile telecommunications sector growing expectations are being hold[18] and changes are taken as incentives which make part of the new model promoted among themselves by the state: "…the enter into force of the fixed numerical portability and mobile, the unlocking of terminals that allows to set users free, changes in the regulations to establish a fixed-mobile convergence and the definition as public policy of the infrastructure sharing." This model has been named of"…two layers, as so it separates infrastructure from the services, breaking with the vertical integration."[19]

In its business model the VMO targets to get on specific markets or of a market niche, where they got some kind of fortitude that could be"…related to a strong brand, payment means, social, commercial or community organizations"[20] and showing offers and distinguishing plans. Under this dynamic"…the Virtual Mobile Operators represent to the Movile Operators the possibility of expanding their reach in areas where their global offer is not able to get and that eventually, can conquer part of the market from the other operators."[21]

In Europe "…markets for communities with common interests, such as Turkish or Greek immigrants has been developed; or the fans of an specific football team, such is the case of the Barcelona in "Spain" for some analysts This experiences might replicate in Chile, for example,"…with the evangelical community, the Peruvian immigrants or with some football clubs such as the one called University of Chile, or Colo Colo…"[22]

According to the international experience, "…they could cover among a

16 López, Claudio (2012) "Operadores Móviles Virtuales". Gerente General de Reddvois. [Online]<http://bit.ly/XFcCet> [retrieved 26/11/2012]

17 Sepúlveda, Cristian (2008) "La improcedencia de la desagregación forzosa para las redes móviles". Boletín de Telecomunicaciones 11/2008. Sub-secretaria de Telecomunicaciones. Santiago. Chile.

18 According to the Information Society (IS) prepared by the consulting Everis and the IESE Business School of the Universidad de Navarra. [Online]<http://bit.ly/g7FPSP >[retrieved 10/01/2013]

19 Albarracín, Álvaro (2012) "Operadores Móviles Virtuales en Chile: ¿dinamizadores o continuadores?". Revista Virtual América Economía del 05/07/12. [Online] <http://bit.ly/J4v6Na>[retrieved 18/11/12]

20 López, Claudio (2012) Los Operadores Móviles (OM) establecidos obtienen el espectro radioeléctrico, normalmente, por adjudicación o subastas de rangos de frecuencia por parte de la autoridad.[Online]<http://bit.ly/XFcCet>[Retrieved 16/11/12]

21 Ibídem

22 Estrategia online (2013) El Año del Despegue de los Operadores Móviles Virtuales en Chile [Online] <http://bit.ly/rXsnSS> [Retrieved 17/02/2013]

5% and a 15% of the market, that is to say, over USD 540 million of annual incomes"[23] The suspicion for some people in Chile is that the most immediate impact would occur through an increase in the quality of the service and, "…on the other hand, a reduction in the plans and the cost per minute"[24], where fulfilled partially due to the operators getting in the market making more aggressive offers and showing significant prepayment or pay as you go price reductions, falling from $130 per minute in 2010 to $70 nowadays a drop of almost 50% in prepayment telephony which represents the 80% of the total.[25]

It is expected that in the extent where the retail sector joins This new market, a much more strong activity will be obtained[26], because"…of all the enterprises that counts with a significant base of retail clients, ones that is allowed to access in unobstructed way, offering them various products with payment facilities, and it could get to be very attractive providing them also with telephony services."[27]

In This new market around thirty requests or applications of authorization are registered and brought before Subtel, among the applicants are: Virgin Mobile and Falabella Móvil (already operative and authorized), Gtd-Telsur, Netline, Cencosud, Walmart, Ripley, the University of Chile and Colo colo[28] and others.

From this intense dynamic which trigger the VMO and under the principle of the none forced, the MON appealed to practices aimed to stop the income of competitors that were rapidly detected by the administrative agency of the competition to the mobile telephony market and they were not penalized by the Tribunal for the free competition, but they were by Supreme Court, while the sectorial prosecutor, proposed himself from this case to establish a regulation for the area.

Related to the decision of supreme court, it was the third hall the one that by revoking the failure of the Tribunal for defense of the free competition, takes the requirement brought by the National Economic Prosecutor against the Entel, Movistar and Claro operators, because of the unjustified denial of selling facilities for the development of the so called virtual mobile operators (VMO) bidders of mobile telephony and authorized by the law to operate using the network of the established enterprises preventing them from reselling and

[23] Albarracín, Álvaro (2012) "Operadores Móviles Virtuales en Chile: ¿dinamizadores o continuadores?". Revista Virtual América Economía del 05/07/12. [Online]< http://bit.ly/J4v6Na> [Retrieved 17/08/2012]

[24] Albarracín, Álvaro (2012) "Operadores Móviles Virtuales en Chile: ¿dinamizadores o continuadores?". Revista Virtual América Economía del 05/07/12. [Online] <http://bit.ly/J4v6Na> [Retrieved 17/08/2012]

[25] Gana, María Fernanda (2012) "Subtel: un millón de personas usarán la portabilidad durante 2012". Diario La Tercera: 12/09/12. [Online]<http://bit.ly/Q2fkFl>[Retrieved 27/11/2012]

[26] Gana, Maria (2012)Subtel: un millón de personas usarán la portabilidad durante 2012. [Online]<http://bit.ly/13CIS7f> [Retrieved 12/10/2012]

[27] Estrategia online (2013) El Año del Despegue de los Operadores Móviles Virtuales en Chile [Online] <http://bit.ly/rXsnSS> [Retrieved 17/02/2013]

[28] Doniez, Adriano (2012) Chile: Son 30 las empresas que han solicitado autorización a la Subtel para operar como OMV. [Online] <http://bit.ly/GB2CcX> [Retrieved 11/08/2012]

creating artificial walls of entry to the market..[29] The penalization under the look of a Fine that cost $1.400 million of pesos (3.000 UTA) to every Enterprise and it ordered them to show in a time limit of 90 days a new facilities offer and/or resell of plans for VMOs, over the base of general guidelines, uniform, unbiased and no discriminatory[30].

About the regulation and according to the sectorial sub secretary Jorge Attom it will be about the first term of the area, which will regulate and oversee the sector, seeking to eliminate the barriers or walls of entry to the market and creating facilities for the use of the available networks. For the sectorial Minister Pedro Errázuriz This goal will be fulfilled by promoting the production of clear and no discriminatory offers.[31]

Among the worries that exists about the future regulation is the fact that it will rule the minimum content that the facilities offer should contain, in technical terms, economic, operative and commercial, and it will seek that everybody gets the same possibilities and an egalitarian treat. For that, the included prices in the offers will have to be public. Based on it, there are who points out that offering the same conditions for everyone might affect the business plans of the VMOs "it might exist a VMO that specifies that he does not want the same conditions because his business plan is restricted to some specific use or segment, or in contrast other operator might want more ample or wide conditions and also wants to pay more for that", and there are already state bodies for discriminatory treats.[32]

Related to the rising market, there also background worries existing, Bello, Pablo (2012) ex-Chief of Undersecretary of telecommunications thinks that "the problem is that the VMOs are complementary agents which orientation is essentially commercial and not focused on the development of the infrastructure …" however in front of a demand in traffic terms that for the year 2012 grew 1,4 times and it shows that in 2017 I will grow up to 9 times since 2012[33] "…is essential that we are able to keep developing the network's infrastructure and that there is more competition in different technological alternatives."[34]

[29] La nación (2011) Entel, Claro y Movistar pagarán más de $4 mil millones por impedir competencia [Online] <http://bit.ly/vZaLkV> [Retrieved 28/09/2012]

[30] Etcheberry Consultores (2011) "Telefónicas Analizan Si Fallo de la Suprema por Ingreso de OMVs Afecta Contratos". Revista Tecnología y Gestión Estratégica. 27/12/11. [Online] <http://bit.ly/YNBmON> [Retrieved 29/11/2012]

[31] Diario Financiero (2012) Subtel tendrá en enero decreto que normará negocio de OMV. [Online]<http://bit.ly/WKbvrx> [Retrieved 04/12/2012]

[32] Diario Financiero (2012)Industria preocupada por alcances de nuevo reglamento de la Subtel [Online]<http://bit.ly/ZiInZY> [Retrieved 17/12/2012]

[33] Cisco (2013) VNI Mobile Forecast Highlights, 2012 - 2017.[Online]<http://bit.ly/ybzRJZ> [Retrieved 09/11/2012]

[34] Albarracín, Álvaro (2012) "Operadores Móviles Virtuales en Chile: ¿dinamizadores o continuadores?". Revista Virtual América Economía del 05/07/12. [Online]<http://bit.ly/J4v6Na> [Retrieved 17/12/2012].

D.2. The key role of Number portability

In the mobile field, the origin of its initiative is not so clear, it emanates from the local reformers will by own motus or due to the international trends or if it was implemented in realization of the TLC with the USA which contemplates it.

For the first assumption, that is to say, that the first one who is thought emanated from the local reformer's will by own motus, laws history is appealed which understands the portability as a policy recommended by the free competition agency on may the 20th of 2003 (N°686 Resolution, of the resolute commission)[35], while the TLC along with The USA would get into effect on January the 1st of 2004.

For the second assumption, that is to say the one that assumes that the portability was the result of Chile's international trends contagion according to what Briones, Ignacio and Islas, Gonzalo said (2008) it clearly shows that the initiative came up among the OECD countries at the same time the resolute commission discussed the matter, just the way it was explained at the previous paragraph.[36]

For the last assumption, it means the one that envelops the TLC signing with the USA the starting point of Chile's portability phenomenon in front of the first argument it can be say that if in 2003 a resolution was pronounced in matter of the free competition and on it, this matter was approached, and it was in the year 2000 when the negotiations started the discussion about this same entity took place[37].

The portability on mobile telephony unlike the landline one, started simultaneously on January 16th of 2012, throughout the country, for some people it was the biggest reform in telecommunication services in Chile in the last 20 years, for the president of the republic Sebastián Piñera, it was the "…the most important revolution, since the multicarrier "[38].

According to Atelmo (2011) the poratbility can be understood as "… the ability that the client has to change from mobile telephonic service or landline provider keeping the same number. With portability, the customer becomes the owner of the number. The change you can make only a mobile to another mobile phone and fixed to another of the same feature. Measure involving all

[35] Presidential Message of History of Law N ° 20,471 that make implementing agency for number portability National Congress of Chile. p.5.

[36] Briones, Ignacio e Islas, Gonzalo (2008) Poder de Mercado en Telefonía Fija: El impacto de la comercialización conjunta. Informe preparado para VTR GlobalCom S.A.[Online] <http://bit.ly/169oWbs>[Retrieved 28/07/2012]

[37] Direcon (2012)Tratado de Libre Comercio Chile - EE.UU. [Online]<http://bit.ly/Z0jwJ0> [Retrieved 04/07/2012]

[38] SUBTEL (2012) Presidente Sebastián Piñera da inicio a la Portabilidad Móvil y resalta libertad de los usuarios. Centro de Prensa. 16/01/12. [Online]<http://bit.ly/Zh1x4y>[Retrieved 28/07/2012]

concessionaires of the local and mobile telephone public service"[39]

Before the entry into force of the general scheme of number portability, which includes fixed and mobile, they aspired to enter the Chilean market, five consortia: 1) Telcordia (Amercian company), your local partner would Adexus (integrator company of information technologies and telecommunications); 2) El Corte Inglés (Spanish company), your partner would Everis (multinational); 3) ClearTech (American Company), your partner would Chile.com; 4) Neustar (partner of Cleartech in Brazil), your alliance would with Sixbell; 5) It is comprised by Syniverse (American Company), with their partners Solint and Insape. The latter company is related to Mateo Budinich, who was geenerl manager in IBM Chile, executive president in VTR and VP in large companies (CTC).[40]

The mobile portability 2012 - 2013, showed 776,338 users, switching from their companies and keeping their numbers, such as its can see on table below:

[39] Asociación Telefonía Móvil (2011) La Portabilidad numérica. [Online] <http://bit.ly/Zh5why> [Retrieved 15/11/2012]

[40] Ferrando, Karina (2011) Cinco consorcios competirán para operar portabilidad numérica en Chile. La Tercera. [Online]<http://bit.ly/hmfjvx>[Retrieved 30/07/2012]

Mobile Portability 2012 - 2013, showed 776,338 users switching companies and keeping their numbers, see table below:

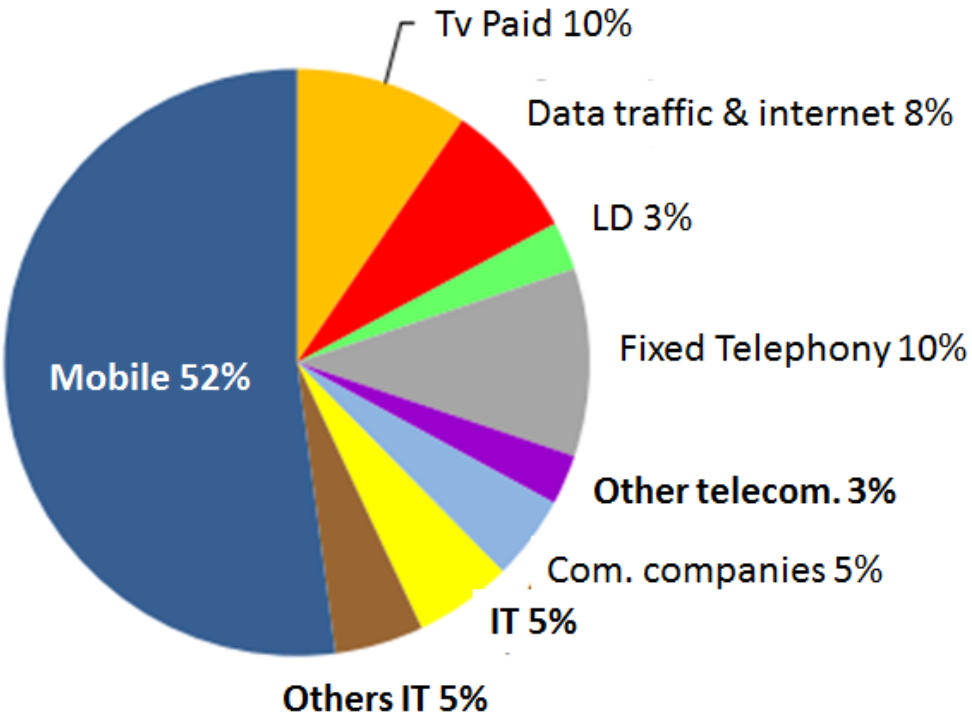
		RECEIVING									
DONORS		**Netline**	**Nextel**	**Movistar**	**Telsur**	**Mobilink**	**Claro**	**Entel**	**VTR**	**Virgin**	**TOTAL DONORS**
	Netline						3	2			5
	Nextel	1		639			581	694	27	28	1970
	Movistar	19	2698		404	6	152.147	147.919	4.783	6.725	314.701
	Telsur			39			33	57	5	1	135
	Mobilink										0
	Claro	12	2.436	79.848	286			81.233	2.625	4.032	170.472
	Entel	26	3.674	122.431	259	1	142.493		4.797	9.903	283.584
	VTR	1	25	1.373	1		563	542		99	2.604
	Virgin	21	55	1.248	1		1.010	520	22		2.877
	TOTAL RECEIVING	**80**	**8.888**	**205.578**	**951**	**7**	**296.830**	**230.967**	**12.259**	**20.788**	**776.348**
	%	0,0	1,1	26,5	0,1	0,0	38,2	29,8	1,6	2,7	100,00
	TOTAL DONORS	**5**	**1.970**	**314.701**	**135**	**0**	**170.472**	**283.584**	**2.604**	**2.877**	**776.348**
	NET	75	6.918	-109.123	816	7	126.358	-52.617	9.655	17.911	0

Source: Authors elaboration from Subtel (2013)[41]

[41] It is considered subscriber to those customers who have done traffic within the month. This is that he issued or received a ratable call (that is measurable and registration is priced, which does not necessarily imply that it is billable) between the first and last day of the month in question, both days inclusive.

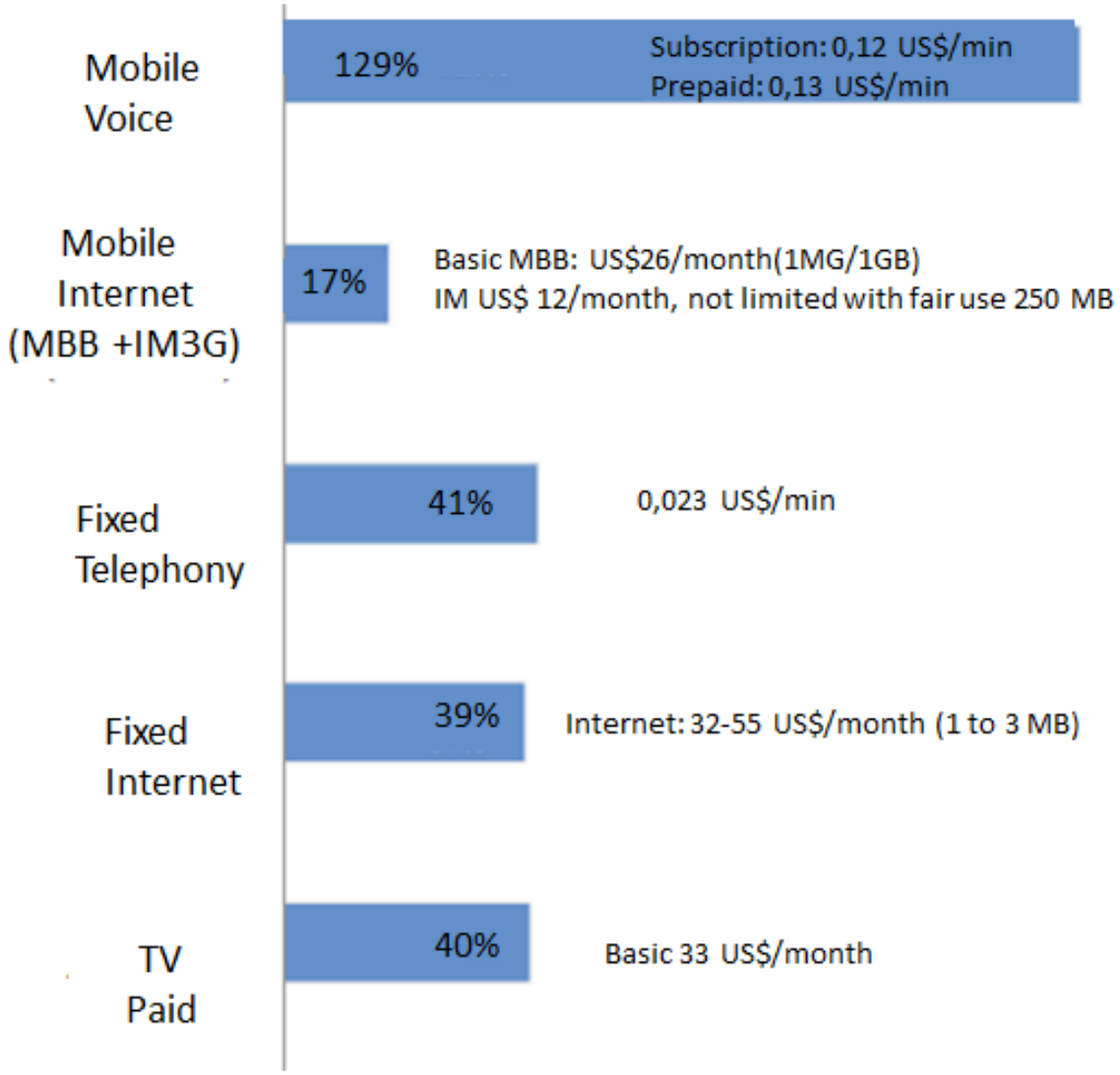
D.3. The Market Evolution: Penetration levels and tariff

D.3.1. Telecommunications Market 2011



Source: Entel (2012).

D.3.2. Tariff (2012)



Source: Entel (2012).

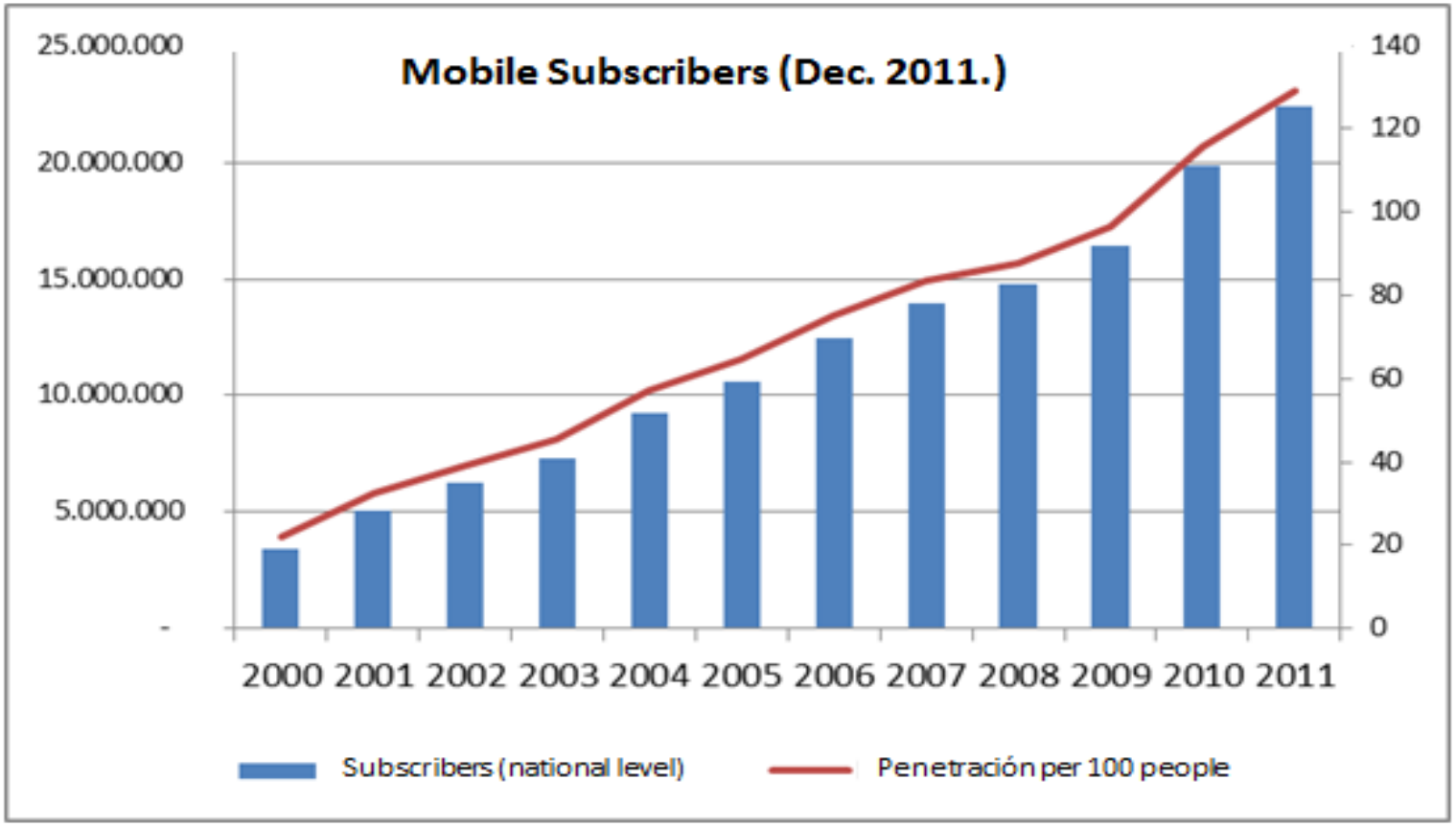
D.3.3. Mobile Subscriptions 2000-2012[42]:

Year	Month	Subscriptions to national level	Annual Growth	Penetration per 100 people.[43].	Penetration % of households
2000	**Dec**	3.401.525	-	21,97	87,18%
2001	**Dec**	5.100.783	49,96%	32,57	129,28%
2002	**Dec**	6.244.310	22,42%	39,44	156,51%
2003	**Dec**	7.268.281	16,40%	45,41	175,97%
2004	**Dec**	9.261.385	27,42%	57,24	210,64%
2005	**Dec**	10.569.572	14,13%	64,65	250,43%
2006	**Dec**	12.450.801	17,80%	75,39	287,08%
2007	**Dec**	13.955.202	12,08%	83,66	311,23%
2008	**Dec**	14.796.593	6,03%	87,83	319,00%
2009	**Dec**	16.450.223	11,18%	96,70	342,62%
2010	**Dec**	19.852.242	20,68%	115,61	399,29%
2011	**Dec**	22.399.969	12,83%	129,29	434,88%
2012	**Dec**	23.188.370	12.06%	132,57	436,92%

Source: Authors elaboration from Subtel (2013) Estadísticas e Indicadores: Internet. División de Fiscalización.

[42] Calculate of penetration for people and household are calculated monthly, using the projected data of the annual population from Instituto Nacional de Estadísticas and the figures of Survey CASEN.

[43] SUBTEL (2013) Informe de Portabilidad Numérica 2012-2013". División de Fiscalización. Chile. [Online]<http://bit.ly/XV95so>[Retrieved 15/11/2012].

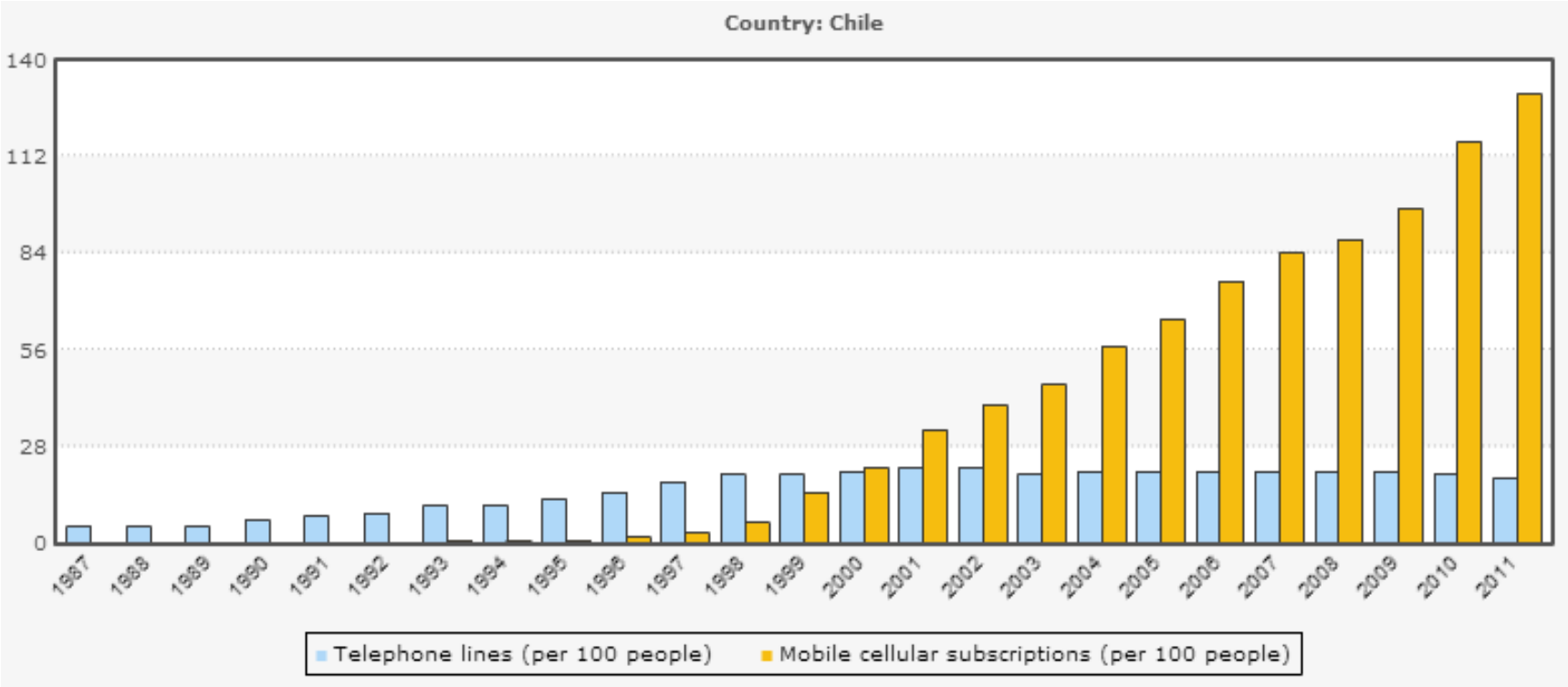


Source: from Subtel (2013) Estadísticas e Indicadores: Internet. División de Fiscalización.

As you can see, Subtel suggests that the Park of mobile subscribers has grown at a strong pace in recent years. The third quarter of 2012, subscribers have grown at a rate of 7.9% per year. It is likely to continue growth in the short term but at low rates. This means that mobile telephony will continue to forming part of the services that comprise the main products of the consumer

basket, though for now its levels of growth will not be repeated. There are new services within the sector that grows under rates unprecedented.

D.3.4. Fixed Telephony vs. Mobile Telephony:



Service	**Chile - Telephony** (per 100 people)																								
	87	88	89	90	91	92	93	94	95	96	97	98	99	00	01	02	03	04	05	06	07	08	09	10	11
Fix	5	5	5	7	8	9	11	11	13	15	18	20	20	21	22	22	20	21	21	21	21	21	21	20	19
Mobile	-	-	-	-	-	-	01	01	01	02	03	06	15	22	33	40	46	57	65	76	84	88	97	116	130

Source: World Bank Indicators, 2012.

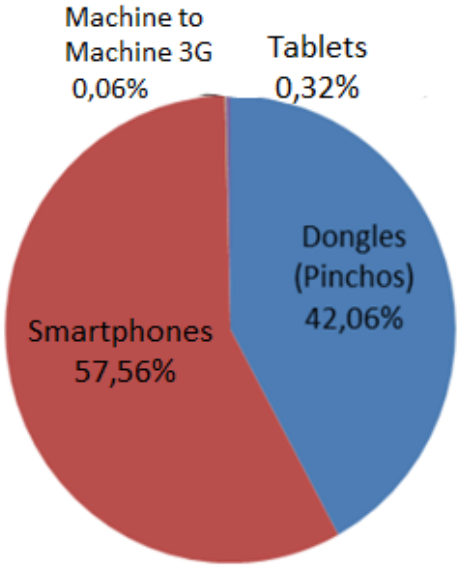
D.3.5. Penetration of the Internet in Chile, 2009-2012.

Year	Month	Total of Connections Fixed (BAF)	Penetration BAF each 100 people	Penetration BAF % of households	Total of Connections Phones 3G	Penetration 3G each 100 people	BAF + 3G total Connections	Penetration homes	Penetration TOTAL (BAF +3 G) each 100 people
2009	Dec.	1.695.034	9,96	35,30%	638.787	3,76	2.333.821	37,70	13,72
2010	Dec.	1.819.691	10,6	36,60%	1.445.675	8,42	3.265.366	41,83	19,02
2011	Dec.	2.025.066	11,69	39,32%	3.103.815	17,91	5.128.881	50,16	29,6
2012	Jan.	2.026.505	11,69	39,23%	3.274.968	18,89	5.301.473	50,64	30,58
2012	Feb.	2.032.992	11,72	39,23%	3.337.140	19,23	5.370.132	50,83	30,95
2012	March	2.062.280	11,88	39,68%	3.584.953	20,65	5.647.233	52,10	32,52
2012	April	2.079.361	11,97	39,89%	3.643.263	20,97	5.722.624	52,47	32,93
2012	May	2.099.005	12,07	40,15%	3.755.783	21,6	5.854.788	53,08	33,67
2012	Jun	2.118.981	12,18	40,41%	3.847.754	22,11	5.966.735	53,61	34,29

Source: Authors elaboration from Subtel, (2012) Radiografia de Internet.

Growth of Internet doubles 13.7% in 2009 to 34.2% in June 2012. This must to penetration level of mobile broadband, such as It can to look in the table.

D.3.6. Origin of Connections 3G, year 2011



Source: Subtel, 2013.

Finally, before reviewing the interconnection charges, necessary refer the portability as a phenomenon which, together with the progressive entry of new companies, derived a significant reduction in the prices. The average price of plans dropped 20%, compared to the year 2011. Prepaid, prices were generated up to 50% lower than those available before the portability. (Subtel, 2012). (Subtel, 2012)[44]

D.3.7. Mobiles Telephony Traffic 2000-2012[45]

Period	Traffic Outbound [46]in thousands of minutes[47]	Traffic Outbound in thousands of calls	Traffic Inbound[48]in thousands of minutes	Traffic Inbound in thousands of Calls
2000	2.471.208	1.658.304	1.659.630	941.756
2001	3.441.736	2.537.740	1.819.946	1.090.108
2002	4.464.102	3.522.333	1.786.384	1.188.641
2003	5.237.946	4.189.179	1.581.459	1.151.183
2004	6.003.889	4.892.189	1.658.742	1.247.335
2005	7.089.122	5.701.630	1.796.385	1.356.854

[44] Subtel (2013) SUBTEL: Portability and new operators explain lower prices and greater competition in the mobile market. [On line] <http://bit.ly/Yz4gSN> [Retrieved 11/006/2012].
[45] Reference from al 05/12/12 del Sistema de Transferencia de Información operadoras móviles-Subtel.
[46] The traffic outbound considers traffic originating mobile networks and includes traffic to other mobile phones, landlines, Ancillary Services, Internet and International Long Distance.
[47] Effective minutes in thousands, those obtained from the information in seconds reported by companies, divided by 60.
[48] The traffic inbound considers, the traffic received by the mobile network and includes traffic originating from landline, complementary services and international long distance.

2006	7.845.531	6.242.604	1.839.218	1.413.957
2007	10.857.737	8.350.419	1.572.631	1.182.032
2008	14.842.079	10.947.212	1.456.945	1.068.968
2009	17.315.208	12.680.067	1.285.362	914.061
2010	21.011.753	15.760.742	1.181.529	797.927
2011	24.831.865	18.452.378	1.092.374	733.493
2012*	21.447.775	14.666.991	763.000	491.016

Source: Subtel, (2013) Estadísticas e Indicadores: Internet. División de Fiscalización.
*Figures until september 2012.

The evolution of the mobile outbound traffic presents a clear upward trend. The growth of mobile traffic between the years 2010 and 2011 was 18.2%, closing the latter with more than 21,011 million minutes, but below what is shown for September 2012. Similarly Q3 2012 total traffic grew by 18.3% compared to the total traffic in the third quarter of 2011. The projections of the mobile outbound traffic are growing, but to lower rates than in previous years. The growth patterns in the mobile telecommunication sector has changed and when new technologies appear, the consumer habits also change, currently the customer is decreasing its need by the voice traffic and it is changing to data traffic, new modality in communication.

D.3.8. Subscriber by Commercial Plan 2000-2012

Year	Month	Number of subscribers with Contract	Annual Growth, Contracts Section	Penetration per 100 pers. Contracts	Number of subscribers with Prepaid	Annual Growth, Prepaid Section	Penetration per 100 pers. Prepaid
2000	**Dec**	1.068.130		6,90	2.333.395		15,07
2001	**Dec**	1.290.852	20,85%	8,24	3.809.931	63,28%	24,33
2002	**Dec**	1.382.871	7,13%	8,73	4.861.439	27,60%	30,71
2003	**Dec**	1.473.310	6,54%	9,20	5.794.971	19,20%	36,20
2004	**Dec**	1.616.653	9,73%	9,99	7.644.732	31,92%	47,25
2005	**Dec**	1.931.459	19,47%	11,81	8.638.113	12,99%	52,83
2006	**Dec**	2.644.224	36,90%	16,01	9.806.577	13,53%	59,38
2007	**Dec**	3.523.166	33,24%	21,12	10.432.036	6,38%	62,54
2008	**Dec**	4.033.678	14,49%	23,94	10.762.915	3,17%	63,89
2009	**Dec**	4.517.200	11,99%	26,55	11.933.023	10,87%	70,15
2010	**Dec**	5.786.405	28,10%	33,70	14.065.837	17,87%	81,91
2011	**Dec**	6.514.402	12,58%	37,60	15.885.567	12,94%	91,69
2012	**Sep.**	6.797.988	-0,33%	38,98	16.390.382	-0,22%	93,60

Source: Subtel, (2013) Estadísticas e Indicadores: Internet. División de Fiscalización.

As you can see, the Park of mobile subscribers has grown at a strong pace in recent years, both in mode prepaid as in the contract (this can be seen in the growth in the last 12 months in both segments). This shows that the tariff system adopted by the Chilean industry from the models of development and sector, has led the distribution among subscribers before referred, however on the following pages you will notice a change not only in the patterns of consumption, but also regulatory that will produce medium-term changes in the distributive structure of subscribers. Then the measure in which distributes the market by company, are considered both mobile operators network and virtual mobile operators.

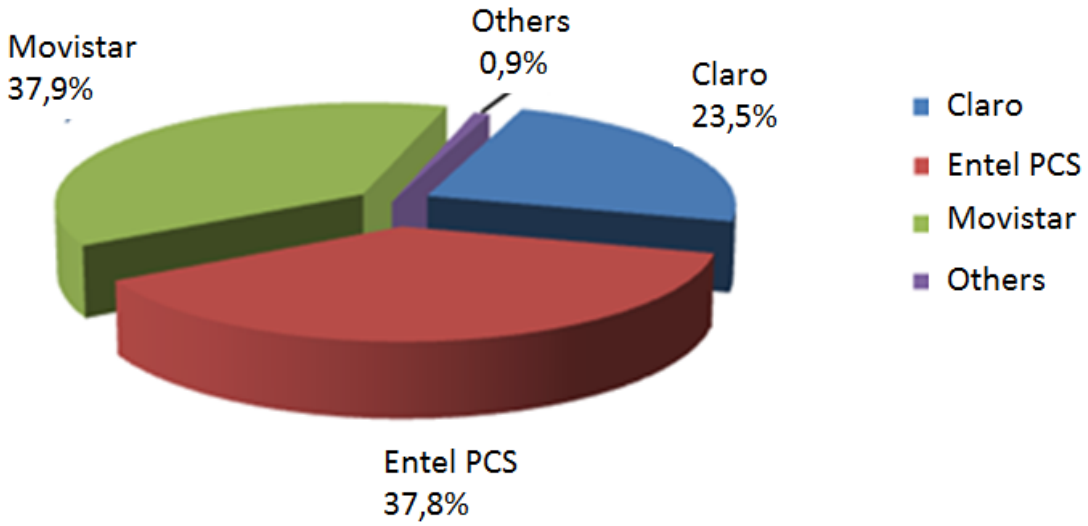
D.4. The Market Evolution: Figures disaggregated from the Chilean mobile telecommunication market.

D.4.1. Market Shares by operator 2000-2012.

Year	Month	Claro	ENTEL PCS	Movistar	Nextel	Interexport	Telsur	Virgin	VTR	Netline
2000	**Dec**	7,76%	37,45%	54,78%						
2001	**Dec**	12,35%	43,33%	44,32%						
2002	**Dec**	15,80%	41,13%	43,07%						
2003	**Dec**	16,66%	37,37%	45,96%						
2004	**Dec**	16,61%	35,32%	48,07%						
2005	**Dec**	17,53%	38,17%	44,30%						
2006	**Dec**	18,32%	39,07%	42,61%						
2007	**Dec**	18,06%	39,65%	42,29%						
2008	**Dec**	18,58%	38,80%	42,57%	0,05%					
2009	**Dec**	19,61%	38,29%	42,02%	0,08%					
2010	**Dec**	22,49%	36,42%	40,95%	0,14%	0,003%				
2011	**Dec**	23,05%	37,69%	39,09%	0,17%	0,00%	0,0041%			
2012	**Jan**	22,88%	37,85%	39,09%	0,16%	0,0050%	0,0046%		0,0109%	
	Feb	23,49%	37,69%	38,63%	0,16%	0,0054%	0,0051%		0,0151%	
	Mar	23,32%	38,42%	38,05%	0,18%	0,0059%	0,0061%		0,0248%	
	Apr.	23,46%	38,17%	38,12%	0,18%	0,0057%	0,0065%	0,0183%	0,0385%	
	May	23,55%	38,32%	37,79%	0,20%	0,0071%	0,0081%	0,0638%	0,0619%	
	Jun	23,94%	38,51%	37,04%	0,24%	0,0165%	0,0097%	0,1397%	0,1026%	
	Jul	23,46%	37,92%	38,02%	0,27%	0,0161%	0,0105%	0,1711%	0,1362%	0,0001%
	Aug	23,31%	37,66%	38,26%	0,32%	0,0169%	0,0117%	0,2341%	0,1789%	0,0003%
	Sep	23,47%	37,77%	37,86%	0,38%	0,0174%	0,0123%	0,2856%	0,2090%	0,0011%

Source: Subtel, (2013) Estadísticas e Indicadores: Internet. División de Fiscalización.

D.4.2. Mobile Subscribers % Share of market



Source: Subtel (2013) Estadísticas e Indicadores: Internet. División de Fiscalización.

As can be observed, the market shares have remained relatively stable in recent months. With the entry of virtual mobile operators, is observed slight decrease in the quota of participation of traditional companies. Movistar figure with the biggest drop, followed by Entel and finally clear. The market shares of the inbound operators (VTR, Virgin, Nextel, mobile GTD, Interexport and Netline) part a 0.9% in September.

D.4.3. Traffic by plan and origin point, 2006-2012.

		Mobile-Local Traffic[49]		Mobile-Mobile Traffic	
Year	**Month**	**Traffic Outbound Subscribers Prepaid**	**Traffic Outbound Subscribers Contract**	**Traffic Outbound Subscribers Prepaid**	**Traffic Outbound Subscribers Contract**
2006	**Dec**	337.861	827.481	1.774.359	2.968.167
2007	**Dec**	564.674	1.272.433	3.256.412	5.654.028
2008	**Dec**	845.273	1.569.783	5.078.991	7.227.020
2009	**Dec**	978.479	1.559.379	6.873.806	7.751.381
2010	**Dec**	1.078.282	1.557.134	9.158.323	9.015.048
2011	**Dec**	916.361	1.747.812	9.605.025	12.326.614
2012	**Sep.**	602.554	1.402.561	8.398.218	10.830.831

Source: Subtel, (2013) Estadísticas e Indicadores: Internet. División de Fiscalización.

[49] The traffic outbound considers traffic originating mobile networks and does not include traffic to Ancillary Services, Internet and International Long Distance.

The evolution of the local mobile traffic presents a clear upward trend in recent years is slowing the growth rate in 2010 and in 2011 remains constant, being the segment prepaid has reduced participation with 916 million minutes. There is a small rise in Q3 2012 versus the third quarter of 2011. The evolution of mobile traffic presents a strong rise in recent years and Q3 2012 presents an annual growth of 20.3.

D.4.4. Traffic by Mobile Telephony Net: Text and Multimedia Messaging

Period	Total messages sent by year (SMS)	Total messages sent by year (MMS)
2003	229.626.272	-
2004	500.588.380	-
2005	826.781.397	-
2006	982.954.537	-
2007	1.188.918.355	-
2008	1.481.557.346	-
2009	1.695.114.193	-
2010	1.934.034.596	32.158.977
2011	2.088.486.123	24.727.213
2012 Sep.	1.611.005.585	17.768.946

Source: Subtel, (2013) Estadísticas e Indicadores: Internet. División de Fiscalización.

The evolution of messaging SMS traffic presents hikes in recent years. However the MMS traffic presents a low. Although it has said repeatedly that social networks like Facebook and Twitter, which have services messages, along with applications like Whatsapp shipments reduce the sending of text messages, the truth is that send SMS continues to grow. During the first three quarters, the Chileans sent thousand six hundred billion SMS. Meanwhile, multimedia messages (MMS) came to 17.7 million during the same period of the year[50]

[50] Subtel (2012) The first semester the Mobile traffic increased a 18.1%. [Online] <http://bit.ly/10v4ykw>[Retrieved 15/11/2012].

D.4.5. Mobile-Internet Traffic[51]

Year	Thousands of Minutes Outbound	Thousands of Calls Outbound
2000	30,3	6,8
2001	60,1	11,2
2002	620,3	343,5
2003	694,4	315,1
2004	5.611,1	4.566,4
2005	4.088,9	4.880,0
2006	2.939,9	2.541,2
2007	717,4	1.001,6
2008	187,9	210,2
2009	126,9	99,5
2010	11,0	31,0
2011	6,2	35,7
2012 (Sep.)	3,7	15,4

Source: Subtel, (2013) Estadísticas e Indicadores: Internet. División de Fiscalización.

Mobile-internet traffic tends to disappear as it was to be expected given the continuous and explosive growth of the services provided through data connections 3G networks.

Once again, it is demonstrates how new technologies have been changing their patterns of consumption and from the sector, in this case is observed a decrease sustained in the use of the narrow band mobile, while broadband continues adding subscribers that ultimately demand ever more capacity and speed of traffic, which imposes new goals to the sectorial agency and major challenges to competition, those have answered actively.

[51] From 2000 he joined Internet traffic reported by some mobile companies to Subtel. Part of this traffic considered trafficking associated WAP mobile application.

D.4.6. Traffic by Mobile Connections[52]: Mobile Broadband[53] (Connections USB and Smartphone), 2009-2012

Year	Month	More of 128 kbps & until 256 kbps	More of 256 kbps & until 512 kbps	More of 512 kbps & until 1 Mbps	More of 1 Mbps & until 2 Mbps	More of 2 Mbps	Total of connections 3G
2009	**Jan**	53.913	34.528	105.431	23.631		**217.503**
	Feb	57.844	37.704	106.964	23.007		**225.519**
	Mar	65.952	63.634	94.325	22.406		**246.317**
	Apr	71.917	68.625	102.656	21.585		**264.783**
	May	76.568	83.837	140.503	21.198		**322.106**
	Jun	80.091	91.970	187.413	20.893		**380.367**
	Jul	84.214	107.601	221.392	20.383		**433.590**
	Aug.	86.466	124.345	245.718	19.769		**476.298**
	Sep	82.782	129.497	273.664	19.122		**505.065**

[52] In January 2009, changes the model design consultation on telecommunications operators and internet connections starts registering on the Information Transfer System of mobile internet connections. These are the number of unique users who have connected to a dedicated internet in mobile cellular networks within the reporting period. Is counted for each client and / or user connection only, independent of the number of times you connect to the Internet within the reporting period (month). (Subtel, 2013 "Estadísticas e Indicadores de Internet").

[53] The Chilean regulatory agency follows the definition of broadband connections from the OECD, which includes all the internet connections with speeds equal to or greater than 256 kbps. (Subtel, 2013 "Estadísticas e Indicadores de Internet").

	Oct	78.682	140.783	304.235	18.377		**542.077**
	Nov	74.271	145.482	334.648	17.672		**572.073**
	Dec	39.281	177.669	404.529	17.294	14	**638.787**
2010	**Jan**	36.061	180.111	498.384	15.174	228	**729.958**
	Feb	33.771	198.273	533.611	14.779	523	**780.957**
	Mar	32.221	230.724	581.186	14.775	1.111	**860.017**
	Apr	30.177	273.235	639.489	19.678	1.539	**964.118**
	May	7.820	305.704	675.778	24.812	1.826	**1.015.940**
	Jun	2.381	300.227	720.062	28.775	2.172	**1.053.617**
	Jul	2.353	299.707	753.301	33.231	2.530	**1.091.122**
	Aug	2.305	321.395	767.804	39.102	2.804	**1.133.410**
	Sep	2.244	339.076	621.795	218.546	3.235	**1.184.896**
	Oct	2.191	374.566	655.789	193.299	40.032	**1.265.877**
	Nov	2.134	402.146	684.009	198.333	44.537	**1.331.159**
	Dec	2.092	461.851	729.881	202.861	48.990	**1.445.675**

2011	**Jan**	2.056	495.087	796.211	205.624	54.727	**1.553.705**
	Feb	2.006	497.697	829.509	207.333	58.665	**1.595.210**
	Mar	2.008	620.748	862.071	214.196	63.218	**1.762.241**
	Apr	2.013	709.308	896.475	218.592	67.628	**1.894.016**
	May	2.019	706.667	935.854	221.105	71.608	**1.937.253**
	Jun	2.016	709.560	1.107.431	224.700	75.032	**2.118.739**
	Jul	1.989	857.326	1.172.514	227.230	77.187	**2.336.246**
	Aug	1.944	919.293	1.229.659	228.717	78.583	**2.458.196**
	Sep	1.900	961.399	1.278.370	230.413	79.950	**2.552.032**
	Oct	1.774	936.630	1.390.272	231.050	80.730	**2.640.456**
	Nov	1.687	922.862	1.418.281	229.784	81.332	**2.653.946**
	Dec	1.571	1.208.448	1.582.722	229.155	81.919	**3.103.815**
2012	**Jan**	1.506	1.098.931	1.864.312	226.119	84.475	**3.275.343**
	Feb	1.425	1.125.225	1.899.006	223.364	88.512	**3.337.532**
	Mar	1.411	1.155.788	2.111.724	223.400	92.626	**3.584.953**

	Apr	1.370	1.170.758	2.153.969	220.960	98.554	**3.645.611**
	May	1.354	1.173.653	2.264.730	216.180	107.596	**3.763.513**
	Jun	1.309	1.182.559	2.335.611	209.208	131.965	**3.860.652**
	Jul	1.262	1.216.750	2.449.804	200.882	180.265	**4.048.963**
	Aug	20.396	634.646	2.792.125	704.544	173.836	**4.325.547**
	Sep	28.275	639.629	2.856.448	298.709	519.336	**4.342.397**

Source: Subtel, (2013) Estadísticas e Indicadores: Internet. División de Fiscalización.

Subtel notes that the third quarter of 2012, highlights the fall of connections 2G of all companies. Movistar maintains leadership in connections with such technology with 48.1% of connections to September 2012. In the case of connections with technology 3G Movistar and Entel PCS, the third quarter 2012 experienced increases of 55.2% and 35.4% respectively. Entel PCS reached an a 43% stake in this technology and therefore Movistar closely follows with a 38.1 percent share. You are expected to with the entry of new competitors into the market and improvements in technology, shares of existing businesses decline. In fact to September 2012, new competitors (including Nextel) represent 2.9% of the 3G connections.

D.4.7. Connections with technologies 2G, by modality or typo of contract

Year	Month	Contract	Prepaid	Postpaid	Total of connections 2G
2009	**Dec**	445.658	1.829.389	776.998	3.052.045
2010	**Dec**	641.319	2.213.729	954.729	3.809.777
2011	**Dec**	900.039	3.028.156	925.704	4.853.899
2012	**Jan**	642.624	2.910.169	917.605	4.470.398
	Feb	635.430	2.796.706	896.203	4.328.339
	Mar	635.079	2.943.020	877.199	4.455.298
	Apr	623.693	2.927.794	853.510	4.404.997
	May	619.265	2.787.333	877.803	4.284.401
	Jun	607.364	2.761.669	850.839	4.219.872
	Jul	610.107	2.809.125	903.274	4.322.506
	Aug	466.820	2.966.357	945.647	4.378.824
	Sep	489.250	2.819.203	976.421	4.284.874

Source: Subtel, (2013) Estadísticas e Indicadores: Internet. División de Fiscalización.

D.4.8. Connections with technologies 3G, by modality or typo of contract

		Connections with technologies 3G								
Year	**Month**	**Contract**	**Prepaid**	**Post-paid**	**Pack**	**Total of connections 3G**	**Total of Mobile Connections**	**Penetration 2G per 100 people**	**Penetration 3G per 100 people**	**Total Penetration per 100 people**
2009	**Dec**	421.699	133.841	83.247		638.787	3.690.832	17,94	3,76	21,70
2010	**Dec**	920.800	413.409	111.466		1.445.675	5.255.452	22,19	8,42	30,61
2011	**Dec**	1.576.804	1.203.047	323.964		3.103.815	7.957.714	28,02	17,91	45,93
2012	**Jan**	1.693.420	1.209.030	372.893		3.275.343	7.745.741	25,78	18,89	44,67
	Feb	1.710.803	1.234.347	392.382		3.337.532	7.665.871	24,95	19,24	44,18
	Mar	1.770.354	1.361.904	452.695		3.584.953	8.040.251	25,66	20,65	46,30
	Apr	1.781.016	1.371.486	493.109		3.645.611	8.050.608	25,35	20,98	46,33
	May	1.814.389	1.382.480	566.566	78	3.763.513	8.047.914	24,64	21,64	46,28
	Jun	1.849.558	1.409.085	601.934	75	3.860.652	8.080.524	24,25	22,18	46,43
	Jul	1.911.752	1.474.323	662.816	72	4.048.963	8.371.469	24,82	23,25	48,07
	Ago	1.840.387	1.776.923	708.169	68	4.325.547	8.704.371	25,12	24,82	49,94

	Sep	1.877.548	1.733.568	731.217	64	4.342.397	8.627.271	24,57	24,90	49,46

Source: Subtel, (2013) Estadísticas e Indicadores: Internet. División de Fiscalización.

The third quarter of 2012, connections with technology 3G grew by 39.1%, while 2 G connections fell by 11.7%. 3G connections increase is observed in the three types of plan, although highlights of postpaid. Moreover, by type of plan contributions vary according to technology, in the case of 3 G technology, most plans are contract (43.5%) and prepaid (39.6%), while in the case of 2 G technology, plans are mostly prepaid (65.8%) and subsequently, postpaid (22.8%). He is expected to continue the massification of the 3 G connections above the 2 G. In fact, in September 2012 the conexiones3G have passed first to the 2 G.

D.4.9. Mobile Connections by technology type and enterprises: Connections with technologies 2G, by company

		Connections with technologies 2G					
Year	**Month**	**Movistar**	**Claro**	**Entel PCS**	**VTR Móvil**	**GTD Móvil**	**Total de connections 2G**
2009	**Dec**	1.497.195	520.777	1.034.073			3.052.045
2010	**Dec**	1.855.805	801.917	1.152.055			3.809.777
2011	**Dec**	2.399.546	919.318	1.535.035			4.853.899
2012	**Jan**	2.371.005	771.747	1.327.644		2	4.470.398
	Feb	2.238.955	783.750	1.305.632		2	4.328.339
	Mar	2.428.922	802.298	1.224.078			4.455.298
	Apr	2.289.502	784.163	1.331.332			4.404.997
	May	2.255.321	795.823	1.233.257			4.284.401
	Jun	2.178.746	796.865	1.244.261			4.219.872
	Jul	2.150.400	818.684	1.352.812	610		4.322.506
	Aug	2.108.427	714.185	1.555.390	822		4.378.824
	Sep	2.061.777	625.747	1.596.372	978		4.284.874

Source: Subtel, (2013) Estadísticas e Indicadores: Internet. División de Fiscalización.

D.4.10. Mobile Connections by technology type and enterprises: Connections with technologies 3G, by company

	Year	Connections with technologies 3G							
		Movistar	Claro	Entel PCS	VTR Móvil	Virgin	GTD Móvil	Nextel	Total de conexiones 3G
2009	Jan	78.726	14.584	124.193					217.503
	Feb	78.727	15.083	131.709					225.519
	Mar	62.521	36.805	146.991					246.317
	Apr	67.408	39.381	157.994					264.783
	May	101.109	51.030	169.967					322.106
	Jun	145.528	59.410	175.429					380.367
	Jul	178.629	71.944	183.017					433.590
	Aug	197.744	85.943	192.611					476.298
	Sep	211.942	90.591	202.532					505.065
	Oct	229.007	103.078	209.992					542.077
	Nov	243.456	107.172	221.445					572.073
	Dec	262.770	130.696	245.321					638.787
2010	Jan	337.122	129.017	263.819					729.958
	Feb	352.516	138.727	289.714					780.957
	Mar	369.838	158.570	331.609					860.017
	Apr	390.359	179.813	393.946					964.118
	May	380.872	195.030	440.038					1.015.940
	Jun	394.412	212.768	446.437					1.053.617
	Jul	417.906	213.863	459.353					1.091.122
	Aug	436.062	228.678	468.670					1.133.410
	Sep	455.829	233.018	496.049					1.184.896
	Oct	481.172	250.851	533.854					1.265.877
	Nov	508.196	258.662	564.301					1.331.159
	Dec	550.694	275.809	619.172					1.445.675

2011	**Jan**	614.169	280.238	659.298					1.553.705
	Feb	644.203	255.107	695.900					1.595.210
	Mar	676.507	347.047	738.687					1.762.241
	Apr	701.808	367.813	824.395					1.894.016
	May	715.849	325.579	895.825					1.937.253
	Jun	866.434	316.465	935.840					2.118.739
	Jul	916.783	446.910	972.553					2.336.246
	Aug	967.132	480.553	1.010.511					2.458.196
	Sep	1.017.520	506.128	1.028.384					2.552.032
	Oct	1.065.671	456.940	1.117.845					2.640.456
	Nov	1.081.934	447.214	1.124.798					2.653.946
	Dec	1.215.695	693.521	1.194.599					3.103.815
2012	**Jan**	1.279.083	582.196	1.413.690			374		3.275.343
	Feb	1.295.653	591.250	1.450.237			392		3.337.532
	Mar	1.479.713	605.243	1.499.997					3.584.953
	Apr	1.457.949	591.562	1.593.752		1.877	471		3.645.611
	May	1.506.764	600.358	1.648.661		7.223	507		3.763.513
	Jun	1.546.225	601.143	1.683.619		12.356	542	16.767	3.860.652
	Jul	1.608.843	617.603	1.746.563	27.628	17.265	568	30.493	4.048.963
	Aug	1.649.554	721.624	1.816.818	36.975	21.982	645	77.949	4.325.547
	Sep	1.646.046	689.715	1.854.434	43.992	25.096	690	82.424	4.342.397

Source: Subtel, (2013) Estadísticas e Indicadores: Internet. División de Fiscalización.

According Subtel, to the third quarter of 2012, highlights the fall of connections 2 G of all companies. Movistar maintains leadership in connections with such technology with 48.1% of connections to September 2012. In the case of connections with technology 3 G Movistar and Entel PCS, the third quarter 2012 experienced increases of 55.2% and 35.4% respectively. Entel PCS reached an a 43% stake in this technology and therefore Movistar closely follows with a 38.1 percent share. You are expected to with the entry of new competitors into the market and improvements in technology, shares of existing businesses decline. In fact to September 2012, new competitors (including Nextel) represent 2.9% of the 3 G connections. The third quarter of 2012, connections

residential 3G increased by 36.7%, while the commercial 3G did it at a rate of 36.2%. Note that there are a lot of 3G without Association of client connections.

D.4.11. Mobile Connections by technology type and Bandwidth[54]

Bandwidth		Narrowband	Broadband				
Year	Month	More of 128 kbps and to 256 kbps	More of 256 kbps and to 512 kbps	More of 512 kbps and to 1 Mbps	More of 1 Mbps and to 2 Mbps	More of 2 Mbps	Total connections 3G
2009	**Dec**	39.281	177.669	404.529	17.294	14	**638.787**
2010	**Dec**	2.092	461.851	729.881	202.861	48.990	**1.445.675**
	Jan	2.056	495.087	796.211	205.624	54.727	**1.553.705**
	Feb	2.006	497.697	829.509	207.333	58.665	**1.595.210**
	Mar	2.008	620.748	862.071	214.196	63.218	**1.762.241**
	Apr	2.013	709.308	896.475	218.592	67.628	**1.894.016**
	May	2.019	706.667	935.854	221.105	71.608	**1.937.253**
	Jun	2.016	709.560	1.107.431	224.700	75.032	**2.118.739**
	Jul	1.989	857.326	1.172.514	227.230	77.187	**2.336.246**
	Aug	1.944	919.293	1.229.659	228.717	78.583	**2.458.196**
	Sep	1.900	961.399	1.278.370	230.413	79.950	**2.552.032**
2011	**Oct**	1.774	936.630	1.390.272	231.050	80.730	**2.640.456**

[54] The Chilean regulatory agency follows the definition of broadband connections in the OECD, which includes all the internet connections with speeds equal to or greater than 256 kbps. (Subtel, 2013 "Estadísticas e Indicadores de Internet").

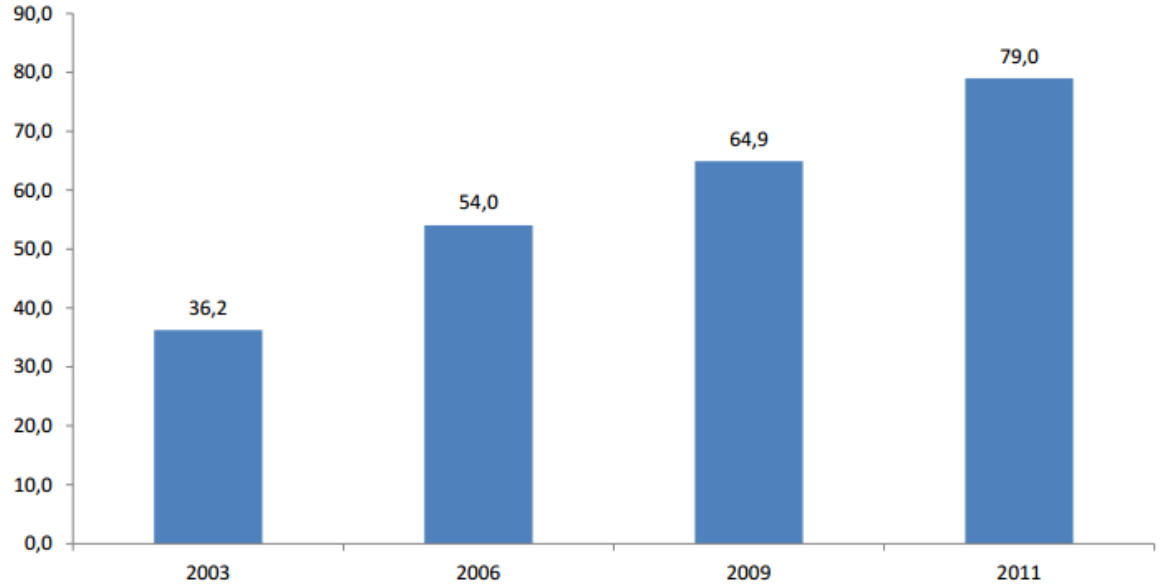
	Nov	1.687	922.862	1.418.281	229.784	81.332	**2.653.946**
	Dec	1.571	1.208.448	1.582.722	229.155	81.919	**3.103.815**
2012	**Jan**	1.506	1.098.931	1.864.312	226.119	84.475	**3.275.343**
	Feb	1.425	1.125.225	1.899.006	223.364	88.512	**3.337.532**
	Mar	1.411	1.155.788	2.111.724	223.404	92.626	**3.584.953**
	Apr	1.370	1.170.758	2.153.969	220.960	98.554	**3.645.611**
	May	1.354	1.173.653	2.264.730	216.180	107.596	**3.763.513**
	Jun	1.309	1.182.559	2.335.611	209.208	131.965	**3.860.652**
	Jul	1.262	1.216.750	2.449.804	200.882	180.265	**4.048.963**
	Aug	20.396	634.646	2.792.125	704.544	173.836	**4.325.547**
	Sep	28.275	639.629	2.856.448	298.709	519.336	**4.342.397**

Source: Subtel, (2013) Estadísticas e Indicadores: Internet. División de Fiscalización.

This case Subtel argue that the third quarter of 2012, connections 3G mobiles that experienced higher growth were less than 256 kbps bandwidth with a 1700% growth. In terms of bandwidth, it is observed that the majority of connections Mobile 3G are associated with high bandwidths (unlike the 2G), to September 2012, 84.5% of such connections have a bandwidth greater than or equal to 512 kbps. He is expected to continue to increase the bandwidth of the mobile connections due to improvements in technology and increased competition in the market.

Below is a series of indicators showing the sector mobile telecommunications, from the home perspective, companies not included.

D.4.12. Evolution of the population with mobile phone, period 2003-2011

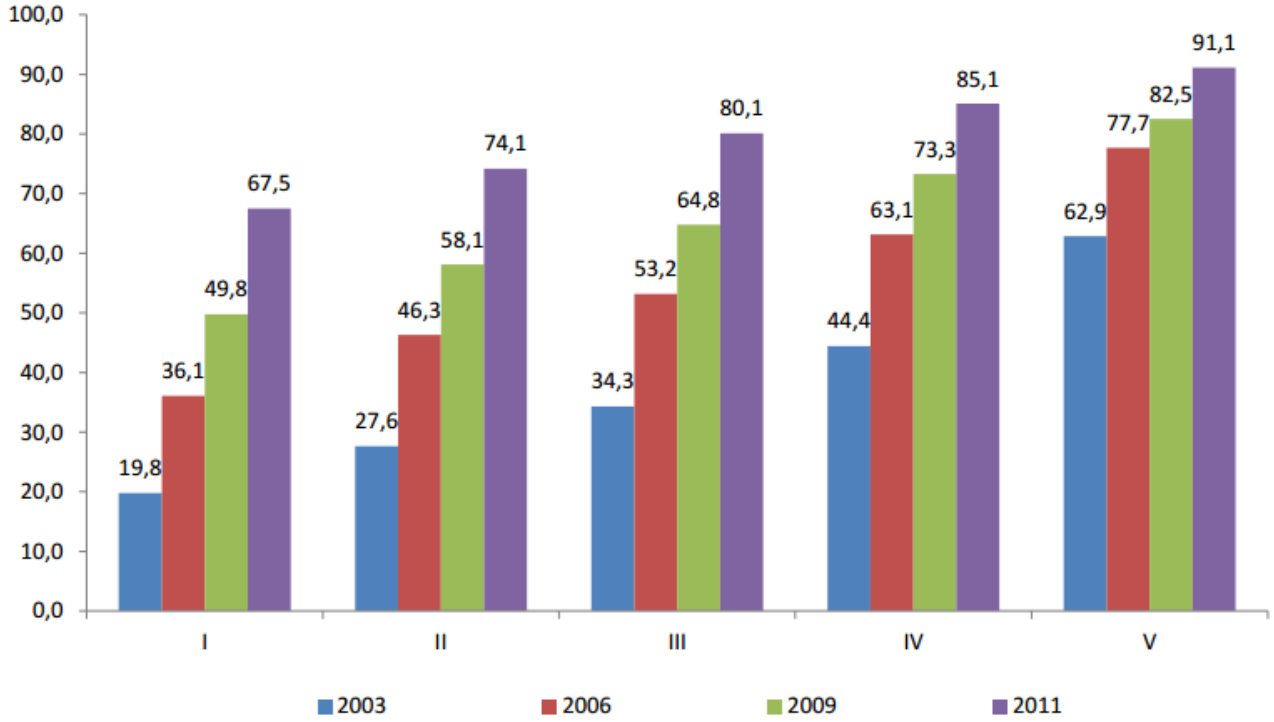


Source: Casen 2011, "Tecnologías de la Información y Comunicación"[55]

[55] Ministry of Social Development 2011, National Socioeconomic Survey: Information Technology and Communication. It is a household survey, cross-cutting and multi-purpose, which presents information about access to mobile voice services and internet services in the country. [Online]<http://bit.ly/WQcMgM>[Retrieved

D.4.13. Evolution of the population with mobile phone, by income quintile

Period 2003-2011

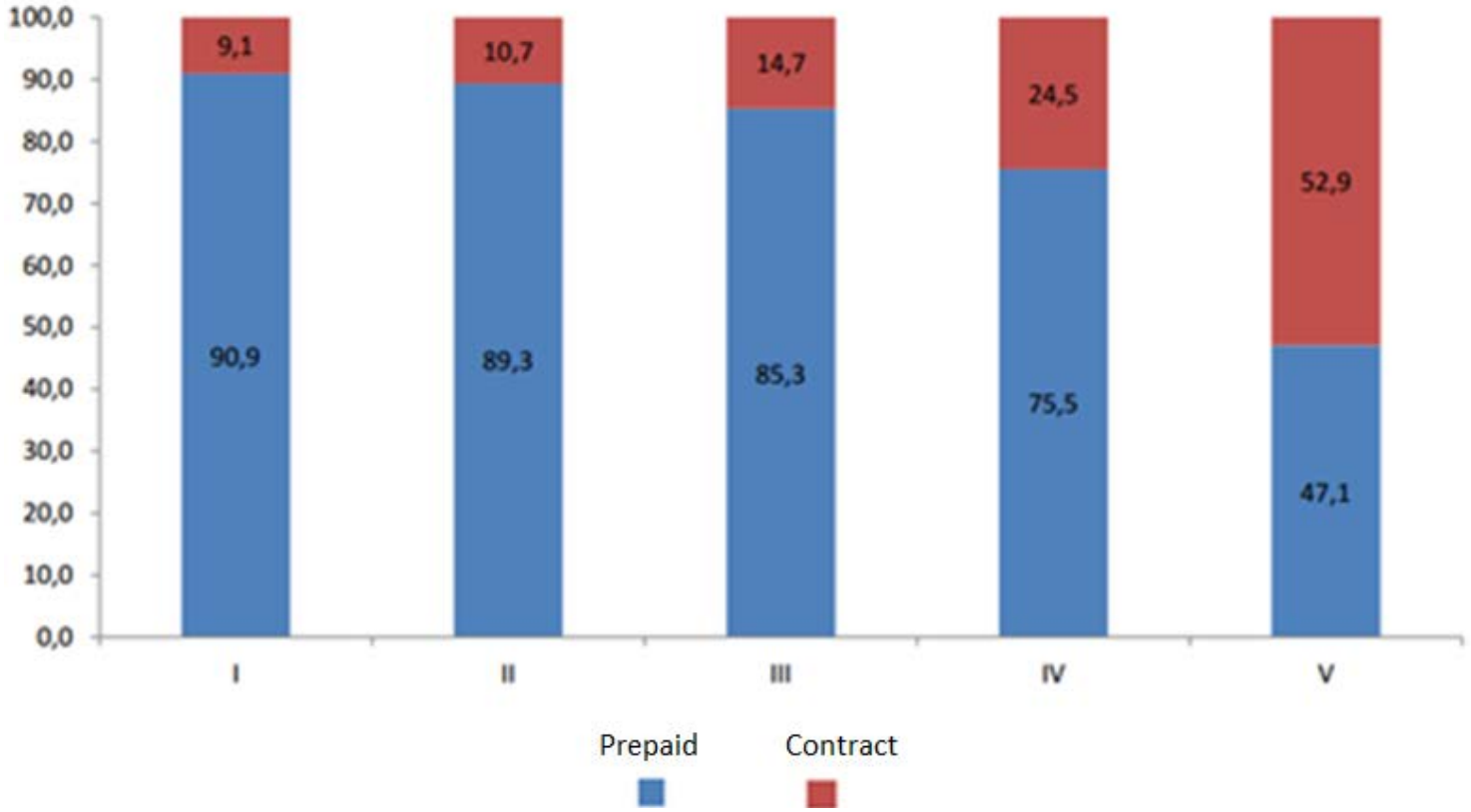


Source: Casen 2011, "Tecnologías de la Información y Comunicación"

22/10/2012].

D.4.14. Evolution of the population with mobile phone, by type of contract and income quintile

Period 2003-2011

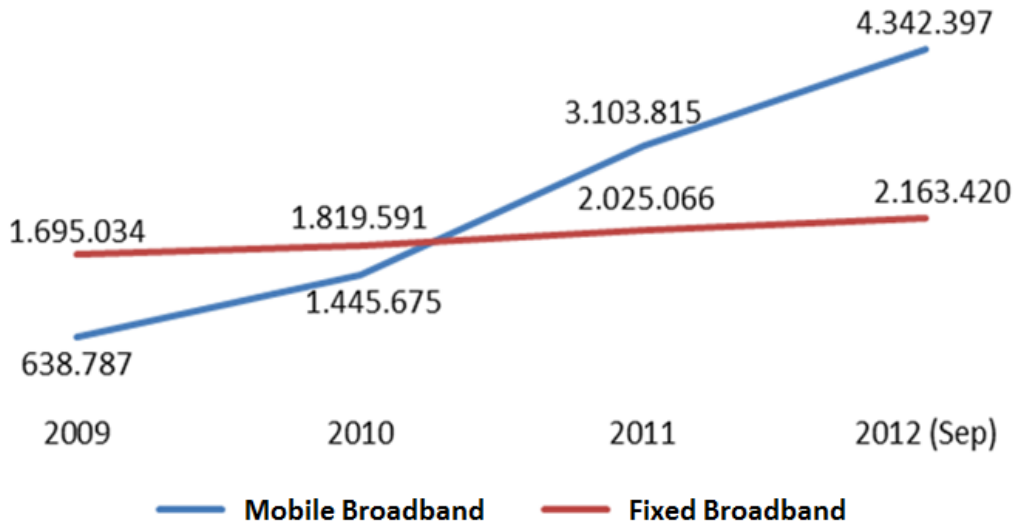


Source: Casen 2011, "Tecnologías de la Información y Comunicación"

D.4.15. Broadband in Chile

Then, It is presented information about the internet and levels of penetration in households, in these figures are added data such as the contracted fixed broadband, fixed broadband prepaid, ***mobile broadband*** USB modem contracted and prepaid cellphone with internet (smartphone), however do not include devices of new generation (tablets) with own connection. These data are considered pertinent, even nonexclusive mobile telecommunications because the representativeness of the mobile has increasing important within telecommunications sector. Until the moment this type of service would have won, enough to achieve as Subtel to December 2011, 7,957,714 in connection with a penetration level of 45.93%, compared with 2,025,066 of fixed penetration of 39.32 %.

Broadband in Chile (penetration per subscriber)

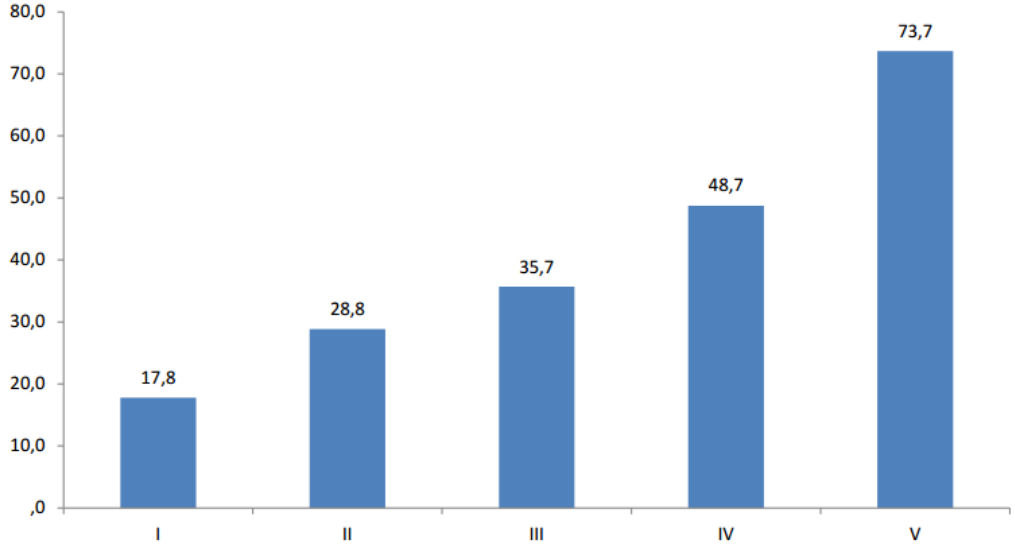


Source: Authors elaboration from Subtel (2013) Estadísticas e Indicadores: Internet. División de Fiscalización.

The Connectivity in the region has a significant value, and the mobile even more, this allows the user to be in permanent contact with their networks, without that the distance be a barrier. The Ubiquity plays a fundamental in the development of countries. En Chile, the industry has allowed not only the consolidation of the traditional mobile telephony, but also the mobile broadband, to reach the rate of penetration as dynamic as it is currently.

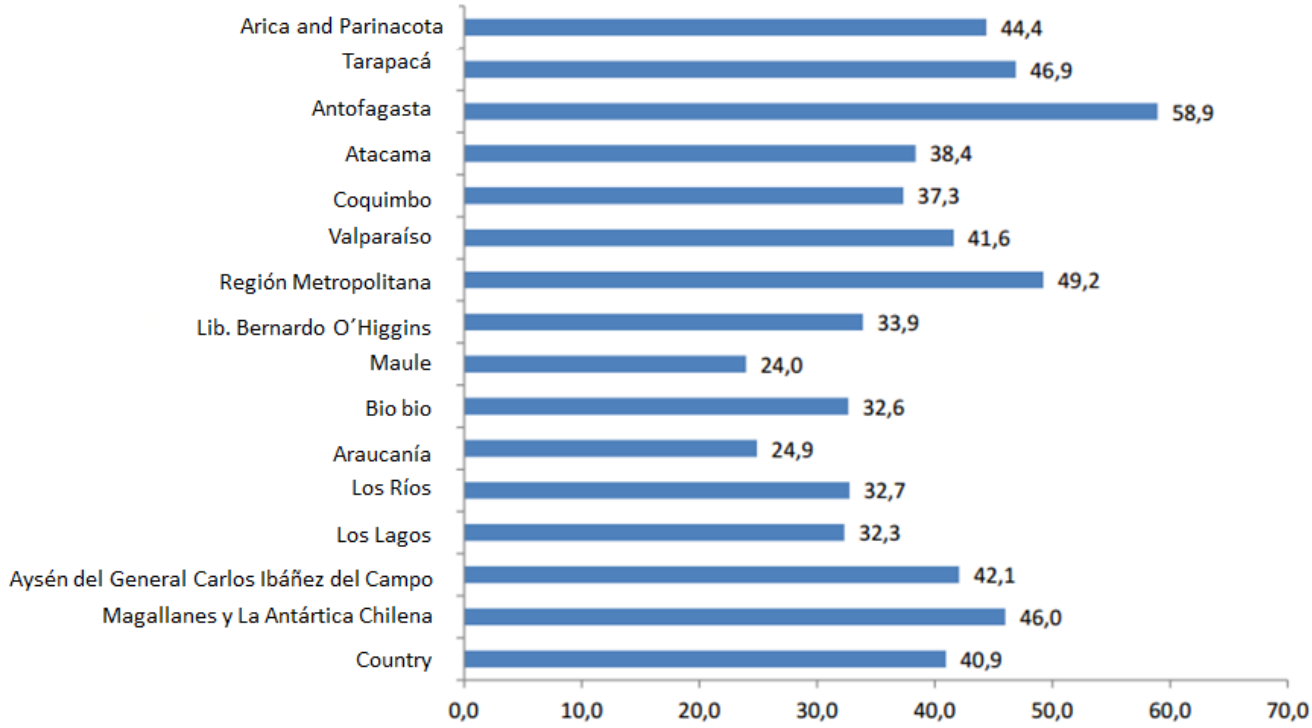
In this sense, below is a series of charts showing trends in consumption of the internet in the Chilean market and consequently use patterns, taking clear mobile broadband plays a role significant and powerful projections for the short, medium and long term.

D.4.16. Households with Internet access, by income quintile, 2011



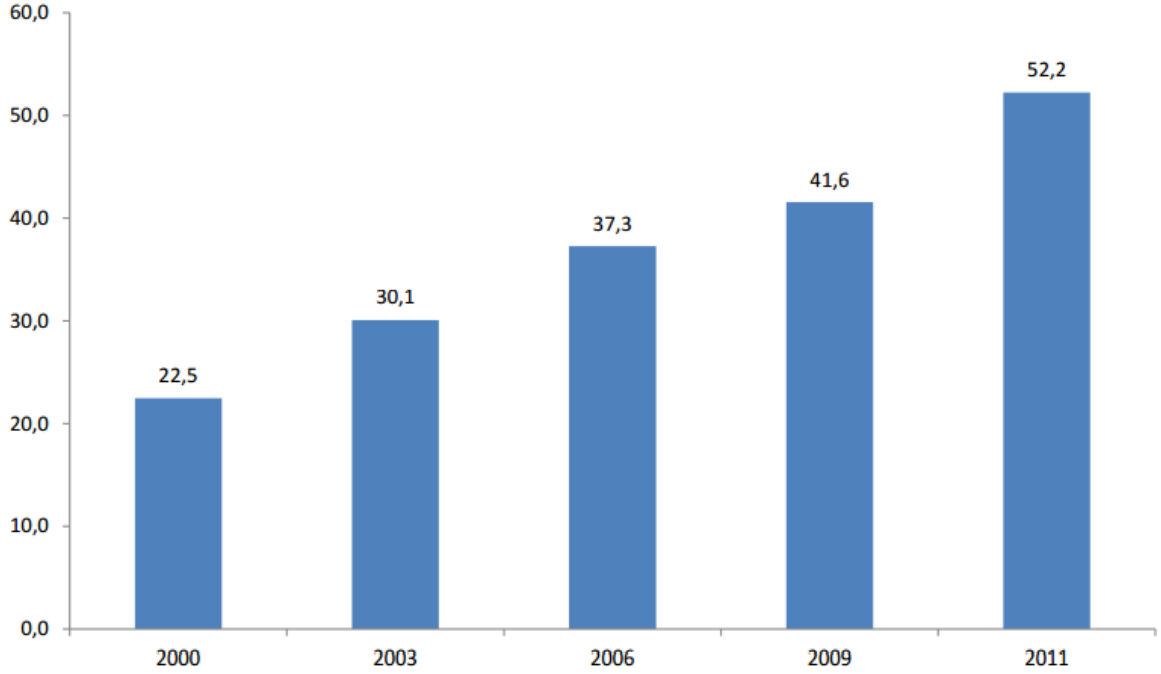
Source: Casen 2011, "Tecnologías de la Información y Comunicación"

D.4.17. Households with Internet access, by region, 2011



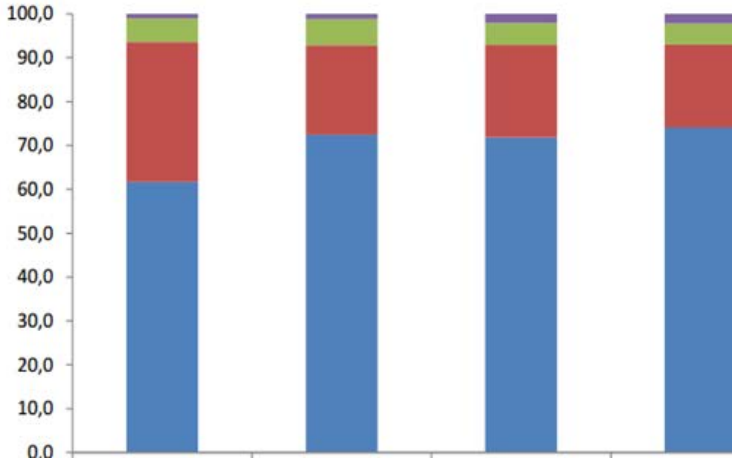
Source: Casen 2011, "Tecnologías de la Información y Comunicación"

D.4.18. Internet population using period 2006-2011



Source: Casen 2011, "Tecnologías de la Información y Comunicación".

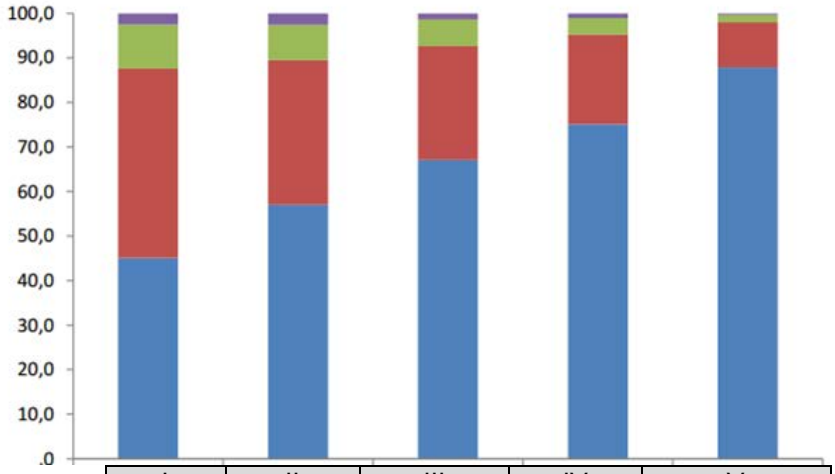
D.4.19. Frequency of Internet use by age group, 2011



	5 to 18	19 to 29	30 to 59	60 and more
Less than once per month	1,0	1,2	2,1	2,2
At least once a month	5,4	5,9	5,0	4,8
At least once per week	32,0	20,4	21,1	18,9
At least once per day	61,7	72,5	71,9	74,1

Source: Casen 2011, "Tecnologías de la Información y Comunicación"

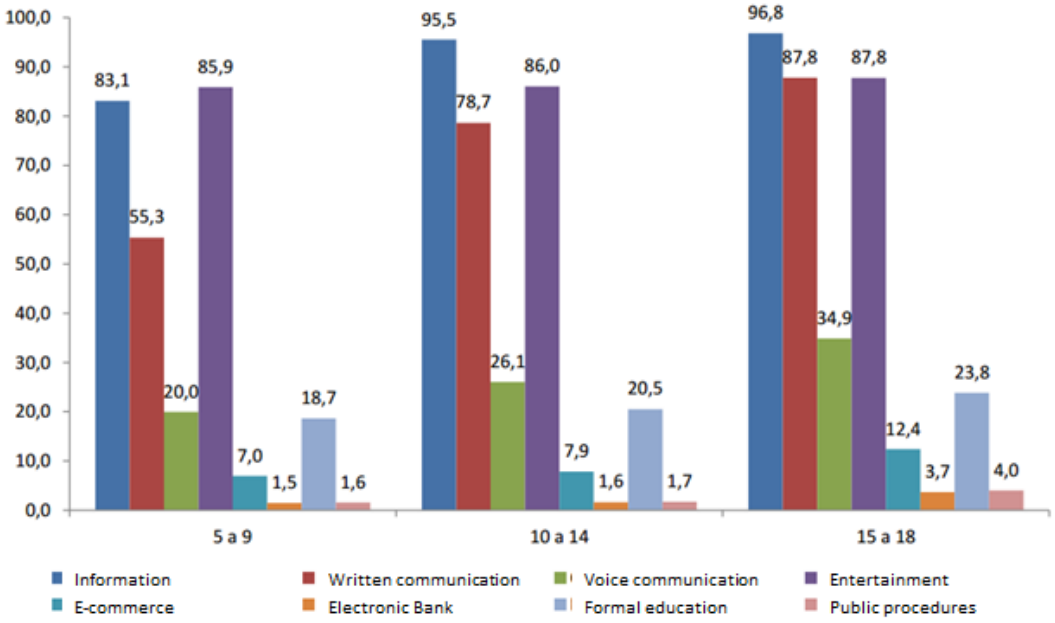
D.4.20. Frequency of Internet use by income quintile, 2011



		I	II	III	IV	V
	Less than once per month	2,5	2,6	1,4	1,1	0,4
	At least once a month	9,9	7,9	6,0	3,7	1,7
	At least once per week	42,5	32,5	25,6	20,1	10,2
	At least once per day	45,0	57,0	67,1	75,1	87,8

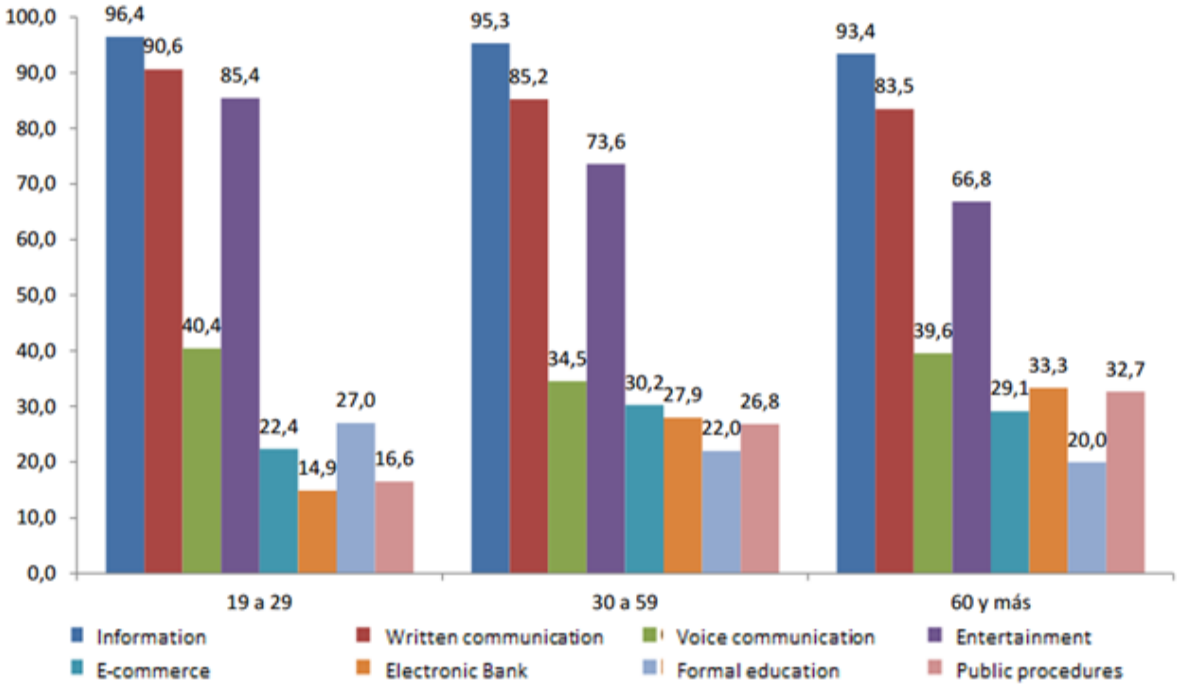
Source: Casen 2011, "Tecnologías de la Información y Comunicación.

D.4.21. Reasons of Internet use in the population of 5-18 years old sub-sections, 2011



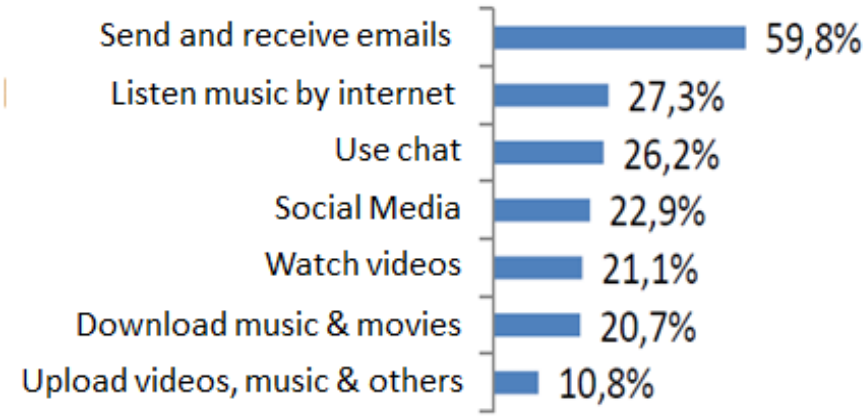
Source: Casen 2011, "Tecnologías de la Información y Comunicación"

D.4.22. Reasons of Internet use in the population aged 19 and over, by age sub-sections, 2011



Source: Casen 2011, "Tecnologías de la Información y Comunicación"

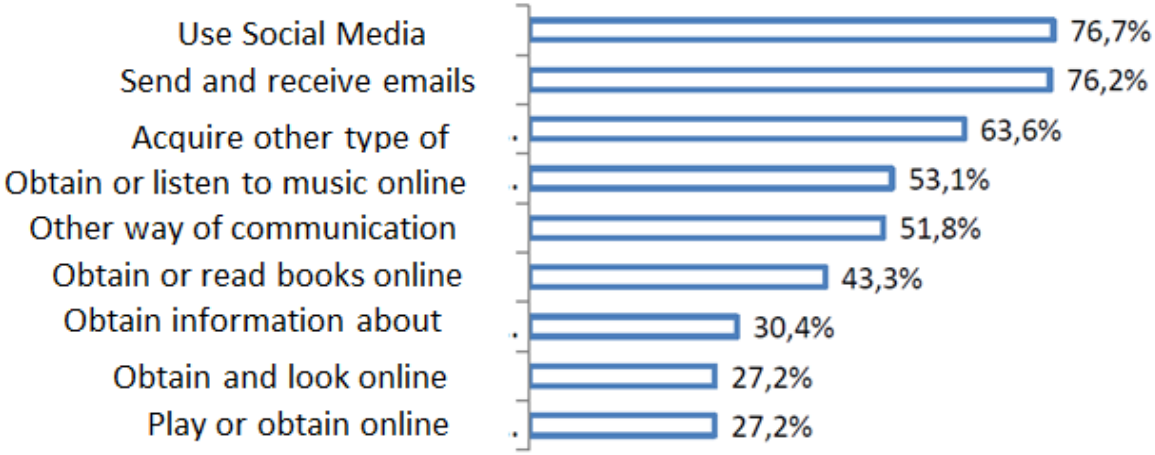
D.4.23. Other purposes for which we use the Internet: Activities most frequently on the Internet 2009



Source: Ministerio Secretaría General de la Presidencia, 2012 "Conectividad cómo estamos"[56]

[56] Ministerio Secretaría General de la Presidencia (05/2012) "Conectividad cómo estamos". Santiago de Chile. Chile.

D.4.24. Other purposes for which we use the Internet: Activities most frequently on the Internet 2011



Source: Ministerio Secretaría General de la Presidencia, 2012 "Conectividad cómo estamos"[57]

[57] Ibídem.

D.5. Tariffs from the Sector: Trade of services

D.5.1. Tariffs of public services: Sale price to the public

It is the principle of tariff freedom contained in the law, which has allowed the industry to resolve several discussions about the tariff regimen model to follow. It is also worth recalling that for unlike for example the landline telephony, where the legislator stipulated that it was going to be rule by This principle, that is to say that prices are and will be free, except when the monitoring organ of free competition rates that there is not enough competition, in which case the prices must be set. In mobile matter are and have always been of free Price setting, because the general telecommunications law leaves out of the system the fare regulation that the resolute commission had in that moment and that the tribunal for the free competition of rating the degree of competence on such market now has, so in that way it can safeguard the competition (Art.29 LGT).

On its most incipient stage, the first discussion the industry solved, brought as a result the Tariff Regimen, called by some people as "Receiving Party Pays (RPP)", and it is applied until mid-1998. It was about a system where the one who receives the call will have to pay. It was a criticized modality well it generated crossed subsidies and market distortions, as the receptor was the one who used to pay the cost of the mobile network and the landline network[58].

For others the first great discussion was the result of the "Mobile Party Pays (MPP) regimen", system where the mobile subscriber pays incoming and outgoing calls.[59] Finally there is no discussion that after the MPP showed up for the first time and via official decree Nº 425 of December of 1996, the regimen "Calling Party Pays (CPP)".[60] This regimen is the one that exists nowadays where the one who calls is the one who pays, system around which changes were also announced by initiative of the same sector authority.

In 1995 Chile was operated in the 800Mhz frequency band, covering the first analogic mobile telephony systems (also known as 1G) the only tendered one so far. In that year the 1900MHz band corresponding to the digital mobile telephony systems PCS (Known as 2G) was tendered.[61] Yet in 1996, mobile telephony tariffs were high and restrictive; the companies that offered the

[58] Gálvez, Thelma (2000) "Litigiosidad en los Servicios de Utilidad Pública: el Sector de Telecomunicaciones". Informe Final - Ministerio de Economía, Fomento y Turismo. [Online] <http://bit.ly/YVDjJ4> [Retrieved 17/12/2012]. p.32.

[59] Regulatel (2003). Publicación Electrónica Mensual. Nº2. Octubre-Noviembre Nº13. [Online] <http://bit.ly/WEldkq> [Retrieved 17/12/2012]. p.7.

[60] This system is proposed then settled deep and extensive legal discussion where two important topics were discussed:1) If the charges of access or interconnection should be or not set by regulator; and 2) if it is left behind the modality of payment to the client under the regime MPP, to implement the CPP.

[61] Pavic, Lorena; Frene, Guillermo; Silva, Alfonso y Troncoso, Sebastián (2009) "Caso 3G: su impacto en el mercado de las telecomunicaciones y los desafíos impuestos al regulador." Grupos de Libre Competencia y Telecomunicaciones. Carey y Cía. Ltda. Boletín de Telecomunicaciones 12/2009. Subsecretaría de Telecomunicaciones. Santiago de Chile - Chile. p.274.

service, applied the Mobile Party Pays (MPP) payment modality, which implied that every calls' cost (as incoming as outgoing) lay on the subscriber; likewise a big quantity of plans, most of them post-pay system were offered. Under this model services were to expensive, therefore mobile telephony as a product stayed focused on high income segments, it was considered a luxury service in its beginnings, for: the case of those families that were able to afford it, or of urgent need, in the case of those companies that required it to assign them to specific executives.

Since 1998, when the idea of CPP system would has matured inside the industry, is when important changes on the mobile telephony service conditions are introduced, and which are significant in the cost for the client and later it generates an important impact in the growing rate of the dropout on this sector.

The Calling Party Pays (CPP) system was introduced by the sector agency, with optional nature and none compulsory, it ended up being the one that adopted the industry for competitiveness reasons. What is relevant about the N°425 decree for the future sector's development, was that: I) it set a high access charge level, even higher than the difference that exists nowadays on the landline and mobile industry's access charges[62]; and II) it included a new collecting modality to the final client, it was the CPP. Both circumstances generated the starting point, which gave birth to the services' cheapening on the subscriber behalf. Before it paid for making and receiving calls, reason why it was tended to contract the post-payment modality service, motivated on its functionality and promotional packages. Today a client that received calls didn't paid for receiving it, but the company that received the call made a collect to the company of origin; it means that it was a collect between companies. Thereafter a new charging structure emerged: the client that called had to pay for the cost of using his company's network plus the cost of the mobile Access, that last one was the paid Price to the destination network, in the operations between companies.

All these changes generated a tariff's reduction, besides the sector seemed to be benefited by offering even cheaper plans so far, This led to a decrease in the basic service's cost, but also on the additional services, such as voice mail, among others.

Later, when the pre-payment modality is introduced, it gave the users the opportunity of controlling their own consumption, although setting the segment with changeable tariffs that grow higher every minute, nevertheless under this modality the client makes use of the service according to what he or she can afford to pay, what allows clients with low income levels to access to the service. Being so this format allows to make top-ups taking in consideration an specific number of calls (depending on the time) and also to receive an unlimited number of incoming calls.

The experiences (as United States) which operates today only under the MPP, pre and post-payment modalities also work, the peculiarity lies in the idea about the first modality where the client does not have the possibility of being

[62] Caceres, Patricio, Regulatory Manager in Telefónica. Interview from 12/10/2012.

helped to pay by the one who calls, the cost of the communication, in that case the phenomenon which says that pre-payment overcomes post-payment, because the first one becomes unsustainable for a fraction of the market, which manage without the service, while others choose to hire plans.

For Patricio Cáceres, the justification of one system or another, is the result of the sector's level and development models, for example in United States it deals with the per-capita incoming level, market's size and business structures that the operators have. Unlike in Europe, the CPP prevails and also high access charges, model that traveled to Latin America.

In This way being low cost tariff's and variety of consumption options in the Chilean case, the penetration level increased considerably, from there the tariff structure in Chile, was characterized for having a healthy segment under the pre-payment modality but not like this for the post-payment one. Related to the prevailing modality it is quite clear that: i) the prices strategy of the operators is very sophisticated on its division inside the market; ii) there is a "On Net" traffic priority by reduced tariffs; iii) there is a height of tariff's segmentation (reduced and normal) by time zone; and iv) there is relatively homogeneous match between competitors.

Advanced this process, new production and consumption models come up, from there, at the mid two thousand's decade the data traffic service for mobile networks comes up. This product becomes the a new relevant phenomenon, also experimenting a growing rate more significant that in any other time before in This sector, for example: more than 10 years (1987-2000) mobile telephony was delayed trying to overcome the traditional landline penetration level, however, when we see the speed and penetration levels of mobile internet forefront of the classic landline internet, it is crystal clear that it only took the first one 3 years to overcome the second.

D.5.2. Charges of Access or interconnection tariffs

As it was said in previous sections, when talking about interconnection on mobile telecommunications, the n° 425 decree of 1996 introduces a tariff model which transforms the sector. A brief report about the evolution of mobile Access charges will be showed in the following table.

Charges of interconnection ($/minute + IVA)		
2003	**2006**	**2012**
120,90	86,68	66,8

Source: Authors elaboration from ITU (2004)[63], SUBTEL (2008)[64] y Iriarte, Laura, 2012)[65].

[63] Subtel (2004) La Regulación de las Tarifas de Interconexión - Cargo de Acceso Proceso Tarifario Móvil en Chile. [On line] <http://bit.ly/Yz7hmm> [Retrieved 23/09/2012]. p.20.

[64] Rainieri, Ricardo (2008) Telecomunicaciones: Convergencia y Nuevos Desafíos. Capitulo IV. Subtel. Santiago - Chile. p.154.

[65] Iriarte, Laura (2012) Chile tiene el cargo de acceso de telefonía móvil más alto de la OCDE. Economía y Negocios. [On line] <http://bit.ly/15T57nM> [Retrieved 11/06/2012].

In Chile the Access charge is set by decree and it rules for five years. The last pricing process was defined in 2008 and it started to rule in 2009 (Moreno, Veronica, 2012)[66]. During that year Subtel announced the 44% decrease of this item. (Iriarte, Laura, 2012)[67]

According to a study made by the Organization for Economic Co-operation and Development (OECD) the interconnection charge in Chile (USD 0,165/minute) is bigger than the mobile telephony industrial in the organization's countries (USD 0,065/minute). Today countries as United States and Canada have tariffs equivalent to cero, while in México it is of USD 0,032/minute (Van der Beng, 2012)[68]. Also the difference between the mobile charge in landline telephony ($6,3/minute + VAT) and mobile is significant in Chile (Iriarte, 2012)[69].

For Rudolf Van der Berg (2012) from the (OECD), he recommended the Chilean government to "study the policies, see what's happening across the globe and create a more competitive market". In response to this, Subtel, at the Forefront of the sub secretary Atton "…answered that the executive objective is that the value get to be under the average OECD on 2013".

At the forefront of this scenario the industry pronounces itself, Jorge Carey, vice president of the VTR's board rates as "unjustified anomaly" the actual value of the current Access charges in Chile, in his view "...it is a barrier or wall of entry because they are not relevant for the bigger companies' incomes (Movistar, Entel y Claro), but they do represent a difficulty for the incoming operators to this business such is the case of Nextel, VTR y Virgin, which started operating in the mobile market last year…the access charges today are relevant on incoming matter (this is because they represent a small fraction of the total incomes) nor investment, but they represent an strategic tariff because it allows the interested companies to establish a competitive barrier for the entry ones" (Moreno, 2012)[70].

For its part, the Fiscalia Nacional Económica thinks that the charges "are not well calculated, they are overvalued and there are artificial differences of costs based on what is considered necessary to make an "on net", versus an off net" call, it also claims that "This collect represents 90% of a call value from a landline phone to a mobile one and almost half of the price that companies collect for communicating by cell phones …" that "…today companies collect the established maximum and they don't have incentives to collect less, but if the matter is well studied, the biggest competition would make prices fall down" (Ferranda, 2011)[71].

[66] Moreno, Verónica (2012) Chile tiene cargos de acceso más bajos que el promedio de la región. Diario Financiero[Online] <http://bit.ly/140fsje> [Retrieved 29/11/2012].
[67] Iriarte, Laura (2012) Chile tiene el cargo de acceso de telefonía móvil más alto de la OCDE. Diario Financiero [Online] <http://bit.ly/15T57nM> [Retrieved 17/08/2012]
[68] Van der Berg, Rudolf (2012) Developments in mobile termination. OECD [Online] <http://bit.ly/YHnIhl> [Retrieved 111/12/2012].
[69] Ibídem.
[70] Moreno, Veronica (2012) Jorge Carey: "Los cargos de acceso deberían caer hasta los $ 9 como el promedio OCDE. Diario Financiero [Online] <http://bit.ly/140nCIm> [Retrieved 01/09/2012].
[71] Ferrando, Carolina (2012) FNE pide revisar valor de cargos de acceso de telefonía y Subtel dice

In this connection, the Subtel worried about promoting the efficient company enterprise, considers important " to eliminate legally access charges as the solution… for the present asymmetries" " due to "it has created distortions in the telecommunications market along time en el, which are related to the present examined themes by the TDLC of landline-mobile jamming on net-off net"(Ferranda, 2011)[72]. It also proposes that mobiles must assume saving costs for services integration, that the efficient company model will have to assume the synergies that operators created for the services convergence and it presents its preliminary proposal of technical-economic for setting the mobile telephony tariffs that will rule from 2014 for five years, and under which Movistar and Entel will act under guidance, of course Nextel, GTD, VTR and Virgin Mobile (Moreno, 2013)[73]. Among their proposals, Subtel, suggests an original opinion for saving from TDLC's failure, that "the packing or the joint selling of various telecommunication services as commercial practice, related to telecommunication service conciliatory phenomenon" and "this not only gives a clue about the new market's structure but, it also, guarantees that the joining can reduce costs too, the ones that should be showed in the efficient company model that will be one of the cornerstones , of the next tariff setting for mobile telephony." (Moreno, 2013)[74]

Also the Tribunal de Defensa de la Libre Competencia in its opportunity came with the result that "…the difference between the tariffs that some mobile telephony companies collect according if the calls end up in their own network (on-net) or on some other operators network (off-net) were very superior to the interconnection charges which the authority established, and they didn't have an economic reason or justification, concluding that the different produces the effect of excluding and stopping the insertion of other competitors, due to the establishment of number difference and increased the market concentration by the already established operators." Is for this reason that in March, Friday the 08th of 2013, "…the Price per minute of mobile telephone calls from other companies ("known as off-net") it cannot be bigger than the summitry of the price per minute of mobile telephone calls from the same company ("known as on-net") from the same plan and the applicable access charge, it means ($60 + VAT)". This process is estimated to be developed gradually to every new post and pre-payment plans, during the 60 days. The Subtel will make sure of giving sector technical support to the National economic treasurers' office to supervise in the field and check the contracts of the plans (La Nación, 2013)[75].

Finally the next Subtel tariff decree (2014), which rules the access charges of the mobile telephony, will only allow to commercialize "every destination" plans, Juan Antonio Etcheberry CEO of Virgin Mobile holds, that "the direct consequence of This decision is that a just competition is created

que los eliminará Diario Financiero [Online] <http://bit.ly/YEKXKY> [Retrieved 22/11/2012].

[72] Ibídem.

[73] Moreno Verónica (2012) Subtel propone que móviles deben asumir ahorros de costos por integración de servicios. Diario Financiero [Online] <http://bit.ly/113xbFN> [Retrieved 03/112/2012].

[74] Ibídem.

[75] Nación.cl (2013) Subtel oficia a empresas para que cumplan con tarifas planas. [Online] <http://bit.ly/YzppfU>[Retrieved 11/11/2012].

among the mobile telephony companies, making every one that offers this service to compete for taking to the clients the best offer" (Moreno, 2012)[76]. This measure also promotes the use of two or more mobile devices per each person, moment where the subscribers used this technique to make costs cheaper, forcing them to keep relation with more than one operator.

[76] Operadoras móviles se preparan para ofrecer planes de tarifa plana [Online] <http://bit.ly/YzsIn5> [Retrieved 18/09/2012].

D.6. The Price of mobile devices: Trade of goods

The same way as it was referred in previous sections, the first device that we have a record was the NEC P9100[77]. It worked for AMPS (Advanced Mobile Phone System) cell network systems. On its arrive there was not a network that supported it and it ended up being enabled in its moment by an experimental network of CTC Chile. Its list price was of 2.490 USD, the one of its main opponent was 4.000 USD[78]. Very few units were made. Its niche was the diplomacy executives and people with high incomes. Due to the high cost of the devices, the penetration of mobile communication was very small and it represented an established fee of the market, being restricted the possibility of industrial expansion. Being so, companies such as Motorola, NEC and Panasonic main bidders counted with decreased stocks, reason why the commercial flow was not very significant.

It was not if not from 2007 when the central bank of Chile, reflected in the list of main imported products, because the incremental volume, imports of mobile devices showing this market performance which then arises:

Amount	2007	2008	2009	2010	2011	2012
Billions of USD	694.531	741.244	564.877	919.960	1.206.379	1.485.735

Source: Banco Central de Chile. Indicadores de Comercio Exterior, Cuarto Trimestre Años: 2007, 2008[79], 2009[80], 2010[81], 2011[82] y 2012[83].

[77] Its features include: box heavy and bulky (impossible to carry Pocket) which affected their import costs. Its screen was simple: 3 lines of liquid crystal format-calculator and greenish tone digits. Phone numbers, showed some letters of a rudimentary menu allowing only adjust the volume of the ringtone (if that you can be called ringtone to that sound) and the signal received at the time. This was shown in the form of cubes. While more cubes, better signal. The maximum was 3. Weak retractable external antenna, the main problem for years of mobile terminals. The battery allowed between 40 and 50 minutes of speaking. His schedule allowed maximum 25 phone numbers. Despite its flaws, was very portable compared to others who were offered. This same team at its launch dominated the U.S. market with a considerable share of 28.7% stake in sale points. For the moment the world market was approaching the two million mobile handsets in marketing. Chile Boutique cellphone company introduced it was perhaps the first store of mobile and accessories related in the country. This company when it brings the NEC9100 already worked with Nokia, Mitsubishi and Panasonic telephone equipment. Other teams were then imported to Chile although they were older than the NEC9100. Technical assistance was provided by the Nippon Electric Company, Limited in Chile (NEC Chile) company. WAYERLESS. NEC P9100, the first cell of Chile. [Wayerless (2011) NEC P9100, the first cell of Chile on the Internet. [Online] <http://bit.ly/YCa01j> [Retrieved 19/07/2012].

[78] Its name is DynaTAC 8000X, first marketed in 1983.

[79] Banco Central de Chile (2009). Indicadores de Comercio Exterior. Cuarto Trimestre 2008 <http://bit.ly/14HM8d7> [Retrieved 16/09/2012].

[80] Banco Central de Chile (2010). Indicadores de Comercio Exterior. Cuarto Trimestre 2009 <http://bit.ly/14HMlgr> [Retrieved 16/09/2012].

[81] Banco Central de Chile (2011). Indicadores de Comercio Exterior. Cuarto Trimestre 2010 <http://bit.ly/10wD8ea> [Retrieved 16/09/2012].

[82] Banco Central de Chile (2012). Indicadores de Comercio Exterior. Cuarto Trimestre 2011 <http://bit.ly/WdH2VG> [Retrieved 16/09/2012].

[83] Banco Central de Chile (2013). Indicadores de Comercio Exterior. Cuarto Trimestre 2012 <http://bit.ly/YN6eSz> [Retrieved 16/09/2012].

D.6.1. Exports to Chile of mobile devices from FTA partners

Country	2007	2008	2009	2010	2011	2012
Billions of USD						
China	82.676	160.397	236.701	547.794	893.981	1.287.314
México	316.090	296.909	181.202	205.003	159.203	38.672
Korea	93.050	77.284	59.412	51.869	74.752	28.877
United State	6.874	7.976	3.744	2.738	4.903	3.509
Panamá	0	0	0	42	157	1
Australia	1	1	0	5	3	7
Costa Rica	6	0	0	1	4	1
El Salvador	0	0	0	127	0	0
Honduras	0	0	0	0	0	1
Guatemala	0	0	0	0	4	1
Nicaragua	0	0	0	0	0	0
Island	0	0	0	0	0	0
Switzerland	1	0	0	151	14	0
Norway	0	0	0	0	1	1

Source: Authors elaboration from Trade Map

For 2012, it is observed that 91,42% of the export of mobile devices reaching Chile comes from countries with which it has free trade agreements, what represents an export flows of 1,358 millions of dollars. It is observed important increasing exports from China, while those from Korea, Mexico and United States tended considerably downward.

D.6.2. Exports from China

FTA with China came into force in October 2006. During 2011, were 15.152 companies which imported 4,694 products from China, while in 2005 the importing companies were 7,123. Of these, ten leading companies concentrated 18% of the total purchases during the past year[84]. Eight of the thirteen main companies that imported into Chile belong to the mobile telephony sector. From all Products, the cell phones represent 7% of the total imported, occupying the first place within the importer flow.

Main Importers Companies	Millions USD CIF
Falabella Retail S.A.	399,7
Samsung Electronics Chile Limitada	286,3
Telefónica Móviles Chile S.A.	284,9
Paris S.A.	222,9
Hewlett Packard Chile Comercial	214,0
Sodimac S.A.	204,5
ENTEL PCS Telecomunicaciones S.A.	192,5

[84] DIRECON (2012) Evaluación de las relaciones comerciales entre Chile y China a seis años de la entrada en vigencia del Tratado de Libre Comercio. [Online]<http://bit.ly/X9TNn4>. [Retrieved 22/10/2012]. p.7

Comercial Eccsa S.A.	188,9
Sony Chile Limitada	182,4
Comercial D & S S.A.	164,2
Claro Chile S.A.	162,1
Lg Electronics Inc Chile Limitada	138,5

Source: Direcon (2012)[85]. En azul claro las importadoras de dispositivos móviles.

As the table shows, in the 4 first importing companies include companies linked to the market of mobile devices.

D.6.3. Exports from Mexico

Enters into force in 1998 and as shown in the box mobile device export levels to Chile has been decreasing significantly, however for the 2011 cell phone exports stood at third place within the ten main products exported to Chile. Among the thirteen first major companies to export flow from Mexico to Chile, linked to the market of mobile devices occupy the place second, third, eighth, ninth, tenth second and thirteenth.[86]

Main Importers Companies	Millions USD CIF
Distribuidora Automotriz Marubeni	289,7
Lg Electronics Inc Chile Limitada	142,1
Samsung Electronics Chile Limitada	138,4
Molibdenos y Metales S.A	137,7
Comercial Kaufmann S.A.	121,1
Procter & Gamble Chile Limitada	77,1
Maco International S.A.	73,3
ENTEL PCS Telecomunicaciones S.A.	72,2
Telefónica Móviles Chile S.A.	65,1
Cidef Comercial S.A.	57,6
Agrogestión Vitra Ltda	41,3
Sony Chile Limitada	35,1
Claro Chile S.A.	34,6

Source: Direcon (2012)[87]. En azul claro las importadoras de dispositivos móviles.

[85] Ibídem. p.7.

[86] DIRECON (2012) Evaluación de las relaciones comerciales entre Chile y México a trece años de la entrada en vigencia del Tratado de Libre Comercio. [Online]<http://bit.ly/ZpHb60.> [Retrieved 04/09/2012].p.6.

[87] DIRECON (2012) "Evaluación de las relaciones comerciales entre Chile y México a trece años de la entrada en vigencia del Tratado de Libre Comercio". [Online] http://bit.ly/X9TNn4. [Retrieved 19/11/2012]. p.6.

D.6.4. Exports from Korea

The FTA into force in April 2004 and six years later, the commercial exchange between the two countries rose from 1,564 million $2003 to 5.197 billion 2009, representing an increase of 232%. Within this interchange, and as the picture shows, the export of mobile devices was relatively dynamic to placing the country in third place after Mexico. With the sale of mobile devices in the eighth position of the ten main export products Koreans towards the Chilean market and the company Lg electronics inc chile ltda in the same position within thirteen major companies exporting to Chile, generating a flow of $ 86,600 million.[88]

D.6.5. Exports from the United States

Is observed downward trend in the level of American export of mobile devices to the Chilean market, decreasing the dynamic it can relate the expansion of the Chinese offer, this because some of the companies that originally had headquarters in U.S. export points they went moving to China.

D.6.6. Exports from Panama

The FTA enters into force in April 2008, Chile opened its market by lowering its tariffs to 92.5% of exports from Panama. For this country his first participation in the Chilean mobile devices sector occurred two years after held the bilateral FTA. It should be noted that its flow has been highly variable, shrinking significantly in 2012.

D.6.7. Exports from Australia

The FTA effective since April 2009, this liberalized 97% of bilateral trade. Mobile devices are not among the main exports to Chile, however we note significant expansion of its offerings on cell phones after the entry into force of the free trade agreement.

D.6.8. Exports regulated under FTA - EFTA

The FTA in force between the European Association of free trade (Iceland, Norway, Liechtenstein and Switzerland) and Chile, Switzerland and Liechtenstein 86% of reduction of tariffs, imports from these countries, in the case of 73% Norway and Iceland, immediate granted 99%. Low dynamism in terms of exchange of mobile devices.

D.6.9. Effects of the market liberalization

In middle of the referred dynamic, the price of mobile devices has suffered significant changes, from cost USD 2.490 (NEC P9100) and 4,000

[88] DIRECON (2012) "Evaluación de las relaciones comerciales entre Chile y Corea a ocho años de la entrada en vigencia del Tratado de Libre Comercio". [Online] <http://bit.ly/YMUHCT>.[Retrieved 09/11/2012] p.6.

(Motorola DynaTAC 8000X), at the beginnings of the sector of mobile telephony, until to cost USD 21 currently the most economical, as shown in the following table.

Cellular	Company	Price
Samsung E1205	MOVISTAR	$9.990 / USD 21
NOKIA 1616	ENTEL	$ 9.990 / USD 21

Source: www.entel.cl y www.movistar.cl (Mobile Operators)

Smartphone	Company	Price
NOKIA 201	ENTEL	$ 39.990 / USD 84
ALCATEL 918	MOVISTAR	$ 49.990 / USD 106

Source: www.entel.cl y www.movistar.cl

Tablets	Company	Price
Tablet Microlab Modelo Spektru Wifi 8 GB 7P	ABCDIN	$ 79.990 / USD 170
Tablet Pocket 6	LA POLAR	$ 39.990 / USD 84.9 (Price if you pay with commercial card)

Source: www.abcdinc.l y www.lapolar.cl (Retailers)

Therefore, it should be noted that this contractive trend can follow in part, if it shows how in the time is reduced participation (proportion) of this field in the price index basket to the consumer 1989, 1998 and 2008.

This reduction is in part associated with technological change, but also to the possibility that had the Chilean consumer buy devices that have not incorporated in their prices tariff charges, but also which have been imported in high volumes, allowing to reduce logistical costs that affecting then in the value of the products.

CONSUMER PRICE INDEX		
Weighting within the total basket Mobile Device		
1989	**1998**	**2013**
1,291	0,669	0,397

Source: Authors elaboration from INE, Report monthly December 1989/1999/2013 (based in 2008).

In series and historical baskets, of base prior to 2009, the mobile telephony services were not disaggregated as a by-product, reason why it is possible to point out in the Edition N ° 172 of the CPI of March 08 2013 (Year based 2009), shown for mobile services a 2,091 in weighting within the basket total.[89]

[89] Instituto Nacional de Estadísticas (2013) "Boletín IPC. Edición N° 172". [Online] <http://bit.ly/bobYe2> [Retrieved 05/03/2013].

D.7. Challenges in the quality terms

An important aspect in the industry has to do with the high number of plans (prepaid and postpaid)that the consumer should review to when hiring mobile telecommunications services.

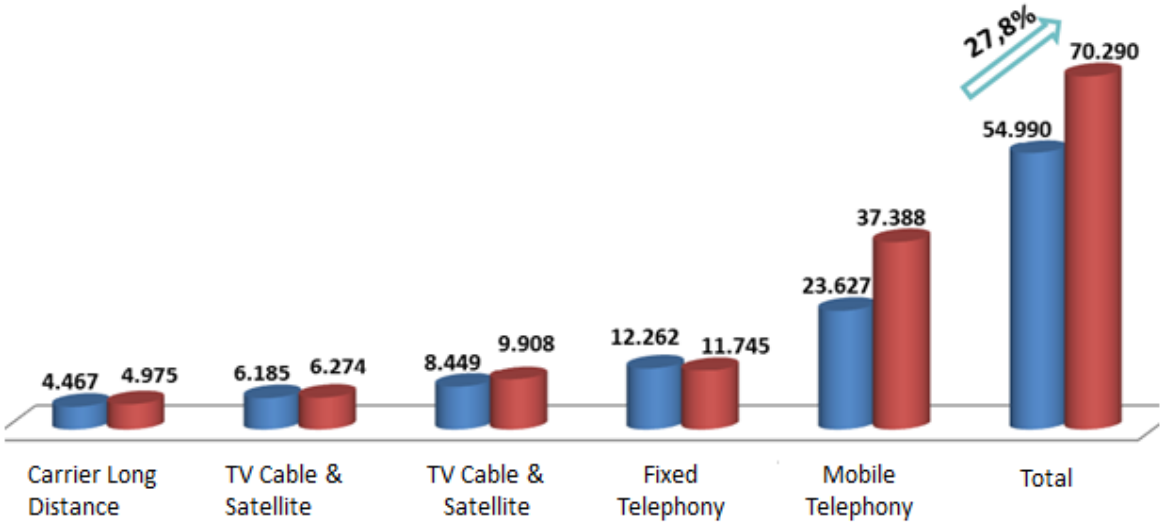
Each mobile operator provides telephony services and mobile internet under an important number of ways, with different packages of minutes for voice traffic, downloads and browsing speeds. It was observed that this practice in terms of volumes of plans and multiple characters in each, is given under certain consensus among operators and as common pattern, which leads to widespread opacity in the industry that distorts competition and consequently the quality sector.

Another problem in the industry is estimated anticompetitive, is the fact that all operators set their interconnection charges in the highest level suggested by the regulator, when there economic and technological efficiencies in its operations that allow them to reduce costs and that are not being absorbed into the prices structure of sell to public.

For other way, the sector's performance in respect to the relationship between operators and customers, shows significant failures that may be related to problems in the competition, they are, as for example, the high level of claims that accumulates this sub-sector telecommunications as can be seen below.

D.7.1. Level claim in the industry:

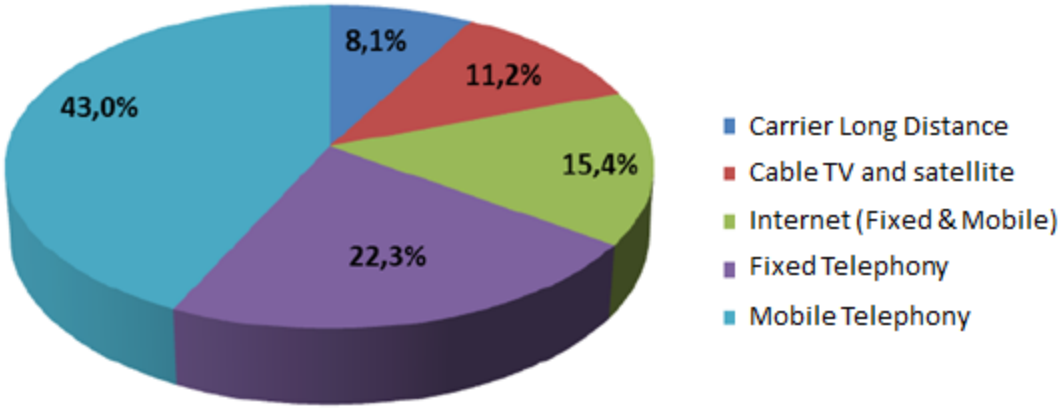
D.7.1.1. Volume of Claims in the telecommunications market, June 2010-May 2012



Source: Report by Sernac - Subtel, Periods: June 2010 - May 2011 and June 2011 - May 2012

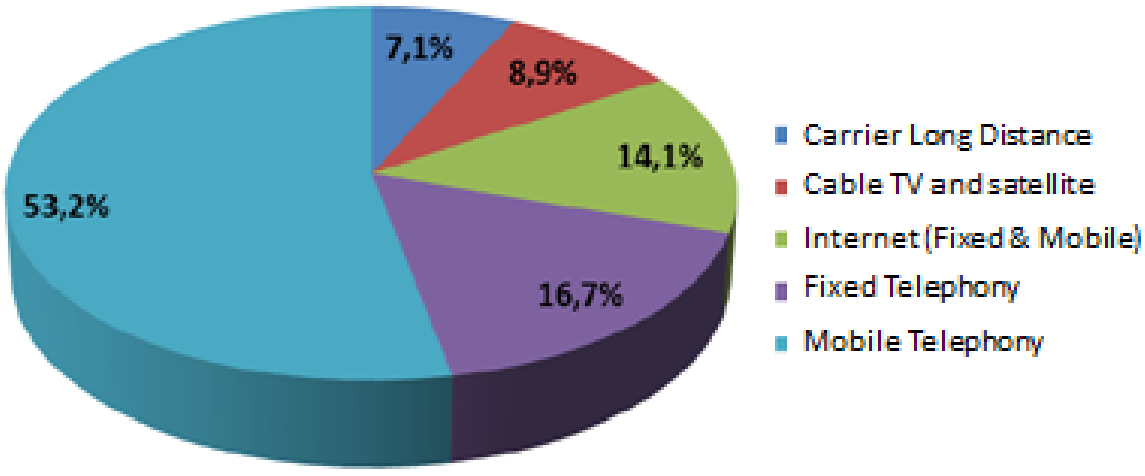
Observed periods: June 2010-May 2011 and June 2011-May 2012. Claims increased from 54.990-70.290, with increased 27.8%. Mobile telephony (TM) and the internet significantly increased. Mobile telephony increased from 23,627 to 37,388 with an increase of 58.2%. Internet went from 8.449 - 9.908 with an increased by 17.3%.

D.7.1.2. Share of Claims by service in the telecommunications market, June 2010-May 2011



Source: Report by Sernac - Subtel, Periods: June 2010 - May 2011 and June 2011 - May 2012

D.7.1.3. Share of Claims by service in the telecommunications market, June 2011-May 2012



Source: Report by Sernac - Subtel, Periods: June 2010 - May 2011 and June 2011 - May 2012

For both periods in terms of distribution of claims, it is observed that the largest number concentrated in Mobile Telephony, being in third place on the Internet.

D.7.1.4. Claims in Mobile Telecommunication: Mobile Telephony Services

Operators	Jun.2010 - May 2011	Jun.2011 - May 2012
Virgin Mobile	-	7
Nextel	7	51
Claro Móvil	6.866	10.612
Entel PCS	5.556	10.786
Movistar Móvil	11.198	15.932
Total	**23.627**	**37.388**

Source: Report by Sernac - Subtel, Periods: June 2010 - May 2011 and June 2011 - May 2012

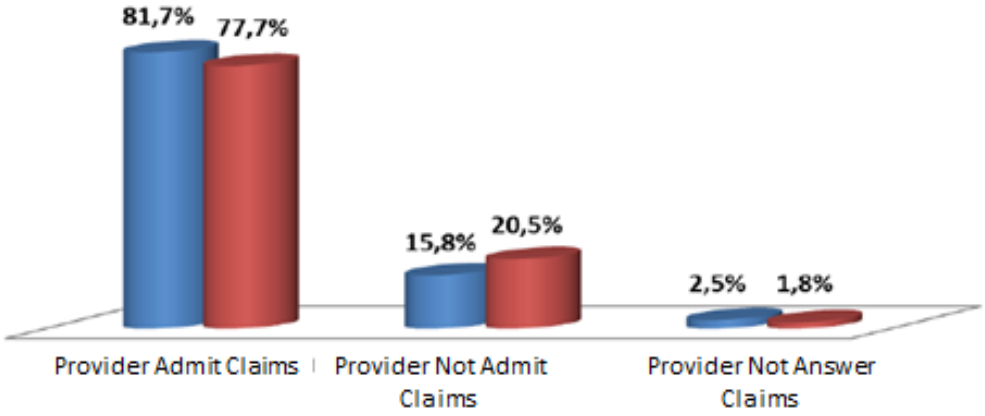
D.7.1.5. Claims in Mobile Telecommunication: Mobile Internet Services

Operators	Jun.2010 - May 2011	Jun.2011 - May 2012
Virgin Mobile	0	2
Nextel	3	16
Claro Móvil	1.305	1.533
Entel PCS	1.177	1.633
Movistar Móvil	2.411	2.624
Total	**4.896**	**5.808**

Source: Report by Sernac - Subtel, Periods: June 2010 - May 2011 and June 2011 - May 2012

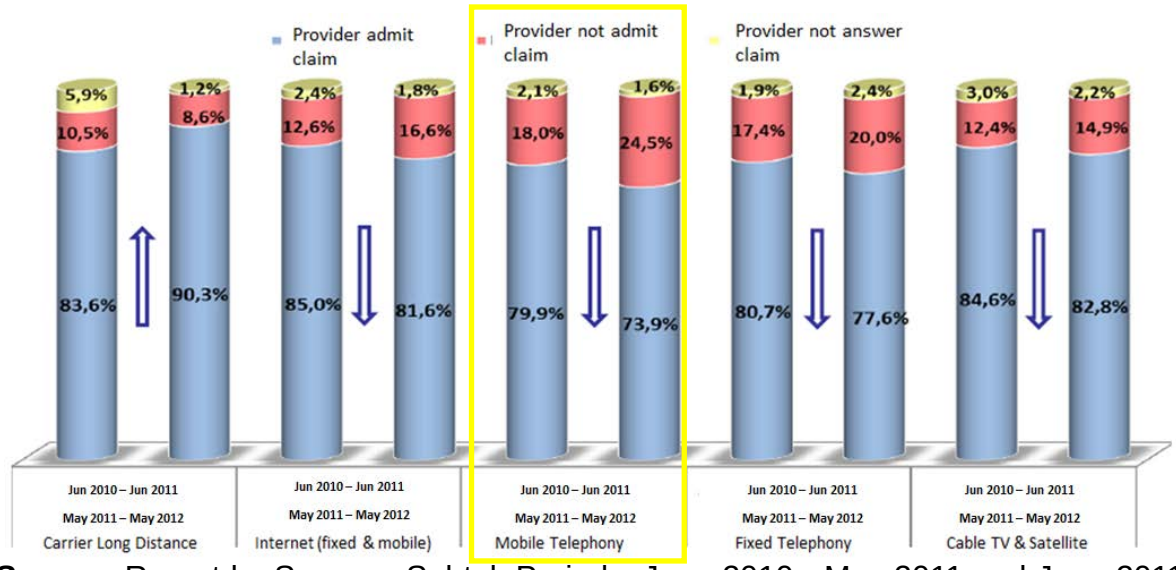
D.7.1.6. Management of claims in telecommunications sector:

D.7.1.6.1. Answers from operators to consumer complaints in the telecommunications market. June 2010-May 2011 and June 2011 - May 2012



Source: Report by Sernac - Subtel, Periods: June 2010 - May 2011 and June 2011 - May 2012

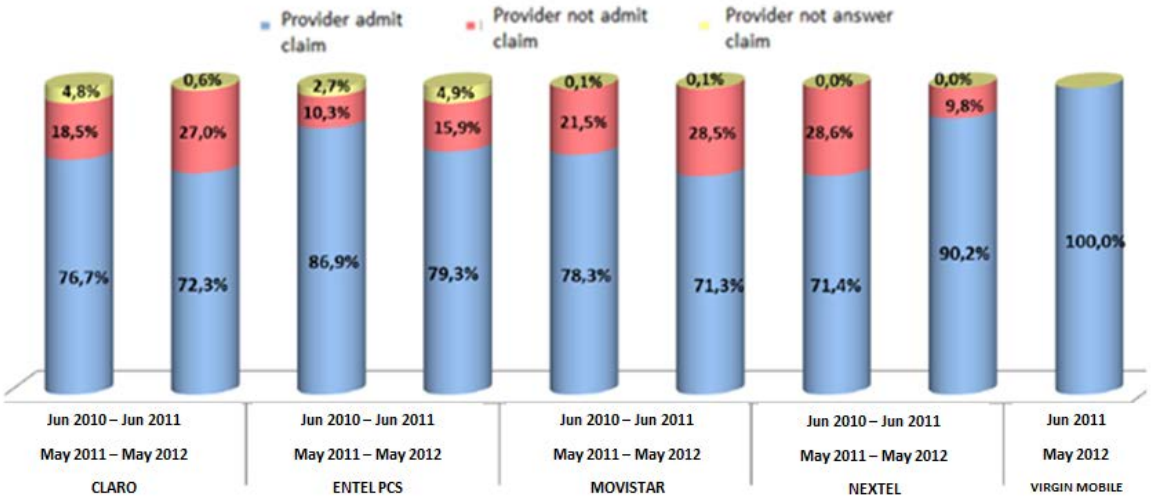
D.7.1.6.2. Answers from operators to consumer complaints in the telecommunications market. By sub-sector. June 2010-May 2011 and June 2011 - May 2012



Source: Report by Sernac - Subtel, Periods: June 2010 - May 2011 and June 2011 - May 2012

Between the telecommunications sector operators, the mobile operators reduced in 6%, their activity of admit claims. Also in 6,5% these operators increased their decisions of not accept 6.5% claims of clients.

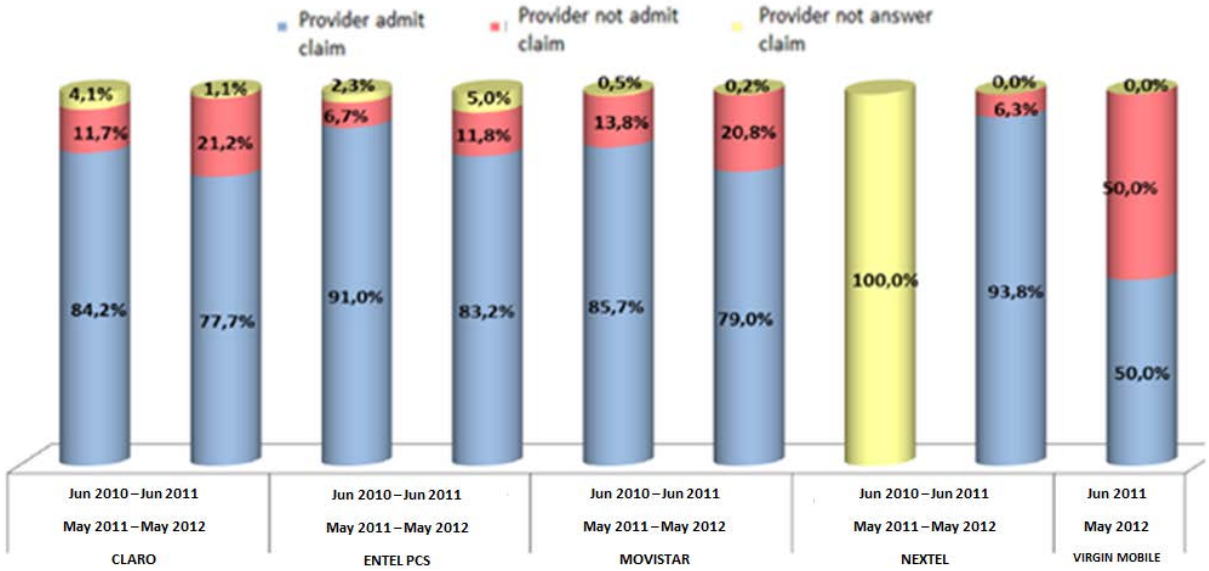
D.7.1.6.3. Answers from operators to consumer complaints in the mobile telecommunications market. Mobile Telephony. June 2010-May 2011 and June 2011 - May 2012



Source: Report by Sernac - Subtel, Periods: June 2010 - May 2011 and June 2011 - May 2012

About the operators it is noteworthy that Claro, Entel, Movistar reduced their claims level, being higher in the low Entel management with 7.6%. Meanwhile Virgin Mobile like new operator shows full attention to customer complaints.

D.7.1.6.4. Answers from operators to consumer complaints in the mobile telecommunications market. Mobile Internet. June 2010-May 2011 and June 2011 - May 2012



Source: Report by Sernac - Subtel, Periods: June 2010 - May 2011 and June 2011 - May 2012

It is confirmed the practice of Claro, Entel, Movistar at to reduce accept complaints, being Entel who has the most reduction with 7.8%. By other side, Virgin Mobile enters the market with the half of its claims not accepted. While Nextel presented a significantly lower volume of claims for the period June 2010 - May 2012, had only three complaints, where only one did not respond, another responded by announcing the inadmissibility and the other was derived. For the period June 2011-May 2012, there were only 16 complaints is the operator with the highest number accepted in the sub-sector, with 93.8%.

D.7.1.6.7. Origin of complaints reported by consumers

Categories	%
Improper Charges	61
Lack of information	10
Quality of goods and services	9
Publicity Misleading	8
Non-compliance of contract or terms offered.	6
Discrimination	6
Total	10
	0

Source: Sernac (2006)

To answer this problem SUBTEL conceived the Competition Model by service quality and its first tool is the comparator Plans and Rates Telecommunications Services. It was launched in February 2012 and according to Pedro Pablo Errazuriz, "this kind of initiative ..." is intended that the "... communication system to grow and strengthen, considering users and are asserting their rights to a free and transparent information." This tool has "... a more transparent market, better informed users and mechanisms for resolving consumer complaints more effectively, ensuring full freedom to choose, no fine print, boosting competition and encourage companies to compete for better deals. "[90]

Currently this comparison system is in maintenance after the instructions given by the TDLC to mobile operators. This way is observed like the authority cooperates in the control of the subsector. The outstanding issue in this case is to monitor industry compliance with the said instructions.

[90] Cooperativa (2012) Subtel lanzó portal web para cotizar planes de telefonía, internet y TV de pago. [Online]<http://bit.ly/zKavxs>[Retrieved 08/07/2012].

E. INTERNATIONAL BENCHMARKING

E.1. Benchmarking with Latin American

E.1.1. Percentage of the population covered by a mobile-cellular network 2000-2011

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Argentina	-	30	-	-	-	94	94	94	-	-	-	-
Brazil	-	-	-	-	88	88	89	91	92	97	100	100
Chile	100	100	100	100	100	100	100	100	100	100	100	100
Colombia	-	-	-	-	80	82	83	-	-	-	-	-
México	86	99	100	100	100	100	100	100	100	100	100	100
Panamá	74	77	79	79	87	75	77	81	83	88	91	92
Perú	-	-	-	-	-	-	87	92	95	84	98	100
Uruguay	100	100	100	100	100	100	100	100	100	100	100	100

Source: ITU, (2012) Data base Indicators

E.1.2. Annual investment in mobile communication services, in USD (thou)

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Argentina	..	..	..	..	..	..	..	..	..	..	..
Brazil	2.330.508	2.191.781	1.558.442	3.276.451	3.826.911	2.635.550	3.831.367	8.315.339	4.927.904	4.531.360	4.470.900
Chile	315.376	199.921	171.221	..	..	686.059	703.359	905.640	722.251	1.081.589	1.406.372
Colombia	..	..	..	..	..	..	..	701.323	710.729	..	..
Costa Rica	..	..	..	..	7.900	..	..	..	..	..	..
Mexico	1.661.349	1.043.064	957.090	1.404.432	1.194.943	746.535	771.334	1.235.315	1.132.680	2.977.138	2.193.228
Panama	..	..	..	..	..	..	..	..	..	..	..
Paraguay	..	..	..	..	..	..	..	..	..	..	..
Peru	..	..	..	..	..	..	..	377.209	391.926	314.081	446.053

Source: ITU, (2012) Data base Indicators

E.1.3. Revenue from all telecommunications services, in USD (thou) 1990-2000

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Argentina	..	2.069.110	2.810.304	3.836.028	4.663.617	5.513.478	5.560.090	5.983.992	8.451.226	8.523.000	9.467.000
Brazil	5.477.715	4.694.305	5.430.504	6.962.249	7.201.161	9.367.391	12.646.535	15.024.119	19.948.298	17.209.945	22.218.579
Chile	573.953	704.945	918.635	1.162.869	1.203.502	1.360.453	1.665.118	1.917.093	2.202.482	2.412.265	2.535.495
Colombia	913.871	774.281	1.023.770	1.038.964	1.031.421	1.213.047	2.042.076	3.735.626	3.041.990	2.841.313	2.663.330
Costa Rica	145.026	145.264	163.954	183.397	203.649	219.695	217.811	193.209	229.733	279.845	267.192
Mexico	3.805.232	4.993.068	6.184.846	7.897.772	8.642.933	6.509.111	8.027.537	8.824.747	9.211.352	10.536.980	12.235.142
Panama	164.413	178.324	200.410	209.400	227.600	232.800	248.600	262.291	341.201	429.871	437.588
Paraguay	82.237	100.108	122.223	133.892	150.164	181.603	182.872	205.338	225.659	332.627	324.301
Peru	590.053	572.696	731.389	703.566	683.050	1.183.222	1.319.103	1.523.469	1.445.752	1.383.044	1.414.900
Uruguay	183.405	289.636	318.075	359.095	480.168	539.264	627.325	704.689	703.257	779.254	778.033
Venezuela	513.859	597.895	1.015.780	1.147.392	1.367.918	2.833.021	2.067.893	2.674.798	3.092.688	3.541.951	3.871.940

Source: ITU, (2012) Data base Indicators

E.1.4. Revenue from all telecommunications services, in USD (thou) 2001-2011

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Argentina	8.893.000	3.931.046	4.985.172	5.486.301	5.736.915	6.876.836	8.294.709	10.339.741	..	..	..
Brazil	20.427.966	..	18.308.766	22.307.850	36.662.444	50.272.149	61.553.249	97.005.247	57.968.154	70.372.160	74.285.812
Chile	2.600.460	2.420.995	..	..	..	..	..	..	..	..	..
Colombia	3.467.341	3.757.228	3.709.040	4.831.360	6.333.824	6.310.935	8.168.735	8.966.260	9.721.754	12.043.554	..
Costa Rica	321.997	364.299	418.424	463.016	464.071	559.352	593.586	620.689	609.469	..	..

Mexico	15.970.021	16.808.592	17.058.387	18.707.958	21.836.513	26.025.005	29.059.295	30.307.317	27.190.080	30.295.957	31.816.335
Panama	417.818	425.404	480.636	520.966	571.657	624.397	741.540	886.590	885.217	829.696	871.344
Paraguay	308.608	..	..	320.245	304.440	410.704	580.819	679.624	..	..	..
Peru	1.394.707	..	..	2.005.000	2.157.864	2.636.533	..	3.999.653	3.944.997	4.389.327	4.962.026
Uruguay	714.145	..	..	..	..	752.742	844.498	991.277	956.515	1.099.512	1.205.630
Venezuela	4.920.698	2.934.232	3.008.124	3.881.888	5.077.699	6.956.768	9.729.973	11.889.586	13.051.916	13.120.756	9.132.881

Source: ITU, (2012) Data base Indicators

E.1.5. Revenue from mobile networks, in USD (thou) 1990-1999

	1990	**1991**	**1992**	**1993**	**1994**	**1995**	**1996**	**1997**	**1998**	**1999**
Argentina	..	78.680	155.778	259.456	364.961	547.437	700.238	1.220.610	2.501.251	2.327.000
Brazil	..	..	..	69.397	323.438	1.163.043	1.936.634	3.042.672	5.937.096	5.928.177
Chile	19.350	44.958	77.225	106.392	109.478	186.505	257.115	302.889	308.503	461.889
Colombia	..	..	..	..	..	..	..	..	..	375.218
Costa Rica	..	..	..	..	1.383	7.166	13.790	19.355	27.940	40.246
Mexico	..	..	..	..	..	449.463	511.573	822.222	1.025.812	1.618.102
Panama	..	..	..	..	..	..	..	24.797	85.049	146.975
Paraguay	..	..	..	..	..	..	..	..	..	..
Peru	..	..	..	..	37.358	80.781	198.098	320.550	328.328	329.586
Uruguay	..	..	..	..	18.056	41.423	91.196	126.631	113.467	182.187
Venezuela	..	..	..	..	109.627	1.051.780	591.854	730.607	1.181.614	1.616.258

Source: ITU, (2012) Data base Indicators

E.1.6. Revenue from mobile networks, in USD (thou) 2000-2011

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Argentina	2.652.000	2.553.000	864.052	1.221.379	1.523.973	1.707.989	4.535.425	5.723.838	6.314.732	..	..	..
Brazil	7.540.984	6.542.373	6.130.137	7.077.922	9.317.406	12.034.267	20.868.991	28.068.095	38.176.807	24.270.634	32.698.298	35.772.666
Chile	635.670	830.000	..	..	..	..	..	..	..	..	..	4.732.000*
Colombia	327.919	392.925	..	808.620	1.428.500	2.506.493	3.193.102	3.930.635	4.384.792	3.912.239	4.732.509	3.305.006
Costa Rica	69.279	99.060	139.145	198.580	239.006	244.714	333.582	342.710	366.472	335.392	..	..
México	2.564.787	4.564.240	5.690.062	6.314.171	8.005.283	10.150.550	12.360.134	14.551.053	15.571.858	14.629.654	16.710.280	17.673.195
Panama	152.546	157.296	178.529	224.985	299.946	262.343	304.149	353.531	486.521	502.391	469.275	500.843
Paraguay	..	..	..	..	..	..	243.064	346.513	451.630	..	627.790	620.463
Peru	324.355	381.256	..	662.146	738.157	..	973.695	..	1.862.891	1.983.098	2.392.786	2.765.374
Uruguay	212.230	200.034	..	..	..	..	261.174	341.904	473.553	562.741	583.359	671.483
Venezuela	1.904.030	1.517.102	953.999	951.972	1.315.431	2.373.850	2.258.330	3.717.119	6.744.171	8.116.402	7.804.770	5.178.859

Source: ITU, (2012) Data base Indicators and *****Entel (2012) 7ma Cumbre Santander GSM de inversionistas.[91] p.3.

E.1.7. Persons employed by mobile-telecommunication operators

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Brazil	17.228	20.013	19.546	..	21.900	25.478	106.200	131.778	178.680	..
Chile	2.864	4.078	4.075	4.468	..	..	4.124	4.588	9.001	8.856
Costa Rica	..	..	..	323	104	365	375	383	..	..
México	11.013	14.170	14.241	13.424	12.959	14.382	19.552	19.605	22.566	26.951
Panama	243	240	213	170	198	729	857	861	2.388	2.314
Paraguay	..	1.111	744	..	..	..	..	..	..	..
Peru	..	..	..	..	..	2.091	..	4.129	4.353	4.265

Source: ITU, (2012) Data base Indicators

[91] ENTEL (2012) 7ma Cumbre Santander GSM de Inversiones [Online] <http://123.com/11KyKqh>[Retrieved 07/01/2013].

E.1.8. Mobile Telephony

	87	88	89	90	91	92	93	94	95	96	97	98	99	00	01	02	03	04	05	06	07	08	09	10	11
Argentina	-	-	-	-	-	-	-	01	01	02	06	07	11	18	18	17	21	35	57	81	103	117	131	133	135
Australia	-	-	01	01	02	03	04	07	12	22	25	26	33	45	57	65	72	82	90	95	101	103	101	101	108
Brazil	-	-	-	-	-	-	-	-	01	02	03	04	09	13	16	19	26	36	46	53	64	79	90	104	123
Canada	-	01	01	02	03	04	05	06	09	12	14	18	23	28	34	40	46	57	65	76	61	66	71	71	75
Colombia	-	-	-	-	-	-	-	-	01	01	04	05	05	06	08	11	15	25	51	68	77	92	92	96	98
Korea	-	-	-	-	-	01	01	02	04	07	15	31	51	58	63	70	72	78	82	85	93	96	100	105	109
Denmark	02	02	02	03	03	04	07	10	16	25	27	36	49	63	74	83	89	96	101	107	115	119	124	126	126
United States	01	01	01	02	03	04	06	09	13	16	20	25	31	39	74	49	55	63	69	77	82	86	89	90	106
Finland	02	03	04	05	06	08	10	13	20	29	42	55	63	72	81	87	91	95	100	108	115	128	144	156	166
Japan	-	-	-	01	01	01	02	03	09	22	31	38	45	53	59	64	69	72	76	79	85	87	92	97	103
Mexico	-	-	-	-	-	-	-	-	01	01	02	03	08	14	21	25	29	37	44	51	61	68	74	81	82
Uruguay	-	-	-	-	-	-	-	-	01	02	03	05	10	12	16	15	15	18	35	70	90	105	122	132	141
Chile	-	-	-	-	-	-	01	01	01	02	03	06	15	22	33	40	46	57	65	76	84	88	97	116	130

Source: World Bank, Indicators, 2012

Country	Subscription to mobile telephony per 100 people.																								
	87	88	89	90	91	92	93	94	95	96	97	98	99	00	01	02	03	04	05	06	07	08	09	10	11
Argentine	-	-	-	-	-	-	-	01	01	02	06	07	11	18	18	17	21	35	57	81	103	117	131	133	135
Australia	-	-	01	01	02	03	04	07	12	22	25	26	33	45	57	65	72	82	90	95	101	103	101	101	108
Brazil	-	-	-	-	-	-	-	-	01	02	03	04	09	13	16	19	26	36	46	53	64	79	90	104	123
Canada	-	01	01	02	03	04	05	06	09	12	14	18	23	28	34	40	46	57	65	76	61	66	71	71	75

Colombia	-	-	-	-	-	-	-	-	01	01	04	05	05	06	08	11	15	25	51	68	77	92	92	96	98
Korea	-	-	-	-	-	01	01	02	04	07	15	31	51	58	63	70	72	78	82	85	93	96	100	105	109
Denmark	02	02	02	03	03	04	07	10	16	25	27	36	49	63	74	83	89	96	101	107	115	119	124	126	126
United States	01	01	01	02	03	04	06	09	13	16	20	25	31	39	74	49	55	63	69	77	82	86	89	90	106
Finland	02	03	04	05	06	08	10	13	20	29	42	55	63	72	81	87	91	95	100	108	115	128	144	156	166
Japan	-	-	-	01	01	01	02	03	09	22	31	38	45	53	59	64	69	72	76	79	85	87	92	97	103
Mexico	-	-	-	-	-	-	-	-	01	01	02	03	08	14	21	25	29	37	44	51	61	68	74	81	82
Uruguay	-	-	-	-	-	-	-	-	01	02	03	05	10	12	16	15	15	18	35	70	90	105	122	132	141
Chile	-	-	-	-	-	-	01	01	01	02	03	06	15	22	33	40	46	57	65	76	84	88	97	116	130

Source: World Bank, Indicators, 2012

E.1.9. Prepaid mobile-cellular telephone subscriptions

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Argentina	4.678.881	5.155.745	6.513.511	11.889.842	20.133.757	28.755.984	36.457.398	41.652.231	46.893.410	..	..
Brazil	19.544.207	25.002.071	35.357.004	52.800.000	69.670.050	80.555.682	97.576.507	122.731.549	143.600.507	167.097.347	198.168.285
Chile	3.809.931	4.861.439	5.794.971	7.644.732	8.638.113	9.806.577	10.432.036	10.762.915	11.933.023	14.065.837	15.885.567
Colombia	..	3.486.745	4.701.516	6.729.155	17.859.613	24.708.593	28.630.384	35.683.315	34.815.857	37.141.192	37.726.510
Costa Rica	..	..	..	..	..	..	..	..	..	1.331.071	3.006.459
Mexico	19.973.638	23.921.813	28.069.335	35.943.055	43.860.561	51.091.577	61.360.877	69.052.501	72.971.274	78.803.455	80.469.401
Panama	414.612	456.046	596.427	1.148.140	1.610.809	2.008.368	2.814.042	3.690.630	5.752.725	6.171.347	6.231.137
Paraguay	920.000	..	..	1.311.786	1.650.000	..	..	4.632.607	4.494.911	5.083.431	5.354.173
Peru	1.325.466	1.757.065	2.278.640	3.257.159	4.555.907	7.478.467	13.708.241	18.641.319	22.007.790	24.803.217	26.877.445
Uruguay	..	..	..	420.000	1.065.309	1.995.381	2.508.117	2.695.103	3.092.128	3.221.970	3.337.552
Venezuela	5.930.065	6.007.058	6.518.912	7.860.020	11.806.807	17.810.760	22.633.509	25.884.150	26.594.272	26.201.046	26.998.545

Source: ITU, (2012) Data base Indicators

E.1.10. Active mobile-broadband subscriptions

	2008	2009	2010	2011
Argentina	..	..	2.021.902	4.775.000
Brazil	3.471.381	8.664.443	20.627.950	41.114.405
Chile	..	599.506	1.443.583	3.102.244
Colombia	156.610	915.280	1.110.382	1.727.941
Costa Rica	..	..	65.000	95.000
México	43.809	71.790	2.837.760	7.483.891
Panama	..	..	118.000	518.220
Paraguay	..	57.381	174.736	288.318
Peru	..	84.552	266.892	406.501
Uruguay	..	110.000	453.133	726.074
Venezuela	215.143	571.941	2.611.445	4.729.254

Source: ITU, (2012) Data base Indicators

E.1.11. Internet Traffic Speed

Country	IP Address (million)	Speed (Mbps)		% About 10 Mbps	% Over 4 Mbp
		Average	Maxim		
Argentina	6,2	2,2	14,4	0,4%	12%
Brazil	19,2	2,2	15,1	0,5%	12%
Chile	3,2	3,4	19,7	1,0%	22%

Colombia	4,2	2,7	14,4	0,4%	11%
Mexico	10,8	2,8	13,5	0,4%	12%
Peru	0,9	1,6	11,6	0,1%	0,9%
Venezuela	2,3	0,9	6,8	<0,1%	0,6%

Source: Authors elaboration from Subtel, (2012) Radiografia de Internnet.

According Subtel Chile leads the region in higher average speeds 3MB. For this report Mobile broadband grew 138% in 2011, placing Chile ranking fourth in the OECD growth.

E.2. Benchmarking with OECD Countries

E.2.1. Annual investment in mobile communication services, in USD (mill)

Country	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Chile	315,376	199,921	171,221	..	..	686,059	703,359	905,64	722,251	1.081,59	1.406,37
Korea	..	..	..	2.612,02	2.454,40	3.236,31	3.379,04	2.842,88	2.363,64	2.755,13	3.665,73
Japan	..	..	..	..	..	..	..	..	..	..	..
Spain	1.899,11	1.222,64	1.587,64	2.159,19	2.586,25	2.567,13	3.148,35	1.997,66	1.374,39	1.438,73	1.219,75
United States	11.321,00	23.033,00	20.989,00	23.998,00	27.337,00	27.969,00	22.987,00	25.272,00	20.651,00	23.029,00	..
Canada	1.290,32	1.019,11	928,571	846,154	1.155,12	1.499,12	1.768,92	5.716,96	1.924,76	1.747,57	2.323,23
Australia	..	..	..	..	..	..	..	..	..	..	..
Mexico	1.661,35	1.043,06	957,09	1.404,43	1.194,94	746,535	771,334	1.235,32	1.132,68	2.977,14	2.193,23

Source: ITU, (2012) Data base Indicators

E.2.2. Revenue from all telecommunication services, in USD (bill) 1990-1999

Country	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Chile	0,574	0,705	0,919	1,163	1,204	1,36	1,665	1,917	2,202	2,412
Korea	5,074	6,118	6,66	7,332	8,241	10,623	14,066	13,574	10,096	15,932
Japan	43,623	49,152	54,735	65,859	76,687	93,622	94,513	92,816	88,39	113,768
Spain	8,364	9,701	11,279	9,587	9,582	11,327	14,01	14,207	15,532	17,935
USA	133,837	137,643	147,408	155,327	164,964	174,774	190	231,168	246,392	268,505
Canada	11,618	11,982	11,664	11,016	11,705	12,06	13,947	16,488	19,205	19,272
Australia	7,812	8,528	8,978	8,441	9,95	11,138	13,131	13,489	10,458	11,466
Mexico	3,805	4,993	6,185	7,898	8,643	6,509	8,028	8,825	9,211	10,537

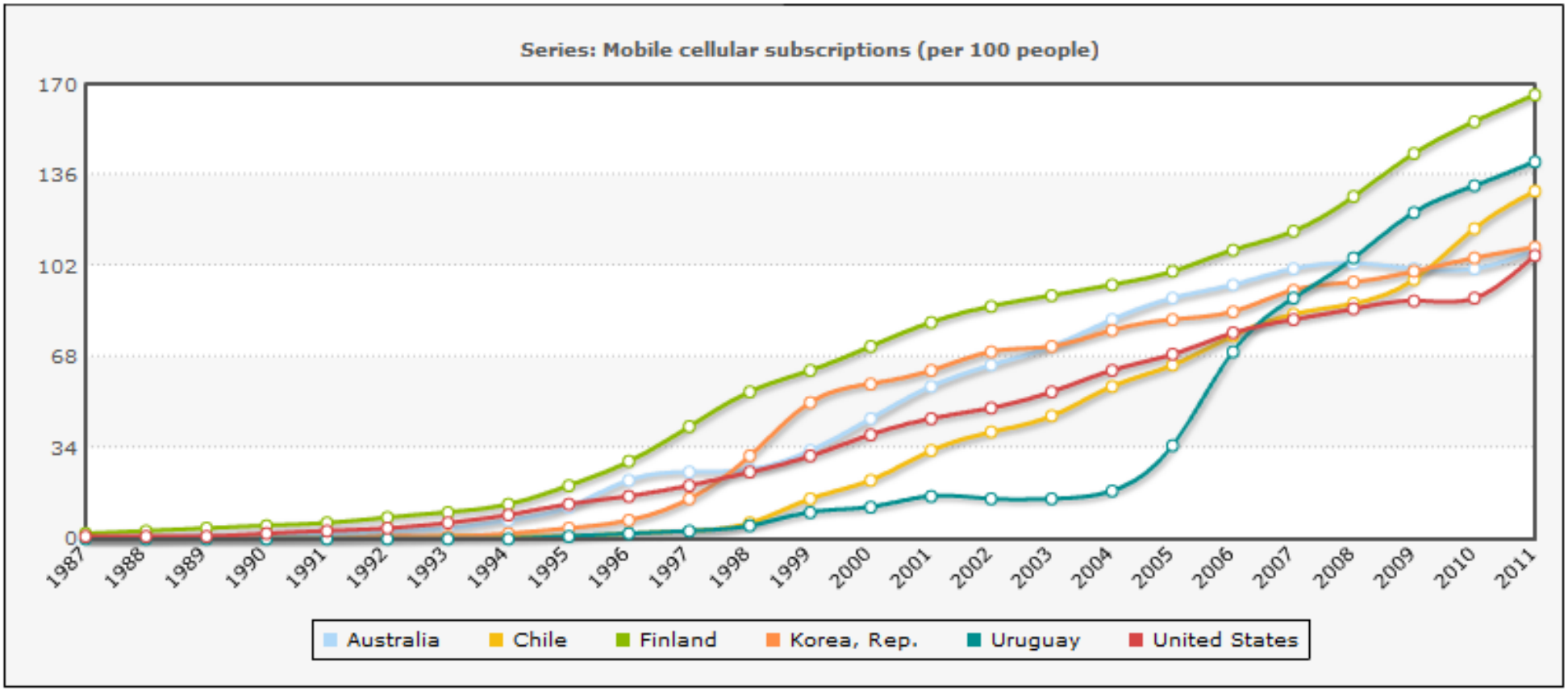
Source: ITU, (2012) Data base Indicators

E.2.3. Revenue from all telecommunication services, in USD (bill) 2000-2011

Country	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Chile	2,535	2,6	2,421	..	..	..	..	..	..	..	..	..
Korea	20,74	20,559	23,067	29,088	33,359	39,495	44,768	48,753	44,193	39,927	45,244	48,724
Japan	122,051	117,971	156,645	169,401	167,195	132,045	129,869	129,985	139,374	151,952	152,293	..
Spain	18,309	21,036	29,797	25,978	31,405	35,173	36,881	42,085	46,204	41,712	38,262	38,13
USA	292,762	301,8	292,762	301,8	366	378	348,657	369,015	386,16	384,248	398,099	..
Canada	20,578	20,876	21,161	22,727	25,624	28,449	31,807	35,569	37,676	35,871	40,485	43,131
Australia	11,857	11,445	15,624	19,391	..	26,634	..	31,148	..	29,198	37,21	43,553
Mexico	12,235	15,97	16,809	17,058	18,708	21,837	26,025	29,059	30,307	27,19	30,296	31,816

Source: ITU, (2012) Data base Indicators

E.2.4. Mobile Telephony. Period 1987 - 2011. Comparison between Chile and N°1 by region. Subscription to mobile telephony per 100 people. It´s included Uruguay in this comparison by It has a as dynamic sector as Chile in the region.



Source: World Bank, Indicators, 2012

E.2.5. Mobile-cellular prepaid - price of a one-minute call (peak, on-net), in USD

Country	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Chile	0,295	..	..	..	..	..	0,589	..	..	0,172	0,118	0,129	0,136
Korea	0,131	0,117	0,098	0,101	0,101	0,094	0,105	..	0,4	0,338	0,226	0,249	0,244
Japan	0,234	0,217	0,192	0,186	..	..	..	..	..	0,871	1,924	1,025	1,128
Spain	0,639	..	..	..	0,371	0,259	0,263	..	..	0,088	0,081	0,077	0,082
United States	0,1	..	..	0,35	0,35	..	0,45	..	..	0,25	0,25	0,27	0,27
Canada	0,201	0,168	0,161	0,159	0,179	0,192	0,206	0,326	..	0,375	0,35	0,427	0,457
Australia	0,267	0,765	0,684	0,527	0,63	0,752	0,782	..	..	0,168	0,686	0,817	0,826
Mexico	0,269	0,272	0,275	..	0,12	0,133	0,138	0,208	..	0,103	0,085	0,094	0,096

Source: ITU, (2012) Data base Indicators

E.2.6. Mobile-cellular prepaid - price of a one-minute call (peak, off-net), in USD

Country	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Chile	..	0,39	..	0,589	..	..	0,574	0,471	0,517	0,546
Korea	..	..	..	..	..	0,4	0,338	0,226	0,249	0,244
Japan	..	..	0,924	0,907	0,774	..	0,871	1,924	1,025	1,128
Spain	..	0,371	0,259	0,263	0,276	..	1	0,95	0,914	0,968

United States	..	0	..	..	0,24	..	0,25	0,25	0,27	0,27
Canada	..	0,236	..	0,206	0,326	..	0,375	0,35	0,427	0,457
Australia	0,527	0,63	0,007	0,008	0,008	..	0,503	0,686	0,817	0,826
México	0,311	0,259	0,205	0,205	0,208	..	0,359	0,296	0,329	0,32

Source: ITU, (2012) Data base Indicators

E.2.7. Prepaid mobile-cellular telephone subscriptions (thou)

Country	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Chile	3.809,93	4.861,44	5.794,97	7.644,73	8.638,11	9.806,58	10.432,04	10.762,92	11.933,02	14.065,84	15.885,57
Korea	..	..	..	..	..	..	871,624	909,182	980,026	1.001,15	1.017,37
Japan	..	2.084,00	2.609,00	2.858,00	2.726,00	2.494,00	2.109,00	1.541,00	1.099,00	1.238,79	1.370,46
Spain	19.271,47	20.873,65	21.627,18	20.066,63	20.713,47	20.880,96	20.764,62	20.313,02	20.865,46	19.968,89	20.376,65
USA	12.837,45	9.853,70	9.638,22	17.557,81	23.453,32	36.270,00	8.672,70	49.647,00	54.582,32	58.735,75	62.705,66
Canada	2.754,77	2.951,26	3.145,70	3.329,56	3.820,40	..	4.462,77	4.817,00	5.027,45	5.416,06	5.805,93
Australia	2.700,00	4.000,00	5.400,00	7.080,00	8.504,00	9.700,00	10.150,00	9.990,00	10.580,00	10.710,00	11.230,00
Mexico	19.973,64	23.921,81	28.069,34	35.943,06	43.860,56	51.091,58	61.360,88	69.052,50	72.971,27	78.803,46	80.469,40

Source: ITU, (2012) Data base Indicators

E.2.8. Active mobile-broadband subscriptions per 100 inhabitants

Country	2008	2009	2010	2011
Chile	..	3,536	8,435	17,964
Korea	74,025	88,933	98,215	105,052
Japan	..	79,178	88,206	101,309
Spain	..	10,076	25,321	41,575
USA	8,699	40,206	54,239	74,505
Canada	..	..	29,472	38,396
Australia	..	..	55,801	72,951
Mexico	0,04	0,064	2,502	6,519

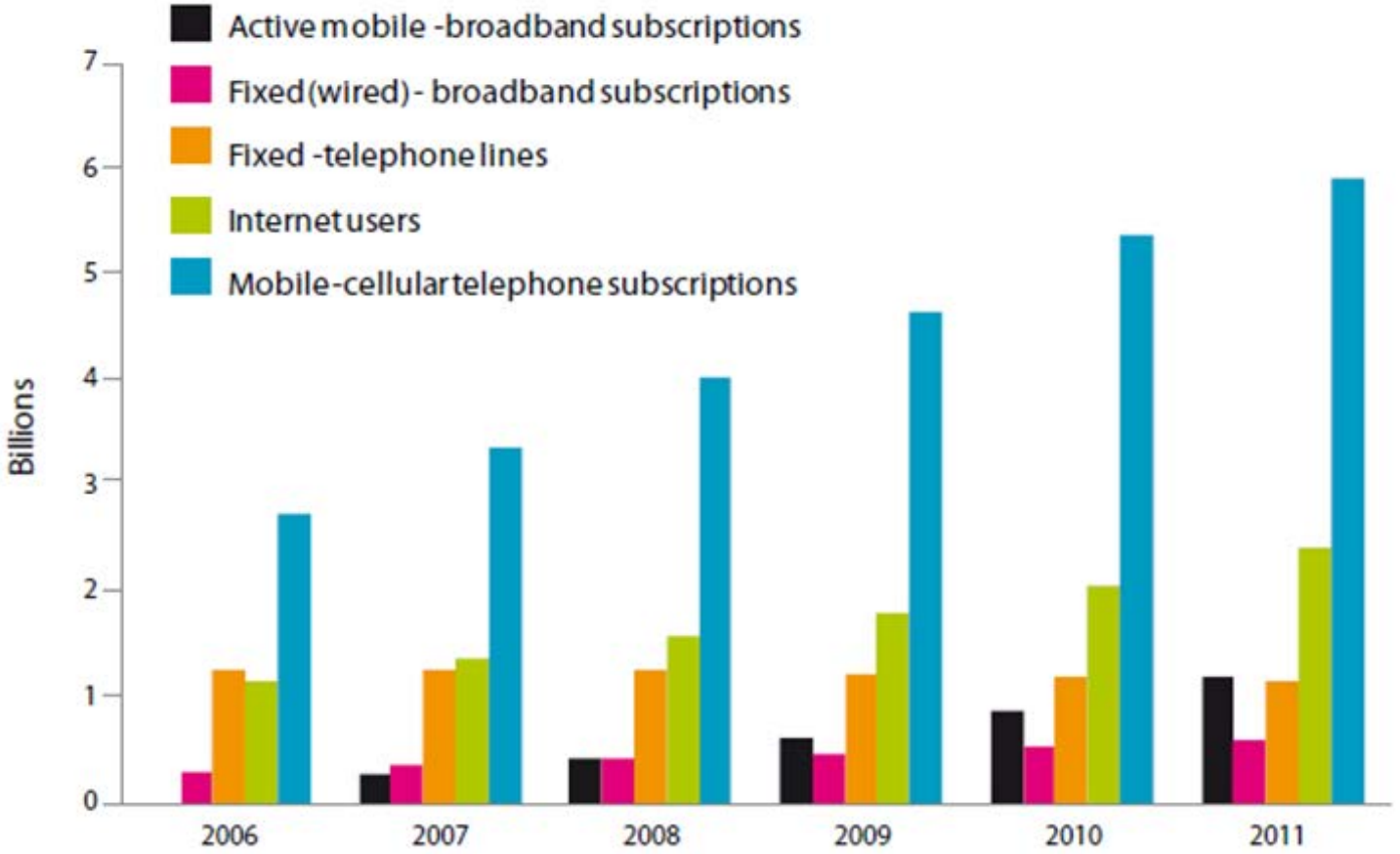
Source: ITU, (2012) Data base Indicators

E.2.9. Active mobile-broadband subscriptions

Country	2008	2009	2010	2011
Chile	..	599,506	1.443,58	3.102,24
Korea	35.335,09	42.655,90	47.323,30	50.836,20
Japan	..	100.200,60	111.612,00	128.153,70
Spain	..	4.598,45	11.667,17	19.313,80
USA	26.532,00	123.707,00	168.349,00	233.265,00
Canada	..	..	10.025,30	13.188,76
Australia	..	..	12.426,00	16.491,00
Mexico	43,809	71,79	2.837,76	7.483,89

Source: ITU, (2012) Data base Indicators

E.2.10. World telecommunications Trends.



Source: ITU, 2012

F. CONCLUSIONS AND FINAL REMARKS

F.1. Competition and tariff: Trade of Services

The mobile telephone was born on the 80s decade (with Cidcomm), as a response to the regulator changes that the industrialized sector was showing, in its early moments it was integrated by public and private operators, during the privatization process new agents entered to operate in the sector, between they "telefónica" with foreigner capitals, but was in the early 90s when arrives to the country the direct foreigner investment of two important operators in the sector in terms of technological transference and market distribution (Entel y Claro).

The sector regulation and the intervention of the organ for the free competition have been decisive in the development of this dynamic. The general regulations offers economic and public order guarantees, the foreigner investments regimen and the sector regulation gives incentives when talking about the protection of capitals, access to markets and national agreements, about the first one the actual regulation has been supported since 1974 (DL 600), according to the second and third, are underpinned in the current legislation available since 1982, where its guaranteed to person concerned the access to the market, through a granting, without costs, nor discriminatory causal factors, and with the radio spectrum under the shape of a tender, as long as he/she always achieve the technical requirements, coverage quality among other. It also offers the no intervention of the State in the selling tariff matter to the public, even under an special regimen, due to the mobile telephony is the only telecommunication service, which its structure costs should never be intervened by the sector agency, nor the organ for the free competition. Finally when talking about interconnection matters the controller has shown himself suggestive about the use of different systems such as CPP and the MPP, and it has been pliable when setting the tariffs.

The industry has responded showing new business models, such as the pre-payment, the virtual mobile operators and the infrastructure operators. All this has allowed the prices of the service tend to the decrease, but also to the develop the sector in terms of technological maturity, demand (penetration) and universal service, new consumption patterns have been generated and the offer today is highly diversified. The role of the institutional interventions of the Free competition Organs (FNE and TDLC) has been key for example in: i) the supervising of the roles of every operator, with the goal of guarantee the availability of the spectrum and to avoid the bands concentration that could be entry barriers for new operators; and ii)the recent decision of the TDLC where the cost per minute of every off net calls will be very similar to the on net call, making the offer more favorable for the client.

For its part, Subtel has also played an important role in generating competition inside the sector, and it's considered among the most relevant actor in the operability of number portability regimen, that contributed to the users' mobility and to reduce the tariff.

To finish, the principles, attributions, faculties and public actions that has developed the competition and the Price levels in the mobile industry have been set and implemented, in general since 1974 and in the sector since 1982, till our present. The upward trend don the penetration levels started on 1989. The technological evolution when talking about cell telephony systems experimented two of the four moments of history, before 1996. This are: in 1989 the insertion of the analogical mobile telephony (1G), and then in 1995, the implementation of the digital telephone networks PCS (2G).

The first commercial agreement in Chile contemplates disciplines in the sector, and it came to be operative in 1996. For this reason it can be concluded that the Chilean reformer has been the one who unilaterally adapted the regulator and the institutional structure of the mobile telecommunications sector for the development the commercialization of the services. It is possible to think despite the inner regulations offers enough incentives, previous to the bilateral commitments, the commercial agreements (TLC) as insertion of international means of the country, it has turned directly also on incentives for the investment person for the consolidation of disciplines such as international guarantees. In This connection three main operators on the history of the sector can be observed, two (Telefónica and Entel) they worked before in 1996, being Claro the third one, that arrived at later years of the same decade. Although the arrive of Spanish and Italian capital (Telefónica y Entel) can also be explained by Chiles being in effect since 1991, in the first case in 1993 in the second with the bilateral agreements of promotion and protection reciprocity of the investments. Happening that none of this two countries have signed the TLC with Chile.

Talking about the discussion related to the origin of the number portability it is estimated that considering the regulatory advance and unilateral institutional, the international discussion in the matter and the competition level to the ones the sector had reached is possible that the sector agency and the free competition organ, as it happened, had thought in this kind of regimen before the TLC negotiations with the USA, first bilateral instrument that approaches the matter, which means the there is no relation between that one and the sector's regulatory change.

F.2. Competition and prices: Trade of goods (devices)

As dynamic as the services, the devices trade has been too, but it does not contemplates disciplines of the preferences gave by Chile to the specialized

countries in this kind of production, it has allowed the local industry to amplify their offer and to improve the quality of their products through the technological evolution. A direct effect has been produced over the mobile service's sector, where the indicators show an expansion, but in terms of penetration, the access of new consumers segments to the service of the offer's quality. The combined evolution of both commercial areas, has allowed the rise of new productive and consumption patterns.

As it was said the commercial agreements (TLCs) signed by Chile, are characterized in related matters to the sector, for granting preferences where custom tariffs are deleted to the teams, setting them free when this agreement came into force.

It has generated that the 91,42% of the mobile devices imports that arrives to Chile usually comes from countries with the free trade agreement. That the counterparts of those agreements are strategic partners, because in the international market these would be the countries specialized in mobile devices, which makes their exports so voluminous, varied, dynamic and with competitive prices. This means that the main exporting industry of the world takes Chile with tariff preferences and its impact in the offers is very relevant.

The Chilean market of mobile goods is shaped mainly for 6 agents, all of them Asian exporters. This allows the existence of important competition levels which reflect the variety in terms of Price and quality offered by Chile.

The local industry does not produce mobile devices, for this reason the market is endowed exclusively with the importation, being the Chilean importing basket which is a result of the TLC with Asia greatly integrated by the mobile devices trade, locating this industry among the first thirteen import received from China to Korea.

It is precise to mention also that china shows a significant expansion on its exporting levels to Chile, while the ones coming from Korea México and United States show an important contradiction due to its considerably low trend.

The bilateral commercial performance it's observed in China's exporting of mobile devices as the biggest variation in terms of quantity, experienced in the Chilean sector of mobile telecommunications when the free trade agreement got into force. Being so the imports duplicate themselves a year after getting into force the agreement and six years later it is fifteen time bigger.

It can also be observed that during the expansive importing period from China, incoming imports from Korea, México and the United States tended decrease. It is also perceived that in Asia, various Korean companies also have

operations in China.

Finally, it can be said, that the performance of the mobile telecommunications sector, has been dynamic in terms of agents, technologies, capital allocations, business models, quality, prices, competition, consumption trends and productive patterns. It has been accelerated in terms of time if we compare with other countries and services. It has been experimented in both commercial areas: goods and services.

It can also be said that the commercial agreements produced changes over this performance; however it is not appropriate to say that they are agents of reform. Its direct impact has not been about the services commercialization, because the unilateral opening anticipated legally the access to the market, national agreement and other complementary guarantees, it contributed in the growing of the sector, its institutions and its agents. Besides the initial investment that impulse the sector significantly does not operates delimited by social agreements. It does not exclude that after the advanced negotiated opening these will have indirect influence with incentives to the investment, but not as disciplines to the regulator.

The most direct and relevant impact that influences the sector's performance, its produced in the trade of goods, where the tariff preference becomes the incentive that drastically increases the importing volume, being able to transform the supply chain and replacing suppliers. This phenomenon diversifies even more the domestic offer of mobile devices, in quality, cost, it fosters the unification of new segments-clients in the public goal, and with it the conditions for the mobile operators to dispose of means to develop their networks of cell telephony are created, providing bigger and better services, besides it contributes allowing the access to universal communications.

To conclude, we can say that Chile pioneered reforms in the region for the mobile telecommunications subsector and perhaps the earliest experience in achieving deep opening level achieved. Among the effects that were generated in this process are: 1) facilitated the process of opening internally negotiated, ie the subsequent adoption of trade agreements, most of which disciplines contemplated under the rules of public international law, ie as international obligation to the state. However about those, the Chilean State had advanced many year before. and 2) the negotiated liberalization process served to anchor the changes, when is consolidated under form of discipline to reforms. Of this way, it was secured the development model, from the field of mobile telecommunications and thus ending the internal discussion on the direction to be followed.

However questions still arise, because if the Chilean model supports its

mobile sector under a regime similar to many of the developed countries and they are numbers one in the world, why this subsector still has big challenges in terms of competition, quality and rates? Why was not enough to improve in these areas? Query that leaves open the ask to a new study.

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H. ANNEXS

H.1. Annex 1. Commitments included in bilateral preferential trade agreements

Country	Trade	Formal Aspects	Consolidated Commitments
Canada Into Force 1996	Services	Section of Investment, Services and Related Matters.	-Access to and use of networks and public telecommunications services. -Conditions for the provision of enhanced or value-added. -Standards about monopoly and transparency, among other subjects. In addition to the sectorial commitments are applicable to telecommunications all obligations relating to services in general.
	Goods	Chapter	Subheading 85171200. Cellular telephony and similar mobile devices. Tariff preferences. For mobile devices the tariff rate becomes 0% from the entry into force of agreement.
Mexico Into Force 01/08/98	Services	Chapter 12	-Conditions for the provision of enhanced or value-added. -Standards about monopoly and transparency, among other subjects. -Measures concerning standardization, monopolies, among other subjects. For mobile devices the tariff rate becomes 0% from the entry into force of agreement.
	Goods	Chapter	Subheading 85171200. Cellular telephony and similar mobile devices. Tariff preferences. For mobile devices the tariff rate becomes 0% from the entry into force of agreement.
Central América Protocols Into Force Costa Rica 14/02/02 El Salvador 01/06/02	Services	Chapter 13 (Costa Rica excluded from chapter)	-Access to and use of networks and public telecommunications services.

Honduras 19/07/09 Guatemala 23/03/10	Goods	Chapter	Subheading 85171200. Cellular telephony and similar mobile devices. Tariff preferences.
Nicaragua in process	Goods	Chapter	For mobile devices the tariff rate becomes 0% from the entry into force of agreement.
United States Into Force 01/01/04	Services	Chapter 13 Chapter 15 (E-commerce) Chapter 17 (Intellectual Property) Competition	-It´s excludes commercial mobile services (mobile telephony and MBB) -Commitments focus on regulatory issues, unlike Services Chapter that addresses issues of service supply, such as national treatment, most favored nation or access. The text is mainly based on the NAFTA and the reference document (Annex IV to Protocol commitments GATS) of the WTO. It differs from other FTAs, whose central point, ensuring competition in the market for public telecommunications services, so that all or nearly all the obstacles that an entrant may face when entering the market, are regulated and protected against potential abuses the dominant. Among the new topics included for the first time in FTA norms are, co-location (co-location), resale, number portability, dialing parity, interconnection, leased circuit services among others. *Intellectual Property* Clause 23 of the Chapter, is intended to regulate the limitation of liability of ISPs for copyright infringements. Resulted in art. 85 of Law 20.435 (From 04/05/10) amending Law 17.336.
			E-commerce This section is mainly to regulate the electronic supply of services, customs duties on digital products ensuring non-discriminatory treatment between digital products.
	Goods	Chapter	Subheading 85171200. Cellular telephony and similar mobile devices. Tariff preferences. For mobile devices the tariff rate becomes 0% from the entry into force of agreement.

South Korea Into Force 01/04/04		Chapter 13	Telecommunications sectorial commitments on similar terms that the FTA Chile-Canada, and the FTA Chile-Mexico, they follow the NAFTA model. It led to the establishment of a Telecommunications Standards Committee in order to harmonize the rules on the standardization of communications equipment. On the occasion of the treaty, Subtel and The Korean Communications Commission held "Mutual Recognition Arrangement for Conformity Assessment of Telecommunications Equipment" (MRA).
	Goods	Chapter	Subheading 85171200. Cellular telephony and similar mobile devices. Tariff preferences. For mobile devices the tariff rate becomes 0% from the entry into force of agreement.
China Into Force 01/10/06	Goods	List of Chile Annex 1, Section 1	For mobile devices the tariff rate becomes 0% from the entry into force of agreement. This treaty has not chapter about trade of services.
Panama Into Force 07/03/08	Goods	Annex of Chile	For mobile devices the tariff rate becomes 0% from the entry into force of agreement. This treaty has not chapter about trade of services.
Australia Into Force 06/03/09		Chapter 11 Chapter 16 (E-commerce) Chapter 17 (Intellectual Property)	*Telecommunications* Commitments, focusing on regulatory issues and ensuring competition in the market for telecommunications services. Regulates issues such as interconnection, number portability, dialing parity, resale, unbundling, co-location (co-location), and private leased circuit services, among others.
			Intellectual Property Also it regulates the limitation of liability of ISPs for infringements of copyright that occur on their systems or networks respecting the national legal system.

	Goods	Chapter	Subheading 85171200. Cellular telephony and similar mobile devices. Tariff preferences. For mobile devices the tariff rate becomes 0% from the entry into force of agreement.
Turkey Into Force 01/03/11		-	No commitments in telecommunications.
Malaysia Into Force 18/04/12		-	No commitments in telecommunications.

Source: Authors elaboration from Direcon, 2012.

H.2. Annex 2. Share of services in GDP, 1990-2011

Share of GDP (%)						
Country or Region	**1990**	**1995**	**2000**	**2005**	**2010**	**2011**
Chile	50	55	55	58	57	57
OECD	60,5	65,1	66,8	69,3	71,2	86
Upper middle Income	50,8	56,1	58,8	58	60,8	58,4
Latin America	58,3	59,9	63,4	62,5	62,9	61,1
East Asia & Pacific	50,6	52,2	54,3	56	52,6	44,6
South Asia	43,5	48,4	50,4	49,4	56,7	53,4

Source: World Bank, Indicators 2011.

H.3. Annex 3. Trade in services as a Share of GDP, 1990-2011

Trade as a Share of GDP, 1990-2011						
Country or Region	**1990**	**1995**	**2000**	**2005**	**2010**	**2011**
Chile	12	10	12	12	10	..
OECD	13	17,3	23,8	24,2	27,9	30,2
Upper Middle Income	24,3	24,8	23,3	23,7	22,6	12,8
Latin America	27,5	29,2	27,2	25,2	21,5	14,9
East Asia & Pacific	26,8	22,5	25,3	30,3	32,4	23,2
South Asia	17,3	22,5	20	17,8	17	8

Source: World Bank, Indicators 2011.

H.4. Annex 4. Trade in Services - Balance of Payments 2010.

Import/Export	USD MM	%
Commercial Services Import	11.568	100
Transportation	6.661	
Travel	1.914	
Other commercial services	2.993	
Commercial Services Export	10.685	100
Transportation	6.466	
Travel	1.636	
Other commercial services	2.584	

Source: World Trade Organization statistics database, services profiles

H.5. Annex 5. Trade in Services - Balance of Payments 2009-2011.

Commercial Import/Export	USD Millions		
	2009	**2010**	**2011**
Commercial Services Import	10.503	12.637	14.823
Commercial Services Export	8.493	10.831	12.406
	-2.010	-1.806	-2.417

Source: Central Bank of Chile, 2011.

H.6. Annex 6. Employment and Service Exports, 2010

Country	Service employment as a share of total employment (%)	Service Export as a share of GDP (%)	Share in total export of goods and service (%)
Argentina	67,6	3,5	15,8
Brazil	54,6	1,5	13,00
Chile	64,7	5,3	13,1
Costa Rica	60,7	12,7	31,9
Czech Republic	49,6	11,2	14,6
Egypt, Arab Rep.	36,9	10,8	48,6
Hungary	55,9	14,5	16,9
India	-	7,1	35,3

Indonesia	38.4	2,3	9,3
Korea, Republic of	64,2	8,0	14,9
Malaysia	50,3	13,7	14,1
Mexico	55,5	1,5	4,9
Philippines	45,0	6,6	20,7
South Africa	68,6	3,7	13,7
United States	67,4	3,6	28,6
European Union	64,7	9,7	-

Source: World Trade Organization statistics database, services profiles.

H.7. Annex 7. Telecommunications Service Investment, 2010

Country	**GDP 2010** (MM$)	**FDI in Services** (MM$)		**Telecommunications Investment 2009** (MM$)	
		Inward	**Outward**	Stocks	Flows
Argentina	368.712	21.344	-	4.926	306
Brazil	2.087.890	-	71.005	-	310
Chile	203.443	54.923	23.513	7.311	138
Costa Rica	34.564	6.426	-	-	-
Czech Republic	192.152	64.091	9.785	6.499	-596
Egypt, Arab Rep.	218.912	-	-	-	63
Hungary*	130.419	58.395	10.960	6.649	382
India	1.729.010	-	-	-	1.852
Indonesia	706.558	-	-	-	-
Korea, Republic of	1.014.483	56.781	48.030	3.304	122
Malaysia	237.804	33.087	39.760	5.700	-632
Mexico	1.039.662	-	-	-	-
Philippines	199.589	-	-	-	-
South Africa	363.704	44.753	-	-	-
United States	14.582.400	1.333.621	2.779.642	80.445	-11520
European Union	16.222.201	9.265.892	9.947.937	236.408	39.080

Source: World Trade Organization statistics database, services profiles

* Data for 2008.