NÚMERO 202

JUDITH MARISCAL

# Market Structure in the Latin American Mobile Sector

DICIEMBRE 2007

CIDE

www.cide.edu

*Agradecimientos*

*I acknowledge the valuable support of Fernando Ramírez and Armando Aldama in the research process of this paper.*

## *Abstract*

*Given the known importance of competition as a driving force in economic development in general, this document offers an analysis of the different levels of competition in the mobile telecommunications sector in Latin America. It first analyzes the process of consolidation of the two mobile companies, Telefónica and América Móvil, and then studies the impact this consolidation and the different levels of market concentration has had on key consumer welfare indicators, such as price and penetration. The results of this investigation do not show a clear association between market concentration and prices, however, there is a clear correlation between prices and spectrum allocation, that can be observed in the fact that countries that allocate the greatest amount of spectrum are the ones with the lower prices. In addition to this, the results of this work support the argument that the regulatory policy "Calling Party Pays" and the pricing strategy "Prepaid" are two variables that significantly the great mobile's penetration growth in the region.*

## *Resumen*

*Debido a la conocida importancia de la competencia como una fuerza conductora del desarrollo económico en general, el presente documento ofrece un análisis de los distintos niveles de competencia en el mercado de las telecomunicaciones móviles en esta región. Esto se aborda mediante dos líneas de trabajo generales: por un lado, se analiza el proceso de consolidación de dos empresas, Telefónica y América Móvil en la región, y por otro, se identifica el impacto que la concentración del mercado tiene sobre indicadores claves de bienestar del consumidor como son el precio y la penetración. Los resultados de esta investigación no muestran una clara asociación entre la concentración de mercado y los precios, sin embargo, existe una clara correlación entre precios y licitación de espectro radioeléctrico, ya que los países que mayor espectro licitan son aquellos que tienen los precios más bajos. Asimismo, los resultados apoyan el argumento de que la política regulatoria "el que llama paga" y la estrategia de precios denominada "prepago" son dos variables que explican significativamente el enorme crecimiento de la penetración móvil en la región.*

# Introduction

As in other regions of the world, the use of mobile telephony in Latin America increased dramatically during the last decade surpassing all expectations for the industry. Not only was its rate of growth unforeseen but the fact that mobile telephony was initiated as a premium service and became a device used by very low income groups was also unexpected. In Latin America today, mobile telephony provides the only source of access to some of the poorest segments of the population; despite several economic slumps, the number of mobile subscribers increased from 4 million in 1995 to close to 300 million in 2005.

Survey studies conducted in Latin America and the Caribbean show that mobile telephony is highly valued by the poor, as a tool for strengthening social ties, for increased personal security, and it is beginning to prove useful for enhancing business and employment opportunities(Galperin & Mariscal, 2007) Moreover, new mobile applications offer innovative services that make mobile access a useful tool for development. Third Generation (3G) mobile networks offer a range of voice, data and multimedia services with a wide variety of mobile-enabled applications that include commerce, governance and health, which offer the potential to empower the poor. For example, mobile-enabled commerce (m-Commerce) provides increased access to financial services and has the potential to draw those currently excluded into the formal banking system (Mallalieu, 2006).

The rapid growth in the mobile industry has occurred despite high prices; even though prices of mobile services have decreased over the years in the Latin American region, these are still significantly higher than in developed countries. However, mobile services were made accessible through innovative pricing strategies such as prepaid subscription and calling party pays (CPP). Prepaid and CPP have allowed people with low and variable incomes and without access to credit to purchase telephone cards without paying for incoming calls.

However, prepaid subscription is substantially more expensive than postpaid so the cost paid by the lower income group is higher. The margin of profit for prepaid cards is very high considering that administrative costs to the carrier are lower as there are no costs associated with payments and no credit risks (Barrantes & Galperin, 2007) It is interesting to note that in Chile, a Latin American country that exhibits a high degree of competition in its sector, prepaid and post paid pricing is very similar. The standard policy suggestion in empirical studies that competition works as a disciplinary factor towards lowering prices appears to be applicable to the mobile telephone service.

In fact, competition has been cited as a factor that has contributed to the growth in the mobile sector. Compared to fixed telephony, mobile services arose in a relatively more competitive environment with more firms operating in the market since its inception. Competition between mobile carriers promoted diffusion, encouraged innovation, expanded the network and reduced prices (Rouvinen, 2004).

However, even if mobile has been characterized by a higher degree of competition than the fixed segment of the market, the competitive assumptions of the mobile telephone may be too optimistic. The literature on industrial organization concludes that the mobile industry sustains only a few numbers of firms in the market (Valleti, 2003; Gruber, 2005). Because entry to the mobile market is restricted by the available spectrum, this industry is inherently oligopolistic (Sung, 2006). Moreover, in Latin America today we observe a consolidated market; the Spanish firm Telefónica and the Mexican corporation Grupo Carso Telecom, owner of Telmex and América Móvil, have operations in twenty six countries of the region and together serve 64% of the regional mobile market. These firms, as is the case in most regions of the world, provide both mobile and fixed telephone services. The joint ownership of fixed and mobile services reduces the potential for intermodal competition (Phoenix Center Policy Bulletin no. 10, 2004).

Given the importance of competition as a driving force towards the development of the sector, this paper offers a snapshot of competition in the mobile industry in the Latin American region and evaluates its impact. The specific objective in this paper is twofold: *1)* it seeks to analyse the process of consolidation that the region experiences today in the mobile market and *2)* identify the impact this market concentration has had on mobile welfare indicators such as penetration and pricing. The ultimate objective behind this analysis is to understand how the trend in market structure may impact the use of mobiles by low income sectors of the population in Latin America.

The findings in this paper are mixed. The results do not identify a strong association between market concentration and pricing, however, there appears to be a strong correlation between prices and radio spectrum allocation. Countries that have a very low spectrum allocation are the ones that have the highest prices; so this turns out to be a straight forward regulatory policy suggestion. The results also find, in support of other studies that the rapid mobile penetration growth is explained by pricing strategies like CPP and prepaid services (Mariscal *et al.*, 2006; Bonina *et al.*, 2006).

The first section of this paper will offer an overview of the process of consolidation in the mobile market in Latin America and the business strategies that mobile firms have followed. The following section will identify its market structure and the last section will explore the links between variables like market concentration and spectrum allocation with welfare indicators such as prices and penetration.

## 1. Process of consolidation in the Mobile Market in Latin America

Today the Latin American mobile market faces the increasing consolidation of two carriers in virtually every country. As Table 1 shows, América Móvil and Telefónica hold 64% of the Latin American market and have operations in 26 countries. Telecom Italia is the only other significant regional competitor with 12% of the market.[1]

**TABLE 1. LATIN AMERICA CONSOLIDATION (2005)**

| FIRM | MARKET (%) | OPERATES | LEADER IN |
|---|---|---|---|
| AMÉRICA MÓVIL | 36 | 13 COUNTRIES | COLOMBIA, ECUADOR, EL SALVADOR, GUATEMALA, MEXICO Y NICARAGUA |
| TELEFÓNICA MOVISTAR | 28 | 13 COUNTRIES | ARGENTINA, BRAZIL, CHILE, PANAMA, PERU Y VENEZUELA |
| TELECOM ITALIA | 12 | 5 COUNTRIES | BOLIVIA |
| OTHERS | 24 | | |

The two firms together have 64% of the Latin American market
Source: Telecom CIDE based on Rojas (2006)

This process of consolidation occurred after more than a decade of pro-market reforms where the objective was to promote a competitive market with numerous players. While the Spanish firm Telefónica consolidated a strong position after the acquisition of the mobile operations of Bellsouth in many countries of the region in 2004 and 2005, the Mexican firm Telmex and its associated firm, América Móvil, developed an aggressive acquisition policy in local telephony as well as in the mobile sector during the late 1990s. The results, shown in Table 1, are unexpected, not only because the objective of the 1990s reforms was to generate an atomized market, but also because the companies that today control the market were far from being the strongest in the world during those years.

This outcome may be explained, to a significant degree, by the support both companies received from their governments. During the 1990s, the reforms undertaken in the telecommunication sector in Spain and Mexico favored the creation of large companies with a strong position in all segments of this market. The strategy implemented in both cases was the result of policies that were directed towards the creation of National Champions and the success of these policies created the basis for their internationalisation. In the case of Spain, on the eve of the creation of the European Common Market, the Spanish government strengthened Telefónica before it faced competition in an open market. At the time, Spanish telecommunications

[1] Recently Telefónica acquired a 6.9% indirect stake in Telecom Italia but in the most important Latin American market, Brazil, Telefonica's freedom to act is limited because Vivo is a 50-50 joint venture with Portugal Telecom and also because it seems difficult that Telefónica could get the approval of the regulator to merge TIM with Vivo.

were among the least modernized systems in Europe, so the government feared that Telefónica would be absorbed by the major European operators or, in the best possible scenario, that it would play a minor role within an integrated European telecommunications sector. Today, Telefónica in Latin America still receives significant support from the Spanish government via fiscal incentives and in some cases such as Mexico it is supported by Telefónica in Spain.

The Spanish regulatory framework established a generous pricing policy, together with "cheap money" financing policy and the decision not to distribute dividends. During the first half of the 90s, the pricing policy was focused on financing the modernization of the company and on balancing tariffs. Telefónica benefited from the support of the Spanish government through solid financing mechanisms.[2] Telefónica began acquiring companies that held market power with exclusivity periods in Argentina, Chile, Peru and Brazil.

In the case of Mexico, as a cornerstone of the country's modernization process, Telmex was privatised and sold as a vertically and horizontally integrated company in 1990. Achieving a privatisation successfully meant overcoming a number of political and economic obstacles. A vertically and horizontally integrated company served the purpose of satisfying the demands of the key actors in the system: the national private sector and the unions, which were lobbying against the disintegration of the company and favored the creation of a National Champion. Furthermore, as in the Spanish case, policy makers believed Telmex had to be strengthen to face the competition of the powerful U.S. telecommunications firms. The mobile firm, Telcel, was awarded by the government with the only national licence to operate in Mexico.

Initially, the Mexican group did not have a significant participation in the process of privatisation in Latin America. Its interest in the Latin American telecommunications sector began only during the second half of the 1990s and followed two different paths: the acquisition of privatised fixed telephony companies in Guatemala, El Salvador and Nicaragua and, the most important one, the expansion of its mobile telephony operations to several countries in South America that was initiated in 2003.

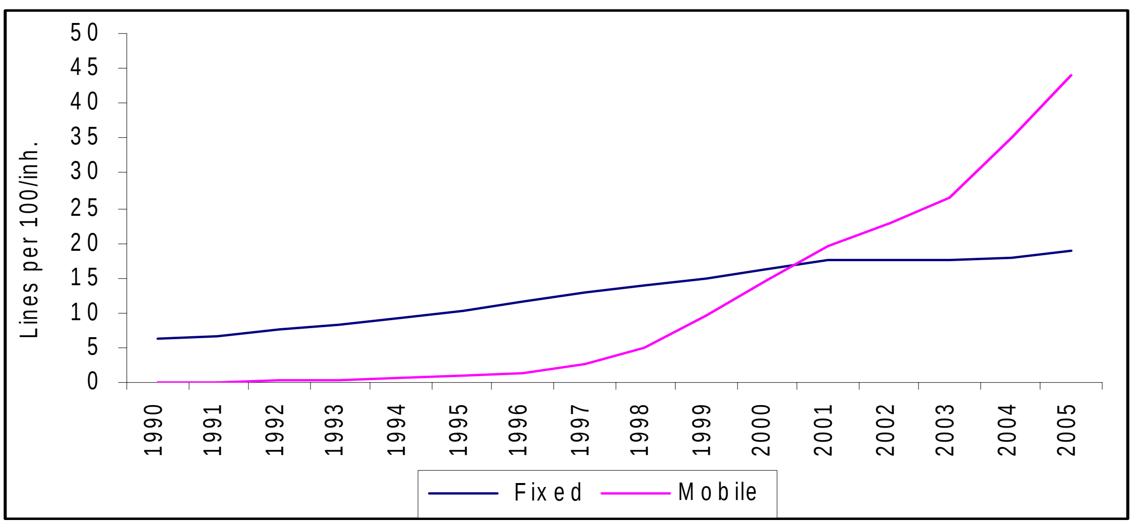
In Latin America, those companies that competed in the fixed telephone segment of the market acquired a significant advantage that allowed them to consolidate a very strong position in the telecommunications market. The control of the incumbent position in Spain, Mexico, Argentina and Chile, for example, posed difficulties to competitors in overcoming first-mover advantages. The U.S.-based companies that entered the Latin American telecommunications market in what appeared to be the dynamic sectors at

[2] This policy was not designed exclusively for the telecommunications sector, it was developed in other sectors, such as infrastructure and banking.

the beginning of the last decade, such as mobile and long distance, were not able to secure their position and today have lost all significant share of the Latin American market and preferred to return to their national market. Even pro-competitive regulatory policies were not enough to create a real level playing field that would counteract these initial strong positions.

Until 1997, mobile telephony was a secondary business option for the incumbent companies. Fixed teledensity by far surpassed mobile penetration and investment in fixed telephony. Shelter from competition and a relatively weak regulatory environment, seemed to promise a major source of income. Mobile telephony firms, on the other hand, were subject to a more significant degree of competition. Therefore, as the mobile companies were facing serious difficulties in generating positive EBITDAs,[3] the firms in the fixed sector owning mobile sister companies did not consider this branch of the business to be very promising. As Graph 1 shows, after 1998, while fixed teledensity tends to stagnate in most countries, mobile telephony began to grow at two digit ratios. The average annual growth of mobile telephony users during the 2000-2005 period was 20.3% in the region, while growth in the case of traditional telephony was only 0.4%.

**GRAPH 1. AVERAGE PENETRATION FIXED AND MOBILE IN LATIN AMERICA, 1990-2005**



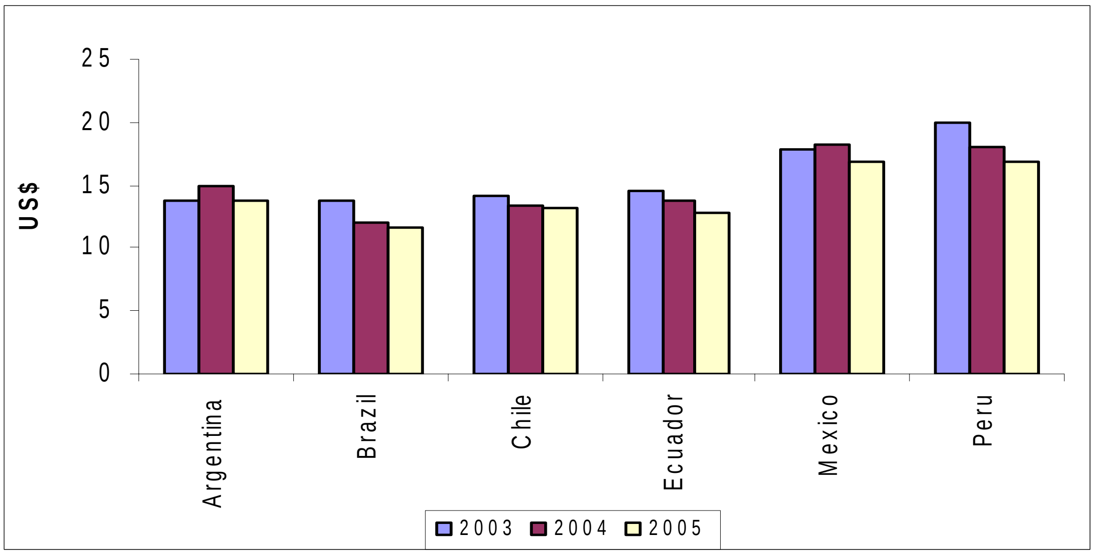

Source: Telecom CIDE based on ITU (2005, 2006).

In this context, mobile telephony became the focus of attention for the region's two largest operators: América Móvil and Telefónica Móviles. The acquisition process of these two companies involved an aggressive campaign to attract customers and the incursion into local markets in the fight for

[3] EBITDAs (Earnings Before Interest, Taxes [income taxes], Depreciation, Amortization and [owners] Salaries).

regional positioning, which in some cases involved a reduction in ARPU[4] (see Graph 2) during this time period as the number of users increased.[5] This has generated a scenario of global survival as opposed to one of collusion among companies. However, as Graph 3 shows, mobile services continue to be in the forecast predictions a more profitable business than fixed services.

**GRAPH 2. ARPU, LATIN AMERICAN SELECTED COUNTRIES, 2003-2005**



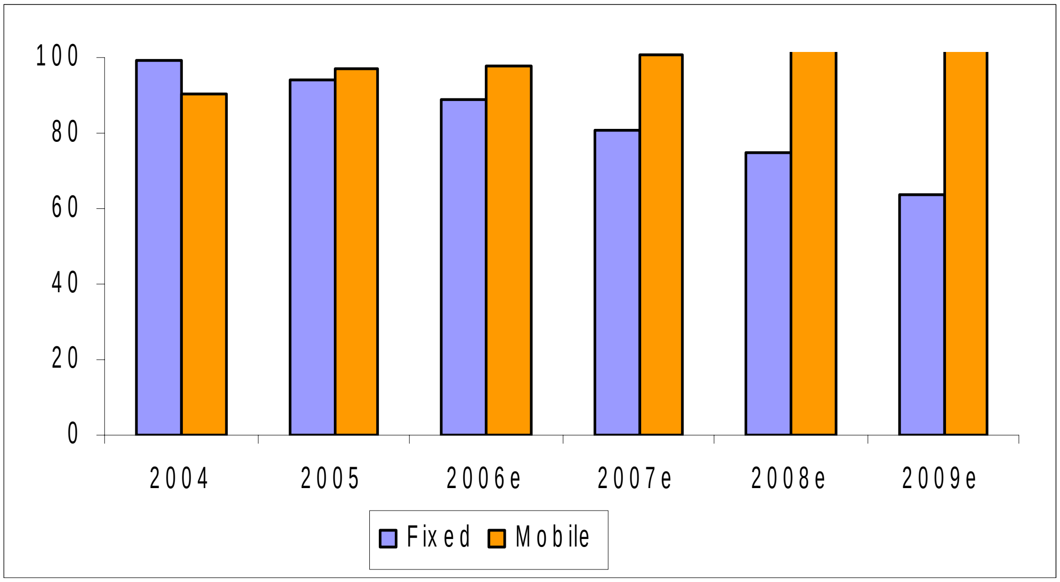

Source: Telecom CIDE based on Asocel and operators.

The mobile business is no longer an appendix of fixed operations, as the companies decided to separate both operations in order to maximize their profits. Telefónica Spain restructured its business by creating companies specializing in mobile communications, long distance, mobile telephony, data, Web services and call centers. The companies lost their national personality and were integrated into regional companies maintaining the generalized use of the Telefónica brand. The business strategy is no longer determined by the company in the fixed business, but rather the different segments develop their own strategies and are coordinated at a higher level. Nevertheless, the companies do take advantage of possible economies of scope that generate significant advantages over specialized operators.

4 ARPU (Average Revenue per User).

5 The fact ARPUs diminished also reflects the tendency in low income users to spend less in mobile services.

**GRAPH 3. MOBILE OVERTAKES FIXED (FORECAST REVENUE, $ BILLIONS)**




Source: Analyses quoted by Monteiro (2005)

Indeed, as mobile telephony became a business with a very favorable perspective, the firms in the sector began to fight for global operations. One of the central objectives has been to hold a central position in Brazil; both Telefónica and Telmex – América Móvil entered the Brazilian market with large investments.

The biggest step undertaken by Telefónica to become the central operator of the mobile segment in the region was the purchase of all Bellsouth operations in Latin America. As can be seen in Table 2, Telefónica holds mobile companies in thirteen countries, with participations (excluding the case of Mexico) that fluctuate between 24% in El Salvador and 73% in Panama, with a special emphasis on Brazil, where its participation is close to 50%. Telefónica Spain began its mobile operations in Mexico in 2002 with the purchase of Pegaso, thereby strengthening its position as the second largest supplier of mobile services in the country.

In 2001, Grupo Carso followed a similar path and decided to separate Telmex from Telcel, the mobile company, which became the international conglomerate América Móvil. Through this company, the group expanded its influence to the entire Latin American region and reached the position described in Table 2. As can be seen, it has operations in ten countries, with participations that fluctuate (excluding the case of Uruguay) between 25% in Brazil and close to 76% in Mexico. América Móvil has entered the Chilean market through the acquisition of Smartcom, the third largest mobile operator of that country.

## 2. Current Market Structure

The evolution of the market structure in the region shows some variation with respect to the number of mobile firms in the market. Table 2 shows this evolution; while the change in the number of mobile firms is not striking its composition was modified significantly. During the first period Telefónica already had a significant participation and América Móvil was initiating its operations in the region. An important change was the departure of European and U.S. based firms of the mobile market in Latin America. By the year 2000 firms such as British Telecom, France Telecom, and Bellsouth left the region. Only TIM from Italy maintained a position in Brazil and Argentina. Telefónica strengthened its position and América Móvil became a regional firm in the Latin American market. The companies that survived in the region are mostly owned by Telefónica and América Móvil.

**TABLE 2. MOBILE FIRMS IN LATIN AMERICA (SELECTED COUNTRIES)**

| COUNTRY | 1995 – 2000 | # | 2000 – 2005 | # | VARIATION |
|---|---|---|---|---|---|
| BRAZIL | PORTUGAL TELECOM AND TELEFÓNICA, BRITISH TELECOM, TIM, BELLSOUTH, TELIA, SK TELECOM, NTT, TELESYSTEMS, DDI. | 10 | PORTUGAL TELECOM AND TELEFÓNICA, TIM, AMÉRICA MÓVIL, BRASIL TELECOM, TELEMIG, OI. | 7 | -3 |
| ARGENTINA | BELLSOUTH (MOVICOM), TELEFÓNICA, FRANCE TÉLÉCOM AND TIM, AGEA/CLARÍN | 5 | TELEFÓNICA, AMÉRICA MÓVIL, TIM, NEXTEL. | 4 | -1 |
| COLOMBIA | MILICOM, CABLE & WIRELESS, BELL CANADA, TELEFÓNICA, AT&T | 5 | AMÉRICA MÓVIL, TELEFÓNICA, OLA, AVANTEL | 4 | -1 |
| CHILE | BELLSOUTH, TELEFÓNICA, SMARTCOM, ENTEL | 4 | AMÉRICA MÓVIL, TELEFÓNICA, ENTEL | 3 | -1 |
| ECUADOR | BELLSOUTH, CONECEL | 2 | AMÉRICA MÓVIL, TELEFÓNICA, ALEGRO | 3 | +1 |
| EL SALVADOR | TELEFÓNICA, FRANCE TËLÉCOM, TELEMÓVIL | 3 | TELEFÓNICA, AMÉRICA MÓVIL, TELEMÓVIL, DIGICEL, INTELFON | 5 | +2 |
| GUATEMALA | COMCEL, BELLSOUTH | 2 | COMCEL, AMÉRICA MÓVIL, TELEFÓNICA | 3 | +1 |
| HONDURAS | MILLICOM/MOTOROLA, TELIA/MEGATEL | 2 | AMÉRICA MÓVIL, MILLICOM | 2 | 0 |
| PERU | TELEFÓNICA, TIM | 2 | NEXTEL, TELEFÓNICA , AMÉRICA MÓVIL | 3 | +1 |
| NICARAGUA | BELLSOUTH | 1 | AMÉRICA MÓVIL, TELEFÓNICA | 2 | +1 |
| PANAMÁ | CABLE & WIRELESS, BELLSOUTH | 2 | CABLE & WIRELESS, TELEFÓNICA | 2 | 0 |
| PARAGUAY | TELECEL, NÚCLEO | 2 | TELECEL, NÚCLEO, AMÉRICA MÓVIL, VOX | 4 | +2 |
| URUGUAY | ANTEL, BELLSOUTH | 2 | ANTEL, TELEFÓNICA, AMÉRICA MÓVIL | 3 | +1 |

Sorce: Telecom CIDE based on Rozas (2005).

By the year 2005, the operations of the Mexican group América Móvil and of the Spanish firm Telefónica Móviles covered fifteen countries in Latin America with a joint participation within some countries surpassing 90% of the market, as is the case of Nicaragua, Colombia, Ecuador and Mexico (see Table 3).

**TABLE 3. MARKET PARTICIPATION BY COUNTRY (2005)**

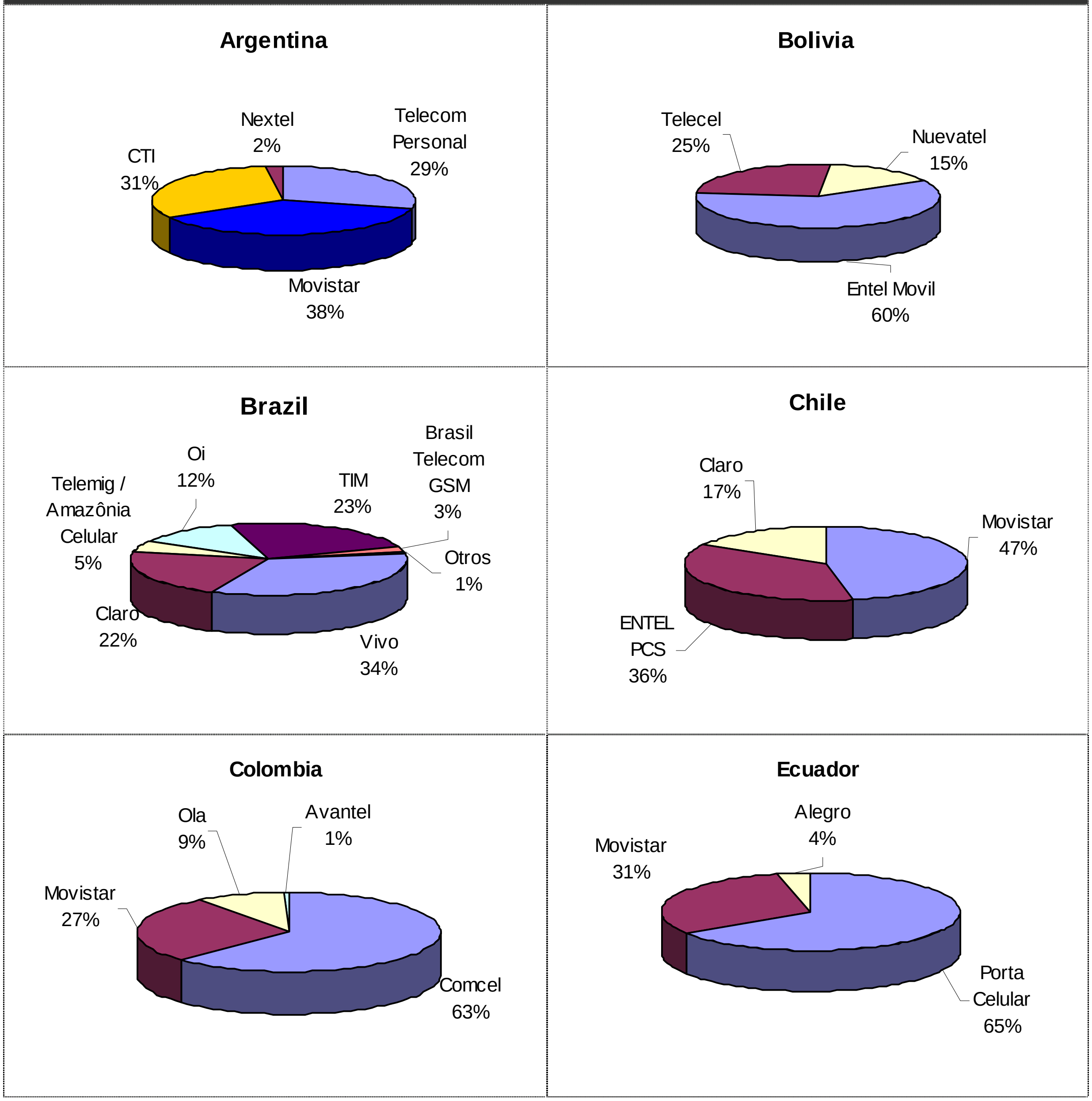
| COUNTRY / SEGMENT | AMX (%) | TEM (%) | AMX+TMX (%) | AMX+TMX (2004,%) |
|---|---|---|---|---|
| ARGENTINA | 31 | 38 | 69 | 53.8 |
| BRAZIL | 22 | 34 | 56 | 75.5 |
| CHILE | 17 | 47 | 64 | 35.1 |
| COLOMBIA | 63 | 27 | 90 | 90.1 |
| ECUADOR | 65 | 31 | 96 | 94.7 |
| EL SALVADOR | 37 | 23 | 60 | 56.1 |
| GUATEMALA | 47 | 25 | 72 | 71.8 |
| HONDURAS | 34 | -- | 34 | 28.3 |
| MEXICO | 77 | 14 | 91 | 90.4 |
| NICARAGUA | 67 | 33 | 100 | 98.4 |
| PANAMA | -- | 53 | 53 | 73.1 |
| PARAGUAY | 10 | -- | 10 | 0 |
| PERU | 35 | 60 | 95 | 52.0 |
| URUGUAY | 14 | 36 | 50 | 36.7 |
| VENEZUELA | -- | 44 | 44 | 45.7 |

AMX: América Móvil, TEM: Telefónica Móviles.
Source: Telecom-CIDE based on the companies' annual report and regulator's web pages.

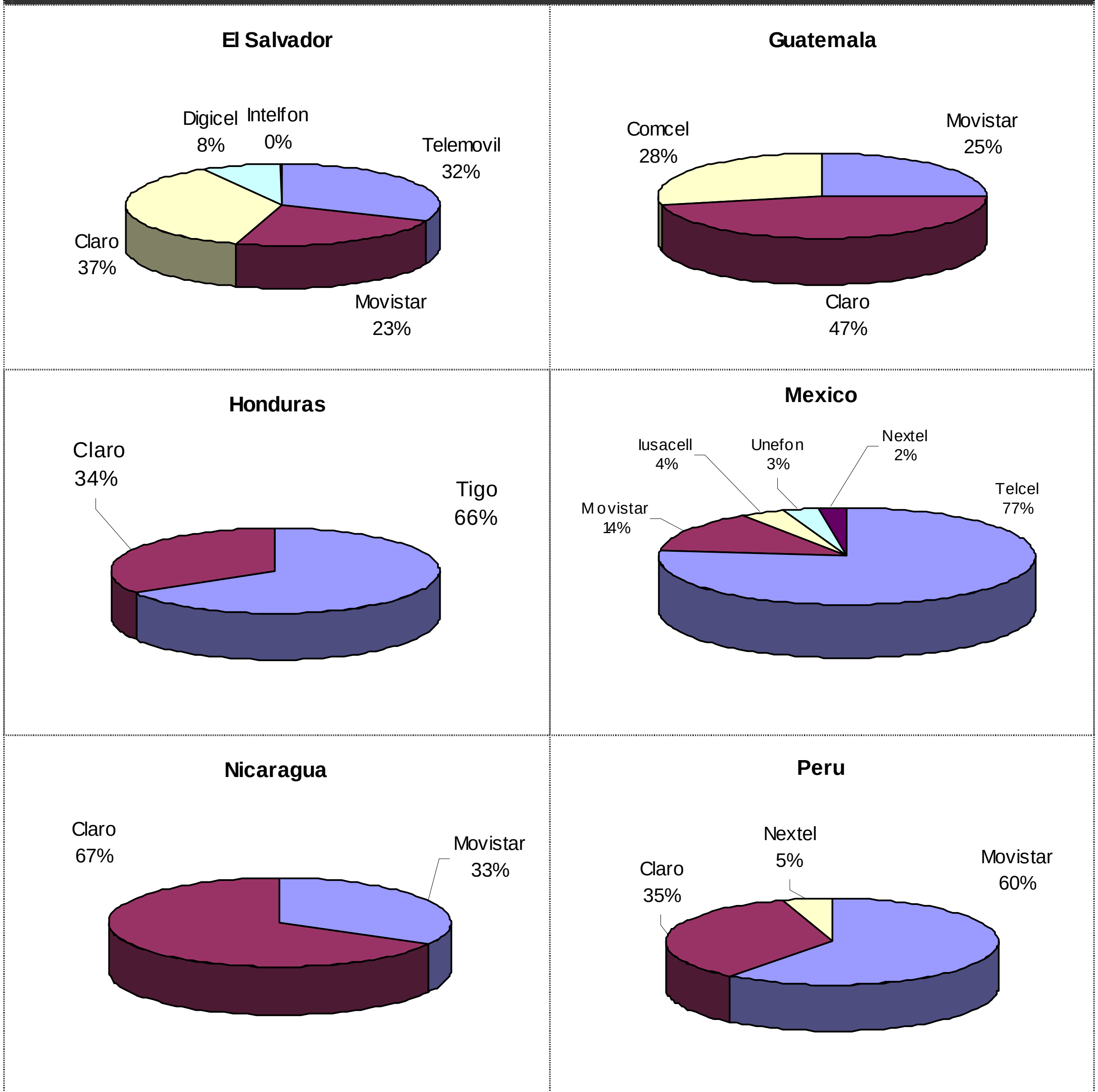
Graph 4 shows the current market participation.[6] In those countries where the number of firms has increased such as Paraguay, El Salvador y Uruguay, the entrants that have captured a significant portion of the market are owned by either Telefónica or América Móvil.

[6] Telefónica has changed the name of the firms it acquired in the region and used the generic name of Telefónica Movistar, except for the case of Brazil where the brand name is Vivo and is a joint venture with Portugal Telecom. América Móvil has adopted a different strategy. In Colombia, Ecuador and México it maintained the original brand names, Comcel, Porta y Telcel, respectively. In Argentina, Paraguay and Uruguay, it uses the generic name of CTI and in the Central American countries, as well as in Brazil and Chile the brand name is Claro.

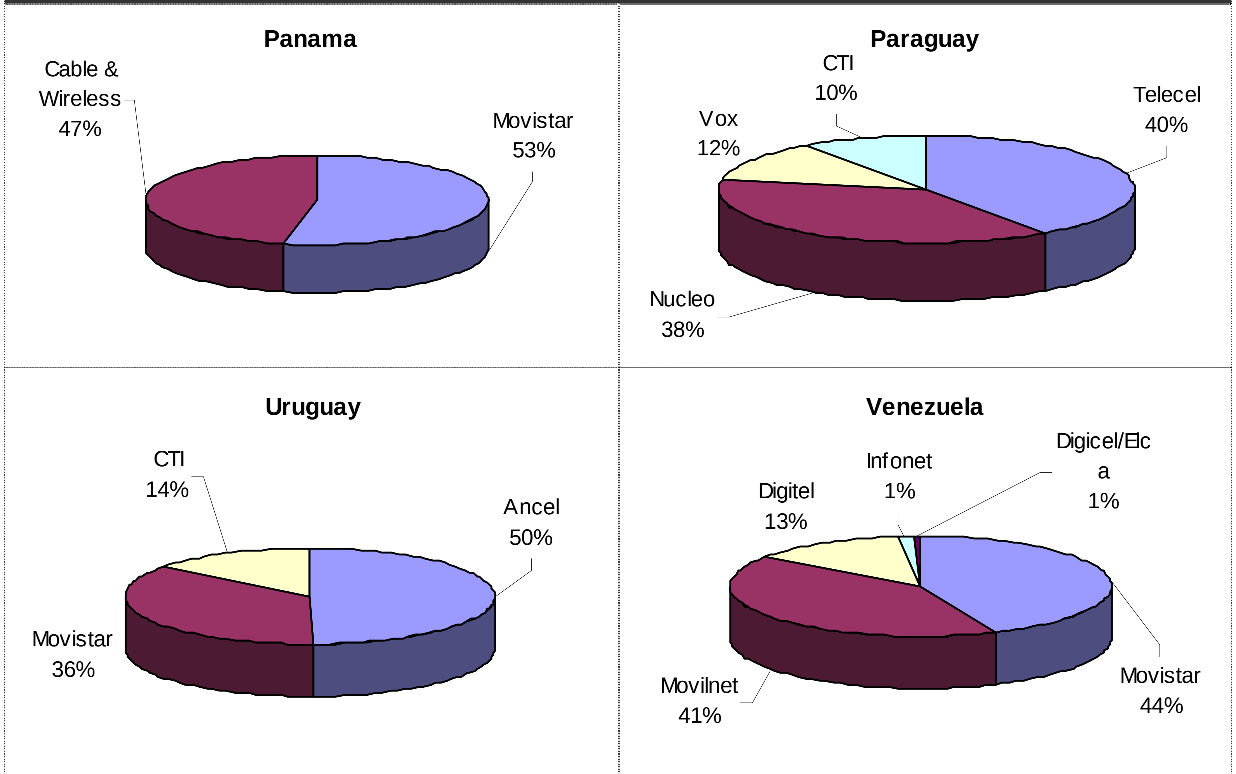
**GRAPH 4. MARKET SHARE BY COUNTRY, 2005**



**GRAPH 4. MARKET SHARE BY COUNTRY, 2005**



**GRAPH 4. MARKET SHARE BY COUNTRY, 2005**




Source: Telecom CIDE based on operators web page and annual reports.

The number of firms in a market not always provides a clear account of market concentration, because it does not identify the market power each one has. To obtain a more precise perspective we use the Herfindahl Index (HHI) as a measure of market concentration.[7] As Table 4 shows mobile markets in Latin America have different concentrations; here they are classified into four main categories: Very Highly Concentrated, Highly Concentrated, Moderately Concentrated and Not Concentrated.

The first group, includes countries like Mexico Nicaragua and Honduras which in 2005 reached HHI values higher than 5000. Except for Ecuador and Mexico, the rest of these countries, Nicaragua, Honduras and Panama, have a duopoly. Ecuador has three companies operating in its market, but only two have a significant market share, Alegro has only 4% of the market. Mexico has five firms operating in the market, where two are international players, but Telcel from América Móvil has more than 70% of the market share.

[7] The Herfindahl–Hirschman Index (HHI) is a measure of market concentration and thus of its structure. It is the sum of the participation of the firms in the market and takes the value of 0 and 10000. Zero denotes no concentration while 10000 reflects a fully concentrated market. For more details see Miller Richard A. (1972).

**TABLE 4. HERFINDAHL-HIRSCHMAN INDEX IN SELECTED COUNTRIES**

| COUNTRY | 2001 | 2002 | 2003 | 2004 | 2005 | CLASIFICATION |
|---|---|---|---|---|---|---|
| Mexico | 6448 | 6035 | 6256 | 5957 | 6148 | Very Highly concentrated |
| Nicaragua | 10000 | 8484 | 3866 | 5248 | 5563 | |
| Honduras | 10000 | 10000 | 10000 | 5900 | 5521 | |
| Ecuador | 5145 | 5165 | 5411 | 5312 | 5267 | |
| Panama | 5063 | 5047 | 5001 | 5000 | 5020 | |
| Peru | 4435 | 3753 | 3629 | 3718 | 4891 | Highly Concentrated |
| Colombia | 4215 | 4708 | 4582 | 4171 | 4752 | |
| Bolivia | 4223 | 3966 | 4430 | 4798 | 4413 | |
| Uruguay | 6026 | 5955 | 5818 | 5384 | 3966 | Moderately concentrated |
| Chile | 2961 | 2839 | 2796 | 2872 | 3801 | |
| Venezuela | 3978 | 3702 | 3575 | 3635 | 3767 | |
| Guatemala | 3288 | 3435 | 3606 | 3274 | 3600 | |
| Paraguay | 4320 | 3823 | 3717 | 3326 | 3293 | |
| Argentina | 2477 | 2488 | 2483 | 2438 | 3232 | |
| El Salvador | 3661 | 3449 | 3140 | 2857 | 2965 | Not concentrated |
| Brazil | 3377 | 3192 | 2882 | 2631 | 2388 | |

Source: Telecom CIDE based on operators.

In the second group we have Peru, Colombia and Bolivia with highly concentrated structures but with three or more companies in the market. However, in each country there is a firm that holds between 60% to 63% of total market share. In other words, in each of these countries there is one firm that clearly dominates the market, but there is some competition from the other companies.

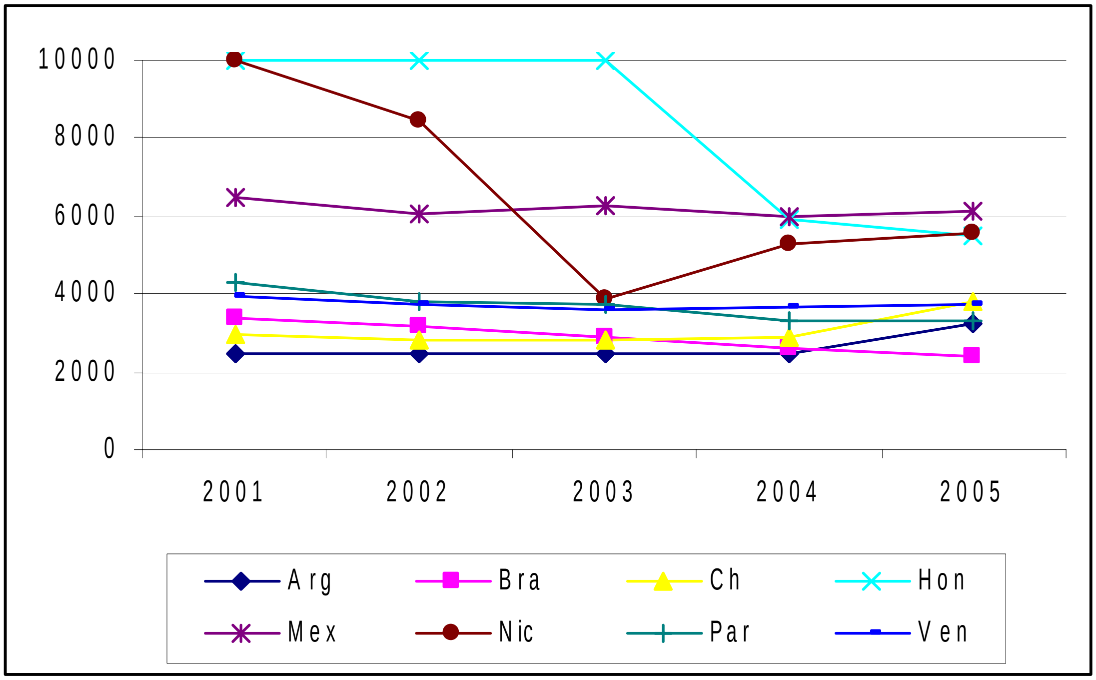
The third group includes most of the countries whose concentration's levels are moderately high. In each of these countries there are three or more firms competing for a considerate share of the market. Moreover, in this entire group of countries there is no firm with more than 50% of the market. The most concentrated market in this group is Uruguay where the dominant carrier has 50%, but two other carriers compete for the rest of the 50%. This means that even if there is a dominant firm, the others are well positioned.

Finally the fourth group is one where markets are not concentrated. In Brazil and El Salvador all firms have more than 37% of the market, moreover, each of these countries has more than five companies competing for a share of whole the market.[8] It is important to notice the difference between these two markets: El Salvador is a very small market and with very low penetration

[8] However in the Brazilian's case it is necessary to take into account that at the regional level the degree of concentration is higher because in most of the regions in which the market is divided, there are only three firms operating.

levels, despite its more competitive market, and Brazil is a very large market with one of the highest penetration levels of the region.

**GRAPH 5. HHI: EVOLUTION, LA SELECTED COUNTRIES**




Source: Telecom CIDE.

As Graph 5 shows, in recent years the evolution of the HHI in Latin American has been uneven across countries. In Brazil, Paraguay and Venezuela, the level of concentration has diminished between 2001 and 2005. Brazil has the lowest concentration level in the region while in Argentina and Chile the HHI increased probably due to the acquisition of Bell South by Telefónica Móviles in 2005. Since 2003, the level of market concentration in most countries, has been stable.

In Honduras and Nicaragua, concentration decreased dramatically due to the recent process of privatization where the entrant companies positioned themselves in the market rapidly. The case of Nicaragua stands out as the HHI has fluctuated drastically in a short period of time. When the market was liberalized, three firms entered, Telefónica, Alo PCS and Enitel (the latter property of América Móvil), and in 2003 América Móvil acquired another firm, PCS , creating a duopoly. In Honduras the situation is different; in 2003 the entrance of América Móvil created a more competitive market.

Finally, the last case shown in Graph 5 is Mexico whose HHI is the highest in the region reaching a level of 6 thousand units where Telcel holds a dominant position and Telefónica has not been able to increase its participation significantly. While it is clear that Telefónica and Grupo Carso are the most relevant players in the mobile industry in Latin America, there are different levels of concentration in this market in the region.

## 3. Market Concentration and Prices

Market concentration usually has a significant relationship with price; according to the literature one would expect that the most concentrated markets would have the highest prices and vice versa. However, in our results this is not always the case; the correlation coefficient between these two variables in 2003 was 0.43 which shows a positive but not strong relation

**TABLE 5. PRICES AND HHI (2003)**

| COUNTRY | MOBILE CELLULAR - PRICE OF 3-MINUTE LOCAL CALL (PEAK - US$) | HHI |
|---|---|---|
| ECUADOR | 1.92 | 5267 |
| PERU | 0.86 | 4891 |
| BRAZIL | 0.54 | 2388 |
| VENEZUELA | 0.39 | 3767 |
| MEXICO | 0.36 | 6148 |
| ARGENTINA | 0.36 | 3232 |
| EL SALVADOR | 0.30 | 2965 |
| GUATEMALA | 0.11 | 3600 |

Source: ITU Data Base 2003

As shown in Table 5 it is not possible to establish a general tendency. Even though there are countries with high HHI values and high prices, such as Ecuador and Peru, there are others like Brazil that has low levels of market concentration and high tariffs and Mexico that has the highest HHI, but its tariffs are just moderately high.

These results are also observed in the study undertaken by Barrantes *et al.*, (2007) that examine the affordability of mobile telephone services for the poor segments of the population. A basket of services for low income customers is created by including mobile and fixed tariffs within the main markets in Latin America as well as income and consumption data from each country studied. The results are shown in Table 6.

**TABLE 6. BASKET PRICES IN LATIN AMERICA***

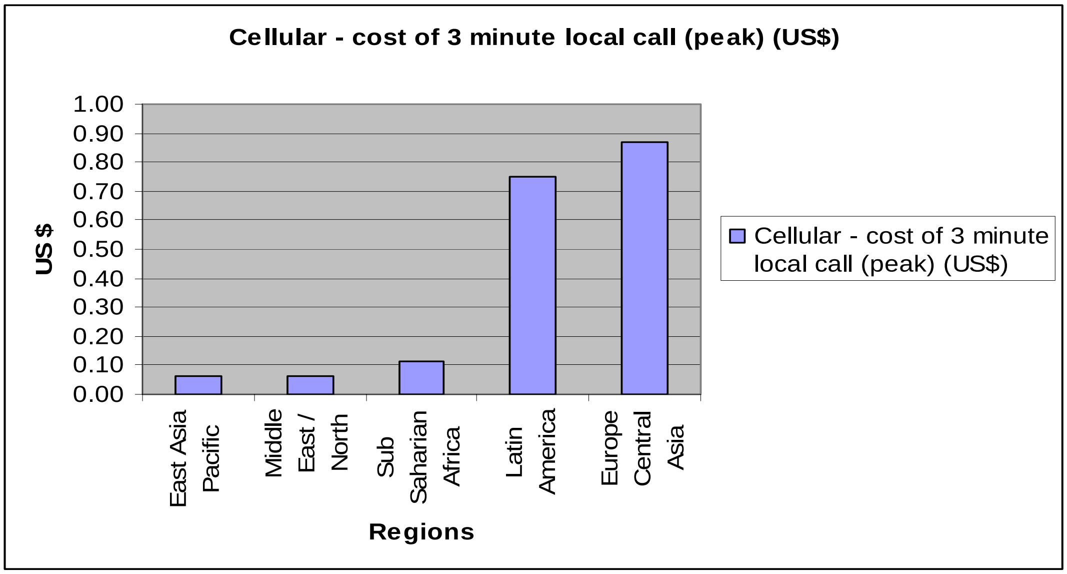
| COUNTRY | PREPAID (US$) | PREPAID (US$ PPP) | POST-PAID | HHI | PENETRATION % |
|---|---|---|---|---|---|
| ARGENTINA | 15.28 | $48.23 | $11.25 | 3232 | 57.27 |
| BRAZIL | 29.99 | $51.85 | $23.51 | 2388 | 46.25 |
| CHILE | 16.42 | $26.30 | $16.51 | 3801 | 67.79 |
| COLOMBIA | 20.12 | $56.69 | $17.34 | 4752 | 47.92 |
| MEXICO | 20.02 | $29.92 | $17.67 | 6148 | 44.34 |
| PERU | 29.07 | $60.32 | $20.72 | 4891 | 19.96 |

Source: Barrantes *et al.* (2006).
* The baskets were elaborated for low-volume consumers.

The results show significant differences in prices both in current dollars as in parity purchasing power (PPP). The cost of the basket in Peru, the highest of the countries studied, duplicates the cost of the same basket in Argentina measured in current dollars, and more than duplicates the cost in Chile measured in PPP dollars. In general, they observe the highest prices in Peru and the lowest in Chile. Again, the variation of prices observed is not explained by the degree of market concentration. But it is interesting to observe that Argentina and Chile, which have the lowest tariffs also, have the highest mobile penetration level in this small sample.

Relative to other regions of the world, Latin America has expensive mobile services. As seen in Graph 6 they have decreased but are still significantly higher than in other regions. So if mobile tariffs are high, what explains the dramatic growth this sector has experienced?

GRAPH 6. PRICES IN DIFFERENT REGIONS OF THE WORLD, 2003




Source: ITU Data Base 2004.

As several studies have shown there is a strong association between the dramatic growth in penetration with pricing strategies .Pricing strategy is the way the price is set, distributed and paid among customers. At the wholesale level it includes interconnection between networks.[9] At the retail level there are two basic ways to set prices, calling party pays (CPP) and receiving party pays (RPP). The change from RPP to CPP along with prepaid forms of payment radically changed the access to voice communications.

Interconnectivity with the fixed users of the incumbent company had important effects on the development of mobile telecommunications in Latin America. A critical issue in terms of connectivity has been to define the criteria for access charges. Normally, the fixed telephony carriers operating within the same concession zones determine symmetrical access charges. The most common modality had been RPP, whereby the company originating the call retains the full payment of the user. Another modality was to establish a formula to share the income, usually distributing 50% to each of the operators involved in a successful communication. In the case of mobile telephony, due to the differences in convergence, coverage and maturity between fixed and mobile technologies, symmetrical access charges did not allow mobile operators to generate enough income to finance their companies. Therefore, initially the most common solution was for the user of mobile telephony to pay for both, outgoing and incoming calls. The high costs for the user of this

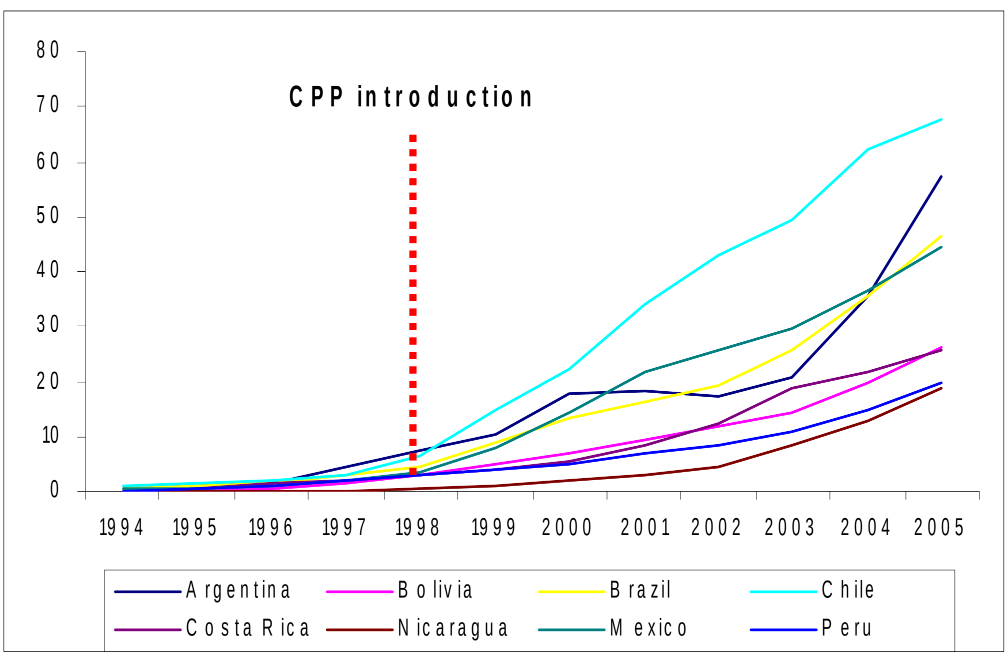
[9] Empirical studies show that price competition in the mobile market is of the Cournot Type, that is, price is set above marginal cost and decreases with the number of entrants to the market (Gruber, 2005)

solution greatly limited the number of subscribers. The adoption of CPP and prepaid systems allowed users to use the telephone without a large expenditure at the forefront.

Brazil adopted the CPP modality from the beginning of the reform, ANATEL (Agência Nacional de Telecomunicações) established maximum access charges that were applied by the different mobile companies. In 1997, Chile changed its regulations to introduce the CPP modality, which transferred the payment for mobile calls to the originating party. Additionally, the country's regulatory agencies determined access charges for mobile companies by applying the same methodology to them as to operators in non competitive conditions, thereby having the fixed operators pay the charges for the call. The CCP modality was extended to practically all countries in the region.

The favorable interconnection arrangements with CPP offered mobile companies the financial resources to subsidize the acquisition of new customers which accounts for the rapid growth of the sector (Gruber, 2005). Through these pricing strategies, mobile access increased dramatically; what initially appeared as a means of communications restricted to the highest income groups was transformed into the principal means of access to telecommunications of the poorer sectors of the region. As Graph 7 shows the adoption of CCP led to a significant increase in mobile penetration and to a substitution from fixed to mobile.

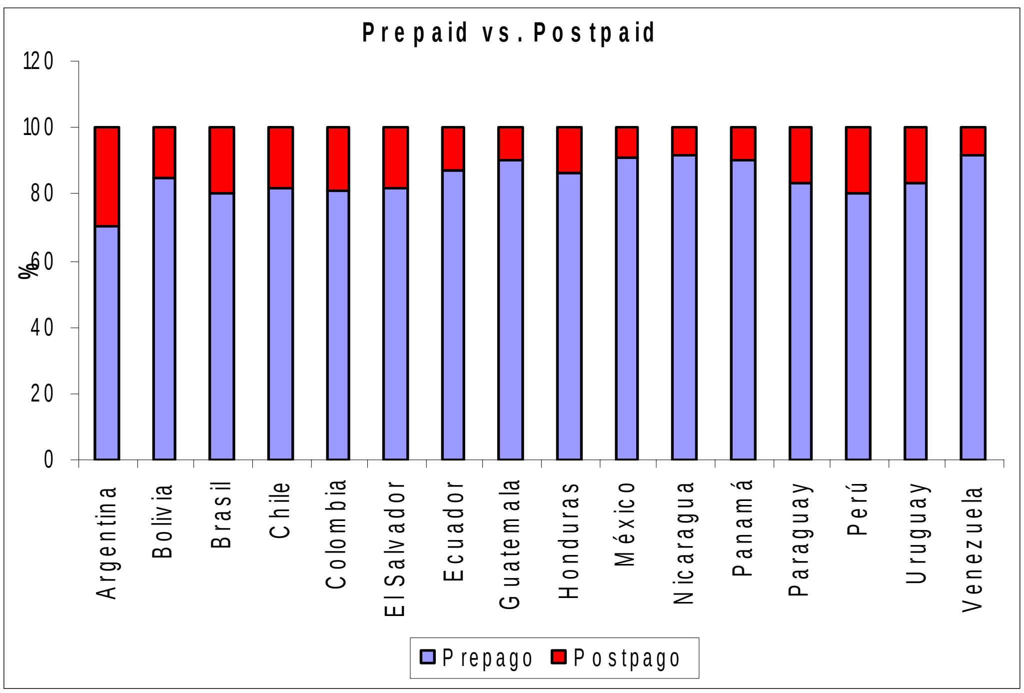
**GRAPH 7. CPP IMPACT ON MOBILE ADOPTION**




Source: Telecom CIDE.

The introduction of the prepaid option significantly increased mobile usage in the region. As Graph 8 shows, most of mobile usage in Latin America is prepaid. This commercial strategy definitely provoked a generalized access to the mobile services, but especially to for low income consumers. As surveys conducted in Latin America have shown,[10] low income consumers prefer prepaid service; they a better control over their expenditure and given their lack of credit, prepaid makes the service accessible. These reasons contribute to the perception that prepaid mobile services are cheaper, when in fact they are not (see Graph 9) So even if tariffs are relatively high, mobile use is highly valued and low income users pay between 3.5% and 7% of their earnings on mobile services. Nonetheless, penetration would increase significantly if tariffs would diminish as non-users in surveys declare.[11]

**GRAPH 8. PREPAID *VS.* POSTPAID**

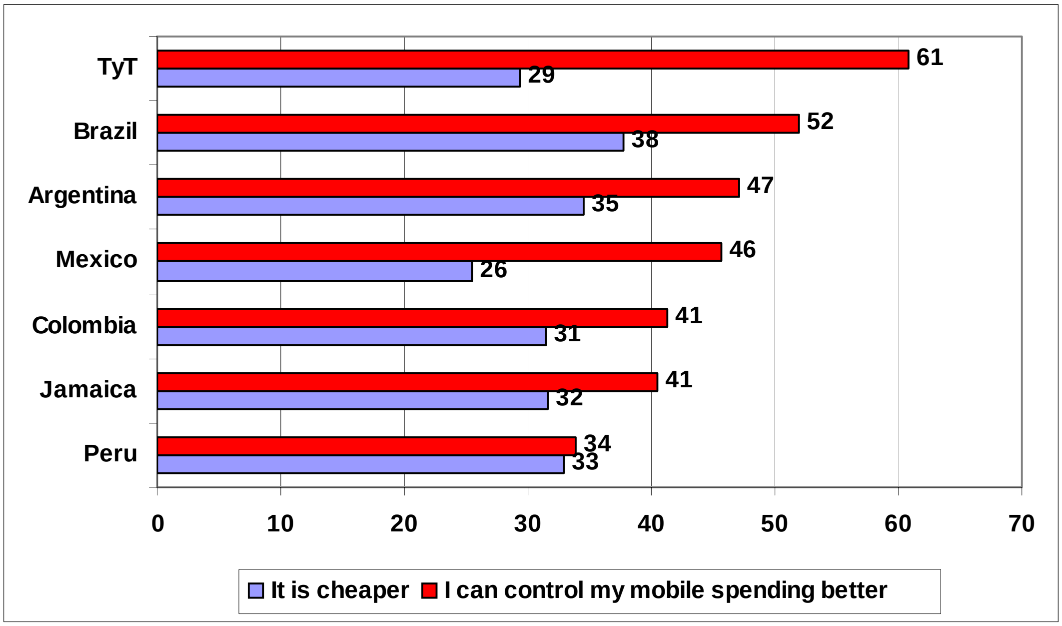



Source: Telecom CIDE.

[10] See Frost & Sullivan, (2006), "El impacto social de la telefonía móvil en América Latina", GSM Latin America, and DIRSI national surveys in www.dirsi. net.

[11] It is interesting to notice that in the markets where the competition between Telefónica and América Móvil occur, the penetration is increasing faster than in other markets.

GRAPH 9. REASONS TO PREFER PRE PAID OVER POST PAID, 2007




Source: Galperin and Mariscal (2007).

So, concentration in the market has not strongly explained variations in prices or in penetration; however penetration levels do show some association with prices. So the next section will explore a key regulatory factor, spectrum allocation and its relationship to prices

## 4. Prices and Spectrum Allocation

Radio spectrum is a key input for the supply of mobile services; it is a public good for exclusive use when it is used by a mobile firm. Other services such as radio diffusion compete for spectrum allocation and thus leave only a portion for mobile use. This fact along with the high sunk costs associated with the installation of a mobile network leads to a mobile market with a limited possible number of firms. Rivadeneyra (2004) finds that the average number of firms in a mobile market is 3.8. However, many countries do not allocate sufficient spectrum and thus create an artificial scarcity; the allocation mechanism of radio frequencies may then provide oligopolistic rents as they represent an entry barrier (Gruber, 2006)

In Latin America, spectrum allocation has followed a command and control criteria. Table 7 taken from Hazlett and Muñoz (2006) illustrates the mechanisms used to provide licensees in different countries in Latin America.

**TABLE 7. SPECTRUM REGULATION STRUCTURE, 2006**

| COUNTRY | IS SERVICE LICENSE DISTINCT FROM WIRELESS LICENSE? | IS THE WIRELESS LICENSE ASSOCIATED WITH A SERVICE? | DOES THE SERVICE LICENSE PERMIT NEW SERVICES? | TECHNOLOGY NEUTRALITY? | SPECTRUM COMMAND AND CONTROL? | SPECTRUM PROPERTY RIGHTS? | POSITIVE ADMINISTRATIVE SILENCE | IS LICENSE REVOKED IF LICENSEE PROVIDES UNAUTHORIZED SERVICE? |
|---|---|---|---|---|---|---|---|---|
| ARGENTINA | YES | NO | YES | YES | INTERMEDIATE | NO | | NO |
| BOLIVIA | YES | YES | NO | NO | YES | NO | | YES |
| BRAZIL | YES | YES | NO | NO | YES | NO | | YES |
| CHILE | YES | NO | NO | NO | YES | NO | YES | YES |
| COLOMBIA | YES | YES | NO | NO | YES | NO | YES | YES |
| COSTA RICA | | | NO | NO | YES | NO | | YES |
| ECUADOR | YES | YES | NO | NO | YES | NO | | YES |
| EL SALVADOR | YES | NO | YES | YES | YES | NO | | NO |
| GUATEMALA | | NO | | YES | YES | YES | YES | |
| HONDURAS | YES | YES | NO | NO | YES | NO | | YES |
| MEXICO | YES | YES | NO | NO | YES | NO | | YES |
| NICARAGUA | YES | YES | YES | YES | INTERMEDIATE | NO | YES | YES |
| PANAMA | YES | YES | NO | NO | YES | NO | | YES |
| PARAGUAY | NO | YES | NO | NO | YES | NO | | DEPENDS ON THE CONTRACT |
| PERU | | YES | YES, BUT RESTRICTED ONES | NO | YES | NO | NO | DEPENDS ON THE CONTRACT |
| URUGUAY | YES | YES | NO | YES | YES | NO | | YES |
| VENEZUELA | YES | YES | NO | | YES | NO | NO | |

Source: Hazlett and Muñoz (2006).

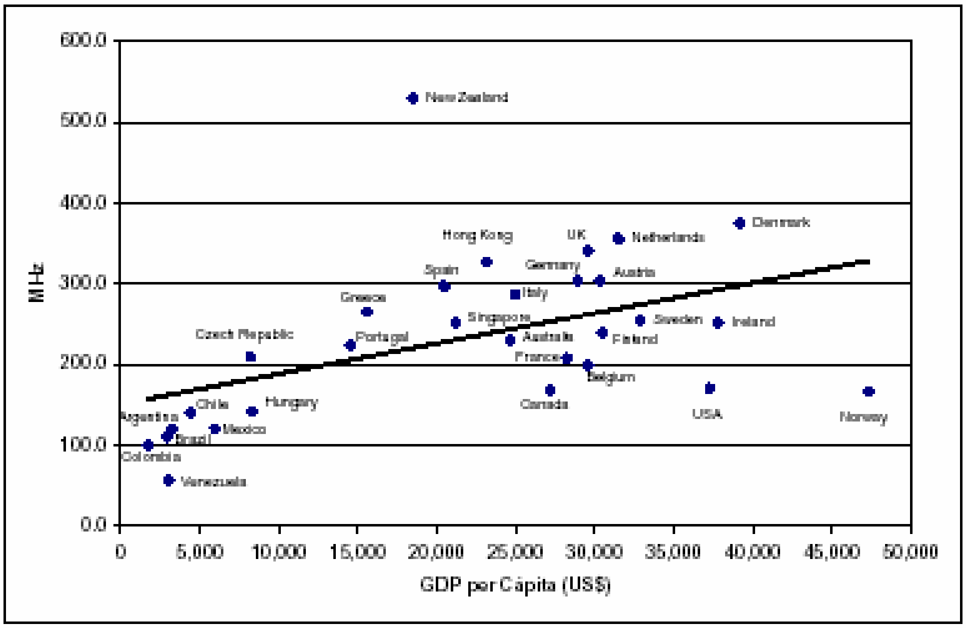
Moreover, the dominant strategy to allocate rights of use for spectrum is by specific services which limit its use, that is, a firm must request a new license for each different service it wishes to provide. In Argentina and Nicaragua there is a more liberal regime but the quantity of spectrum allocated is very small. In Guatemala and El Salvador market mechanisms play a more significant role as property rights in the use of frequencies are clearly defined and there are possibilities of increasing the assigned spectrum through an auction.

In most of these countries, licensees are awarded by line of business, that is, firms need a different license to provide a new service. Technological neutrality is explicitly included in the telecommunications law in Argentina, El Salvador, Nicaragua, Uruguay and Mexico, even though in is not always implemented. Property rights over the spectrum are authorized only in

Guatemala, while in the other countries in this study it is considered property of the nation and can only be leased.

In Latin America most governments have allocated a relatively small amount of spectrum compared to countries such as the U.S or European countries. The average amount of assigned cellular spectrum in the region is 102 MHz, considerable lower than the average in the European Union of 266 MHz (Hazlett and Muñoz, 2006). Graph 10 shows how the assigned spectrum in the largest Latin American economies is quite lower than European countries.

**GRAPH 10. GDP PER CAPITA VS. MHZ**




Source. Hazlett and Muñoz (2006).

A significant finding in this document is a general tendency in the relationship between prices and spectrum allocation. As shown in Table 8, countries that allocate small quantities of spectrum have the highest prices (*e.g.* Ecuador and Venezuela). In fact, the correlation coefficient between Price and Spectrum was -0.72 that shows a high negative relation between these two variables. An exception to this tendency is the case of Peru that allocates a significant amount of spectrum but has high prices. As in other cases, there is no significant association between spectrum allocation and concentration, but it is interesting to observe that countries such as Guatemala and El Salvador with low market concentration and high spectrum allocation have low prices.[12]

[12] The quantity of spectrum has a very important impact on the efficient use of the firms' network. A firm with more spectrum faces lower costs because it needs to build less facilities.

**TABLE 8. PRICES AND SPECTRUM ALLOCATION, 2003**

| COUNTRY | MOBILE CELLULAR – PRICE OF 3-MINUTE LOCAL CALL (PEAK – US$) | SPECTRUM | HHI |
|---|---|---|---|
| ECUADOR | 1.92 | 80 | 5267 |
| VENEZUELA | 0.39 | 102 | 3467 |
| BRAZIL | 0.54 | 110 | 2388 |
| ARGENTINA | 0.36 | 120 | 3232 |
| PERU | 0.86 | 130 | 4891 |
| EL SALVADOR | 0.30 | 138 | 2965 |
| GUATEMALA | 0.11 | 140 | 3600 |
| MEXICO | 0.36 | 155 | 6148 |

Source: ITU Data base and Hazlett and Muñoz (2006).

The evidence presented here suggests that a key variable affecting prices is spectrum allocation.

## *5. Main Findings and Future lines of research*

This document offered an exploratory view of the market structure in the mobile market in Latin America. Given the importance of mobile services as a mean of access to low income groups, the objective in this paper was to identify the impact that the consolidation of two firms in the region has had on mobile penetration. The fact that ARPUS have decreased in recent years points to a possible oligopolistic competition between the firms that are fighting for regional positioning rather than colluding. It also may be an indication of a business strategy that, after saturating the top end of the market, is now targeting the bottom of the pyramid where ARPUS may be lower.

This paper investigated the links between variables associated with market concentration and known to influence mobile penetration such as tariffs, pricing strategies and spectrum allocation. The findings were mixed. The first finding is that market concentration differs significantly across the countries. Even though both Telefónica and América Móvil have consolidated their position in Latin America and are today the only significant players at the regional level, the number of firms and of concentration in each market vary significantly in each country.

At this exploratory phase, the implications of the market concentration are not totally clear. Although there is a positive correlation between concentration and prices, it is not strong. The examples that are counterintuitive are Brazil whose HHI is one of the lowest in the region and has very high prices and Mexico that has moderately high prices and its market concentration is the largest in the region. Also, indicators show a positive but weak association between prices and penetration. This study supports the by now conventional understanding that the pricing strategies, CPP and prepaid, explain the growth in mobile penetration.

An interesting finding is the strong negative correlation between spectrum allocation and prices. For example, Guatemala and El Salvador have low levels of concentration of the market and high levels of spectrum allocation; the combination of these two variables appear simultaneously with low tariffs; however, their penetration levels remain among the lowest in the region. Low penetration is probably associated with the fact that both of these countries also have very low GDPs. From the regulatory perspective, this paper supports other studies that find spectrum allocation is a key factor in the development of the mobile industry.

The snapshot of the mobile market structure in Latin America offered in this paper should be placed under the context of a dynamic technologically driven sector. Technological convergence has blurred the frontiers between industries and new players from other industries are entering this market. They will be competing with the two regional firms in Latin America, Telefónica and Grupo Carso, and regulators today face the opportunity of creating the conditions for the sustainability of a market among a larger numbers of players that leads to lower prices and higher penetration.

## References

Barrantes *et al*., (2006), "Asequibilidad de los Servicios de Telefonía Móvil en América Latina", DIRSI. http://www.dirsi.net/espanol/content/view/137/71/.

Bonina, C. *et al*., (2006), "Contribuciones sociales y económicas de la telefonía móvil en México", TELECOM CIDE, disponible en: http://www.telecom.cide.edu.

Frost & Sullivan, (2006), "El impacto social de la telefonía móvil en América Latina", GSM Latin America.

Galperín, H. and J. Mariscal (2007) "Mobile Opportunities: Poverty and telephony access in Latin America and the Caribbean. Regional Report", http://www.dirsi.net/files/reporte_regional.pdf.

Goldman Sachs, "Telecom Services: Europe", Nov 2001, "Wireless: Cellular-PCS and PHS, United States", March 2002.

Gruber H. (2006), "3G Mobile Licenses in Europe: Five years after", European Investment Bank. Available at: http://papers.ssrn.com/sol3/papers.cfm? abstract_id=918003

Gruber, H., (2005), *The Economics of Mobile Telecommunications*, Cambridge University Press.

Gruber, H. and Verboven F., (2001), "The Diffusion of Mobile Telecommunications Services in the European Union", Available at: http://www.econ.kuleuven.be/public/NDBAD83/Frank/Papers/Gruber%20&%20Verboven,%202001b.pdf.

Hazlett, T. and R. Muñoz, (2006), "Spectrum Allocation in Latin America: An Economic Analysis", George Mason Law & Economics Research Paper No. 06-44. Available at: http://papers.ssrn.com/sol3/papers.cfm?abstract_id=928521.

ITU (2006), *World Telecommunication Indicators Handbook*, Geneva.

ITU (2005), *Yearbook of Statistics Chronological Time Series 1995-2004*, Geneva.

Koski, H. and T. Kretschmer, (2004), "Entry, Standards and Competition: Firm Strategies and the Diffusion of Mobile Telephony", in *Review of Industrial Organization*, Springer, vol. 26(1), pages 89-113, November.

Mariscal, J. *et al.*, (2006), "New Market Scenarios in Latin America", en Digital Poverty, DIRSI.

McKenzie, D. and P. Small, (1997), "Econometric Cost Structure Estimates for Cellular Telephony in the Unites States", in *Journal of Regulatory Economics*, volume 12, number 2, September.

Miller Richard A., (1972), "Numbers Equivalents, Relative Entropy and Concentration Ratios: A Comparison Using Market Performance", Available on line in: http://www.jstor.org/view/00384038/ap030149/03a00100/0

Monteiro, M., (2005), Shaping the Broadband Society Shaping the Broadband Society Fixed Mobile Convergence: Fixed Mobile Convergence: Market & User perspectives Market &User perspectives. http://www.bb2all.org/FMC-agenda.html.

Phoenix Center for Advanced Legal & Economic Public Policy Studies, "Fixed-Mobile "Intermodal" Competition in Telecommunications: Fact or Fiction?", Phoenix Center Policy Bulletin No. 10, March 30, 2004.

Prahalad, C. K. and Hart, Stuart, (2002), "The Fortune at the Bottom of the Pyramid", Wharton School Publishing.

Rivadeneyra, (2005), "Los desafíos en la regulación en Latinoamérica para los servicios de telefonía móvil", en *Revista AHCIET*, Núm. 102, Abril/Junio 2005.

Rodini, M., Ward, M. and G. Woroch (2002) "Going Mobile: Substitutability Between Fixed and Mobile Access" Available at: http://papers.ssrn.com/sol3/papers.cfm?abstract_id=399460#PaperDownload

Rojas, E., (2006), Tendencias Móviles en América Latina y México, Mobile Mexico and Central America Summit 2006.

Rouvinen, P., (2004), "Diffusion of Digital Mobile Telephony/Are Devoloping Countries Different?", Discussion Papers 901, The Research Institute of the Finnish Economy. Available at: http://www.etla.fi/files/1033_dp901.pdf.

Rozas, P., (2005), "Privatización, reestructuración industrial y prácticas regulatorias en el sector telecomunicaciones", Serie Recursos naturales e Infraestructura No. 93, CEPAL–Santiago.

Rozas, P., (2002), "Competencia y conflictos regulatorios en la industria de las telecomunicaciones de América Latina", Serie Gestión Pública No. 25, CEPAL–Santiago.

Sung, Nakil, Kim Chang-Gum and Lee Yong-Hun, (2000), "Is a POTS Dispensable? Substitution Effects Between Mobile and Fixed Telephones in Korea", Available at SSRN: http://ssrn.com/abstract=222288.

Valleti, T., (2006), Market Definition and remedies in Mobile Telephony, Tanaka Bussines Scholl Imperial College London. Available at: http://www.cerna.ensmp.fr/cerna_regulation/Documents/Antitrust2006/Valletti.pdf.

Valletti, T., (2003), "Is Mobile Telephony a Natural Oligopoly?", in *Review of Industrial Organization*, Springer, nolume 22, number 1 / February.

Valletti, T., (1998), "Price Discrimination and Price Dispersion in a Duopoly", FEEM Working Paper ETA 33.98. Available at SSRN: http://ssrn.com/abstract=122035

Vasilyeva, N., (2006), "Economics in Mobile Telecommunications Firm", EERC/EROC Annual Student Conference "Economics of the Firm", Available at: www.eerc.kiev.ua/eroc/anconference/ninth/papers/Vasil'yeva.pdf

## *Novedades*

### División de Administración Pública

Cejudo, Guillermo, *Critical Junctures or Slow-Moving Processes? The Effects of Political and Economic Transformations…*, DTAP-186

Sour, Laura, *Un repaso de conceptos sobre capacidad y esfuerzo fiscal, y su aplicación para los gobiernos locales mexicanos*, DTAP-187

Santibañez, Lucrecia, School-Based Management Effects on Educational Outcomes: A Literature Review and Assessment of the Evidence Base, DTAP-188

Cejudo, Guillermo y Sour Laura, *¿Cuánto cuesta vigilar al gobierno federal?*, DTAP-189

Cejudo, Guillermo, *New Wine in Old Bottles: How New Democracies Deal with Inherited Bureaucratic Apparatuses…*, DTAP-190

Arellano, David, *Fallas de transparencia: hacia una incorporación efectiva de políticas de transparencia en las organizaciones públicas*, DTAP-191

Sour, Laura y Munayer Laila, *Apertura política y el poder de la Cámara de Diputados durante la aprobación presupuestaria en México*, DTAP-192

Casar, Ma. Amparo, *La cultura política de los políticos en el México democrático*, DTAP-193

Arellano, David y Lepore Walter, *Economic Growth and Institutions: The Influence of External Actors*, DTAP-194

Casar, Ma. Amparo, *Los gobiernos sin mayoría en México: 1997-2006*, DTAP-195

### División de Economía

Castañeda, Alejandro y Villagómez Alejandro, *Ingresos fiscales petroleros y política fiscal óptima*, DTE-382

Dam, Kaniska, *A Two-Sided Matching Model of Monitored Finance*, DTE-383

Dam, Kaniska, Gautier Axel y Mitra Manipushpak, *Efficient Access Pricing and Endogenous Market Structure*, DTE-384

Dam, Kaniska y Sánchez Pagés Santiago, *Deposit Insurance, Bank Competition and Risk Taking*, DTE-385

Carreón, Víctor, Di Giannatale Sonia y López Carlos, *Mercados formal e informal de crédito en Mexico: Un estudio de caso*, DTE-386

Villagómez, Alejandro y Roth Bernardo, Fiscal Policy and National Saving in Mexico, 1980-2006, DTE-387

Scott, John, *Agricultural Policy and Rural Poverty in Mexico*, DTE-388

Hogan, William, Rosellón Juan y Vogeslang Ingo, *Toward a Combined Merchant-Regulatory Mechanism for Electricity Transmission Expansion*, DTE-389

Roa, Ma. José y Cendejas José Luis, *Crecimiento económico, estructura de edades y dividendo demográfico*, DTE-390

Kristiansen, Tarjei y Rosellón Juan, *Merchant Electricity Transmission Expansion: A European Case Study*, DTE-391

## DIVISIÓN DE ESTUDIOS INTERNACIONALES

Schiavon, Jorge y Velázquez Rafael, *El 11 de septiembre y la relación México-Estados Unidos: ¿Hacia la securitización de la agenda?*, DTEI-150

Velázquez, Rafael, *La paradiplomacia mexicana: Las relaciones exteriores de las entidades federativas*, DTEI-151

Meseguer, Covadonga, *Do Crises Cause Reform? A New Approach to the Conventional Wisdom*, DTEI-152

González, Guadalupe y Minushkin Susan, Líderes, opinión pública y política exterior en México, Estados Unidos y Asia: un estudio comparativo, DTEI-153

González, Guadalupe y Minushkin Susan, *Leaders, public opinion and foreign policy in Mexico, the United States, and Asia: a comparative study*, DTEI-154

González, Guadalupe y Minushkin Susan, *Opinión pública y política exterior en México*, DTEI-155

González, Guadalupe y Minushkin Susan, *Public opinion and foreign policy in Mexico*, DTEI-156

Ortiz Mena, Antonio, *El Tratado de Libre Comercio de América del Norte y la política exterior de México: lo esperado y lo acontecido*, DTEI-157

Ortiz Mena, Antonio y Fagan Drew, *Relating to the Powerful One: Canada and Mexico's Trade and Investment Relations with the United States*, DTEI-158

Schiavon, Jorge, *Política exterior y opinión pública: México ante el mundo*, DTEI-159

## DIVISIÓN DE ESTUDIOS JURÍDICOS

Fondevila Gustavo, *Estudio de percepción de usuarios del servicio de administración de justicia familiar en el Distrito Federal,* DTEJ-14

Pazos, Ma. Inés, *Consecuencia lógica derrotable: análisis de un concepto de consecuencia falible,* DTEJ-15

Posadas, Alejandro y Hugo E. Flores, *Análisis del derecho de contar con un juicio justo en México*, DTEJ-16

Posadas, Alejandro, *La Responsabilidad Civil del Estado /Análisis de un caso hipotético*, DTEJ-17

López, Sergio y Posadas Alejandro, *Las pruebas de daño e interés público en materia de acceso a la información. Una perspectiva comparada,* DTEJ-18

Magaloni, Ana Laura, *¿Cómo estudiar el derecho desde una perspectiva dinámica?*, DTEJ-19

Fondevila, Gustavo, *Cumplimiento de normativa y satisfacción laboral: un estudio de impacto en México*, DTEJ-20

Posadas, Alejandro, *La educación jurídica en el CIDE (México). El adecuado balance entre la innovación y la tradición*, DTEJ-21

Ingram, Matthew C., *Judicial Politics in the Mexican States: Theoretical and Methodological Foundations*, DTEJ-22

Fondevila, Gustavo e Ingram Matthew, *Detención y uso de la fuerza*, DTEJ-23

## División de Estudios Políticos

Lehoucq, Fabrice E., Structural Reform, *Democratic Governance and Institutional Design in Latin America*, DTEP-188

Schedler, Andreas, *Patterns of Repression and Manipulation. Towards a Topography of Authoritarian Elections*, *1980-2002,* DTEP-189

Benton, Allyson, *What Makes Strong Federalism Seem Weak? Fiscal Resources and Presidencial-Provincial Relations in Argentina*, DTEP-190

Crespo, José Antonio, *Cultura política y consolidación democrática (1997-2006)*, DTEP-191

Lehoucq, Fabrice, *Policymaking, Parties and Institutions in Democratic Costa Rica*, DTEP-192

Benton, Allyson, *Do Investors Assess the Credibility of Campaign Commitments? The Case of Mexico's 2006 Presidential Race*, DTEP-193

Nacif, Benito, *Para entender las instituciones políticas del México democrático*, DTEP-194

Lehoucq, Fabrice, *Why is Structural Reform Stangnating in Mexico? Policy Reform Episodes from Salinas to Fox*, DTEP-195

Benton, Allyson, *Latin America's (Legal) Subnational Authoritarian Enclaves: The Case of Mexico*, DTEP-196

Hacker, Casiano y Jeffrey Thomas, *An Antitrust Theory of Group Recognition*, DTEP-197

## División de Historia

Pipitone, Ugo, *Aperturas chinas (1889, 1919, 1978),* DTH-34

Meyer, Jean, *El conflicto religioso en Oaxaca*, DTH-35

García Ayluardo Clara, *El privilegio de pertenecer. Las comunidades de fieles y la crisis de la monarquía católica*, DTH-36

Meyer, Jean, *El cirujano de hierro (2000-2005),* DTH-37

Sauter, Michael, *Clock Watchers and Stargazers: On Time Discipline in Early-Modern Berlin,* DTH-38

Sauter, Michael, *The Enlightenment on Trial…,* DTH-39

Pipitone, Ugo, *Oaxaca prehispánica*, DTH-40

Medina Peña, Luis, *Los años de Salinas: crisis electoral y reformas*, DTH-41

Sauter, Michael, *Germans in Space: Astronomy and Anthropologie in the Eighteenth Century*, DTH-42

Meyer, Jean, *La Iglesia católica de los Estados Unidos frente al conflicto religioso en México, 1914-1920*, DTH-43

## *Ventas*

El **Centro de Investigación y Docencia Económicas / CIDE,** es una institución de educación superior especializada particularmente en las disciplinas de Economía, Administración Pública, Estudios Internacionales, Estudios Políticos, Historia y Estudios Jurídicos. **El CIDE publica**, como producto del ejercicio intelectual de sus investigadores, **libros, documentos de trabajo, y cuatro revistas especializadas:** *Gestión y Política Pública*, *Política y Gobierno*, *Economía Mexicana Nueva Época* e *Istor*.

Para adquirir alguna de estas publicaciones, le ofrecemos las siguientes opciones:

**VENTAS DIRECTAS:**

Tel. Directo: 5081-4003
Tel: 5727-9800 Ext. 6094 y 6091
Fax: 5727 9800 Ext. 6314

Av. Constituyentes 1046, 1er piso, Col. Lomas Altas, Del. Álvaro Obregón, 11950, México, D.F.

**VENTAS EN LÍNEA:**

Librería virtual: **www.e-cide.com**

Dudas y comentarios:
**publicaciones@cide.edu**

### ¡Nuevo!

Adquiera el **CD de las colecciones completas** de los documentos de trabajo de la **División de Historia** y de la **División de Estudios Jurídicos.**



**¡Próximamente!** los CD de las colecciones completas de las Divisiones de Economía, Administración Pública, Estudios Internacionales y Estudios Políticos.