Future scenarios for Latin American communications

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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 processes: **Privatization** and **Deregulation**.

- **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.


- Access Lines per 100 population vs GDP (US$)

Sources: World 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.

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

Classic Formula to estimate wireless penetration
Service adoption = (GDP per capita, handset price)
The region’s next challenge is broadband, where demand is not matching supply.

**DIFFUSION OF TELECOMMUNICATIONS SERVICES IN CHILE (1994-2011)**

![Graph showing diffusion of telecommunications services in Chile](graph.png)

**BROADBAND SCENARIOS FOR LATIN AMERICA**

We have defined four scenarios for broadband development in the region:

1. **Low equilibrium**
   - Application: Low level of development
   - Price: Stable pricing
   - Applications: Low applications development

2. **Uneven growth**
   - Penetration limited to ABC+ segments
   - Price: High device pricing
   - Applications: Web 2.0 apps restricted to higher segments

3. **Disruptive growth**
   - Quasi-universal adoption of broadband
   - Price: Service pricing close to wireless
   - Applications: Adaptation

4. **Premature infrastructure development**
   - Applications: High level of investment
   - Price: Price competition
   - Applications: Low level of cultural adaptation of apps

Sources: Subtel; Pyramid Research; Analysis by the author
mejorar gráfico. Importante que el (2) esté más 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

<table>
<thead>
<tr>
<th>COUNTRY</th>
<th>TELEFÓNICA</th>
<th>AMERICA MOVIL</th>
<th>TELECOM ITALIA</th>
<th>OTHER</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Argentina</td>
<td>12,811,000 (39%)</td>
<td>11,844,000 (33%)</td>
<td>10,264,000 (29%)</td>
<td>805,000 (2%)</td>
<td>35,725,000</td>
</tr>
<tr>
<td>Brazil</td>
<td>30,697,000 (27%)</td>
<td>27,165,000 (24%)</td>
<td>29,264,000 (26%)</td>
<td>26,064,000 (23%)</td>
<td>113,150,000</td>
</tr>
<tr>
<td>Chile</td>
<td>8,958,000 (42%)</td>
<td>2,489,000 (18%)</td>
<td></td>
<td>5,511,000 (40%)</td>
<td>13,068,000</td>
</tr>
<tr>
<td>Colombia</td>
<td>9,167,000 (26%)</td>
<td>23,062,000 (66%)</td>
<td></td>
<td>5,511,000 (40%)</td>
<td>34,734,000</td>
</tr>
<tr>
<td>Mexico</td>
<td>9,551,000 (15%)</td>
<td>47,852,000 (76%)</td>
<td></td>
<td>5,725,000 (9%)</td>
<td>63,128,000</td>
</tr>
<tr>
<td>Perú</td>
<td>8,329,000 (59%)</td>
<td>4,502,000 (40%)</td>
<td></td>
<td>495,000 (4%)</td>
<td>11,286,000</td>
</tr>
<tr>
<td>Venezuela</td>
<td>10,150,000 (46%)</td>
<td></td>
<td></td>
<td>12,040,000 (54%)</td>
<td>22,190,000</td>
</tr>
<tr>
<td>Total</td>
<td>84,563,000 (29%)</td>
<td>116,914,000 (40%)</td>
<td>39,528,000 (13%)</td>
<td>53,105,000 (18%)</td>
<td>294,111,000</td>
</tr>
</tbody>
</table>

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

> or = 30%  ▲ C2 > 60%
Wireless consolidation has been driven by economies of scale. Additionally, consolidation results from a need to return to price discipline.
Simultaneously, we see an emerging vertical integration across industry sectors.

### CHILE: COMMUNICATIONS INDUSTRY STRUCTURE

<table>
<thead>
<tr>
<th></th>
<th>-Wireless-</th>
<th>-Broadband-</th>
<th>-Wireless-</th>
<th>-Pay TV-</th>
</tr>
</thead>
<tbody>
<tr>
<td>CTC</td>
<td>(66%)</td>
<td>CTC (50%)</td>
<td>Movistar (42%)</td>
<td>Telefónica (15%)</td>
</tr>
<tr>
<td>VTR</td>
<td>(16%)</td>
<td>VTR (40%)</td>
<td>Entel (38%)</td>
<td>Metrópolis (70%)</td>
</tr>
<tr>
<td>Entel</td>
<td>(3%)</td>
<td>Entel (3%)</td>
<td>Telmex (20%)</td>
<td>ZAP TV (2%)</td>
</tr>
<tr>
<td>Telefónica del Sur</td>
<td>(7%)</td>
<td>Telefónica del Sur (4%)</td>
<td>100 % of market</td>
<td>87 % of market</td>
</tr>
<tr>
<td></td>
<td>82 % of market</td>
<td>97 % of market</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: 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 excessive 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

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

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, Peru)
- **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

<table>
<thead>
<tr>
<th>Entry of cable TV operators in telephony</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>US model</td>
<td>Unstable competitive model</td>
</tr>
<tr>
<td>No</td>
<td>Reemergence of the “utility” model</td>
<td>Status quo</td>
</tr>
</tbody>
</table>

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

- **VERTICAL SERVICE PROVIDER**
  - One or two vertically integrated players
  - Wireline
  - Wireless
  - Broadband
  - Content

- **APPLICATIONS SERVICE PROVIDER**
- **CONTENT DISTRIBUTION**
- **GOOGLE**
On the other hand, the hypercompetitive 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 (São Paulo, Buenos Aires, Santiago, etc.).
mejorar gráfico. Importante que el (2) esté más a la derecha que el (1)