Columbia Business School

Future scenarios for Latin American communications

Dr. Raúl L. Katz(*)
Adjunct Professor, Finance and Economics Division
Director, Business Strategy Research (Columbia Institute for Tele-Information)

Conference on “The State of Telecoms”

Columbia Institute for Tele-Information

October 19, 2007

Several academic centers in the Western Hemisphere have launched a research program with the following objectives

- Build potential development scenarios of the communications industry in Latin America
- Assess the impact of said scenarios for consumers, enterprises and the Latin American economies
- Explore the implications for industry players and policymakers

The communications industry in Latin America has undergone two fundamental restructuring process

PRIVATIZATION → **DEREGULATION**

IMPACT

PRIVATIZATION

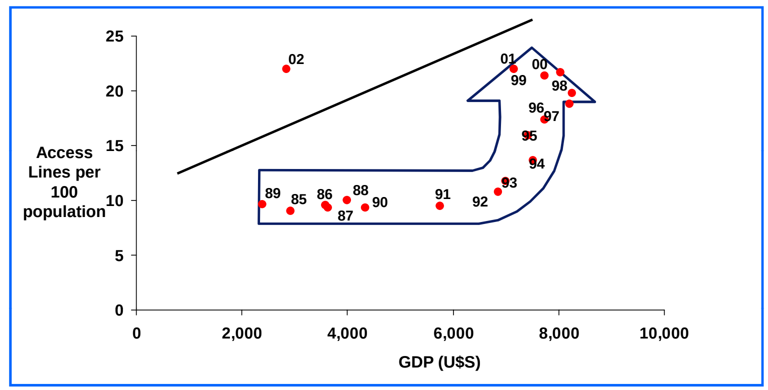
- Accelerated infrastructure development
- Service quality improvement
- Decreasing teledensity gap

DEREGULATION

- Growth of demand for services
- Industry fragmentation
- Price reduction
- Margin erosion

Privatizations allowed countries to reach levels of telecommunications development consistent with their economies

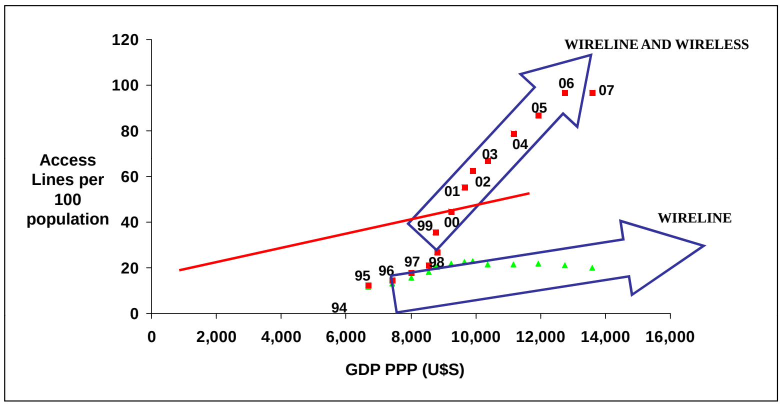
TELEDENSITY AND ECONOMIC DEVELOPMENT IN ARGENTINA (1985-2002)



Sources: Wolrd Bank; ITU; INDEC; Pyramid Research, Analysis by the author

However, beyond privatization, it was the wireless explosion that allowed countries to achieve greater levels of infrastructure growth

TELEDENSITY AND ECONOMIC DEVELOPMENT IN CHILE
(1994-2005)

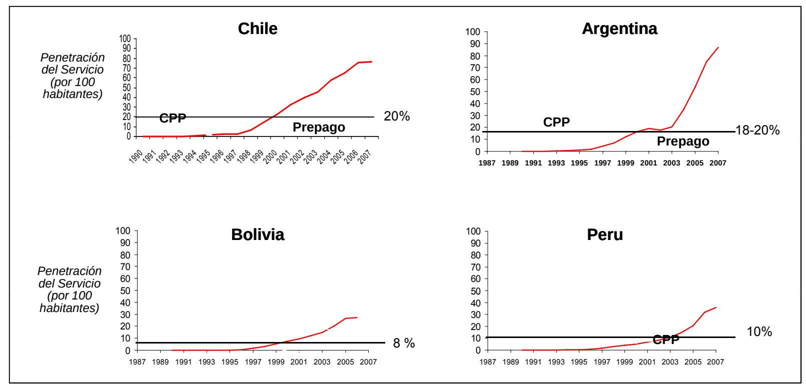


Sources: World Bank; Subtel, Analysis by the author

The wireless industry has put in place growth strategies that have resulted in high service penetration

Classic Formula to estimate wireless penetration
Service adoption f(GDP per capita, handset price)

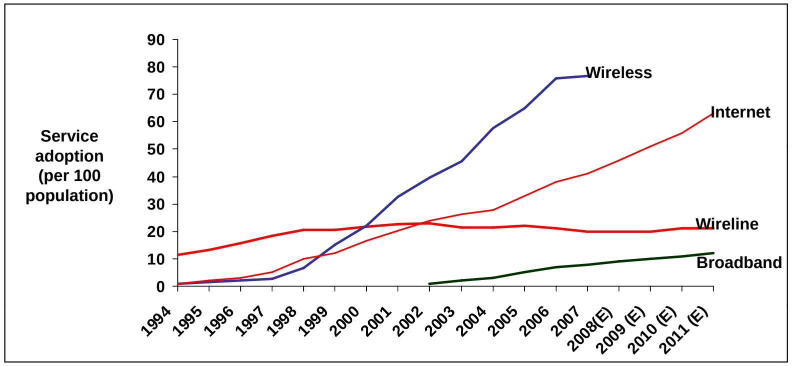
WIRELESS SERVICE PENETRATION



Sources: ITU; Morgan Stanley,Strategis Group; Subtel; Sikitel; CRT, TIA

The region's next challenge is broadband, where demand is not matching supply

DIFFUSION OF TELECOMMUNICATIONS SERVICES IN CHILE (1994-2011)

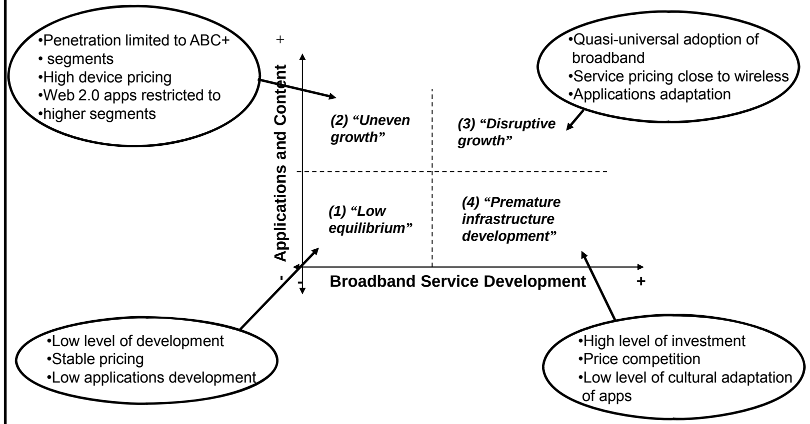


Sources: Subtel; Pyramid Research, Analysis by the author

HAC13

We have defined four scenarios for broadband development in the region

BROADBAND SCENARIOS FOR LATIN AMERICA



Slide 8

HAC13 mejorar grafico. imoprtante que el (2) este mas a la derecha que el (1)
HP Authorized Customer, 10/1/2007

Turning to the supply side, the Latin American communications industry is highly concentrated

- Horizontal concentration of wireless industry in each country, combined with a regional integration in two players
- Vertical integration of national operators
  - Local carriers entering into long distance (e.g. Colombia and Brazil)
  - Telecommunications carriers entering into content distribution and pay TV (Perú, Chile, Colombia, Brazil)
  - Integration based “string of pearls” acquisition strategies: Colombia (Telefónica in Long Distance, Local and wireless), Argentina (Telmex in wireless and local)
- Regional telecommunications operators vertically integrated

For example, the wireless sector already exhibits oligopolistic features

WIRELESS SUBSCRIBERS IN LATIN AMERICA (2007)

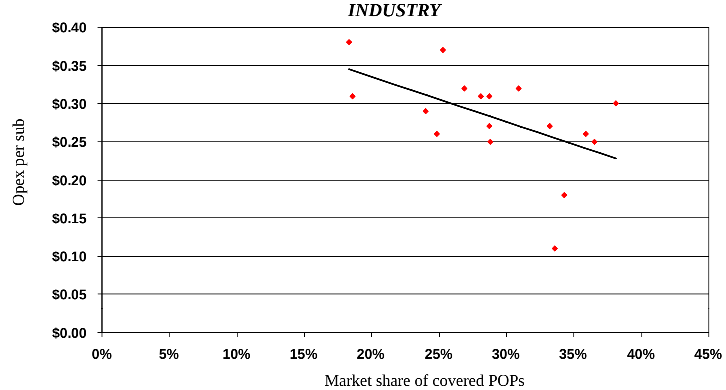
	COUNTRY	TELEFONICA	AMERICA MOVIL	TELECOM ITALIA MOBILE	OTHER	TOTAL
▲	Argentina	12,811,000 (36%)	11,844,000 (33%)	10,264,000 (29%)	805,000 (2%)	35,725,000
	Brazil	30,657,000 (27%)	27,165,000 (24%)	29,264,000 (26%)	26,064,000 (23%)	113,150,000
	Chile	5,898,000 (42%)	2,489,000 (18%)	-----	5,511,000 (40%)	13,898,000
▲	Colombia	9,167,000 (26%)	23,062,000 (66%)	-----	2,505,000 (7%)	34,734,000
▲	México	9,551,000 (15%)	47,852,000 (76%)	-----	5,725,000 (9%)	63,128,000
▲	Perú	6,329,000 (56%)	4,502,000 (40%)	-----	455,000 (4%)	11,286,000
	Venezuela	10,150,000 (46%)	-----	-----	12,040,000 (54%)	22,190,000
	Total	84,563,000 (29%)	116,914,000 (40%)	39,528,000 (13%)	53,105,000 (18%)	294,111,000

Source: Merrill Lynch; operators reports; analysis by the author

> or = 30% ▲ C2 > 60%

Wireless consolidation has been driven by economies of scale

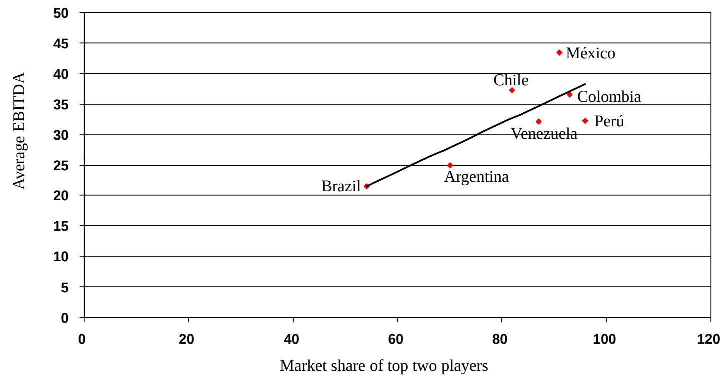
ECONOMIES OF SCALE AND MARKET SHARE OF COVERED POPS IN THE LATIN AMERICAN WIRELESS INDUSTRY



Sources: Merrill Lynch; analysis by the author

Additionally, consolidation results from a need to return to price discipline

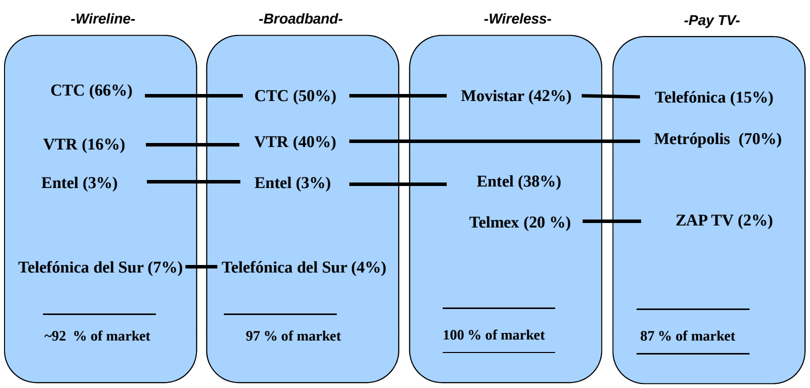
CONSOLIDATION AND INDUSTRY PROFITABILITY



Sources: Merrill Lynch; analysis by the author

Simultaneously, we see an emerging vertical integration across industry sectors

CHILE: COMMUNICATIONS INDUSTRY STRUCTURE



Sources: company reports; analysis by the author

Two scenarios have been defined with regards to industry consolidation

- **Scenario 1:** the consolidation wave continues yielding highly concentrated regional and national industry structures
  - At the national level, we would have a vertically integrated operator
  - At the regional level, we would have two wireless carriers with presence in multiple countries

- **Scenario 2:** Slowing down of the consolidation trend due to three factors:
  - The regulatory authorities become concerned about excesive market power
  - The regional dominant carriers consider it convenient to maintain a minimum level of competitive intensity
  - The dominant regional players set their sights in other markets (Europe and Asia)
- The resulting industry structure would be two or three vertically integrated players per market

In parallel with telco consolidation, the cable TV industry will be attempting to build a significant presence in telephony

Probability of cable TV entry in telephony and adjacent services	Countries	Penetration	Observations
High	Argentina	50%	
	Colombia	45%	The antitrust concerns raised at the time of Carso's acquisition of most of the cable TV industry have not been an obstacle
	Chile	20%	Despite the fact that, according to the convergence law, cable TV players can launch telephony services, some restrictions remain concerning foreign ownership and interconnection
Medium	México	12%	With the convergence law, cable TV operators can launch telephony services; however, they still face foreign ownership and interconnection restrictions
	Brazil	9% (16% in SaoPaulo)	Despite the existence of cable TV activity in telephony, not all regulatory aspects (e.g. Interconnection) have been resolved
Low	Venezuela		
	Perú		

Finally, Wimax could become either a disruptive or complementary platform

- Complementary platform: economic solution for last mile of incumbent operators
  - Wimax represents an opportunity for incumbents to improve broadband deployment and offer triple and quad-play
  - For example, Telmex is using Wimax to complete its broadband deployment both in countries with a copper network (Mexico) as well as countries where it does not have wireline network (Argentina, Chile, Perú)
- Disruptive platform: technology used for entry of new challengers
  - The entry of new operators would be achieved within niches of well defined operating spaces (geographies/markets)
  - For example, there is a possibility that the challengers focus on "Bottom of the Pyramid" markets based on business models subsidized by government's universal service funds

Based on the three dynamics described above, we have defined two potential scenarios for the industry in 2011

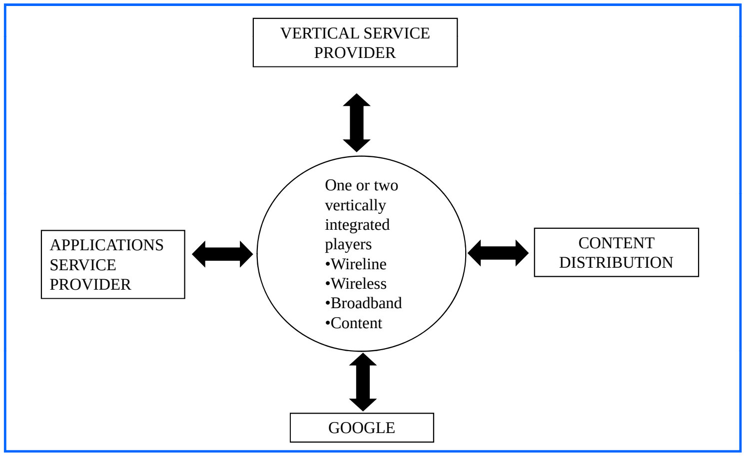
		Telecommunications sector consolidation	
		Yes	No
Entry of cable TV operators in telephony	Yes	US model	Unstable competitive model
	No	Reemergence of the "utility" model	Status quo

+ Wimax disruptive = Hypercompetitive scenario

+ Wimax complementary = Moderate competition

According to the moderate competition scenario, the industry structure would comprise one or two scale-driven carriers serving several niche players

INDUSTRY STRUCTURE

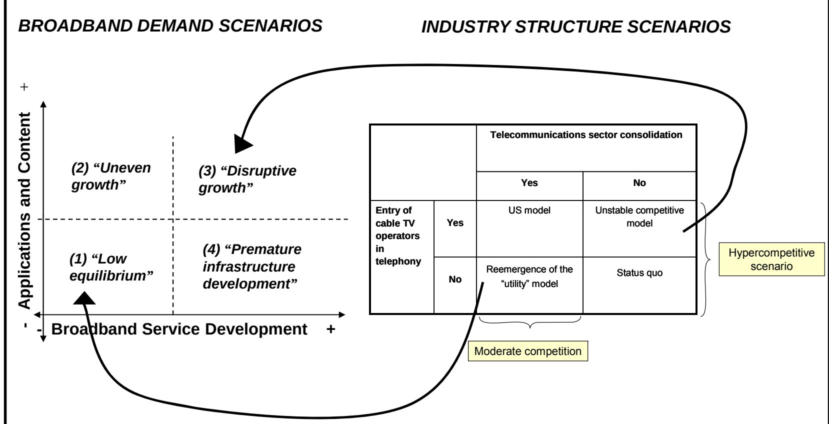


On the other hand, the hipercompetitive scenario is predicated on industry fragmentation and price competition

- The consolidation that has taken place over the last years has resulted in an improvement of margins
- This improvement has attracted new players coming from adjacent businesses such as content distribution or equipment manufacturing
- The entry of these new players is enabled by new platforms, primarily Wimax, which exhibit economic advantages (for example, lower capital investment or "pay-as-you-go")
- Private equity groups could position themselves as providers of financial support to the new entrants
- This could be combined with the incumbents' willingness to sell some non-strategic assets
- The entry of new players would be based on price competition aimed at capturing market share in the short term
- Beyond the new operators, global internet players could deploy cream skimming strategies focused on the large metropolitan areas (Sao Paulo, Buenos Aires, Santiago, etc.)

HAC13

The demand and supply scenarios intersect



Slide 20

HAC13 mejorar grafico. imoprtante que el (2) este mas a la derecha que el (1)
HP Authorized Customer, 10/1/2007