Asia-Pacific
Economic Cooperation

Training Program to Promote Economic Competition in APEC Economies
Competition and Regulation in Regulated Sectors

Proceedings of four seminars

May 30-31, 2002; October 19-20, 2002; September 11-12, 2003; November 17-18, 2003

Part III: Telecommuications Seminar Papers

Competition Policy and Deregulation Group
Committee on Trade and Investment
March 2004

Prepared for:

APEC Secretariat

35 Heng Mui Keng Terrace Singapore 119616
Tel: (65) 6775 6012 Fax: 6775 6013 Email: info@apec.org
Website: www.apec.org

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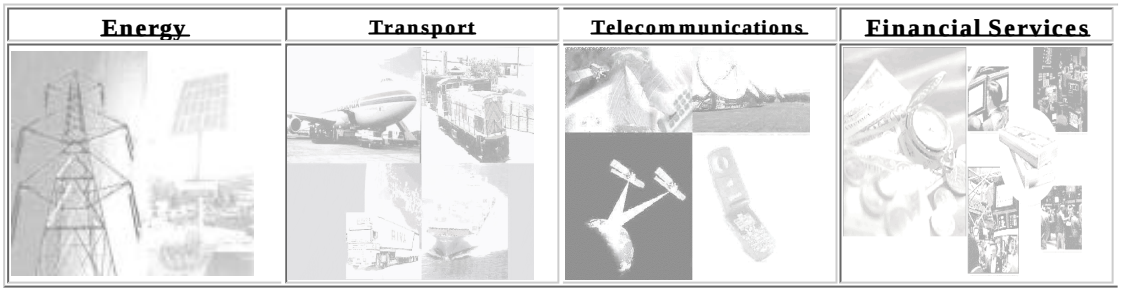
COMISION FEDERAL DE COMPETENCIA
MEXICO

Asia-Pacific
Economic Cooperation

Home
Principal
Energy
Transport
Telecommunications
Financial Services



Training Program to Promote Economic Competition in APEC Economies

Regulation and Competition in Regulated Sectors

Sponsored by the Asia

Organized by the Mexican Federal Competition Commission

In 2001, Mexico submitted to the APEC Competition Policy and Deregulation Group a short-term training course to be developed during 2002 and 2003. The project entitled "Training Program to Promote Economic Competition in APEC economies", focused mainly on regulated sectors and complemented existing projects dealing with competition and regulation issues that were successful in building capacity among member economies while providing general guidelines. The project comprised four seminars on specific sectors: energy, transport, telecommunications and financial services.

The purpose of these seminars was to exchange experiences and best regulatory practices in enforcing regulation and competition policies, as well as promoting knowledge and implementation of the 1999 APEC *Principles for Improving Competition and Regulatory Reform* among its member economies. The seminars counted with the participation of high level and experienced speakers in these matters, and were addressed to officials from regulatory bodies and other offices of the Federal Government, legislators, entrepreneurs, advisors, and academics that participate in these sectors.

The first of these seminars focused on the **Energy** sector, and was jointly organized by the Mexico's Federal Competition Commission (CFC or the Commission) and the **Mexico's Energy Regulatory Commission**. It was held on the 30th and 31st of May 2002, at the Fiesta Americana Grand Chapultepec Hotel in Mexico City.

Subsequently, the Commission organized, in coordination with the **Ministry of Communications and Transport**, the Seminar on **Transport**. It was held on the 19th and 20th of October 2002, at the Camino Real Hotel in Mexico City.

The CFC organized the Seminar on **Telecommunications**, which was held on the 11th and 12th of September 2003, at the Sol-Meliá Hotel in Mexico City.

Finally, the Commission organized a Seminar on **Financial Services**, held on the 17th and 18th of November 2003, at the Fiesta Americana Grand Chapultepec Hotel in Mexico City.

This page contains the programs and documents presented at these seminars.

Up

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COMISION FEDERAL DE COMPETENCIA
MEXICO

Asia-Pacific Economic Cooperation

Telecommunications

Seminar on Competition and Regulation in the Telecommunications Sector

Gran Melia Hotel

Mexico City

September 11th and 12th, 2003

Over the last years the worldwide trend in the telecommunications sector has been to deregulate and enhance competition. International experience has shown that the deregulation process varies to a high degree, implying that markets with differing levels of competition coexist in the telecommunications sector.

The seminar described challenges and experiences of regulatory and competition agencies involved in the sector. It covered subjects such as the effects of regulation in the development of the sector's and firms' performance, the different regulatory options available, merger analyses in the sector, substantial market power, and anticompetitive practices.

Thursday, September 11th

Impact of regulation on competition

	Speaker	Topic
9:15 – 9:45	**Scott Wallsten** Associate AEI-Brookings Joint Center USA	The Regulatory Framework and Telecommunications Sector Development
9:45 – 10:15	**Agustin J. Ros** National Economic Research Associates, Inc USA	Impacts of Interconnection Conditions on Telecommunications Competition
10:15 – 10:45	**Fernando Sanchez Ugarte** President Federal Competition Commission MEXICO	Competition Policy in Telecommunications

Realities and Regulatory Options for Competition

	Speaker	Topic
	Ramiro Tovar Landa	

11:40 – 12:10	Professor Autonomous Technological Institute of Mexico MEXICO	**Competition and Investment in Infrastructure**
12:10 – 12:40	**Carlos Romero Hernandez** Deputy General Director of Economic Studies Federal Competition Commission MEXICO	**Competitive strategies of Telephone Firms: Successes and failures**
12:40 – 13:10	**Gustavo Adolfo Bello** Director of Regulatory Studies Federal Regulatory Improvement Commission MEXICO	**Institutional Design and Independence of the Telecommunications Regulator**

	Speaker	Topic
16:00 – 16:30	**María Eugenia Bracho Gonzalez** Head Federal Agency For Consumer Protection MEXICO	**Competition in Telecommunications from the Final Consumer's Perspective**
16:30 – 17:00	**Abel Hibert** Commissioner for Economic Affairs Federal Telecommunications Commission MEXICO	**Telecommunication in Mexico: Regulatory Issues for a Market in Competition**
17:00 – 17:30	**Judith Mariscal** Professor Center for Research and Education in Economics MEXICO	**Access and Competition in Mexico**

Friday, 12th

Regulatory and Competition Experiences and Challenges

	Speaker	Topic
8:30 – 9:00	**Adalberto Garcia Rocha** Commissioner Federal Competition Commission MEXICO	**Market Power and Anticompetitive Practices**
	Stephen Farago Director	

9:00 – 9:30	**ACCC** Telecommunications Division AUSTRALIA	**Telecommunications Market Structure, Regulation and Competition in Australia**
9:30 – 10:00	**Chong-Hoon Park** Senior Research Fellow , Director Telecommunications and Broadcasting Policy Division Korea Information Strategy Development Institute KOREA	**Regulatory Reform in Telecommunication Services. Korean Experience**

	Speaker	Topic
11:00 – 11:30	**Sergio Rodriguez** Legal Affairs and Regulation TELMEX MEXICO	**Asymmetric Regulation: The Case of Telmex**
11:30 – 12:00	**W. Robert Majure** Economic Regulatory Section Antitrust Division U.S. Department of Justice USA	**Competition Policy and the Problem of Interconnection: Some Experience from the US**
12:00 – 12:30	**Javier Lozano Alarcon** JL & Associates MEXICO	**Alternatives for Telecommunications Regulation in Mexico**

Closing Remarks

Captain Rodolfo Salgado Leyva

General Coordinator of the Support Unit for Structural Change

Ministry of Communications and Transport

Annex

Attendees Contributions

Attendee	Topic
Mr. Mohammad Iqbal Commissioner Indonesian Competition Commission INDONESIA	An Early Phase of Telecommunications Competition in Indonesia
Ana Rosa Martinelli Manager of Business Relations Opsitel-Peru	Competition Development in the Peruvian Public

PERU	Telecommunications Market
Pham Quynh Mai Multilateral Policy Department Ministry of Trade VIETNAM	Regulation and Competition in Telecommunication Service in Vietnam

Up

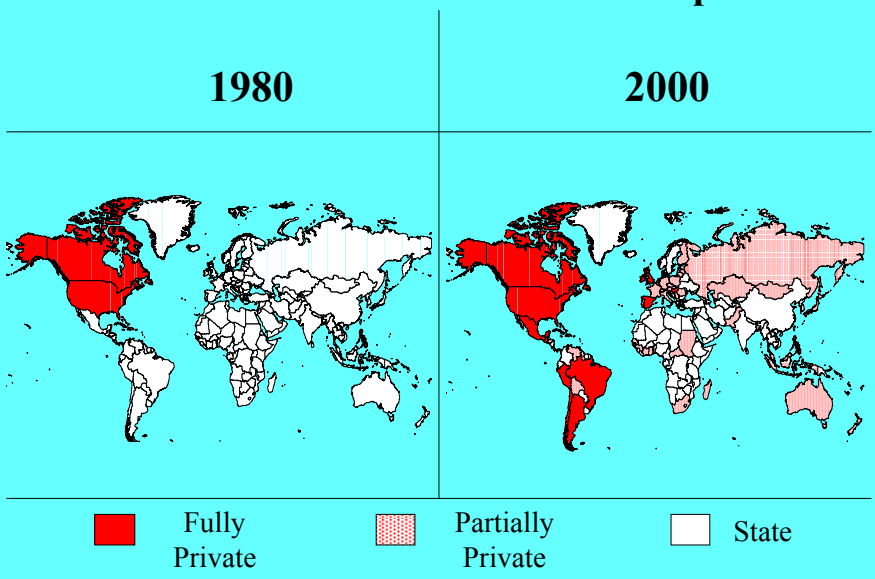
The Regulatory Framework and Telecommunications Sector Development

September 11, 2003
Mexico City

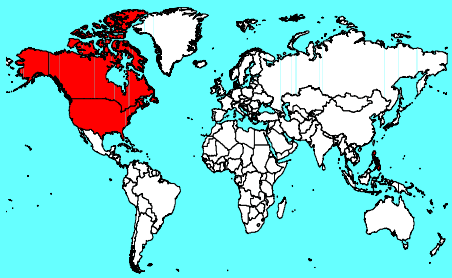
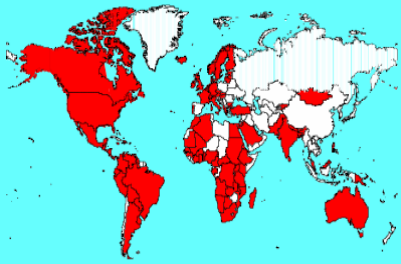
Scott Wallsten
AEI-Brookings Joint Center

swallsten@aei.org
scott@wallsten.net

Telecommunications Ownership



Telecommunications Regulators

1980	2002
	

Separate from Ministry
(not necessarily independent)

The Reform Pace Debate & Regulation

The Need for Speed

Quick privatization

- "combat the … lack of corporate governance." (Lipton & Sachs 1990)
- Remove state from economy as quickly as possible.
- Raise revenue for financially-strapped governments; stem flow of subsidies

Less focus on regulation

- Industrialized country focus on deregulation and cost of regulation (e.g., Winston 1993).
- Concern that new regulatory agencies would just be another way state could interfere

Slow and Steady

Slow Privatization

- Deal with political problems and potential backlash (Roland 1994)
- Privatizing monopolies problematic; break them up first? (Newberry 1991)

Regulatory Institution Crucial

- Must deal with rule of law and other institutional issues (Summers 1994)
- Need mechanism for encouraging competition, especially in industries where incumbent has market power.

Most General Question: Effects of Privatization, Competition, & Regulation?

Data from 30 African & Latin American countries, 1984-1997:

- Competition (# mobile firms not owned by incumbent) correlated with higher penetration, lower prices.
- Privatization ALONE not associated with improvements
- Privatization COMBINED with independent regulator correlated with improvements.

(Journal of Industrial Economics, March 2001)

Leads to more questions:

- More detailed look at regulation.

Regulatory Content

1. **International accounting rates**:
   - Bilaterally negotiated rates for terminating international calls
   - Big money: $35 billion to developing countries from US 1985-1998
   - FCC reduction in 1997
   - Data on 179 countries, 1985-1998 reveals:
     - Decrease in rates led to increase in international traffic
     - No evidence that funds were being used to finance investment

Regulatory Content

2. Effects on Internet penetration

- Many countries require regulatory approvals for ISPs to operate and/or regulate prices.
- Data from detailed survey of regulators combined with publicly available information.
- Countries that require formal regulatory approval have lower Internet penetration and fewer internet hosts
- Countries that regulate final user prices have much higher prices than countries that do not.

Regulatory Governance
Sequencing Regulation and Privatization

Explore effects on penetration and investor valuations:

1. ITU data for every country: 197 countries from 1985-1999
   ⇒ 2533 observations
2. Our database:
   27 countries, year of privatization
   ⇒ 33 observations

Regulator before privatization correlated with:

- INCREASED investor valuations of the firms
- INCREASED mainline growth, investment, mobile subscribers

*** "Independent" regulator correlated with WORSE outcomes

Regulatory Governance

Possible that no single criterion by itself is enough (e.g., Noll, NERA) :

- Independence from short-term political pressure
- Accountability
- Transparency
- Capacity to compel information
- Competency

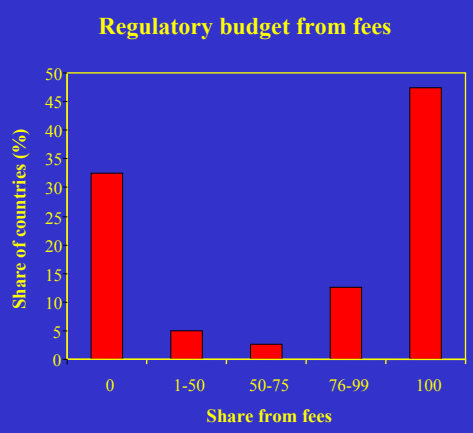
How to measure?

Survey of 44 regulatory agencies in 2001

Regulatory Governance
Independence

Indicators:

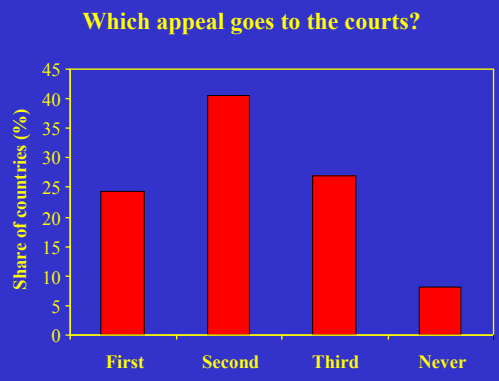
- Financial.
- How regulators / commissioners are hired and fired.



Regulatory Governance
Accountability

Indicators:

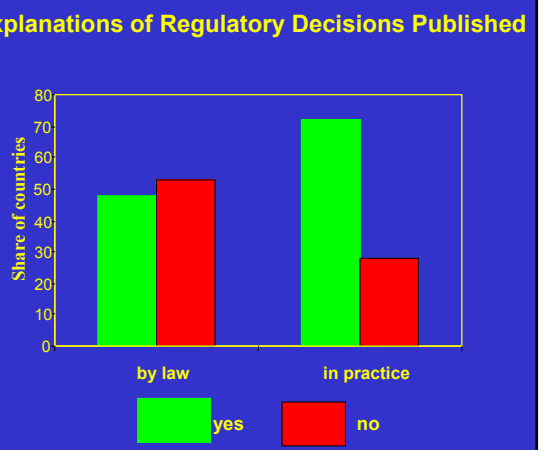
- Appeal decisions to disinterested third party?



Regulatory Governance
Transparency

Indicators:

- Are rules and explanations of decisions published?
- Who can participate in regulatory proceedings?



Regulatory Governance
Capacity & Competency

Must be able to compel information from operators and have a staff capable of using that information

Capacity: Nearly all *can* compel information, but

- Only ~60 percent of regulators collect financial AND performance data from the fixed-line operator.

"Competency"

- How to measure?
- How to interpret?

Regulatory Governance

Bottom line from survey:

⇒ **Most countries meet some measures, but few meet multiple.**

Implications unknown: How do these governance measures affect sector development?

These questions are not new

Early days of telecommunications saw the same debates

- Bennett (1895)
- Holcombe (1906, 1907, 1911)
- Casson (1910)
- Webb (1910)
- Kingsbury (1915)

Market Structures Across Europe, Late 19th Century

- Government Ownership
  ⇒ Austria, Belgium, Bulgaria, France, Germany, UK after 1911, Greece, Hungary, Switzerland

- Private ownership under harsh concessions ("capricious regulations")
  ⇒ Italy, Spain, UK before 1911

- Competition in an open environment
  ⇒ Sweden, Denmark, Norway, Holland

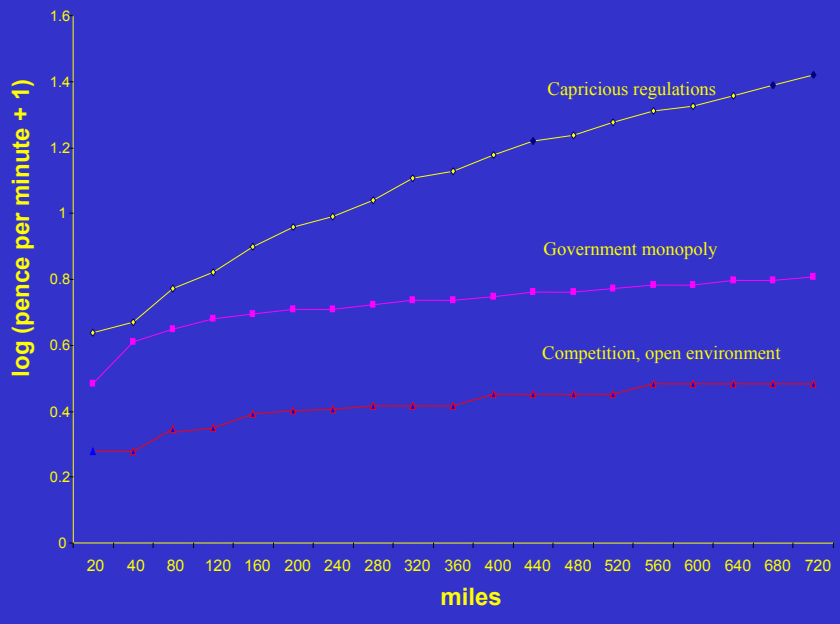
Empirical Analysis, Late 19th Century Europe

Dependent variable: Telephones per hundred population		
	Europe	RURAL
Government monopoly	**-1.952**	**-1.143**
	(3.30)**	**(2.97)***
Capricious regulation	**-1.942**	**-0.996**
	(2.50)*	**(2.02)+**
Population (millions)	.012	
	(0.66)	
GDP/Capita	0.001	0.001
	(2.72)*	(2.71)*
density (pop per sq mi)	-0.006	-0.004
	(2.67)*	(1.51)
Observations	16	17
R-squared	0.75	0.66

Robust t statistics in parentheses

+ significant at 10%; * significant at 5%; ** significant at 1%

Average long distance prices by market structure and distance



Conclusions

- Generally speaking, regulations matter
- Especially important in reforms when dealing with market power of incumbent.
  - Need caution not to apply arbitrary regulations in areas that are easily competitive (e.g., ISPs).
- Governance matters, but it's not completely clear yet in what ways.
- Need to move beyond the reduced-form empirical paradigm.


How Markets Work℠
Impacts of Interconnection Conditions on Telecommunications Competition
Agustin J. Ros, Ph.D.
Mexico City, September 11, 2003


Purpose of Presentation
Trends in Interconnection Policies
Effective Regulatory Strategies
How Markets Work℠

Types of Interconnection

- **Parallel/cooperative**
  - Interconnection between non-competing networks
  - E.g., interconnection between AT&T (US) and Telmex for provision of international service
  - Incentive to cooperative, network externality
  - Interconnection rarely contentious

Types of Interconnection

- **Vertical Interconnection**
  - Interconnection between vertically-integrated firm and non-integrated rival
  - Long distance carrier interconnecting with local/long distance carrier
  - E.g., AT&T and local carriers in U.S.
  - Contentious

Types of Interconnection

- **Horizontal**
  - E.g., interconnection between two local networks
  - Key to local competition
  - Very contentious

Importance of Interconnection

- **Goal of policymakers is competitive telecom markets, if possible.**
- **Interconnection necessary condition for competitive telecom market.**
- **Without interconnection, competitor would have to duplicate the incumbent's facilities.**

Is Regulation of Interconnection Required?

- What is the "market failure"?
- Will Incumbent and competitor voluntarily reach agreement?
- Worldwide experience is not likely.
- Eli Noam (2001) – Some type of interconnection regulation exists in every country where competitive telecom markets exists.

If Regulation Required, how to regulate interconnection?

- Goals
  - Minimize unneeded intervention
    - Avoid distorting outcomes in vibrant, dynamic industry
  - Economic efficiency
    - Technical efficiency (minimize total costs)
    - Allocative efficiency (prices reflect demand and cost considerations)
    - Dynamic efficiencies (proper incentives to deploy new technologies)

Regulatory Goals (Continued)

- **Be consistent with efficient competition**
  - **Interconnection prices should not put competitor in a "price squeeze."**
- **Be consistent with other goals such as increasing teledensity**

Types of Regulatory Intervention Practiced Worldwide

- **Two broad types**
  - **Ex-post intervention – Intervene only after problems arise**
  - **Ex-ante – Have in place detailed rules that parties must abide by**

Types of Regulation

- **Ex-post Intervention**
  - Relies primarily on negotiation between parties
  - Regulatory intervention if parties fail to agree
  - At times type of regulatory intervention likely is known other times it is unknown
  - E.g., Mexico

Types of Regulation

- **Ex-ante Intervention**
  - Detailed rules guiding negotiation process between the parties
  - E.g., FCC's (US) 700 page Order in 1996
  - Other examples, Canada, Australia, Singapore, increasingly EU member nations

Types of Regulation

- According to the World Bank, worlwide trend is towards ex-ante intervention
- Belief is this will produce better outcomes, i.e., more competition
- Not always the case, Mexico's interconnection is under $0.01 compares well with other countries that have more interventionist approach

Costing & Pricing Interconnection Service

- Most controversial and contentious aspect
- Requires significant resource expenditure by operators and regulator
- Represent large portion of competitors' cost structure, at least initially

Costing & Pricing Interconnection Service

- **Interconnection charges can be used:**
  - As a tool to promote efficient entry;
  - As a tool by incumbents to frustrate competition
  - As a tool by competitors to gain an unfair advantage in the marketplace
  - As a tool by policymakers to pursue social goals

Costing & Pricing Interconnection Service

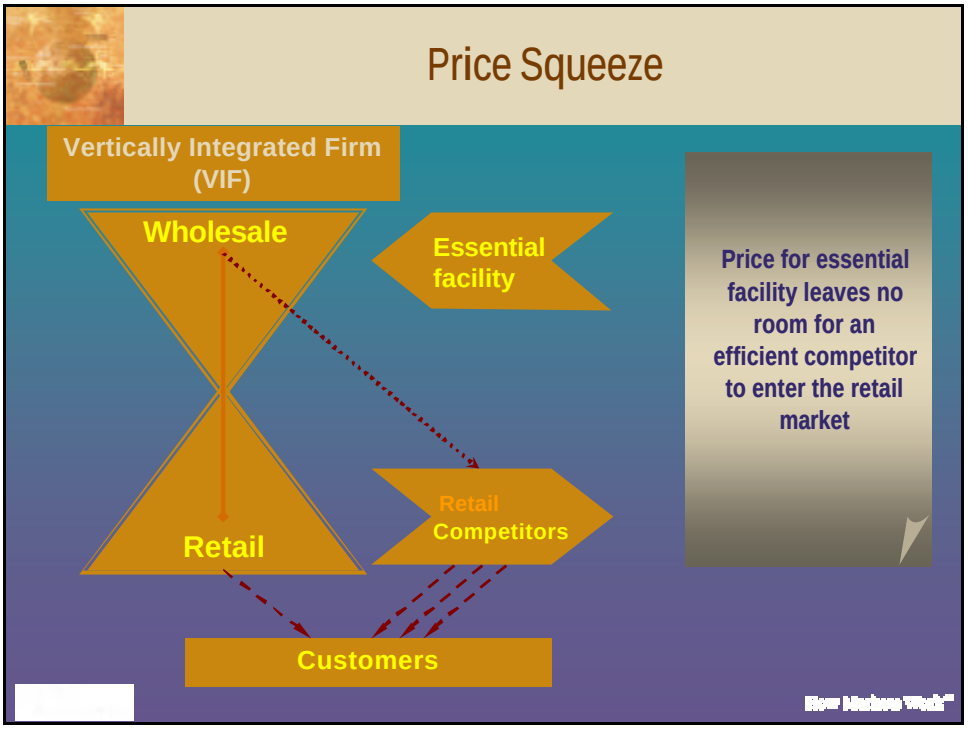
- **Different Pricing Methodologies**
  - Forward-looking Incremental Cost (FLIC)
    - Replicates prices in competitive markets
    - Sends correct signal to market participants
    - "Best practice"
    - Can be lower that actual booked costs

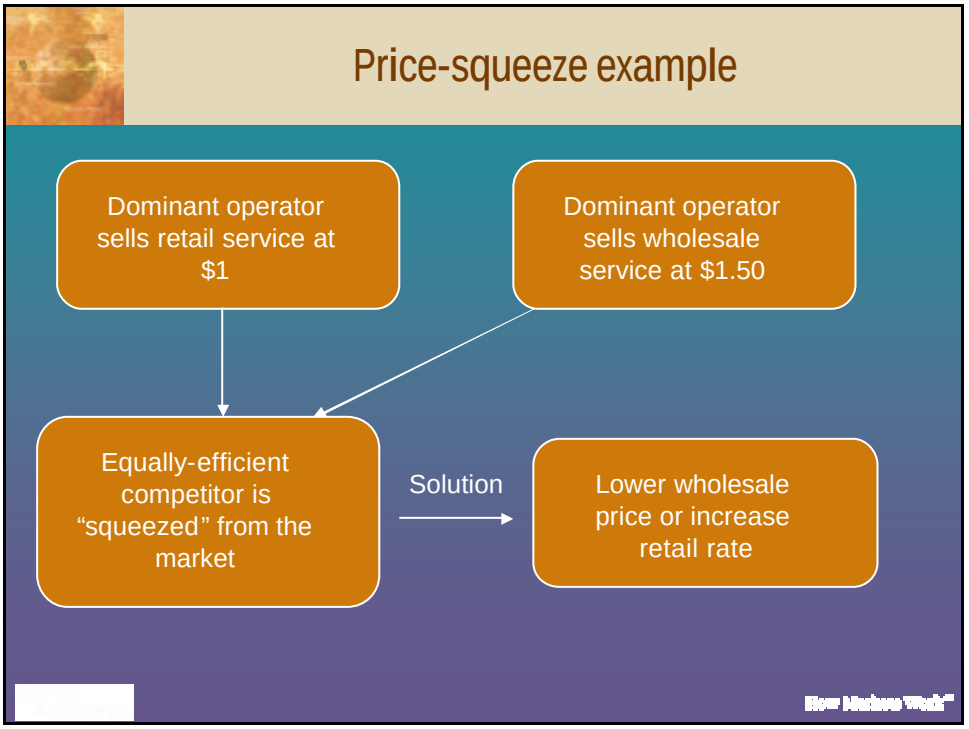
Costing & Pricing Interconnection Service

- **Historical Costs**
  - Based on company's actual costs
  - Permits company to recover its costs
  - Less efficient outcomes
- **Bill & Keep**
  - No payment between carriers
  - Requires balanced traffic and similar cost structure

What constitutes Anti-competitive Interconnection pricing?

- **Common complaint is that Interconnection pricing is "too high."**
- **What does this mean in practice?**
- **Interconnection pricing anticompetitive if it precludes equally-efficient rivals from the market.**

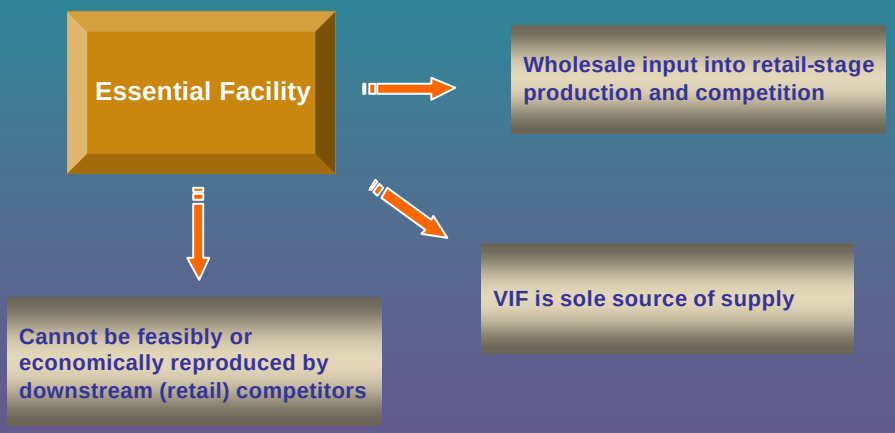

Price Squeeze
Vertically Integrated Firm (VIF)
Wholesale
Essential facility
Retail
Retail Competitors
Customers
Price for essential facility leaves no room for an efficient competitor to enter the retail market


Price-squeeze example
Dominant operator sells retail service at $1
Dominant operator sells wholesale service at $1.50
Equally-efficient competitor is "squeezed" from the market
Solution
Lower wholesale price or increase retail rate

Conditions that must exist for price squeeze

- Vertically-integrated firm must have market power in wholesale services
- Interconnection service must be an essential facility

What is an Essential Facility?



Other price squeeze considerations

- Imputation tests used to determine price squeeze
- A price squeeze test should be applied to the relevant market, not individual services

Access to unbundled network elements (local loop)

- Local loop unbundling (LLU)
- A different form of interconnection
- Benefits of LLU
  - Promote competition in access services
  - Avoids duplication of access networks

Access to unbundled network elements (local loop)

- **Costs of LLU**
  - If price incorrect, disincentive on part of incumbent to build out access network
  - Even if prices set correct, disincentive on part of entrant to build alternative network
  - Heightened regulatory scrutiny and costs

Is local loop unbundling a good policy in developing economies

- **May conflict with goal of increasing teledensity**
- **Countries that have ordered LLU generally tend to be high teledensity countries**

Conclusions

- Interconnection regulation likely necessary in some form for the immediate future
- Regulatory goal should be to minimize intervention while still:
  - Ensuring interconnection is not used as a tool to discourage efficient competitors

FEDERAL COMPETITION COMMISSION

COMPETITION POLICY IN TELECOMMUNICATIONS

Fernando Sánchez Ugarte

September 2003

Competition Policy

Competition advocacy in order to

- favor the correct functioning of markets as a source of competitiveness and social welfare.
- ensure economic agents a free and non discriminatory access to markets, promoting entrepreneurship.

Is based on

- the institutions and enforcement of current law.
- the activities aimed at sensitizing society about the benefits of competition.

Regulation and Competition Policy

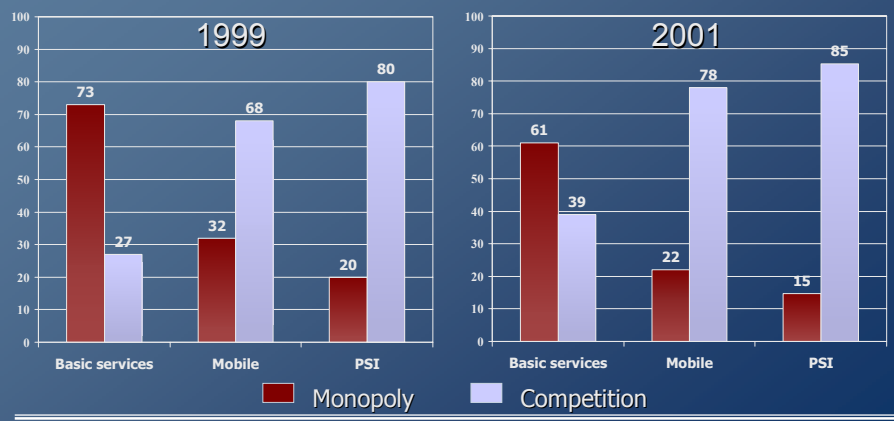
- Fostering and promoting competition is fundamental in order to achieve more efficient markets, and both economic regulation as well as competition policy must seek this efficiency.
- Economic regulation and competition policy are complementary and must not be understood as rival or substitutes.
- Economic regulation must not aim at influencing business decisions of agents subject to regulation, but create suitable conditions that foster a healthy competition among them.

2

Competition in Telecommunications

Competition is increasing …

% of countries with competition in specific services



Source: Trends in telecommunication reforms 1999 y 2002, ITU.

3

Competition in Telecommunications

- **Most countries allow competition:**
  - 86% competition among internet service providers.
  - 81% competition in cable TV.
  - 80% competition in the provision of VSAT terminals.
  - 78% competition in mobile services.
  - 68% competition in the provision of wireless local loop.

Source: Trends in telecommunication reforms 2002; ITU.

4

Benefits of competition in Telecommunications (I)

- *Boyland & Nicoketti (2000).* Regulation, Market Structure And Performance in Telecommunications.
  - More competition reduces prices and increases productivity and quality of service.
  - Economic benefits of liberalization and regulatory reform are important and happen relatively fast, however, their depth and scope depend on how fast and effectively competitive conditions can be established.
- *Ros, A. (1999),* Does Ownership or Competition Matter? The Effects of Telecommunications Reform on Network Expansion and Efficiency
  - Privatization significantly increases the number of services offered.
  - When the holder is privatized, competition increases productivity but not the range of services.

5

Benefits of the competition in Telecommunications (II)

- *Noll, R. G. (1995).* The Role of Antitrust in Telecommunications:
  - Even well-intended regulations are uncertain in their enforcement and produce unexpected problems due to the industry's pace of technological evolution.
  - Competition works, so competition policy is attractive.
- *Green & Teece (1998).* Four approaches to telecommunications deregulation and competition: the US, UK, Australia and New Zealand.
  - Competition dramatically lowers long distance telephony tariffs.
  - The greatest differences among countries can be seen in local service regulation: the US has favored local loop unbundling, while Australia and the United Kingdom have favored facilities-based competition.
  - Competition in local markets has not reached a level of development where one can identify the best regulatory framework: local loop unbundling, interconnection or resale.
  - Despite differences between countries regarding their regulatory approach, there is a clear trend towards deregulation.

6

Regulation in telecommunications

In telecommunications activities with different levels of competition coexist.

Activities with less competition	Activities with more competition
Local loop	**Long distance telephony, mobile telecommunications and value added services**
▪ Network economies due to consumer benefits from a wide connectivity. ▪ High sunk costs when building essential facilities.	Face important entry barriers: ▪ Scale economies (need for critical mass) and scope economies; ▪ Investment requirements; ▪ Experience in the market (loyalty, brand recognition, etc.)

7

Regulation in telecommunications (II)

- In many cases, the behavior of the incumbent operator strengthens structural barriers to competition by exploiting its position in the market and preventing or reducing competition.
- Network expansion may be hindered by agents who have no incentives to interconnect in order to prevent competition in certain segments.
- Impossibility of duplicating a resource or facility transforms certain segments in the sector into essential resources. Access to such resources is vital for other agents to operate in segments opened to competition.

8

Regulation's role in Telecommunications

1. **To foster private investment, innovation and facilities building;**
2. **To promote competition;**
3. **To efficiently allocate scarce spectrum resources, &**
4. **To look out for public interest when markets do not.**

9

In Mexico...

Telecommunications' importance is increasing

- **Due to its impact in the economy's competitiveness.**
- **Due to the sector's own growth:**

  In the case of Mexico:

  - from 1990 to 2001 domestic GDP grew at an annual average rate of 3.3%, while that of telecommunications grew at 14.2%.
  - from 1998 to 2003, the Mexican market for telecommunications grew 93.62%.

Liberalization in Telecommunications

Privatizing before a proper regulation policy is put in force has hindered the process of competition and free access to markets:

- **Firm with substantial market power and vertically integrated that enjoyed a period of exclusivity.**
- **Structural and institutional barriers to competition.**

12

Evolution of markets (I)

Since the 90's we have witnessed a significant transformation of telecommunications markets:

- Opening markets to competition (long distance, local, mobile).
- Assigning radio electric space concessions through biddings.
- Reducing LD price and applying LLP charge to mobile telephony, resulting in increasing traffic and services penetration.
- Launching PCS technology and new services such as private virtual networks, data transmission using new protocols and complementary services.
- Use of three technologies in restricted TV (cable, codified microwaves and direct to home by satellite).

However…

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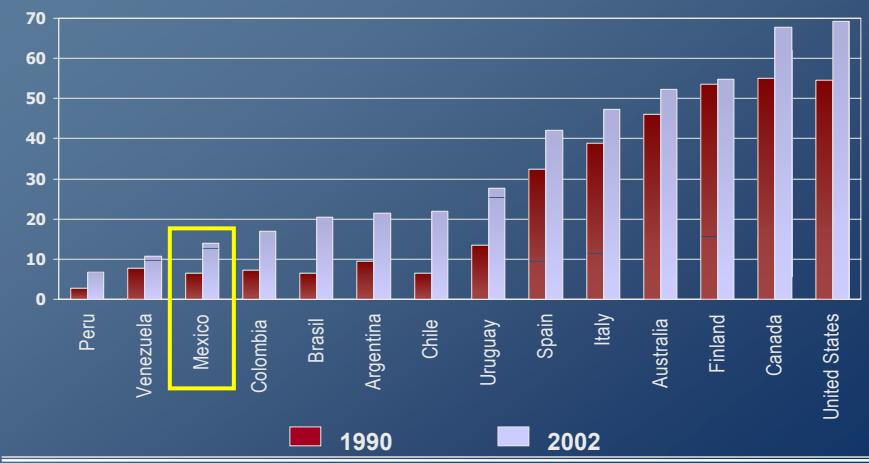
Evolution of markets (II)

Services penetration among population is very low: 14 fixed lines per 100 inhabitants in 2002.



Source: Telecommunications Outlook 2001, OECD.

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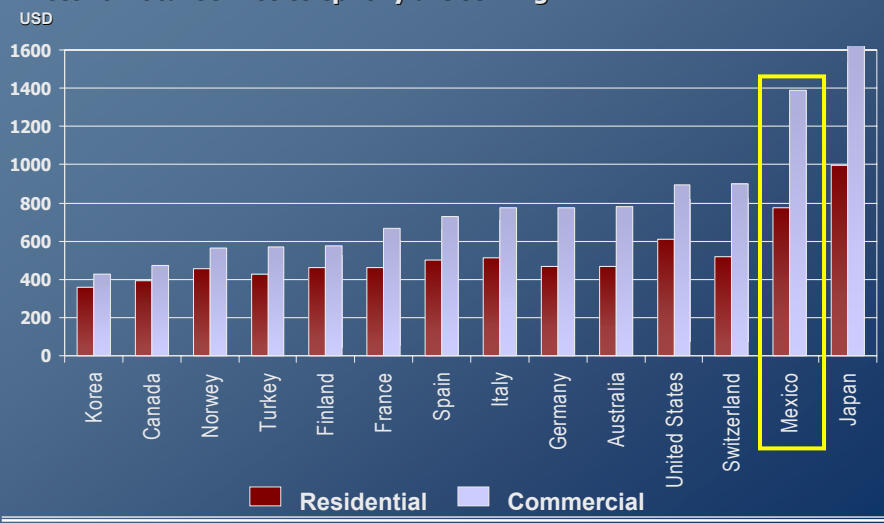
Evolution of markets (III)

Prices for local service telephony are still high. [1]



[1] For a services basket which includes a fixed payment and usage payment. It does not includes long distance and calls to mobile networks.

Source: Telecommunications Outlook 2001, OECD.

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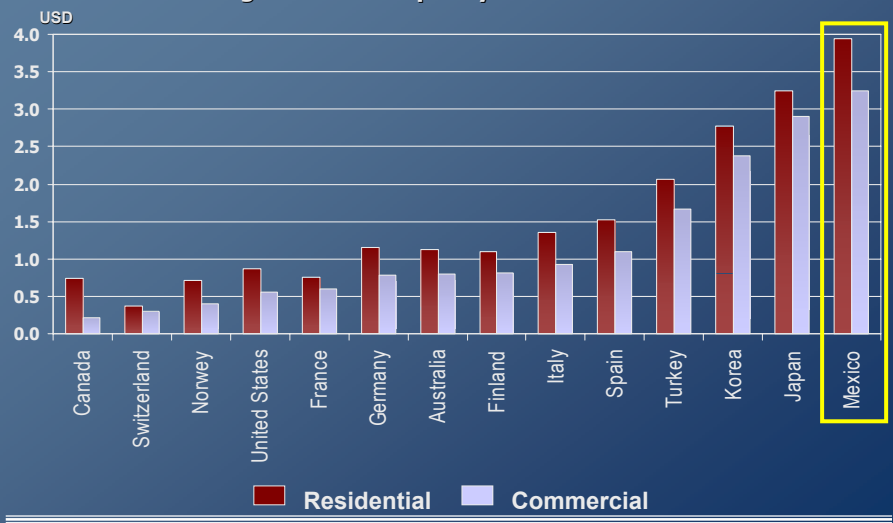
Evolution of markets (IV)

... the same for long distance telephony services. [1]



[1] Average charge for weighted call for traffic.

Source: Telecommunications Outlook 2001, OECD.

16

Dimensions of Competition Policy in Telecommunications

- **Normative**
  - General law regarding competition: FLEC
  - Specific law which includes competition issues: FTL
  - Judicial orders
- **Institutional**
  - A competition authority: FCC
  - A specific regulator: FTC
  - Someone in charge of developing sectoral policy: SCT
  - Judicial authorities
- **Advocacy**
  - with regulators
  - with legislators
  - with executive power (federal, state and county)
  - with firms and consumers

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Competition legislation in Telecommunications

The objectives of the FLEC and the FTL coincide with Competition Policy

"... to protect competition process and free market access by preventing and eliminating monopolies, monopolistic practices and other restrictions to the efficient functioning of the goods and services markets"

Federal Competition Law, 1993

"... to promote an efficient development in telecommunications; to exercise State governing regarding this matter in order to guarantee national sovereignty; to foster a healthy competition among several telecommunication services providers in order to provide them with better prices, choices and quality for the benefit of users and to promote an adequate social coverage."

Federal Telecommunications Law, 1995

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Federal Competition Commission

The FCC's duty is to protect the competition process and free market access through:

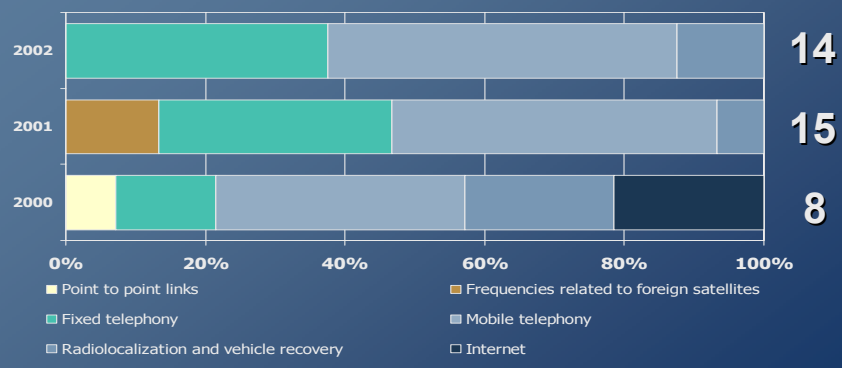
- Merger control.
- Evaluating agents willing to acquire rights to some concessions.
- Preventing, fighting and sanctioning anticompetitive practices.
- Declaring substantial market power.
- Promoting competition criteria and culture.

19

The FCC in the sector

Mergers

Have analyzed 37 mergers in the last 3 years



Throughout this period only three operations have been conditioned and none have been objected.

21

Concessions (I)

The FTL establishes cases in which a grant or cession must receive a favorable opinion from the FCC in order to be authorized by SCT.

1) In granting concessions

Direct assignment	Through bidding
Emission and reception of frequencies associated with foreign satellites.	▪ Orbital positions and satellite orbits. ▪ Spectrum bands.

2) In cession of rights derived from concessions, when they include:

- Public telecommunication networks (same geographic area).
- Spectrum bands.

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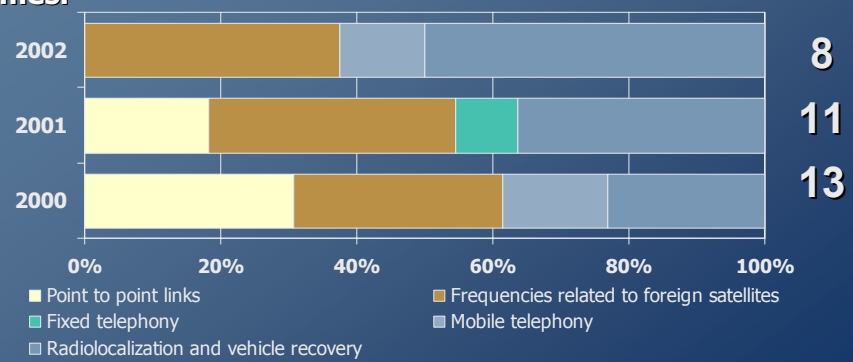
Concessions (II)

In the 2000-2002 period, the FCC issued opinion regarding the granting or cession of concession titles 32 times.



Two operations did not have the FCC's favorable opinion and one has been conditioned.

23

Concessions (III)

The FTL does not include the need for the FCC's favorable opinion to:

1. Grant permits.
2. Transfer permits in case of division or fusion.
3. Replace or add services to those originally offered under concession.
4. Partially or totally transfer rights related to concessions (RPT or spectrum bands) in the same relevant market but in different geographic areas.

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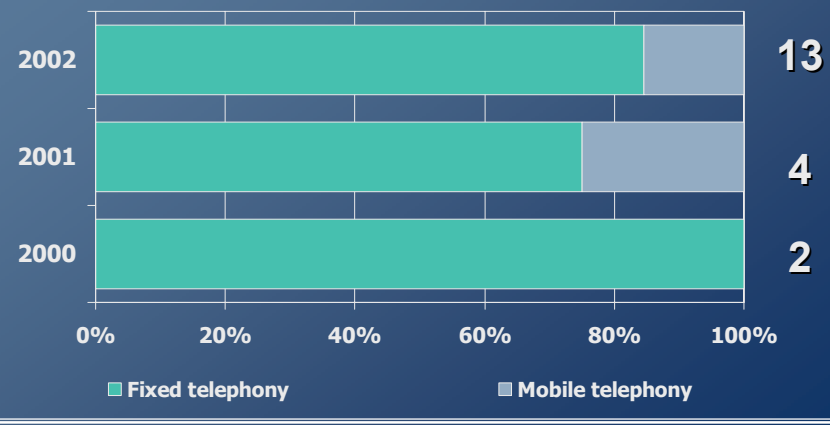
Anticompetitive practices (I)

Investigations about presumed anticompetitive practices focus on relative practices which affect fixed telephony services.



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Anticompetitive practices (II)

Since 1993, the FCC has concluded 28 investigations in the telecommunications sector which involved Telmex.

- 12 of those proceedings have determined that Telmex violates the Law, have ordered Telmex to suppress the practice and have imposed sanctions.

  Sanctioned practices: discriminatory treatment, mainly in network interconnection, increasing costs or reducing competitors' demand.

- 7 proceedings were dismissed or closed because of the absence of elements or because no violations to the FLEC were detected.
- The rest of the proceedings were added to other ongoing investigations.

The Commission has been objective when investigating Telmex and has not pronounced sentence against that firm as procedure, as some have suggested.

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Litigation

Decisions made by the FCC in this sector are subject to intense litigation.

- **88 amparo proceedings have been decided since 1993.**
- **There are 34 amparo proceedings pending.**

In addition, administrative fines are in effect irrecoverable.

- **Fines issued to firms in the sector account for 46% of total fines issued as sanctions.**
- **Virtually no fine has been collected. Agents have several instances to delay payment.**

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Competition advocacy

Activities of the competition authority related to fostering a competitive environment for economic activities through mechanisms that are different from the enforcement of competition rules, mainly through their relationship with other State entities and making the public aware of the benefits of competition. [1]

Among the more relevant advocacy activities the FCC has carried out is the issuing of opinions regarding:

- legislative initiatives which constituted the regulatory framework for telecommunications.

1995 and 2002	Federal Telecommunications Law
1997	Local telephony rules.
1998	Long distance telephony rules

- schemes to privatize and grant resources

1997	Privatization of Satmex
1998	Radio electric spectrum allocation.

[1] Competition Advocacy and Competition Policy. (et.al.)

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Competition Policy: Challenges in Telecommunications

- **Transforming competition policy into a State policy in order to align sectoral objectives with general competition principles.**
- **Strengthening institutional support for a more efficient and effective enforcement of the existing legislation.**
- **Improving the interaction between the FCC and COFETEL in order to take advantage of their complementary duties.**

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Conclusions

1. Telecommunications play an increasingly important role in economic growth.

2. Competition in the sector is intensifying.

3. Empirical evidence on the benefits of competition in telecommunications is undeniable.

4. Competition policy is key in achieving the development of an efficient sector.

5. The scope of competition policy in the sector includes all means that foster competitiveness and development, based on markets. Thus, it includes but is not limited to competition legislation.

COMISIÓN FEDERAL DE COMPETENCIA

Asia-Pacific Economic Cooperation

Competition and Investment in Infrastructure

Ramiro Tovar Landa

Autonomous Technological Institute of Mexico

ITAM

September 2003

Telecommunications
Competition and Investment in Infrastructure

- Regulatory Reform:
  - Privatization.
  - Privatization Process determines the evolution of Market Structure.
  - The Regulatory Design determines capital concentration in the sector.
  - Empirical evidence shows that free entry is the main contributing factor for infrastructure investment (Wallsten 2001 y Gutierrez 2003).

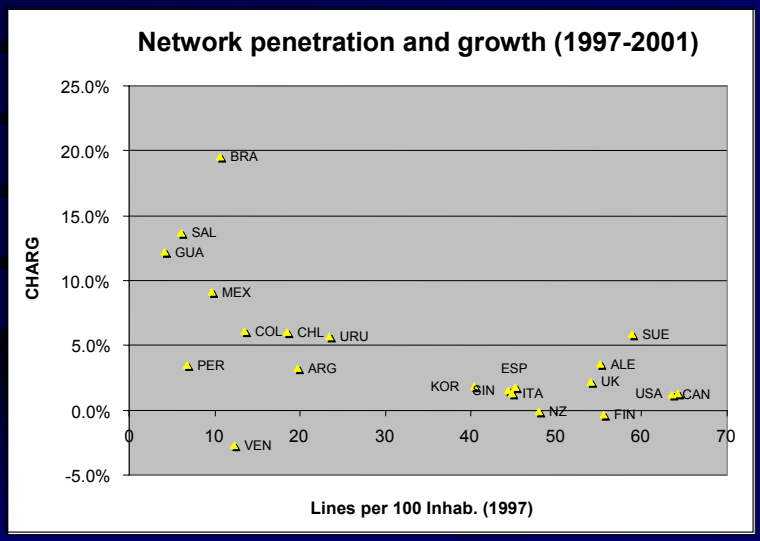
Telecommunications
Competition and Investment in Infrastructure

- Regulatory Design I.
  - Sector policy adopts false dichotomies:
    - Investment vs. Competition (Limiting entry to protect investors).
    - Competition vs. Universal Service (Regulator with distribution objectives).
  - Perpetuates imperfectly competitive structures, without a permanent effect in the capital accumulation level.
  - According to international experience, removing entry barriers has the largest positive effect on investment (Alesina 2003).
  - Deregulation to introduce flexibility to adjustment cost in the sector's capital stock.

Telecommunications
Competition and Investment in Infrastructure

- Regulatory Design II.
  - Investment in telecom is typically capital intensive and specific, irreversible and of long-lasting use.
  - Entry liberalization has proven to be a vehicle to raise productivity.
  - Significant for relatively less developed countries or for those far away from the technological frontiers (Nicoletti y Scarpetta, 2003)
  - Countries with relatively little infrastructure will experience high investment yields compared to those with high penetration levels.

Telecommunications
Competition and Investment in Infrastructure



Telecommunications
Competition and Investment in Infrastructure

- Institutional Environment I:
  - There is a *hold up* effect in investment under conditions of uncertainty or lack of credibility regarding the regulatory framework or its effective enforcement.
  - Investment revenues can not only be expropriated by the authority, but also by the incumbent operator given a deficient or absent regulatory enforcement. Empirical evidence confirms the existence of such an adverse effect (Henisz & Zelner 2001).
  - Potential entry and the regulator's objectives interact.

Telecommunications
Competition and Investment in Infrastructure

- Entry Regime:
  - New Competitors:
    - Entry by investment in infrastructure.
    - Entry by infrastructure leasing.
    - Extension due to technological change.
  - Resale (Capacity leasing):
    - Preserve the Option Value.
    - Efficiency when scale economies are divergent in the vertical relation.
  - Centrally Planned Spectrum Administration.

Telecommunications
Competition and Investment in Infrastructure

- Policy Recommendations:
  - Public policy persistently confuses objectives regarding distribution and equitable apportionment with its regulatory mandate.
  - Policy ignores the existing feedback between growing competition and network expansion.
  - In the end greater access to all competitors is slowed or postponed. This would erode the incumbent's market power, foster a growing investment in network expansion as well as the adoption of technological change.
  - Competition promotes investment in infrastructure, but competition is created by fostering entrance and entrance is determined by the regulatory design.

Competitive Strategies of firms in the telephone Sector: Successes and drawbacks.

Carlos Romero Hernandez

Deputy General Director of Economic Studies
Federal Competition Commission, Mexico

In this presentation, we discuss competition strategies adopted by sectoral enterprises. The object is to determine the response of these enterprises to the regulatory framework, in order to evaluate if this was the expected outcome of the industry's design. This should contribute to the future design of sector policy. Since the sector's problems have been discussed widely, in this document we will try to address them from a financial perspective in order to determine, on the one hand, the viability of the enterprises, and on the other the viability of greater market competition.

This presentation develops the following points:

1.- regulation and industry design
2.- competition strategies
3.- target consumers and service diversification
4.- sector investment
5.- loan financing

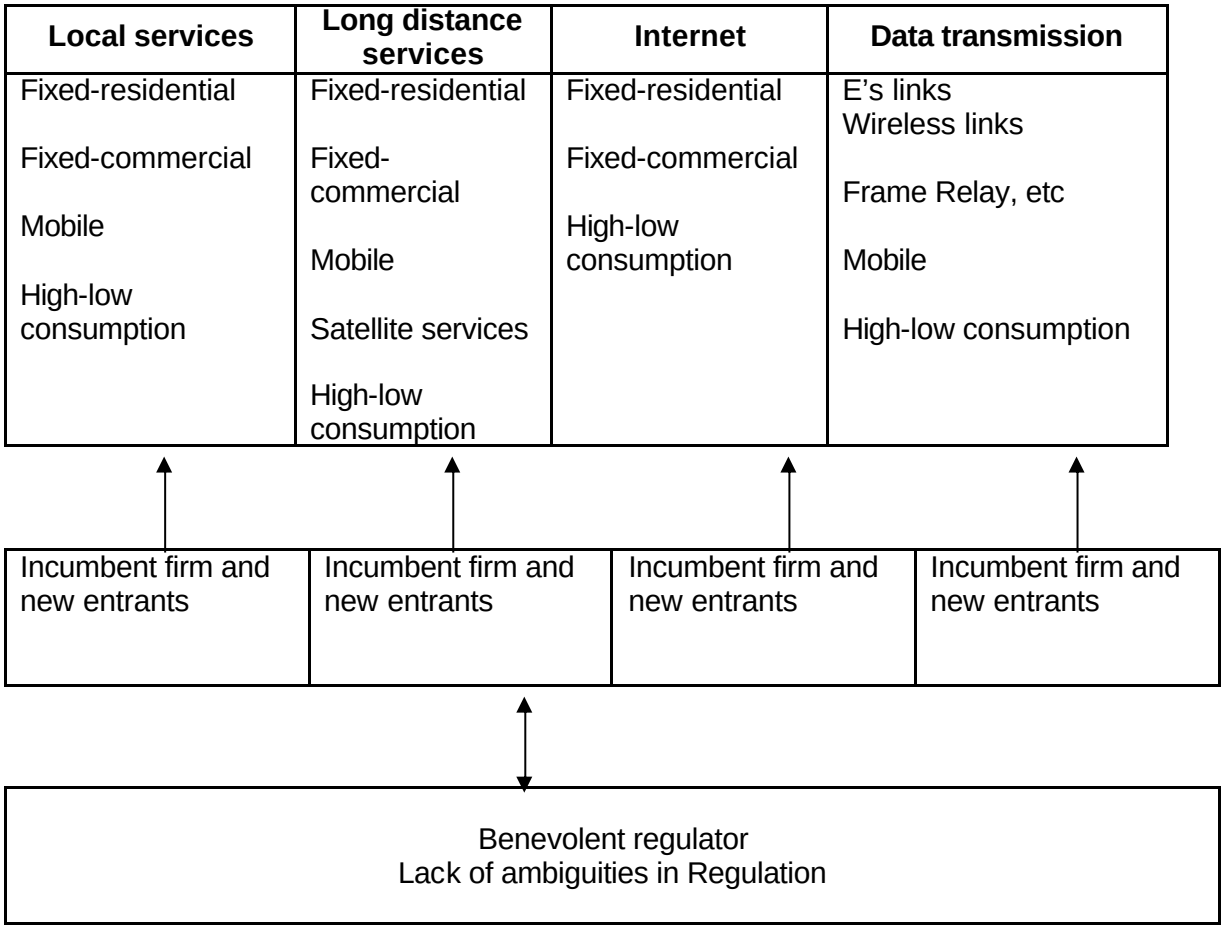
1.- Industry design and its regulatory framework

In 1990, the privatized industry was implicitly organized around the notion that telephone networks would complement each other in certain regions and services, and would compete according to market demand in others. Thus, competition would arise where investment could be recovered, while places with less demand would be served by the universal service obligation of Telmex. The success of this design would depend on the effectiveness of regulation in limiting and controlling the incentives of the vertically integrated incumbent to discriminate in the use of essential facilities for services and markets under competition. Complementarily and substitution of telecommunication networks exists simultaneously in some services (for example LD networks), therefore network interconnection may present high transaction costs. A neutral intervention of the regulator is thus indispensable as well as the neutrality of the regulatory framework itself.

The following diagram describes the characteristics that the industry's competitive scheme was intended to have. To illustrate this, some telephone services and consumption segments are included.

Telecommunications Industry Design

Services and segments of telecommunications consumers



Market competition would imply that one or several new enterprises would enter and offer their services in one or more consumption segments where the demand was not served and extra-normal profits would be present.

In telecommunication services, there are several scale and scope economies, as well as transaction costs to obtain inputs, which made us believe that the resulting market structure would include enterprises with different degrees of vertical integration and service diversification.

Sectoral Regulation

In the practical industry design one must address characteristics that resulted in decisions that shaped the resulting market structure. At this point, we are not trying to discuss if these measures were or were not right since we will only mention them in order to illustrate the direction taken by the market's structure.

We may first mention the exclusivity given to Telmex in long distance services from 1990 to 1997. During this period, this firm would have time to modernize its infrastructure and prepare for long distance market competition. Another tacit exclusivity was granted in local services. Although there was no legal impediment for new entrance, it was only until 1997 that the frequencies for wireless phone were auctioned, in 1998 the local services rules were issued and in 1999 the first local wireless services went into business.

Some studies noted that telecommunications competition began with no rules of the game. This is confirmed by the fact that it was not until June of 1996 that the rules for both national and international long distance services were issued. In addition, Cofetel set the fist interconnection tariff during that year. This means that some rules were settled only a few months before introducing competition.

The long distance market was particularly affected by the proportional return rule. Under this rule, incoming long distance traffic is assigned to suppliers in the same proportion in which they create outgoing traffic. The incoming long distance traffic is by far greater than the outgoing traffic by a 2 or 3 to 1 ratio. The incoming traffic volume would have been enough to improve competition conditions in international long distance markets. However, that rule eliminated the advantages that those suppliers would have enjoyed by means of their associations with foreign enterprises, which presumably would assign their incoming traffic to their partners. This rule made enterprises such as Alestra and Avantel lose negotiation capacity before the incumbent and further more, these two firms were unable to take advantage of economies of scale in their infrastructures.

A second element affecting competition were interconnection tariffs established in 1996. Cofetel pointed out that tariffs were set high in order to compensate for the fact that local services tariffs had not been adjusted due to the 1995 crisis. That decision affected not only market equilibrium but the financial performance of the new firms.

As a result, we have that the industry design gave priority to competition in those markets were demand would allow recover of investments, but at the same time, regulation decisions affected the financial performance of the new enterprises. In addition, new operators complained about discriminatory treatment by the incumbent, which resulted in a cumbersome opening of long distance markets to competition.

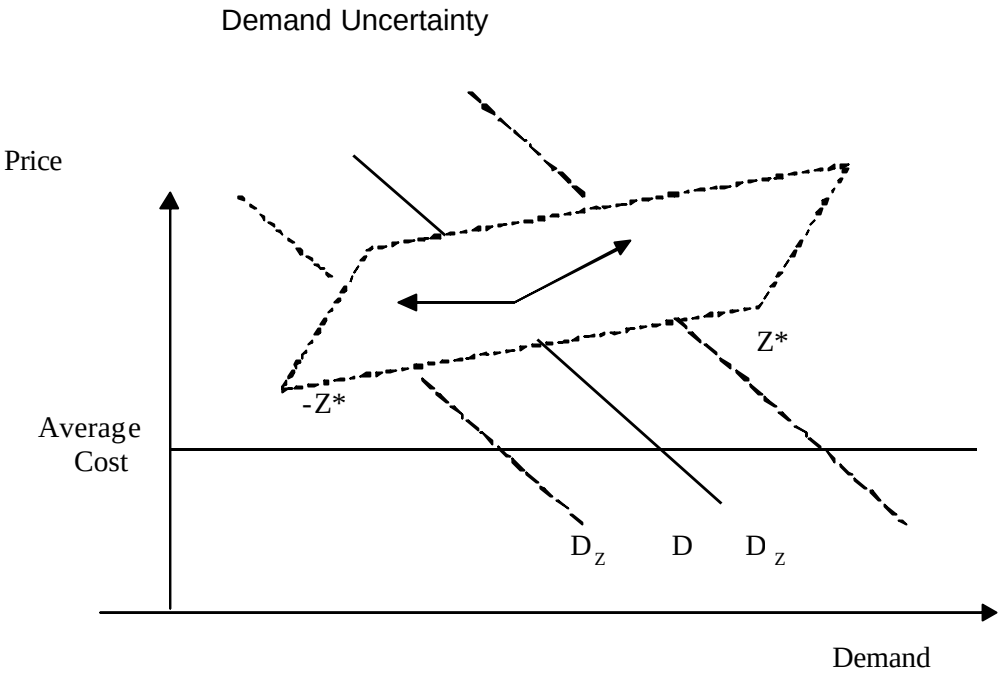
2.- Competition strategies

To study competition in telecommunications markets, we will focus on some analytical aspects of variables such as service diversification, investment and financing. For the latter two variables, we will also consider the effects of demand uncertainty on production and financing decisions.

The next graph includes product differentiation identified by (γ) and demand uncertainty (z)[1]. The linear demand function for firm 1, which features as a substitute a differentiated product γq_2 manufactured by firm 2.

$$P_1 = a - q_1 - \gamma q_2 + Z_1$$

[1] Z is a random variable with uniform distribution in range [-Z*, Z*]



The usual interpretation is that the product supplied by competitor 2 may diminish demand for product 1, and this in turn has an effect on firm 1´s profits[2]. When both products are independent ($\gamma = 0$) competitor 2 would not be able to affect its competitors' benefits and each supplier would act as a monopolist in its own market.

Demand uncertainty could either increase or diminish the probability of financial success of competitors. For certain Z values, an enterprise may not cover its financial capital cost. A way of diversifying risks is by issuing debt, which has a commitment value, in the sense that when an enterprise issues it, it commits itself to greater market competition in order to achieve sufficient revenue flows to cover the payment of its debt. The level of indebtedness, would seek to increase success probabilities of the enterprise (Z), even if it would also increase its bankruptcy risk.

Investments that increase a firm's success probability (Z) play a strategic role by shifting market demand. Sutton[3] analyses markets where the goal of investments is to enhance consumers' willingness to-pay for a specific firm's product. Advertising and R&D are investments of that nature, they represent endogenous sunk costs, because greater competition for market share leads to larger sunk cost investments. An important result of the endogenous sunk costs theory is that the market tends to concentrate as it grows.[4] The reason for this is straightforward: investments are profitable for a certain market size only, and investment scale can only be sustained for

[2] In a two-stage model, competition among two or more firms is analyzed. In the first stage, optimal debt is established and in the second one, the optimal production quantities. See Brander, J. and T.Lewis (1986) "Oligopoly and Financial Structure: The Limited Liability Effect" in *American Economic Review*, vol. 76 no. 5; and Wanzenried, G (2003) "Capital structure decisions and output market competition under demand uncertainty", in *International Journal of Industrial Economics*, no. 21, p.171-200.

[3] Sutton, J. (1991) *Sunk Cost and Market Structure, Price Competition, Advertising and the Evolution of Concentration*, The MIT Press.

[4] Ibid, p.59-61

a reduced number of firms.[5] An important corollary is that firms that do not maintain their path of investments, cannot hold their market share. In addition, investment competition implies competition for the market and not within the market, thus resulting in market concentration.

On the other hand, a timely investment gives the firm an advantage over latecomers allowing them to create a customers base. Gruber (1999, p. 531)[6] points out that in some European countries, where the use of frequency licenses were simultaneously granted, market shares were almost symmetric. However, in countries featuring a delay in the entry of new competitors, an asymmetry in markets shares was present. In other words, regulation may affect the timing of investments thereby market structure.

3.- Diversification and target consumers

By diversification we mean the telephone services a firm provides, which may include, for example, local and long distance services in different low and high consumption segments. Some services, may be located in different markets, but we analyze here a firm's services diversification strategy. On the other hand, a bundle of services may be offered to the consumers, recognized by a certain trademark.

- Cellular services.

In cellular telephone services, consumers with a low and high consumption level can be distinguished by means of prepaid and postpaid services. Prepaid services focus on low consumption users and by 2001 those services were used by a little more than 90% of all mobile phone users. Telcel focused on low consumption users, on the other hand Iusacell focused on the high consumption users. This fact can be observed in the rates paid by users in these firms.

Ratio of prepaid / postpaid services for Telcel and Iusacell

	1997	1998	1999	2000	2001
Telcel (a)	1.5	2.3	5.4	9.7	13.6
Iusacell (b)	1.0	1.7	2.8	2.8	3.6
Ratio (a) / (b)	1.5	1.3	2.0	3.5	3.8

The difference between Telcel and Iusacell might lead both firms to diminish direct competition for the same kind of customer. ($\gamma \to 0$).

The strategy followed by Telcel, of accommodating a wide customers base, even though most of them had a low-consumption profile, would be directed at generating a certain level of revenue flow. On the other hand, the strategy followed by Iusacell, of addressing the high-consumption profile customers could be pursued to maintain a

[5] Sutton (2001, p.60) points: "The bigger the size of the market, S, the grater are the return accruing to a firm from raising its fixed outlays. This can lead to an outcome in which increase in market size are associated with raising level of fixed outlays per firm and where market structure does not converge to a fragmented configuration."

[6] Gruber, H. (1999) "An Investment View of Mobile Telecommunications in the European Union" in *Telecommunications Policy* 23, 521-538

revenue flow from high-consumption users in order to offset their accounting loses.[7] For example, in 2001 Iusacell obtained a per-user revenue 50% higher than Telcel´s average revenue.

Monthly revenues per local line and per mobile user[1]

Pesos 31st December 2001

	1997	1998	1999	2000	2001	2002
Telmex-Local	604.9	608.5	508.5	496.5	497.8	446.3
Alestra	- -	395.3	470.8	506.4	431.7	512.5
Telcel	468.1	396.1	234.4	185.2	168.7	n.d.
Iusacell	487.1	345.2	270.0	257.8	253.1	n.d.
Unefon	- -	- -	- -	8.7	90.1	n.d.

[1] Own calculations obtained from dividing annual total revenues by the number of users and months of the year. Unefon reports operations for 11 months of the year 2000.

- Basic telephone services.

Debt issued by some firms in the Eurobonds market. Values at June, 5th 2003.

Firm (year of debt maturity)	Debt interest rate (Coupon)	Yield 5th June 2003	Risk Free Rate Treasury Bills
Satmex (2004)	10.1	84.7	1.16
Iusacell (2004)	10.0	77.3	1.12
Alestra (2009)	12.1	40.1	1.47
Telmex (2006)	8.3	3.7	1.4
Iusacell (2006)	14.3	66.5	1.67
Alestra (2009)	12.6	30.0	2.58

- Basic telephone services.

Currently, long distance firms have focused on competing in the high added-value consumer sector. This could be a result of the conditions set by regulation but also of a strategy to provide nothing but profitable services.

New long distance firms did not consider from the outset vertical integration as a means to compete with the incumbent for the same integrated services. Avantel and Alestra received their local services concessions in 1999 and 2000 respectively. However, these local services are oriented to provide services for data transmission and internet to high-consumption users. An element that shows that these firms did not plan to compete in different consumers segments with integrated services is the fact that they did not fight to obtain frequencies for wireless fixed telephonic services, which are an alternative to fixed telephony. Therefore, the services new firms provide tend to move away from the average service provided by the incumbent, reducing the new firms' capacity ($\gamma \to 0$) to affect the latter's market position.

[7] An analysis by Ixe Casa de Bolsa indicates that the new administration of Iusacell, in the third trimester of 2002, " ..will seek to retake the strategy of attacking the high-purchasing capacity users market, keeping high loyalty levels. The former administration sought to aggressively attack the pre-payment market, which was less effective, since average revenue per user and MOU´s were considerably lower than those estimated values…" see p. 9, "Reporte de inicio de cobertura CEL", *Departamento de análisis bursátil de Ixe Casa de Bolsa*.

Alestra´s revenue flows show the increase rate for its local service revenues. In 2003, those revenues accounted for 20% of total revenues, this is almost equal to EBITDA[8] for that year, and shows that services diversification can improve financial performance while high lightening the effects of diversification.

Alestra´s percentage of Local services revenue.

1998	1999	2000	2001	2002
2.9	5.1	7.3	14.9	20.7

EBITDA
Millions of constant pesos of 2001

	1997	1998	1999	2000	2001	2002
Telmex-local	41,501	47,581	40,210	43,042	39,676	36,617
Telmex-LD	10,283	7,397	12,323	10,176	11,213	9,583
Alestra	- -	-1,589	324	529	573	736
Telcel	984	2,952	4,272	6,956	8,900	n.d.
Iusacell	608[1]	996[2]	1,631	1,986	2,559	n.d.
Unefon	- -	- -	- -	-200	-367	n.d.

[1] Expenses of $1406.3 millions was not included in 1997 for equipment deterioration
[2] In 1998 expenses of $1,254.0 millions that Iusacell registers as looses due to the failed project of wireless telephone services in the 450 MHz band are not included.

Revenue flows are a good indicator of a firm's solvency, for this reason firms take special care in maintaining a positive value. A positive EBITDA value implies that revenues offset variable and fix costs, even though this does not constitute a liquidity guarantee to cover all the financial obligations a firm has. For example, Iusacell (2002, p.14) pointed out that cash flows had not been enough to cover its debt service, capital costs and capital work.

4.- Investments

Investments can become an endogenous sunk cost if they affect market demand. This may occur in cellular telephony, since it implies the introduction of a technological market innovation. In addition, investment is an indicator of wire and wireless network infrastructure expansion.

- Mobile services.

The amount of net -fixed assets may be used to observe a firm's investment evolution. Telcel's assets have grown considerably when compared to those of Iusacell. From 1997 to 2001 the gap between Telcel's investments and those of its competitors has increased. The data below indicates that the lag in Iusacell investments explains the lower market share this firm holds.

Net fixed assets
Millions of constant pesos of 2001

	1997	1998	1999	2000	2001	2002
Telmex-Local	110,738	107,553	107,161	93,997	95,849	94,574
Telmex-LD[1]	28,189	28,279	16,534	17,213	18,606	21,750
Alestra	- -	6,178	5,449	5,305	5,085	5,136

[8] Earnings before Income Taxes, Depreciation and Amortizations which comprises operation profits and depreciations.

Telcel (a)	8,244	11,065	11,958	24,840	30,968	N/a
Iusacell (b)	4,569	6,782	7,702	8,551	9,469	N/a
Unefon	- -	- -	- -	2,624	3,385	N/a
Ratio (a / b)	1.8	1.6	2.2	2.9	3.3	N/a

[1] Estimated applying the same percentage of the net value of the local and long distance equipment.

The role of investment in mobile services may be stressed by the gap between Telcel and Iusacell. Considering users per million pesos in fixed assets, the ratio of Telcel and Iusacell has remained steady since 1997 (the ratios fluctuate between 2.8 and 2.1 for that period). This fact depicts Iusacell's investment lag.

Number of local lines or mobile users per $1 million pesos in fixed assets.

	1997	**1998**	**1999**	**2000**	**2001**	**2002**
Telmex (Local and LD)	66.6	73.1	87.9	108.5	116.8	124.2
Alestra	- -	135.3	146.1	147.8	149.7	133.0
Telcel	242.0	342.2	440.9	421.2	547.8	N/a
Iusacell	87.6	111.4	171.7	196.6	195.9	N/a
Unefon	- -	- -	- -	59.4	243.7	N/a
Ratio Telcel / Iusacell	2.8	3.1	2.6	2.1	2.8	N/a

- Basic telephone services

Unlike mobile telephony, investments in fixed telephony markets, local and long distance, have not changed substantially. Markets for basic services are mature and so their growth rate is lower than that of the mobile phone market. The investment amount indicates the greater cost of entering the basic services market. What is definitively worth mentioning is the lack of investment of Alestra.

- Technology selection.

Both Telmex and Telcel services use TDMA technology for signal traffic in their networks. In mobile telephony TDMA technology has less capacity than CDMA technology, which was adopted by all cellular telephony operators. CDMA offers greater transmission capacity than TDMA, but according to Telcel it also requires a greater investment (América Móvil, 2002, p. 29).

In addition, in 2002 Telcel introduced a 2.5G technology in preparation of the transition from the second to the third generation of mobile services. In the second trimester of 2002, Telcel would be operating a digital GSM network in 1900 MHz. According to Telcel, GSM is a better route to third generation technology since it has a wider availability of product and services and also a greater number of suppliers unlike CDMA technology adopted by other firms. On the other hand, the industry standards established for third generation do not put any firm in disadvantage since interfaces exist among the different technologies.

Some analysts point out that in the long run, TDMA technology will be in disadvantage. This is yet to be defined, but Telmex-Telcel strategy has been to gradually improve its installed technology, which has provided advantages by widening its networks faster

than its competitors and presumably at a lower cost. Meanwhile other firms surely struggle to attain a critical mass of consumers that will allow them to reach minimum efficiency scales.

Access technologies and mobile systems

Generation	Access technology /cellular system	Frequency band	Firms
1st (analogical)	FDMA /AMPS[1]	800 MHz	Telcel and Iusacell
2nd (digital)	TDMA / TDMA CDMA / CDMA TDMA / GSM	800 and 1850-1900 MHz 1850-1900 MHz 1850-1900 MHz	Telcel, Iusacell[2], Telephone (Pegaso), Unefon Telcel (2002)[3]
2.5 (digital)	GPRS / GSM	1850-1900 MHz	Telcel (2002)[3]
3rd (IMT2000)	WCDMA[4] / IMT2000	The use of other frequencies is not defined in Mexico.	

[1] Advance Mobile Phone System.
[2] Supply of digital services began in 1998 and the PCS services supply began in 2001 in 2 cities.
[3] GSM service supply began in 2002.
[4] Wideband code division multiple access

5.- Indebtedness

According to the analysis proposed at the beginning of this document, greater debt creates a commitment of greater competition in order to generate enough cash to cover such debt. The role of indebtedness is to increase the probability of market success in the presence of demand uncertainty (random variable z). The success or failure of indebtedness will lie in the firms' growth probabilities in the markets where they compete. Ultimately, the failure probability is passed-on to the firms' creditors.

Telcel's debt is one of the lowest among analized firms. Telcel doubled its fixed assets investment in 1999 and in 2000, but this is not reflected in the indebtedness of the firm. In Septembre 2000, when Telmex split its mobile services, it left Telcel with a low long-term debt. In 2001, Telcel's debt represented aproximately 10% of its net fixed assets. A lower debt level combined with high revenue flow provides Telcel with resourses to leverage América Móvil's expansion in foreign markets[9].

Long term Debt[1]
Millions of constant pesos of 2001

	1997	1998	1999	2000	2001	2002
Telmex	20,334	23,602	27,467	31,630	52,254	52,104
Alestra	- -	4,232	6,174	5,728	5,623	5,750
Telcel	N/a	N/a	2,652	1,893	3,350	N/a
Iusacell	3,366.6	5,690.1	9,005.2	7,982.1	7,348.3	N/a
Unefon	- -	- -	- -	3,763.1	4,053.2	N/a

[1] Debt cost is not included

Debt levels attained by several firms mimic their expansion. The Alestra case illustrates this since its fixed assets have not grown in the past years, but capital has diluted (the

[9] In march 2002, the long term debt of Telcel accounted for 10.1% of América Móvil's total debt.

debt/ accounting capital ratio increased) because accounting loses were assumed without increasing capital, indicating that the firm is only surviving.

Financial markets have graded poor financial performance of several of the most important telephone firms. This grade limits these firms' perspectives of increasing their investments in the future, which in turn reduces a greater competition probability. Such grade would at least question the firms decisions. One contrasting case is Unefon whose stock value, in the stock exchange, is high in spite of its accounting loses.

Debt issued by some firms in the Eurobonds market. Values for June, 5th 2003

Firm (year of debt maturity)	Debt interest rate (Coupon)	Yield 5th June 2003	Risk Free Rate Treasury Bills
Satmex (2004)	10.1	84.7	1.16
Iusacell (2004)	10.0	77.3	1.12
Alestra (2009)	12.1	40.1	1.47
Telmex (2006)	8.3	3.7	1.4
Iusacell (2006)	14.3	66.5	1.67
Alestra (2009)	12.6	30.0	2.58

Conclusions

The present situation shows that, in spite of some financial problems, firms can provide services in some of the consumption segments. From the firms' perspective, the situation could improve by focusing their business to profitable services, like Alestra does. In addition, several firms with financial problems have considerable revenue flows.

This sector's problems have been associated to regulation deficiencies. Also, some problems are attached to restrictions to foreign investment in basic services. However, foreign investment in mobile phones has not contributed to change market situation (this case is better illustrated by Iusacell) where the prices are still considered to be high.

In each service segment Telmex-Telcel or another subsidiary of the same group competes with other firms, but competition in these segments does not imply competition in the whole market.

Telmex and Telcel are the dominant firms and they obtain their revenue flow from the low-consumption user segment or from users that demand low value-added services. New firms account for a low market share in these segments. The competition model implicitly sought to increase competition in market segments where business opportunities were available. In this case, even though the financial situation of the firms could improve, the relevant question is whether this was the expected competition model implicitly designed for this industry through regulation.

Presentation to APEC- CFC Telecommunications Seminar

Introduction

1. Economic regulators are expected to ensure market discipline while protecting consumer interest, to facilitate open access to the core infrastructure of the network, and to preserve social objectives such as universal services. The independence of these bodies from direct political intervention has often been cited as helping to build trust among investors in newly liberalised and privatised sectors. The purpose of the institutional design is to ensure coherence, expertise and accountability.

2. Design and characteristics of the regulatory bodies are under scrutiny and have also been linked to some regulatory failures.

3. The OECD has promoted a deep review and debate of the desirable characteristics of regulatory bodies. This presentation is based in different documents of the OECD regarding this review/debate[i].

Objectives of the presentation

4. This presentation intends to promote discussion in three different issues:
    a. The political challenges involved in the design of regulatory institutions;
    b. The challenges of designing independent and accountable regulators; and,
    c. The relationship between sector-specific regulators and the competition authority.

Do we need independent regulators?

5. The first and most basic political decision is whether to regulate at all. The essence of regulation is that a decision-maker is given power to alter market outcomes.

6. The second key decision rest on who will exercise that power, and how and when it can be challenged or reviewed in order to maximise efficiency, transparency and accountability. Three possibilities exists:
    a. Self-regulation;
    b. Direct ministerial oversight; and,
    c. Independent regulators.

The potential alternatives

7. Self regulation: governments might opt for a combination of self regulation by one or more market players backed up by government enforcement of the competition law. This might be the case, where the principal need is for technical regulation. However, self-regulation is inherently problematic because the potential conflicts of interests i.e. market players are likely to protect self-interest more than the public good. The choice may therefore often narrow down to either ministerial regulation or regulation by an “independent body”.

8. Direct ministerial oversight: many activities have hitherto been regulated under direct ministerial oversight. Regulation will be placed under the control of elected authorities: regulation by a Ministry ensures political accountability, thus decisions taken by a Ministry counts with democratic legitimacy. But, direct ministerial oversight entails some drawbacks as the exercise may be influenced by other political and non-economic considerations. In other cases, the State is both owner of

some regulated entities and regulator of the sector, which can create conflicting objectives.

9. Independent regulators: they can be an attractive alternative to direct ministerial oversight in order to ensure a smooth functioning of markets – regulatory functions are delegated to an authority which will have powers in more or less narrowly defined areas of policy implementation free of direct ministerial oversight.

Independent regulators

10. Independent regulators (IR) are given the responsibility of reducing political interference and improving transparency and stability. Staffing policies may help to IR to achieve these goals, such as:
    a. Civil service (to attract and keep expertise, avoid political instability in the job market).
    b. Remuneration system, equivalent to the one established by the regulated industry.

11. IR also can be a tool to clearly separate the roles of the State, since public authorities often have to perform several conflicting functions at the same time, for example:
    a. employer;
    b. shareholder; etc.

    The objectives of the public owned-utility are not necessarily lined-up with the ones of the society.

12. IR represent as such a significant challenge to the executive and legislative powers of government – a new breed of authority is introduced. Regulatory bodies are "*non majoritarian*" institutions (which are not directly elected by citizens or managed by elected officials). They are institutions that democratic societies have established to delegate authority at arms' length from elected public authorities. An intermediate step is to split the functions of policy-making and enforcement, the former one being kept at ministerial level. In such case, it is necessary to define the borderline between policy formulation and enforcement of the regulation.

Challenges of designing independent and accountable regulators

First Challenge: Independence and division of roles between regulators, ministers and courts.

13. Setting up independent regulators requires that each of the roles of the regulators, ministers and courts to be clarified *ex ante*, as well as those of the competition authority. This rise one particular problem: how to control the exercise of the regulatory power. The increasing role of independent regulators has raised concerns about them being "governments in miniature". In certain cases, Regulatory bodies may exert in a limited sphere joint legislative, judicial and executive functions. A countervailing trend is the growth of judicial reviews, where courts can be left with a growing role in the regulatory debate.

14. Independence can be achieved by formal or informal arrangements. The key is to increase the transaction/political costs of reversing or ignoring and independent regulator's decision or advice. For example, making public the decision/advice of the regulatory body and, in case, the reasons given by the ministry to depart from this decision/advice. Here are some examples:

a. Independent regulator, with its own legal personality and patrimony - Spain, Singapore, Malaysia.
b. Independent regulator – Canada, United Kingdom.
c. As a regulator inside a ministry – Mexico, Czech Republic.
d. Ministerial regulator – Japan, Turkey.
e. No sectoral regulator – New Zealand.

15. Independent regulators can never be fully independent from the political process: they must operate under the authority of law and policy regimes that can be altered by elected legislators, the courts and by the ministers. Besides, regulatory bodies must work with the policy-maker ministry in order to create working regulation.

16. Independence might also be necessary to clarify the functions of public authorities; as the government remains a controlling shareholder of the public operator in many network activities.

Second challenge: Designing independence in practice.

17. Key aspects to ensure independence are among others:
    a. Selection and nomination process;
    b. Duration of the appointment;
    c. Conditions for re-appointment and removal from office;
    d. Restrictions on personal interests;
    e. Transparency of procedures;
    f. Guarantees for due process in examining cases;
    g. Making regulator's decision final, only subject to court review.

18. An important practical issue is to ensure that Independent Regulators receive sufficient financial resources to be fulfilled and that the funding does not impact on their independence. For example, the budget shall not be determined by the ministry involved.

Third challenge: Building trust for market players and investors.

19. One of the stated goals of establishing independent regulators is to facilitate private investment in a sector open to market competition, through stable, transparent and predictable regulation. Trust is also the result of a track record, which needs to be established over time. The role of the regulators is also to handle the case of the national incumbent in newly liberalised sectors relative to outside investors.

Fourth challenge: Balancing independence and accountability.

20. Being independent requires accountability of all acts from the regulatory body. Accountability can only be achieved through a proper system of checks and balances, through a set of control instruments:
    a. legislative and executive oversight (without transferring the regulatory discretion to any of them);
    b. defined objectives;
    c. professional and peer review;
    d. verifiable performance indicators –one of them is the economic efficiency of the sector, but social goals are likely to be included (benchmarking could be a useful tool);
    e. procedural requirements;
    f. public consultation;
    g. transparency, publications of and access to information; and,

h. substantial judicial review.

21. The judicial review is crucial for the effective regulatory process. The level and type of judicial review, presumably independent from political oversight, is of crucial importance. The risk of over-litigation also needs to be considered if the regulatory framework is to remain effective.

Fifth challenge: minimising the risks of regulatory capture.

22. Making a regulator independent does not assure it will be risk-free of regulatory capture. The risk rises primarily because of concentred rents/dispersed costs of the regulatory capture.

23. The risk of capture is significant as regulators depend on the industry for information and co-operation and human relations instead of institutional frameworks. Two jerseys.

24. In some occasions, regulatory bodies are staffed with former officers of the regulated industry. It is usual for them to have close links and good memories from their former co-workers. Specific rules for managing conflicts of interests, staff recruitment and exit can be set up to ensure proper independence from the regulated sector as well as from the government. Some countries have tried to reduce risks through a multi-sector regulator

Sixth challenge: single-sector versus multi-sector regulators.

25. In addition to concerns about regulatory capture, as mentioned above, the choice between these two alternatives will be influenced by, among others:
    a. The need to ensure the regulator is adequately well informed regarding the regulated sector;
    b. To reap synergies in the use of accounting, economic and engineering expertise; and,
    c. To assure consistency in the regulation of competing suppliers located in different sectors.

Regulators and competition authorities

26. There could be an important degree of overlap between regulators and competition authorities. This potential overlap can be addressed in a number of ways.

27. Abstaining from setting up independent regulators. Countries could instead choose to rely only on the enforcement of competition laws by the competition authorities. This could be effective in markets where periodic competition law enforcement, including sporadic mandating of access to an essential facility , is likely to produce a satisfactory result; or in markets where all is needed is “technical regulation”.

28. This option may not be optimal for markets where continuous “access regulation” and/or “price and entry regulation” is needed or if continuous monitoring is required to steer a market form a state-sanctioned monopoly toward a competitive market, while ensuring social policy objectives are met. However, Australia and Netherlands’ competition authorities carry out regulations in certain specific sectors, very successfully, indeed. This is the dream of competition authorities.

29. Other option can be setting up either a single or multi-sector regulator and granting it a monopoly in applying all or parts of the competition law in their sector(s). The

United States provides examples of giving sectoral regulators jurisdiction over merger control, with significant criticism and poor results in the civil aviation and rail sectors.

30. As opposed to avoiding overlap, some countries have opted for assigning competition law enforcement to a competition authority and regulation to a sectoral regulator. Some such as the United Kingdom have opted for increasing the overlap by giving regulators concurrent powers to enforce competition law in their sectors. Here, it is important to assure co-operation among competition authorities and regulators and to ensure overall policy coherence.

31. Without doubt, competition authorities must be formally empowered, as part of its general competition advocacy mandate, to provide advice to regulators and policy-makers.

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[i] The main documents are:
Cordova-Novion, C. and Hanlon, D. "Regulatory Governance: Improving the institutional basis for sectoral regulators". OECD Journal on Budgeting – Vol. 2, No. 3, 2002.
Hewitt, B. "The relationship between competition and regulatory authorities." Journal of Competition Law and Policy - No. 1. 1999.

Competition in Telecommunications from the Final Consumer's Perspective

Office of the federal Consumer Protection
Ma. Eugenia Bracho González

Content

- Link between competition and consumer protection policies
- Profeco´s attention to consumer problems in the telecommunications sector.

I. Link between Policies

- Both policies procure correct market functioning.
- **Consumer Protection**: attacks markets failures thar permit abuses from the provider, on a case by case basis
- **Competition**: its goal is to impede that enterprises with market power or engaged in collusion diminish or impede the competitive process and free market access.
- In highly imperfect markets or monopolies, consumer protection problems must be attacked through competition policy or economic regulation.

- Both benefit the Consumer:
  - **Consumer Protection:** directly through authority acts and the means of defense it provides citizens.
  - **Competiton:** indirectly, by protecting the competitive process that generates low prices, improvements in the quality and diversification in goods, services and commercialization mechanism.

- But Friction Exists:
  - Suppliers have incentives to compete in the market and the same time to engage in collusion to hide information from consumers (v.g. Tobaccoo firms)
  - Diversifications and innovation of goods and services have increased information diferrences between consumers and suppliers.
  - Protection of the patrimony and health of consumers, establisemnet of regulations in matter of information and security, that can become entry barriers.

- The solution lies in interinstitutionals collaboration and coordination of both policies
  - Joint analysisi of relevant markest
  - Analyse the anticompetitive effects of adevertising deceptive
  - Making joint analyses to detect abusive commercial practices
  - Analysis of price behaviors that indicate monopolistic practice and structures.

- Consumer protection policy seeks :
  - To reduce information assymetries that alloweds suppliers to take advantage of their graeter knowledge of the good or service provided..
  - Reduce transaction costs in wich the parties must incur to enssure the fullfilmente of the contracts by means of agile dispute settlemente mechanisms between consumers and suppliers.

- Profeco verifies and monitors that measures to reduce the assymetries inforamation indeed work:
  - Minium standards for goods and services (Mexican Official Satndars).
  - Content of labels that provided information to the consumer: product composition and content.
  - Prohibted deceptive publicity contracts
  - Revision and registry of contracts**.**
  - Information dissemination of prices through the program "Who is who in prices" and of product quality comparisons contained in the Consumer Magazine

- Profeco verifies:
  - **Commercial behavior**, it seeks to avoid illegal commercial practices: none exhibition of price and tariffs; refusal to sell or conditioning sales, discriminatory practices, breach promotiond; etc.
  - Metrology, in order to guarantee the exactitude of weights and mesaures used in commercial operations.
  - **Nonmetrologic** norms, aimed at the fullfilmmet of standars established by the authority on security and commercial information.

- Monitoring is strenghtened if the consumer knows his rigths, it demands its respect and it makes use of agile low cost means of defense.
  - Conciliation and the arbitration has clarified to the efficient and cheap alternative methods of dispute settlement entailing small amounts
  - Work to globally solve the problems that give origin to the complaints
  - Companies must observe the regulation and enhance client services

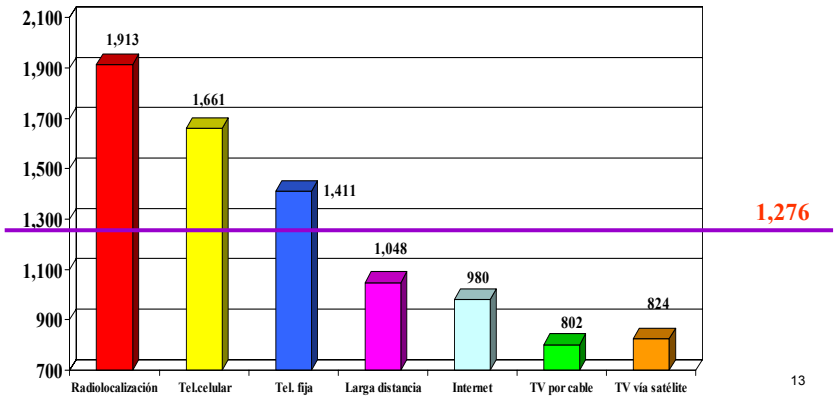
Conclutions

- Profeco´s challenge is to lead consumers to have correct expectations regarding a product service and they do not enter into disadvantage contracts
- The design of consumer protection policy must address transformations of the global market economy and the specific of domestic markets.

II Complaints brought before Profeco

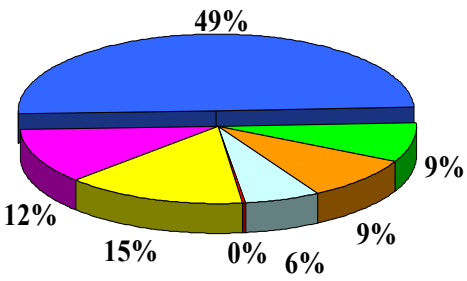
- During the first seven months of the 2003, Profeco received 89.181 complaints, 17,637 of wich (19.5%) are related to suppliers of the telecommunications sector:
  - Fixed telephony
  - Long distance
  - Celular telephony
  - Internet
  - Trunking services
  - Cable, microwaves and satelita TV.

22,5 million pesos, were claimed. The average amount per complaint is $1.276 ($8.532 general average)

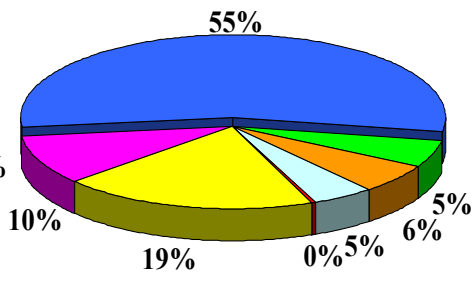


Complaint Distribution

Number Complaints



Claimed amount



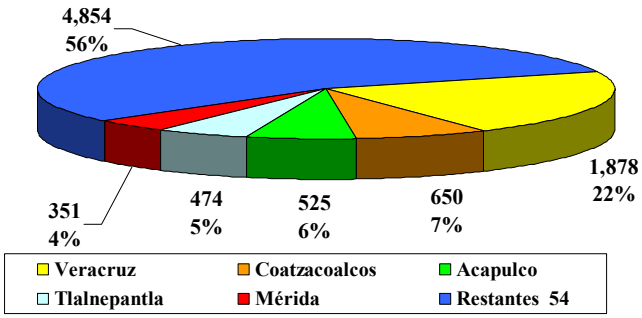
Internet
Trunking
Cellular
Long D. Tel.
Fixed Telephony
Cable TV
DTH

- Fixed telephony has the highest number of complaints representing 49% of total complaints and 55% in terms of claimed amounts
- Cellualr telephony follows 15% and 19% of complaints and amounts, respectivelu
- Both types of telephony represent 64% of the total number of complaints and 74% of the demanded amount

Fixed Telephony

Five delegations of Profeco are filled 44% of the total complaints.

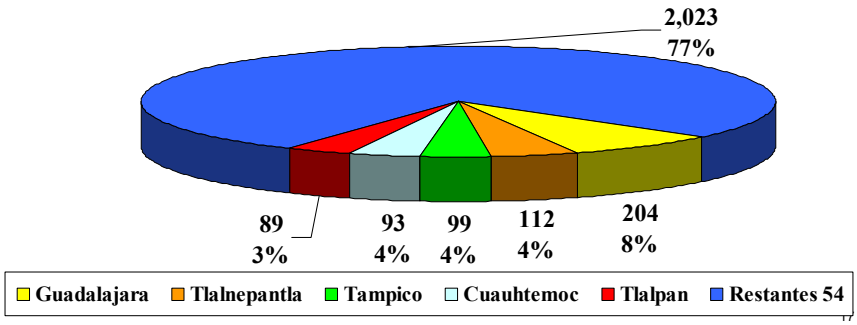
(Absolute values and percentage)



Telephony

Five delegations gather 23% of the complaints

(Absolute values and percentages)



Complaint solutions

- Telecommunications sectors have the lower rate of solution of complaints: 67% (versus 91% general rate
- And the lower index of recovery of the claimed amounts: 65% (versus 79% general)

Coordination with Cofetel

- In 2002 Telcel, Iusacell, Pegaso and Nextel contracts
  - Lack of proceedings to determine the amount of conventional penalties.
  - Unclear means to guarantee the payment of the service objct of the contract;
  - Unclear procedure for the hiring of insurance;
  - Not clear indication of the place and the payment mode;
  - They did not establish the way to anticipate the way end of a contract;
  - Profeco met with the companies and Cfetel to elaborate new contracts.

- After the approval of Profeco, cofetel authorized them.
- Companies were granted a transition period in order to use new contacrts
- Currently all companies use this new model.
- Nextel de México and iusacell have voluntarly registered contracts before Profeco

- In 2003 they asked for the technical opinion for the desactivation of the Telmex mailbox

Comisión Federal de Telecomunicaciones

TELECOMMUNICATIONS IN MEXICO

'Regulatory Issues for a Market in Competition'

'Seminar on Regulation and Competition in the Telecommunications Sector'

Abel Hibert Sanchez

September 11th, 2003

Index

- I. Telecommunication sector B.C. Main results (Before crisis)
- II. Telecommunication sector D.C. (During crisis)
- III. Telecommunication sector A.C. (After crisis)
- IV. Regulatory Issues in Mexico
  - Access vs Competition?
- V. Concluding remarks

I. Telecommunication sector B.C. (Before crisis)

Economic activity

- Largest expansion in World Economy since Second World War.
- Structural Reforms
  - Privatization
  - Liberalization of monopolic markets
  - WTO and Nafta
  - Macroeconomic stabilization

Managment issues

- Great expectations
- Bussines plans based on:
  - Long Distance services
  - Profitable market segments

Regulatory issues

- First steps of liberalization in the Telecom market.
  - Federal Telecommunication Law 1995 (Mexico)
  - Telecommunication Act 1996 (USA)

Financial issues

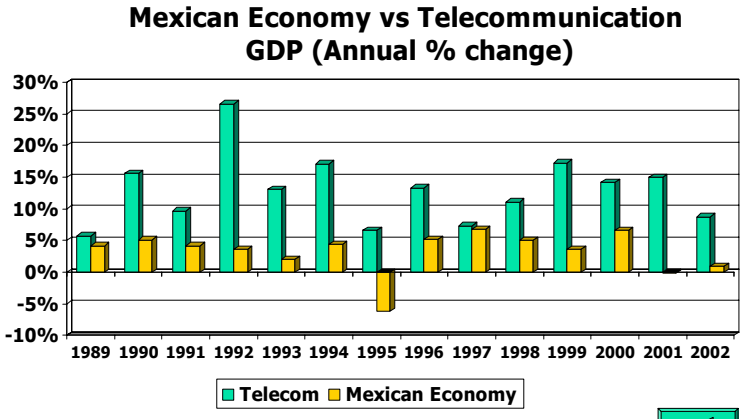
- Financial bubble
- Abundance of financial resources
  - Capital Market
  - Debt Market

Main results

Main Results

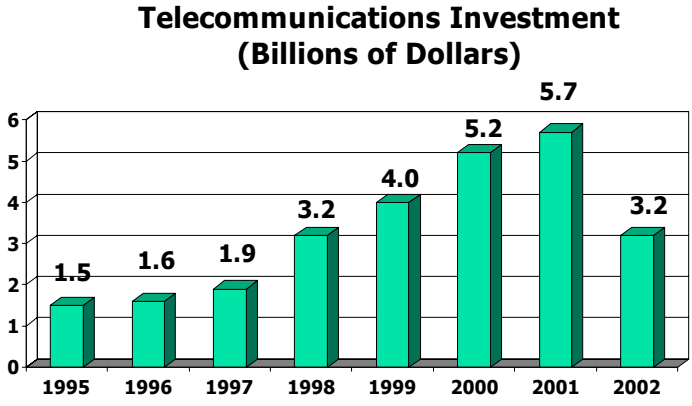
- Competition in the Mexican Telecom market has increased, as there are 11 long distance carriers, 10 for local service and 4 for mobile telephony service.
- Teledensity grew from 6.4% in 1990 to 15.3% in June 2003.
- The penetration of mobile telephone users increased from 3.3 millions in 1998 to 27.35 millions in June 2003.
- In the last 13 years, telecommunication sector has increased its size 3x; meanwhile, total economy increased its size 1.8x.
- Since the beginning of competition, Telecom sector has generated 26.4 bd in investments.
- Telecom tariffs in local services have dropped 12% in real terms and 35 % in real terms in long distance services in the last 4 years
- IX rates decreased substantially and are within international standards.

Strong performance of telecommunications GDP for the period 1990-2002:



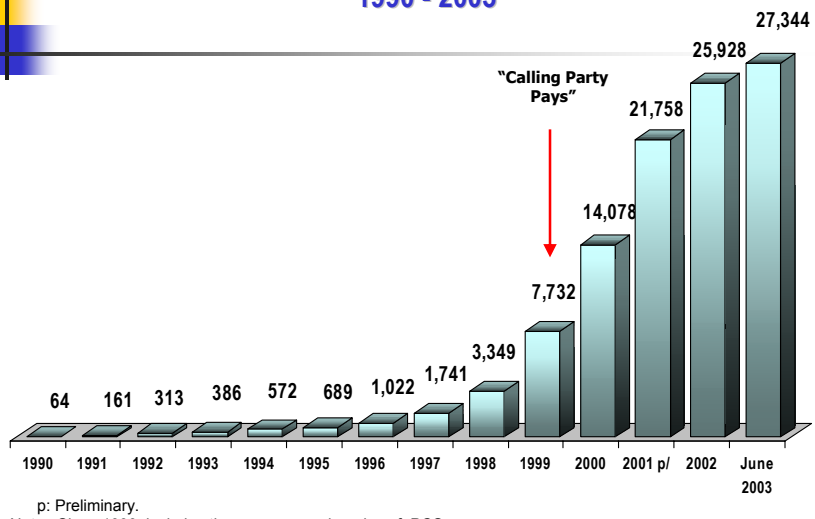
Source: INEGI

Telecommunications Investment



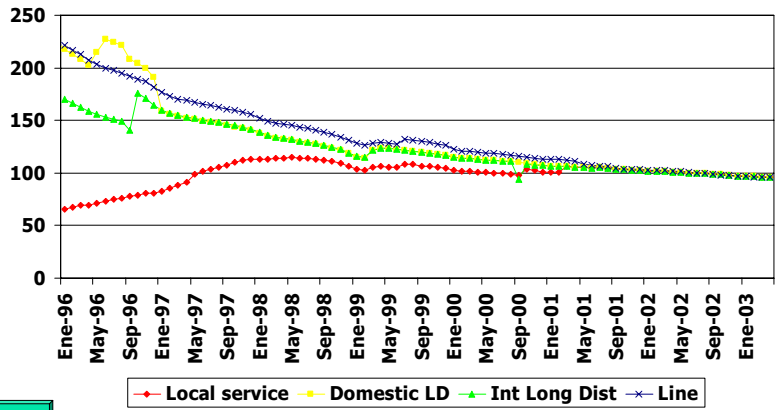
Source: Cofetel

MOBILE USERS (THOUSANDS)
1990 - 2003



p: Preliminary.
Note: Since 1999, includes the new concessionaries of PCS.
SOURCE: Dirección General de Tarifas e Integración Estadística, **COFETEL**, with information of the operators

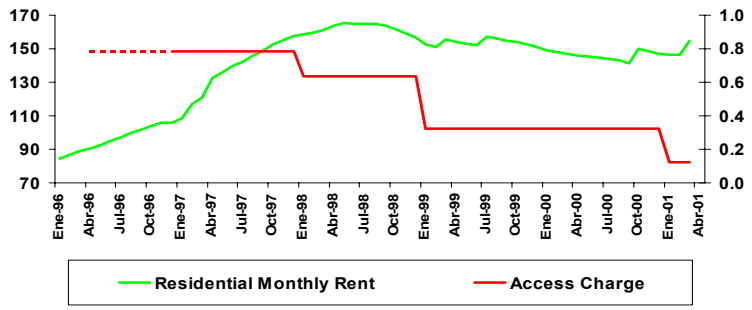
Strong reduction in real terms for telephone rates.



Source: Cofetel

The progress observed in rate re-balancing, and the evolution of competitive services in Mexico permited the implementation of a cost oriented interconnection rate scheme.

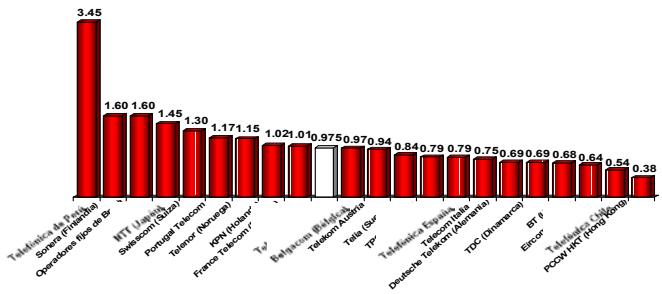
Residential monthly rent vs Acces charge
(At December 2000 pesos)



Source: Cofetel

AVERAGE ACCESS CHARGE AUGUST 2002 (US CENTS PER END PER MINUTE)

Average access charge August 2002 (US cents per end per minute)



source: Ovum quarterly update report, august 2002.
note: Eliminate the parity power purchase adjustment (ppp).
For countries with different access charges of origination and ending, was considered the simple average.

II. Telecommunication sector D.C. (During Crisis)

Economic activity

- Largest recession in World Economy since World War II.
- Negative impact in traffic volumes.

Managment issues

- Review of initial business plans
- Mergers and acquisitions
- Downsizing in investment plans and expenditures.

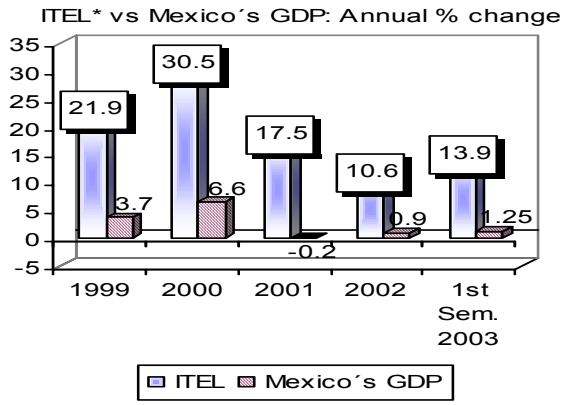
Regulatory issues

- Adverse regulatory environment to promote competition.
- Two years discussion about the New Telecommunication Law.

Financial issues

- Explosion of the financial bubble
  - Bankruptcy in .com´s
  - Creative accounting in largest Telecom corporations in USA
- Drought of financial resources
  - Capital Market
  - Debt Market

Sharp reduction in the rate of growth of the Telecom sector



Source: Cofetel and INEGI
*Índice de Producción del Sector Telecomunicaciones; based on Cofetel´s calculations

III. Telecommunication sector A.C. (After Crisis)

Economic activity

- World and domestic Economy starting to recover.
  - Positive impact in traffic volumes and revenues.
- Telecom sector still with great growth potential.

Managment issues

- Business model is switching from voice to data.
- Tackling new market segment

Regulatory issues

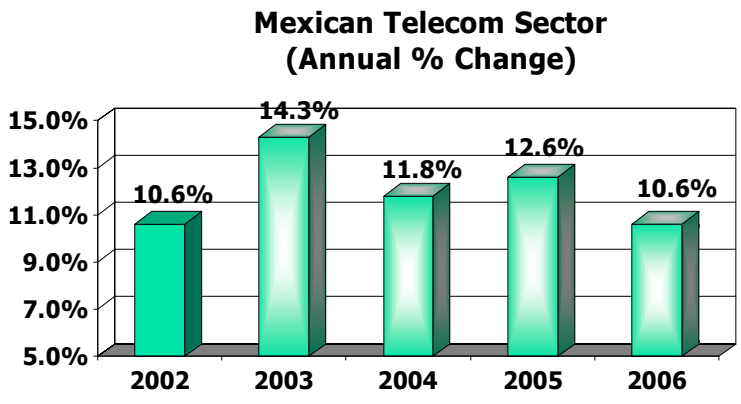
- Redefinition of the regulatory model.
  - Foster competition?
  - Social coverage obligations?
  - What formula for combination of them?

Where?

Financial issues

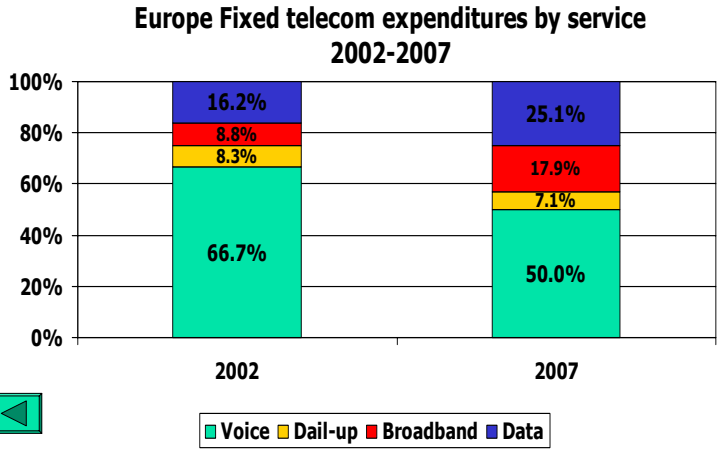
- Heavy financial burden (short term)
- Financial restructuring (long term)

Mexican Telecom Sector Outlook



Source: Cofetel, based on ITEL´s estimations

Telecom market distribution 2002-2007

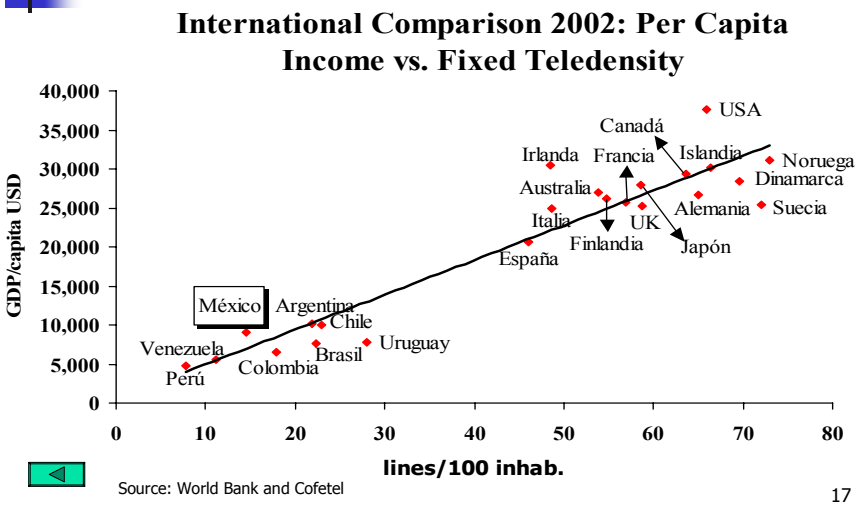


Source: Analysis Research, 2003

IV. Regulatory Issues

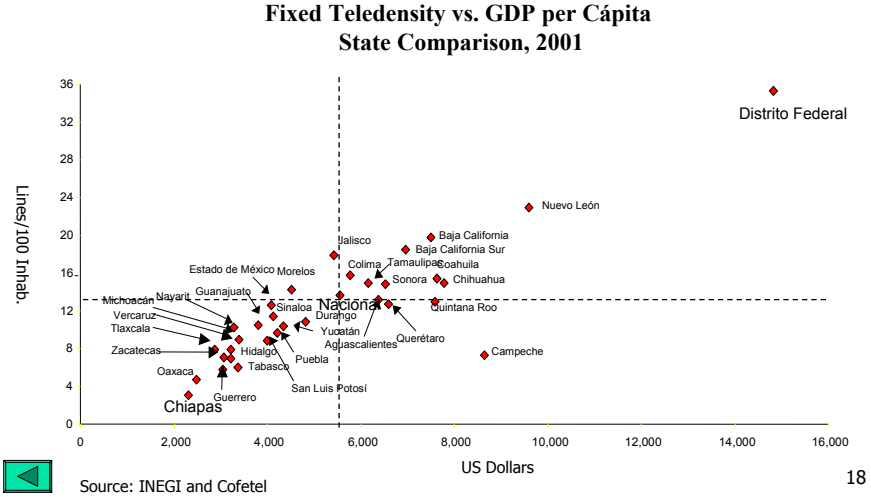
- Is the development model based in the promotion of fixed-line teledensity appropriate?
  - On an international comparison against relevant economies, the level of Mexico´s teledensity is one of the lowest (14.6% in 2002).
  - The existence of "different" Mexico's
    - Teledensity (Access)
    - Diversification
- Objectives regarding regulation and competition.
  - More services
  - Higher quality → Competition
  - Affordable prices

In an international comparison, Mexico´s teledensity is one of the lowest, according to its low per capita income...



Source: World Bank and Cofetel

- …which also reflects the regional inequalities that can be observed in Mexico´s fixed line penetration.



Source: INEGI and Cofetel

V. Concluding Remarks

•Governments around the world are deeply involved in regulation as their primary goal is the benefit of telecom users as a whole.

•Regulation agencies should understand that users of telecom services could not benefit without certain degree of regulation and competition in different services.

The most important issues :

- Controlling behaviour of incumbent operators
- Handling and facilitating network interconnection
- Price control (price cap)
- Promoting competition

Concluding Remarks

•However, there is still work to be done not only in the promotion of access but also in the way the regulatory policy will be shaped to achieve this goal.

•The regulatory authority will need to shape its policy and clarify on its own objectives regarding the development of the telecom sector:

–Whether to pursue the consolidation of the competition model, or

–Implement a regulatory policy that encourages access regardless of the development of a competitive market.

Access and Competition in Mexico

Judith Mariscal
judith.mariscal@cide.edu

"Seminar on Regulation and Competition in the Telecommunications Sector"
Federal Competition Commission
Mexico City, September 11th 2003

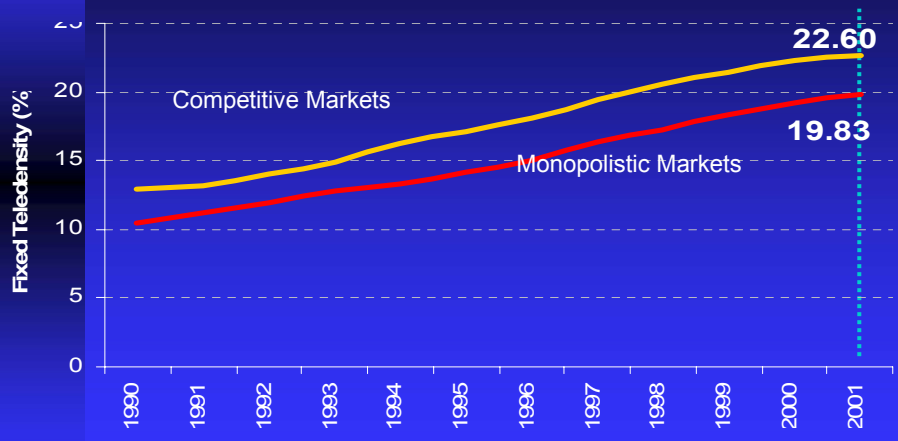
TELECOM · CIDE
Programa de Investigación en Telecomunicaciones
www.telecom.cide.edu

Table of Contents

Academic Debate

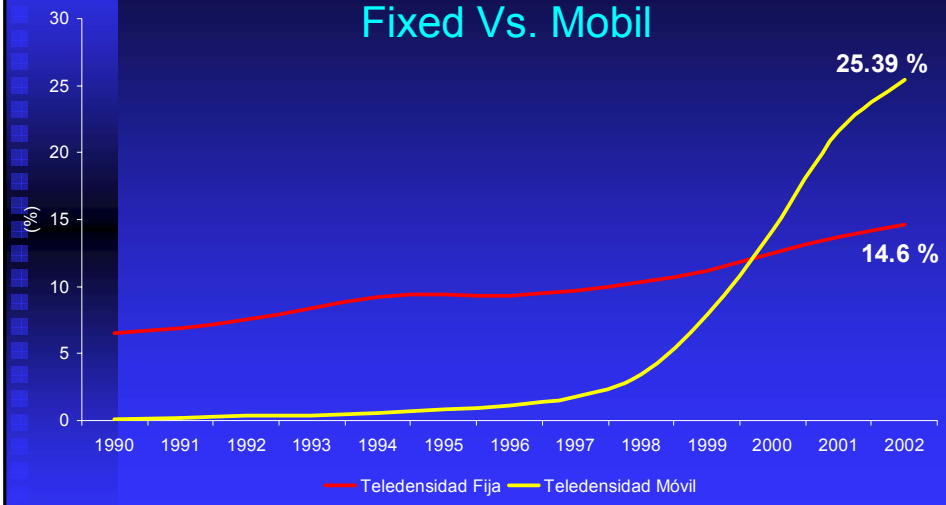
Theoretical Perpectives	Policy Trajectory
Market Economy The market as an engine for development	Policies that promote competition and help fight poverty
Knowledge Economy ICT´s as an engine for development	Active support for telecommunication access
Social Capital Development based on community assets	Policies of integrated access

Competition Generates Greater Penetration (Latin America)



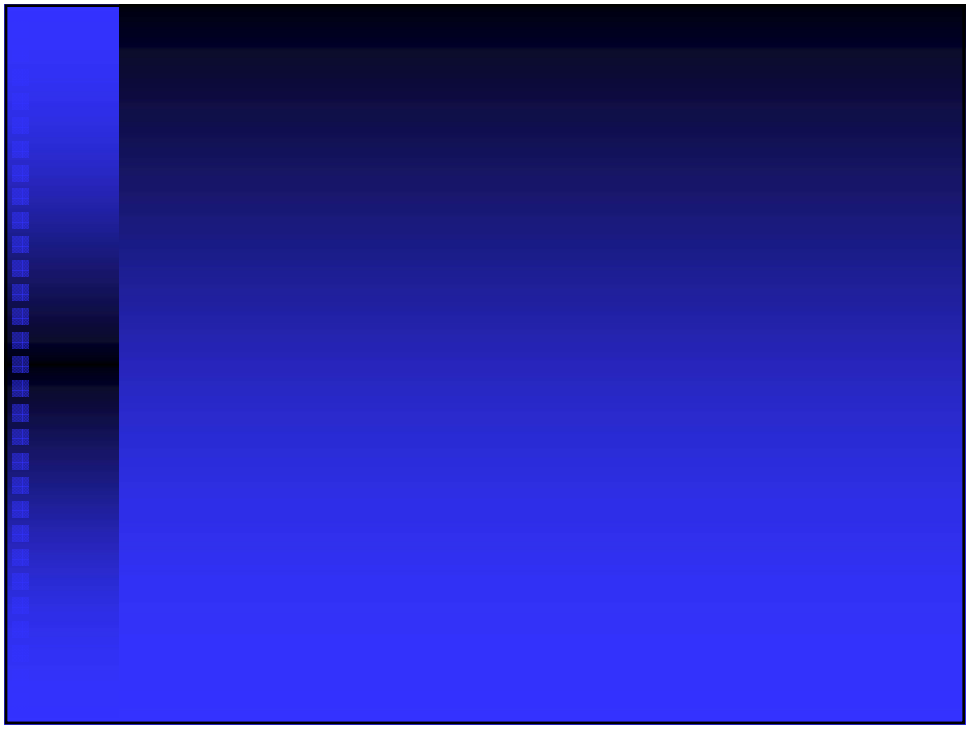
Source: ITU, 2002.

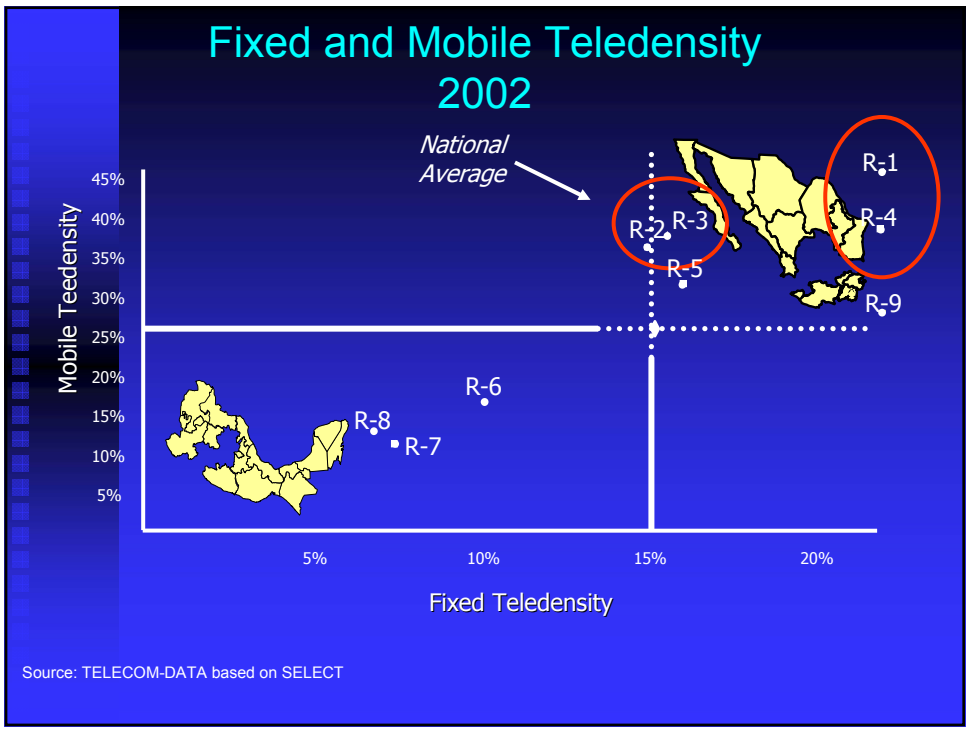
Mexico
Increase in Teledensity
Fixed Vs. Mobil



Source: TELECOM-DATA base on ITU and COFETEL INFORMATION

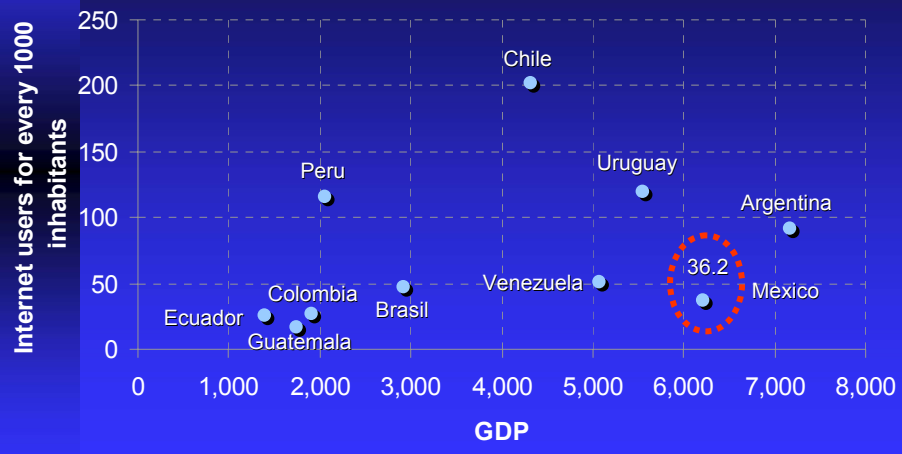
Mexico
Increase in Regional Teledensity Differences




Fixed and Mobile Teledensity
2002
National
Average
Mobile Teedensity
45%
40%
35%
30%
25%
20%
15%
10%
5%
R-1
R-2
R-3
R-4
R-5
R-6
R-7
R-8
R-9
5%
10%
15%
20%
Fixed Teledensity
Source: TELECOM-DATA based on SELECT

Latin America Comparison

Internet Users vs. GDP per capita 2001



Source: TELECOM-DATA based on ITU

Latin America Comparison

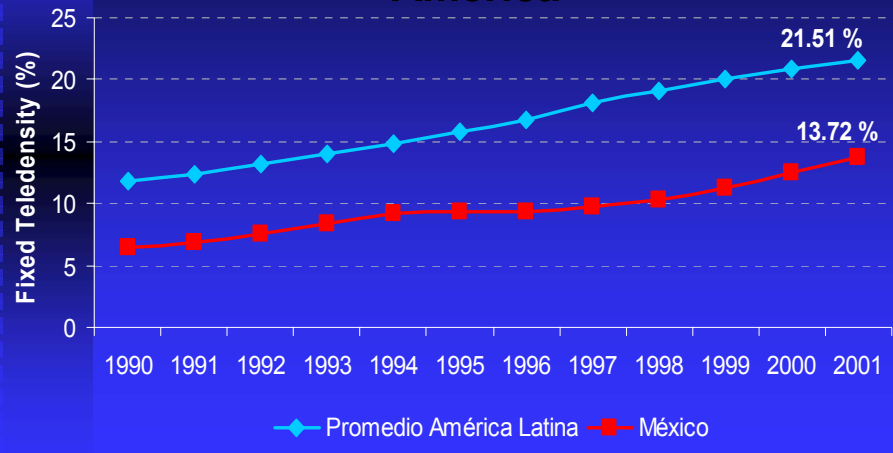
Teledensity in Latin America (2001)

Country	GDP per capita USD (2001)	Fixed Teledensity Growth Annual Average (%) (1990-2001)	Mobile Teledensity Growth Annual Average (%) (1990-2001)	GINI
Uruguay	5,554	7.05	115.51	.423
Mexico	6,214	7.12	70.88	.531
Venezuela	5,073	3.50	95.38	.495
Chile	4,314	12.38	73.95	.566
Brasil	2,915	11.83	223.22	.607
Peru	2,051	11.18	98.24	.462
Colombia	1,915	8.69	76.77	.571
Guatemala	1,754	10.82	123.83	.558
Ecuador	1,396	7.42	76.85	.437

Source: TELECOM-DATA based on ITU, 2002

Latin America Comparison

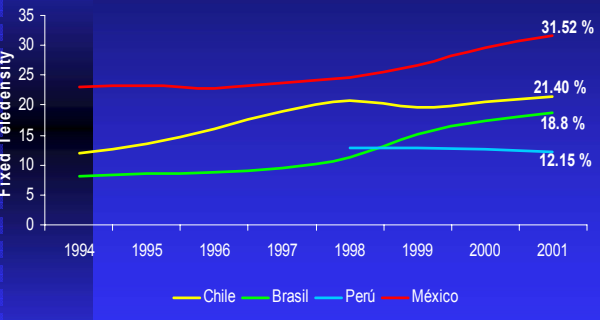
Fixed Teledensity in Mexico Vs Latin America



Source: TELECOM-DATA based on ITU, 2002

Latin America Comparison

Regional Growth Differential (Selected Countries)

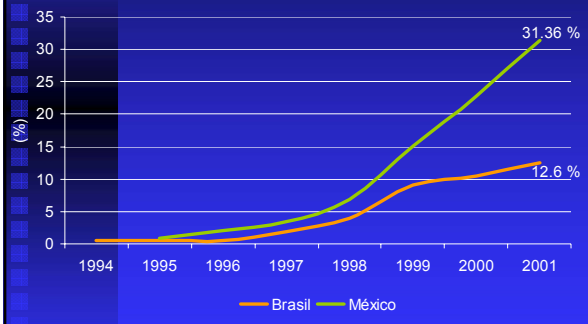


País	Average Annual Growth (%) (1994-2001)
Mexico	**5.99**
Chile	11.02
Brasil	15.57
Peru	13.94

Source: Brasil: Anatel, Chile: Subtel, Mexico: Telecom Data based in ITU and COFETEL INFORMATION, Peru: Ministry of Transportation and Communication

Latin America Comparison

Mobile Regional Growth Differential : Mexico and Brasil



Country	Average Annual Growth (%) (1994-2001)
Mexico	**120.59**
Brasil	**223.22**

Source: Brasil: Anatel, Mexico: Telecom Data based on ITU and COFETEL INFORMATION.

Model Estimations

Teledensity in Mexico & Latin America

Observed and Estimated

Observed Teledensity (2000)	**12.47**
Estimated Teledensity (2000)	**20.30**

Source: TELECOM-DATA based on ITU

Access Policies

Specific Objectives:

- To extend the network access maximizing social benefits
- Minimize costs and subsidies

Policy Elements

- **Inclusion**
- **Specific Goals**
- **Flexibility**
- **Neutrality**
- **Transparency**
- **Incentives**

Different Financing Mechanisms

- **Licence Obligations**
- **General Funds**
- **Direct Incentives**
- **Social Coverage Funds**

Selecting Operators : Auctions

Auctions represent a good alternative to select operators: companies announce the minimum level of subsidy that they need per lane, in order to become telecommunication service providers in economically unprofitable areas.

Integral Access Policies

Social Capital:

ABCs

- **A**ccess
- **B**asic Training
- **C**ontent

Access and Competition in Mexico

Judith Mariscal
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Market power and anticompetitive practices

Adalberto García Rocha

September 12, 2003.

Assumptions in the FLEC

- The Law establishes that an agent with market power is one who "can fix market prices without (...)
- "The Law determines that an agent that wields such power can't use it to:

  Impose price or distribution conditions

  Tied sales

Assumptions in the FLEC

Conditions on third parties

Refusal to deal

Agreements against clients or suppliers

Illegal acts against competition (predation)

Assumptions in the FLEC

- Market power analysis is determined by:
  - The relative importance of the agent in the market
  - The degree of barriers to entry
  - Competitors' power

Elements of market power

- The importance of the agent is determined by its market participation:

  Herfindahl Index (HH)
- The CFC also takes into account the importance of the agent relative to its competitors

  Dominance Index (DI)

Barriers and competition

- Barriers
  - Economic
  - Legal
- Competitor access to supply sources
- Recent behavior

Relevant markets

Market	Substitute
Local telephony	Cable, Cellular, Wireless, PCS
Access	Satellites, Microwave links
National long distance	Cellular, Internet
Interurban transport	Microwave, Satellites
International long distance	None

Telecommunications market

- **Principal agent participation:**

		HH	DI
Local Telephony	100%	1	1
Access	100%	1	1
National long distance	75%	0.58	0.89
Interurban transport	83%	---	---
Internacional long distance	74%	0.58	0.89

Economic barriers

Market	Main Barrier
Local Telephony :	Wire network
Access :	Wire network
National long distance:	Long distance network
Interurban transport :	Optical fiber network
Internacional long distance:	Switched Telecommunication Network

Normative barriers

Local Telephony :	Concession (spectrum)
Access :	Concession (spectrum)
National long distance :	Interconnection regulation and tariff regulation
Interurban transport :	Weak (concessions)
Internacional long distance:	International ports

Power to raise prices

Local Telephony:	Rebalance, non conmuted
Access:	Regulatory vacums
National long distance:	Non conmuted services
Interurban transport:	Contestable
Internacional long distance:	Liquidation Tariffs

Other elements of power

- Vertical integration
- Multiple, final and intermediate services firm

Legal effects

Article 63.- The Ministry will have faculties to establish the grantor of a public network concession, who has substantial market power in the relevant market according to the Federal Law of Economic Competition, specific obligations related to tariffs, quality of service and information.

Legal effects

Tariff regulation that is applied will seek tariffs for each service, capacity or function, including those for interconnection, that at least allow the recovery of incremental average long run costs.

CHRONOLOGY

- **February, 1998. Resolution of substantial market power by Telmex.**
- **July, 1998. Appeal Resolution.**
- **May, 2001. Resolution by the First Collegiate Court in Administrative Matters**
- **May, 2001. The CFC issues a new resolution.**
- **23rd August, 2001.- New appeal resolution.**

Telecommunications Market Structure, Regulation and Competition in Australia

Stephen Farago
stephen.farago@accc.gov.au

Director, Telecommunications
Australian Competition and Consumer Commission (ACCC)

Overview

- Prior to the Reforms
- 1980s: Early Reforms
- 1991: Managed Competition
- 1997: Current Regulatory Environment
- September 2001: Legislative Amendments
- December 2002: Legislative Amendments
- Outcomes of Reform to Date
- Prospects for Further Reform
- Conclusions

Prior to the Reforms

- Services provided exclusively by 3 government-owned entities:
  1. **Telecom Australia**: provided fixed line services within Australia
  2. **OTC**: provided telecommunications services between Australia and other countries
  3. **AUSSAT**: owned and operated a national satellite telecommunications system used by **Telecom Australia** and **OTC**

1980s: Early Reforms

- 1989: Establishment of an independent industry-specific telecommunications regulator, **AUSTEL**
- **AUSSAT** allowed to compete with **OTC** in the provision of overseas telecommunication services (limited basis)
- Competition was allowed in:
  - Supply of value-added services
  - Customer equipment
  - Cable installation
  - 'Private' networks
- **Telecom Australia** and **OTC** were corporatised, transforming them into government-owned companies
- Retail price controls introduced

1991: Managed Competition

- **Telecom Australia** and **OTC** were merged into a single company, **AOTC** (forerunner of the present day incumbent **Telstra**)
- A second carrier license and second public mobile license were awarded to **Optus Communications**
- *Telecommunications Act 1991*
- Reforms created an environment of regulated competition and emphasised facilities-based entry

Telecommunications Act 1991

- Provided for interconnection and access rights for carriers to each others' networks
- Provided more limited interconnection and access rights for service providers
- Carriers were free to negotiate access terms and conditions; failure to agree would lead to a determination by the regulator **AUSTEL**
- Introduced revised universal service arrangements: the industry was required to contribute to the net cost of unprofitable services supplied by **Telstra** through a levy on all carriers in proportion to their share of timed traffic
- Continued consumer related protections, e.g. retail price control regime
- Introduced additional consumer related protections, e.g. created an industry funded ombudsman to deal with billing related complaints

1997: Current Regulatory Environment

- *Telecommunications Act 1997*:
  - Open entry of carriers and carriage service providers
  - Merged **AUSTEL**'s technical regulatory functions with the **Spectrum Management Agency** to form **Australian Communications Authority** (**ACA**)
  - Gave **ACA** responsibility to oversee specific consumer protection requirements, including administering universal service arrangements

1997: Current Regulatory Environment

- *Telecommunications Act 1997 (continued)*:
  - Transferred responsibility for telecommunications competition regulation to the general competition regulator, the **Australian Competition and Consumer Commission** (**ACCC**)
  - Transfer of responsibility involved the insertion of:
    - Telecommunications-specific access provisions. Access rights were granted following **ACCC**'s declaration of a service for access
    - Anti-competitive conduct provisions into the existing general competition legislation. Provisions prohibit conduct which has the *effect* or *likely effect* of substantially lessening competition.

1997: Current Regulatory Environment

- *Telecommunications Act 1997 (continued)*:
  - Continued retail price controls on **Telstra**, overseen by **ACCC**
  - Created two industry self-regulatory bodies:
    - **Australian Communications Industry Forum** (**ACIF**): developed standards
    - **Telecommunications Access Forum** (**TAF**): focused on terms and conditions of access
- Partial Privatisation of **Telstra**

September 2001: Legislative Amendments

- Main objectives:
  - Reduce incentive for early notification of arbitrations
  - Encourage greater commercial negotiation
- Grants **ACCC** rights to:
  - Publish arbitration determinations
  - Extend provisions for backdating of arbitration determinations
  - Speed up arbitral processes

December 2002: Legislative Amendments

- Enhanced accounting separation regime for **Telstra**: provides for greater transparency of operations
- Required **ACCC** to publish model terms and conditions of access for 'core' services
- Removed merits review with respect to **ACCC** arbitration determinations (except in relation to points of law)
- Provided greater incentive for the provision of undertakings by access providers that offer industry-wide terms and conditions of access
- Abolished **TAF**

Outcomes of Reform to Date

Number of Players	*End of June 2002*: • 80 carriers in the Australian telecommunications market, including 4 carriers operating mobile networks • 757 Internet Service Providers (ISPs)
Price	*Between 1997-98 to 2001-02*: • 20.7% reduction in price of an average basket of telecommunications services
Income Effect	*By 2001-02*: The average household gained between A$595 and A$878 due to reforms since 1997
Variety/Choices	Substantial rise in range of telecommunications services available

Regarding the Incumbent: Telstra

Table 2: Telstra's share of key markets by revenue, 2001-02

Market	Market share (%)
Local call services	84.5*
National long-distance (incl. fixed-to-mobile)	66.4
International	18.3**
Data services	62.0
Mobile	49.3
Pay-TV (subscribers)	55.1***

* On a retail and wholesale basis Telstra accounted for 93 per cent of directly connected access lines at the end of June 2002.
** Inbound call revenue was allocated to Telstra's Hong Kong based subsidiary Reach in 2001. Its market share is therefore approximately double this figure.
*** Figure is for September 2002.
Source: ABN-AMRO data reported in ACCC, *Emerging market structures in the communications sector,* ACCC, Canberra, June 2003, p. 32.

Prospects for Further Reform

- Concern about **Telstra**'s dominance
  - Access arrangements unlikely to change incentives of a vertically integrated access provider to willingly provide services to downstream competitors
  - A potential exists for **Telstra** to leverage its dominance in one market into a position of dominance in another
  - Expected convergence of telecommunications and broadcasting markets
- **ACCC** recommended **Telstra** divest its HFC network and shares in pay TV (**Foxtel**)
- Government does not wish to pursue structural solutions as a means to improve competition, instead seeking to privatise its remaining 50.1% shareholding in **Telstra**

Conclusions

- Telecommunications regulation and competition in Australia has evolved substantially over the past 10 to 15 years.
- There have been several positive market outcomes that have delivered benefits to consumers.
- The incumbent provider remains dominant by market share across a range of markets, which has served to test the access and enforcement regulatory regime.
- There has been a tendency towards regulatory tightening contrary to expectations when the current regime was put in place.
- Structural solutions to change the existence of a dominant player do not appear to be likely.

Regulatory Reform in Telecom Service

— Korean Experience —

Chong-Hoon Park, Ph.D.

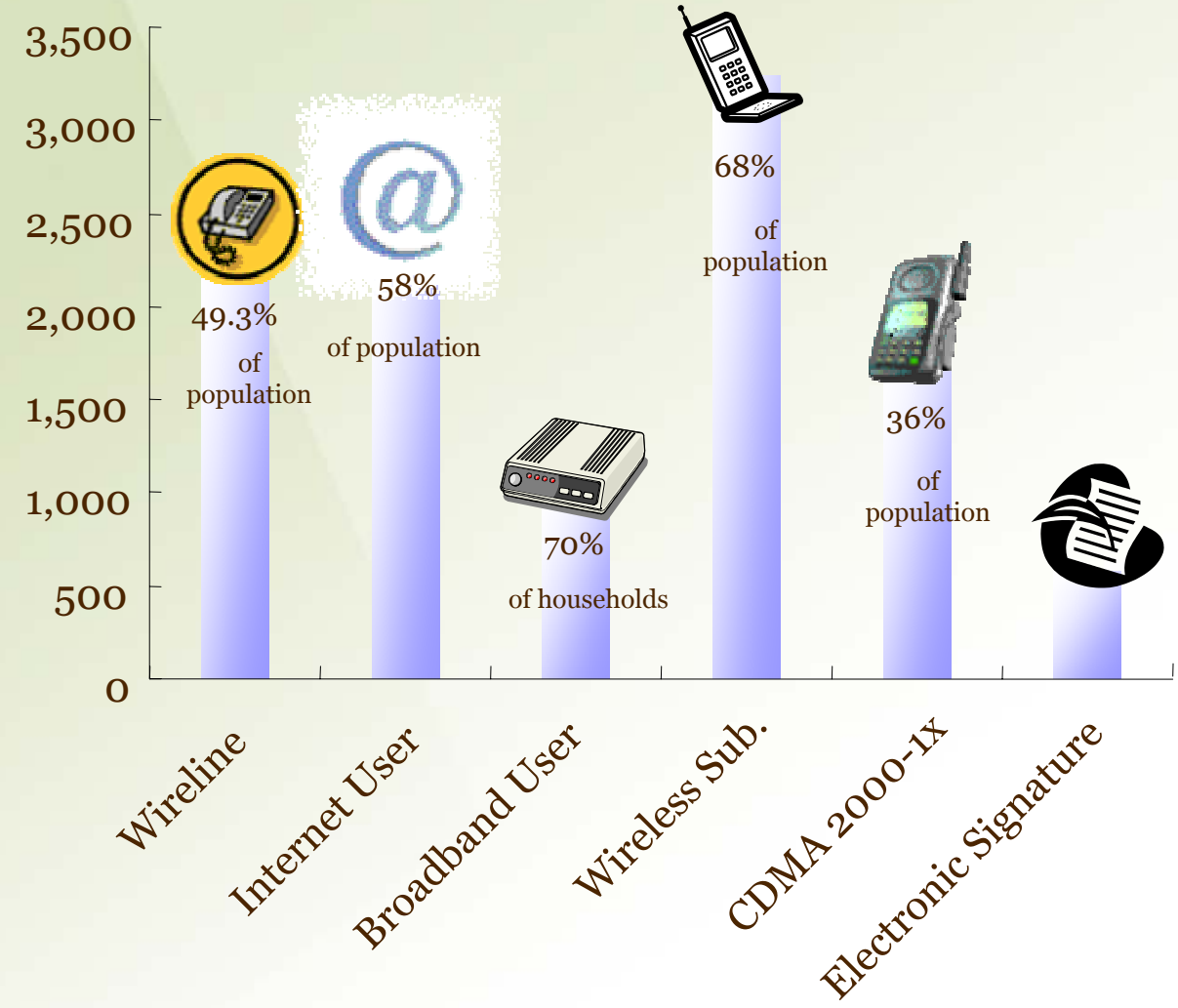
Senior Research Fellow, Director
Telecommunication and Broadcasting Division

Content

I. Market Overview

Industry Snapshot

Unit: 10,000 Subscriber



Digital TV : 1,080,000
Penetration : 7.3% of Total Household

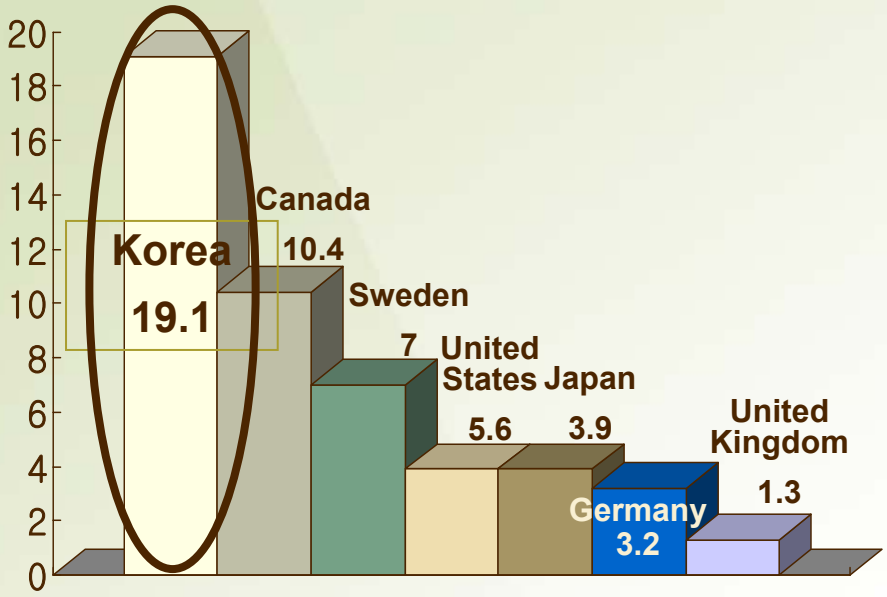
Electronic Signature : 5,770,000 Person

IT Industry Production : 160.1 Billion USD (14.9% of GDP)

IT Export : 46.4 Billion USD 28.6% of Total Export

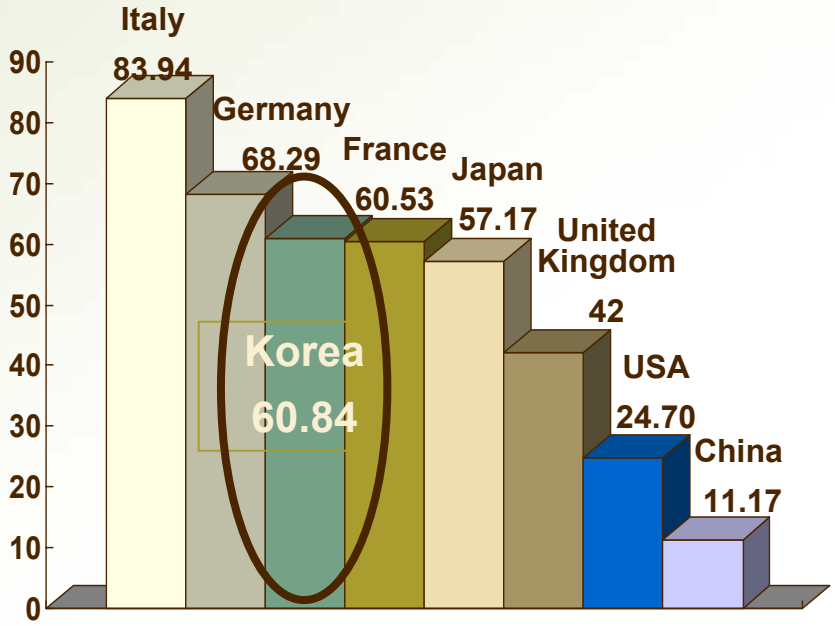
Among the World Leaders…

Broadband access per 100 inhabitants



Source : OECD (2002)

Worldwide Cellular/PCS Penetration rate

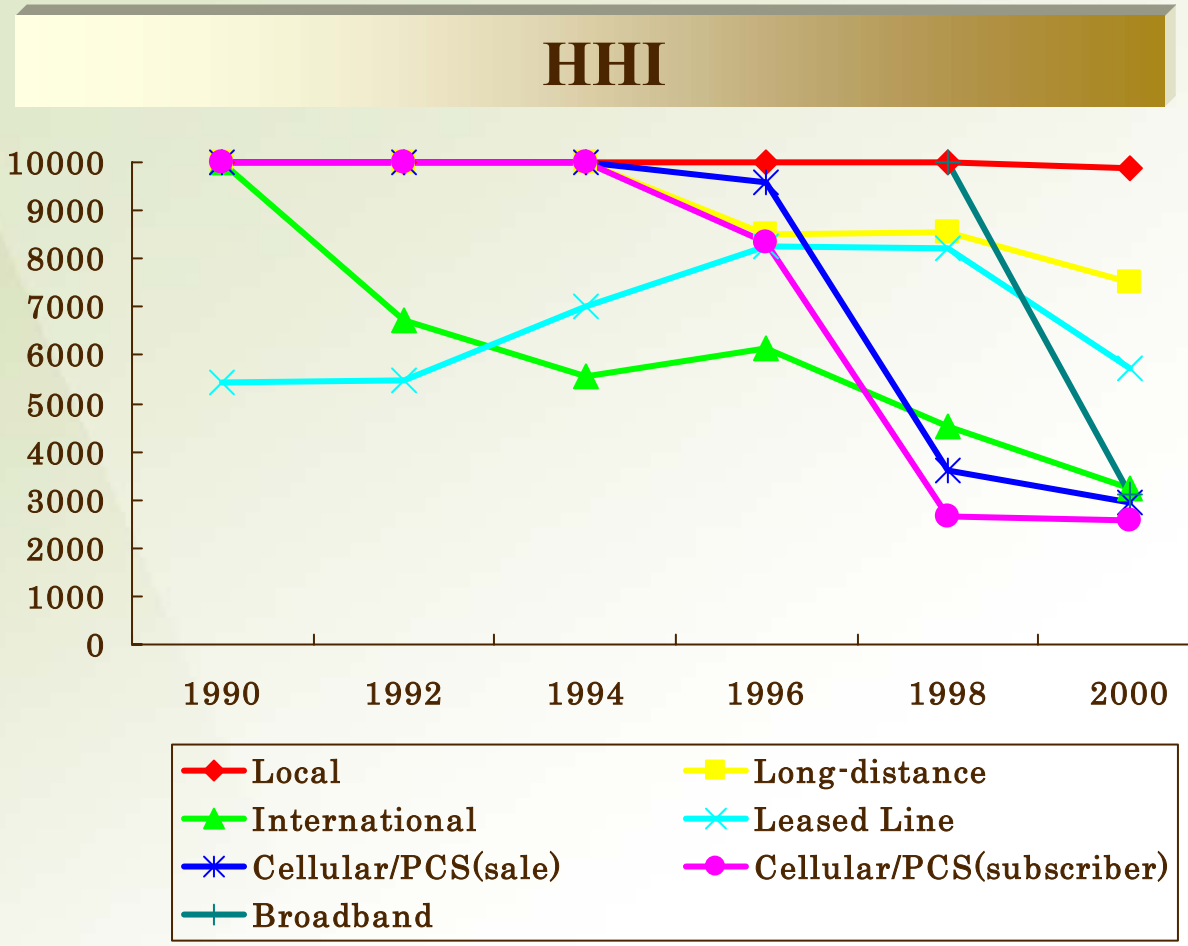


Source : ITU (2002)

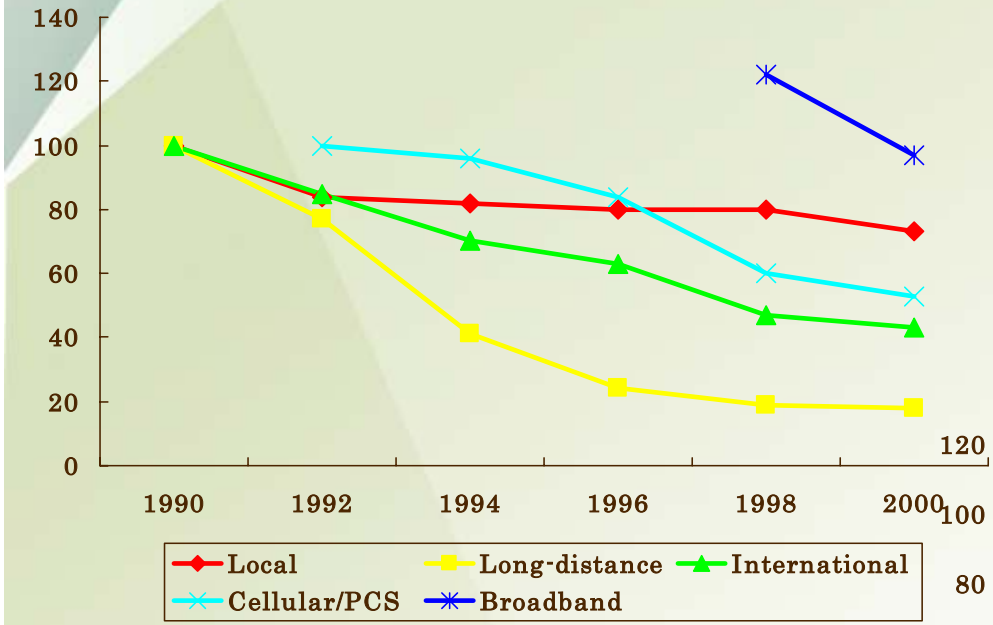
Telecom Market Structure

		Number of operatiors	Key Operators
Facilities-Based Service	Local	2	KT, Hanaro
	Long-distance	4	KT, Dacom, Onse Telecom, Hanaro
	International	5	KT, Dacom, Onse Telecom, Hanaro, SK Telink
	Leased Line	17	Local/International – 6 Operators Local – 3 Operators Long-distance – 3 Operators International – 5 Operators
	Mobile Telephony	1	SK Telecom
	PCS	2	KT Freetel, LG Telcom
	TRS	6	National - KT Powertel Regional - 5 Regional TRS Operators
	CT-2	1	KT
	Paging	4	National – Real Telecom Regional – 13Regional Paging Operators (9 Regions)
	Wireless data Transmission	3	Airmedia, Intec Telecom, Hansae Telecom
	GMPCS	2	SK Telecom, Dacom

Competition Develops

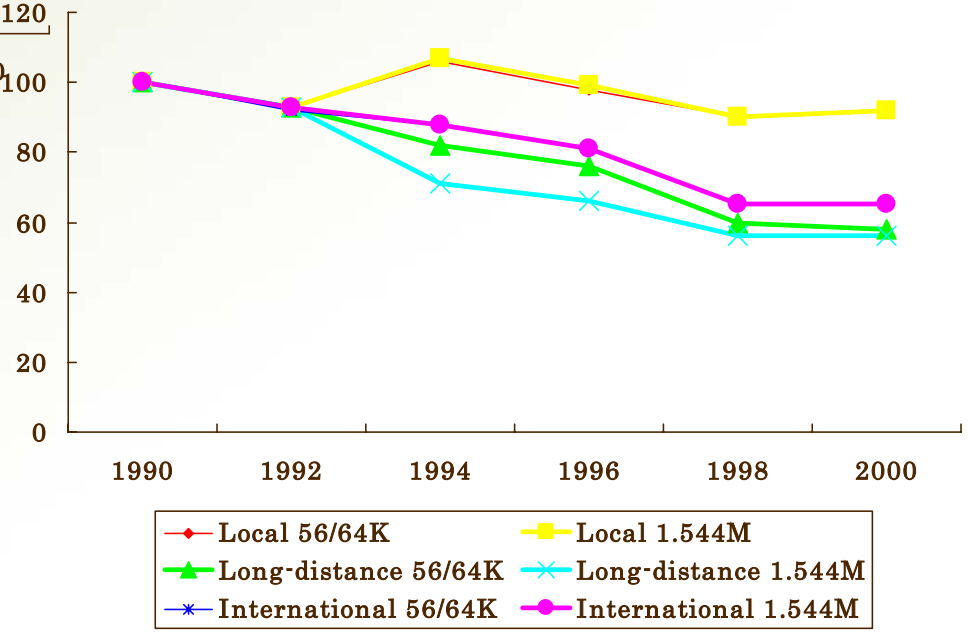


Price is Down



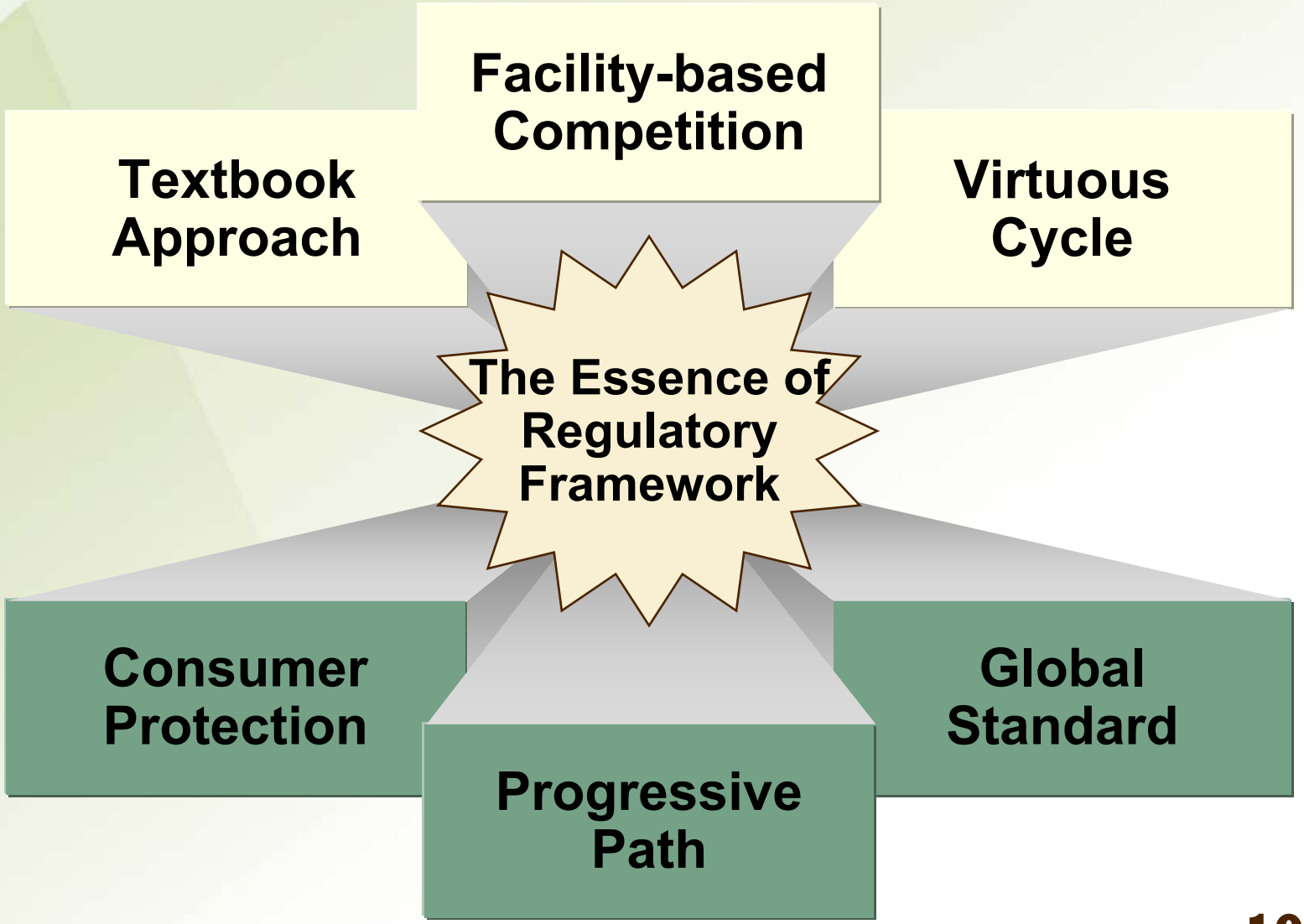
Changing Rate of Major Telecom Services

Changing Rate of Leased Line



II. A Path to Competition

Characteristics of Korean Model



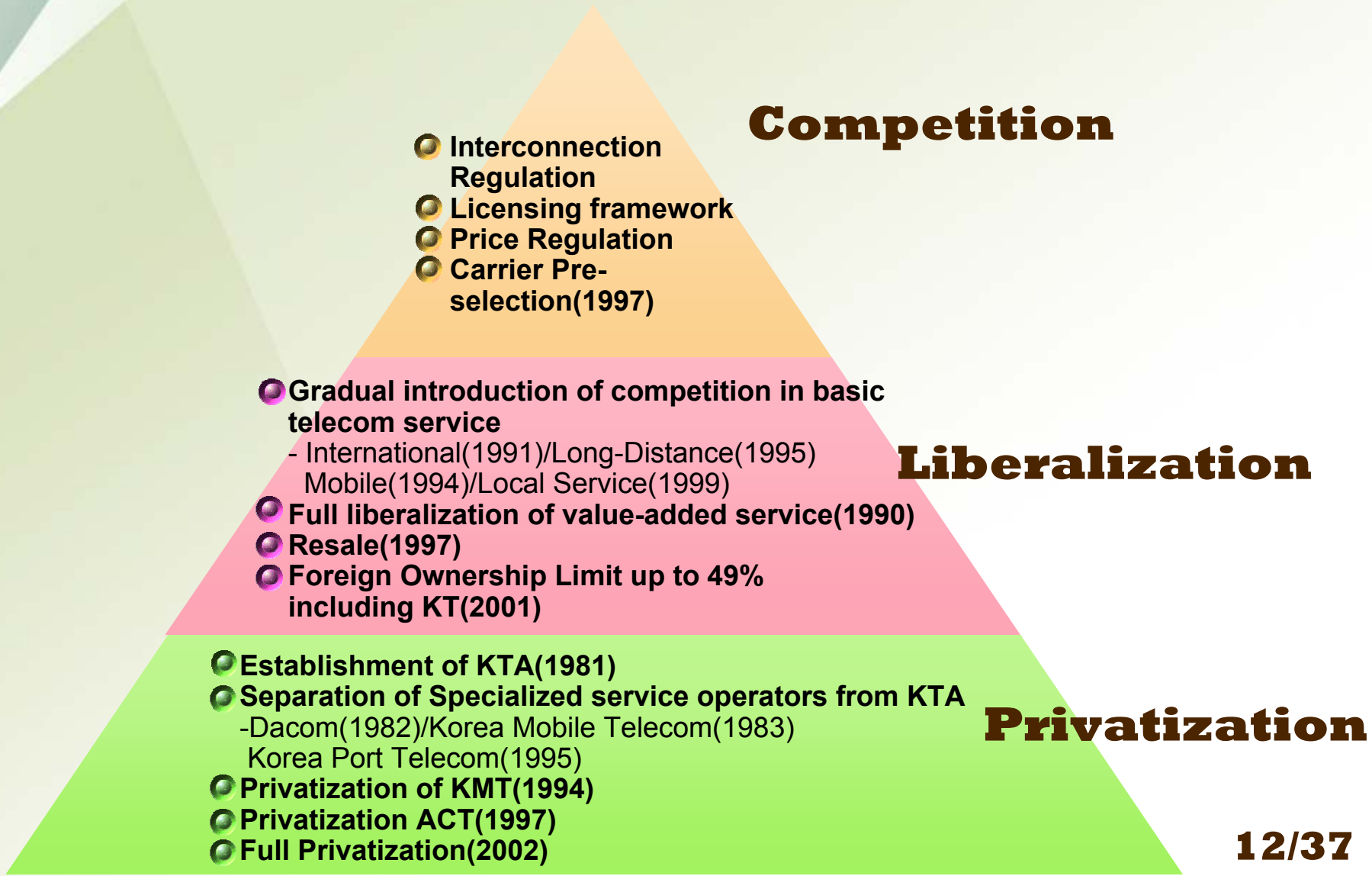
Textbook Approach

Privatization → Profit Incentive & Productive Efficiency

Liberalization → Technology & Investment

Competition → Market Mechanism & Consumer Welfare

Textbook Approach



Progressive Path

Same Principle

- Separation of Service operator from the government
- Paradigm Shift from monopoly to Competition
- Anti-competitive Safeguards
- Consumer Protection
- Universal Service

Deregulation Methods

Early Liberalization and Privatization

- Privatize the incumbent early
- Full competition in early stage
- ex: USA, UK

Progressive Liberalization and Privatization

- Pursue liberalization and protection of incumbent
- Step-wise Liberalization
- ex: Korea, Singapore, Japan

Late Liberalization and Privatization

- Secure the competitiveness of incumbent
- Set up the privatization date
- Progressive Liberalization
- ex : Germany, France

Progressive Path

WTO(97) Financial Crisis (98~99) New Round(04)

* Entry
- Introduction of reseller
- Lift of foreign ownership limits

* Quality Monitoring System
- wired, mobile(99)
- high-bandwidth(00)

Mobile Service

SKT(84) STI(96) PCS(97) Wireless Internet IMT-2000

* Interconnection(00)
- Cost-oriented(SKT)

* M&A(00)
- SKT and STI
- KTF and HM.com

Local Service

KT(81) Hanaro(99) High-bandwidth: ADSL, CA modem

* Industry Promotion
- Universal Access
- Constructing Networks

* Rebalancing

* USF (00)

* Cyber Korea 21 (99)
- Digital Divide
- Advancing Networks

* Local Loop Unbundling(01)

* Open Access to ISP(00)

Long-Distance Service

Dacom(96) Onse(99)

* Interconnection(94)
- Cost-oriented(KT)

* Pre-selection (97,99)

Following WTO Guideline

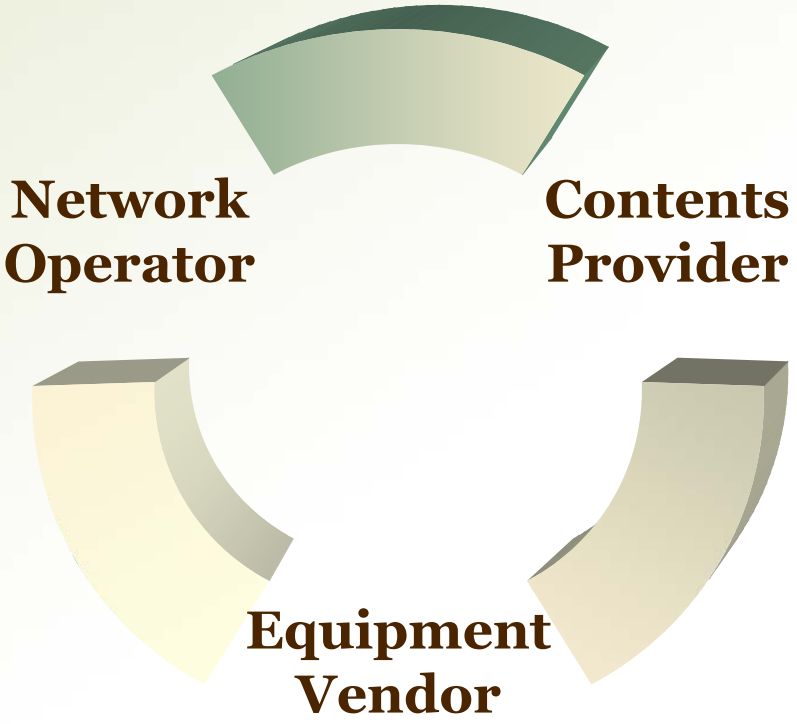
		Before 1998	WTO Concession Schedule (1997.2.15)	Currently
Limitation on Aggregate Foreign Ownership	KT	Prohibited	20% from 1998	33% from July 1998
			33% from 2001	Expanded to 49% from January2001
	Other Carriers	Wired:Prohibited Wireless:33%	33% from1998	33% from 1998
			49% from 2001	49% from July 1999
Limitation on Individual Ownership	KT	1%(only Koreans)	3% from 1998	15% from 1999
	Other Carriers	Wired:10% Wireless:33%	Wired:10% Wireless:33%	No Limit
Largest Foreign Shareholder	KT	Prohibited	Prohibited	Permitted from 2002
	Other Carriers	Prohibited	Permitted from1999	Permitted from 1999
Resale	Voice Resale	Prohibited	49% from 1999 100% from 2001	49% from 1999 100% from 2001
	Other	No limits	100% from 1998	100% from 1998

Virtuous Cycle

Key to Success

Organic Inter-dependency among Network Operators, Contents Providers and Equipment Vendors

Form Virtuous Cycle



Virtuous Cycle

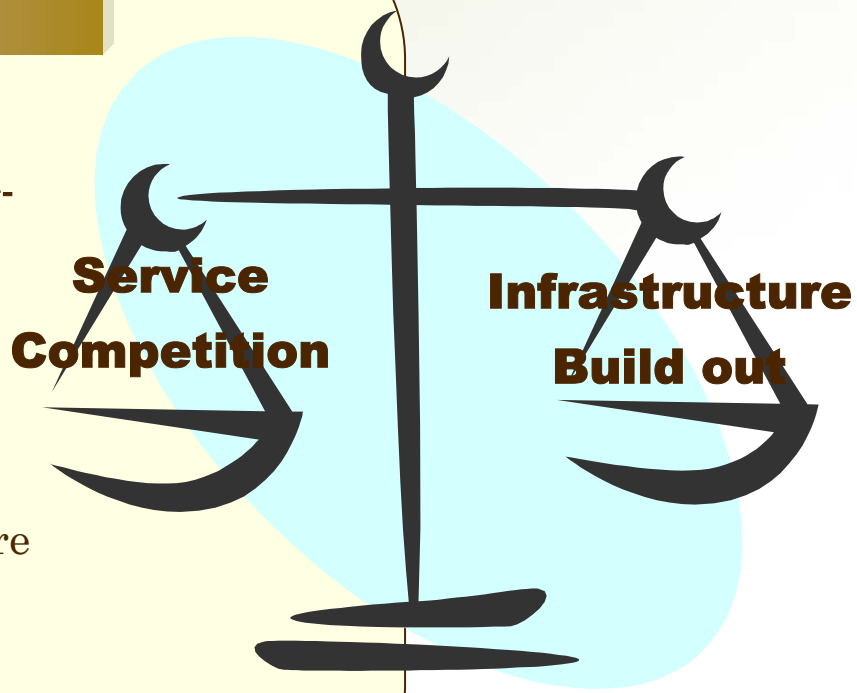
- **Technology Accumulation**
  - Digital Switch Exchange (TDX)
  - CDMA
- **Application Search**
  - E-Government
  - Cyber Korea 21(1999)
- **Network Development**
  - KII Plan (1995)
  - Laissez-Faire Approach

Facility-based Competition

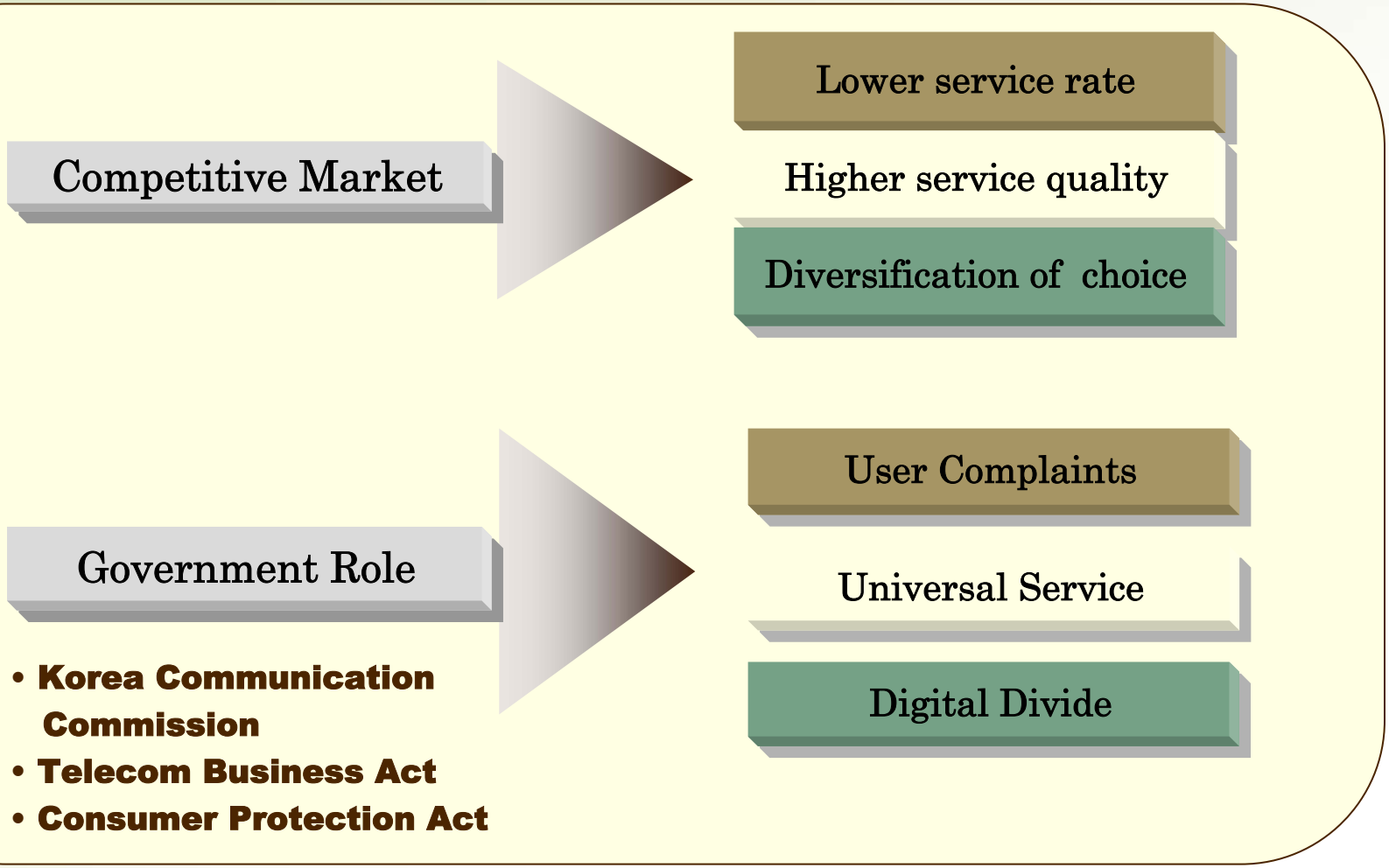
• Network Sharing enhances the service competition but reduces the incentive of network build-out.

Korea Approach

- Korea took the route of the **facility-based competition** method.
- Ex : PCS License, Broadband services
- Introduce network sharing measure such as LLU after witnessing the effective competition in network



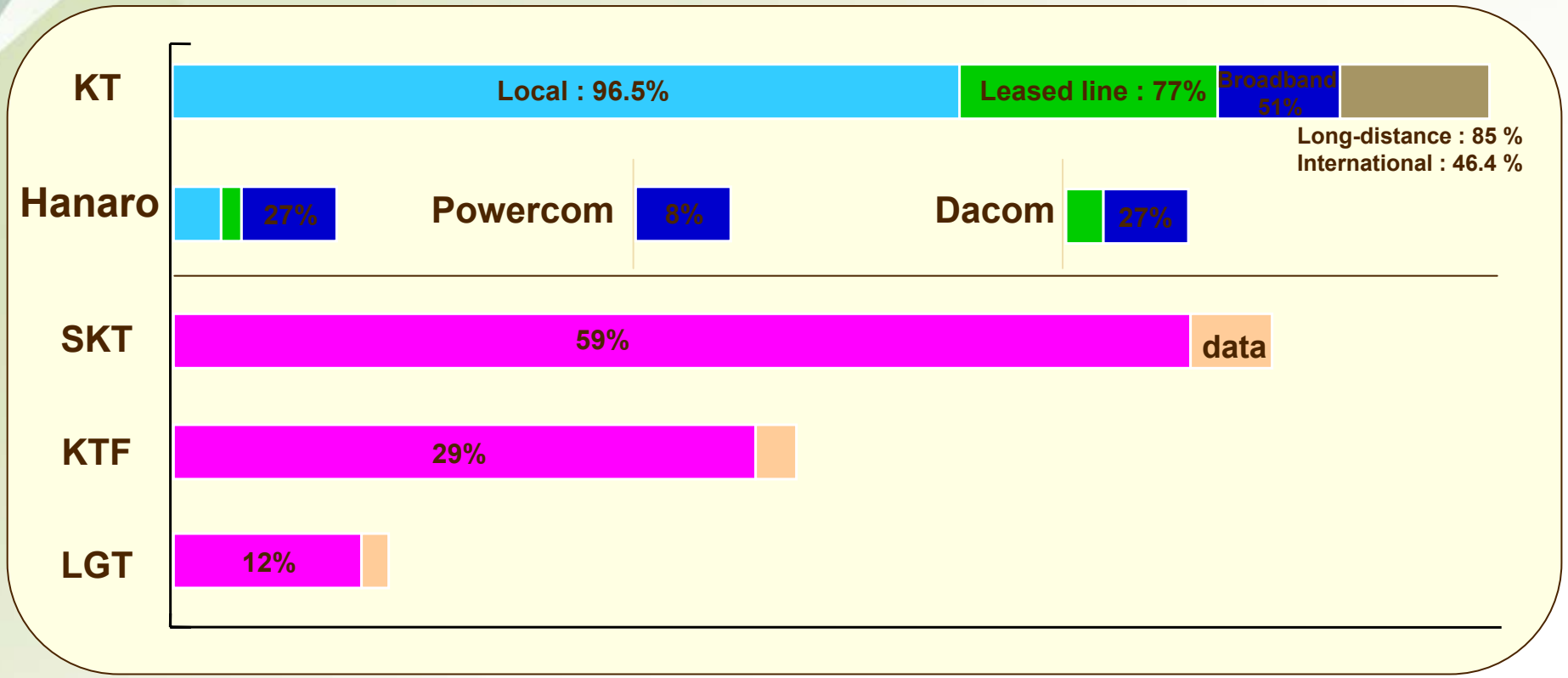
Consumer Welfare



III. Responding to the Challenges

Addressing Market Power

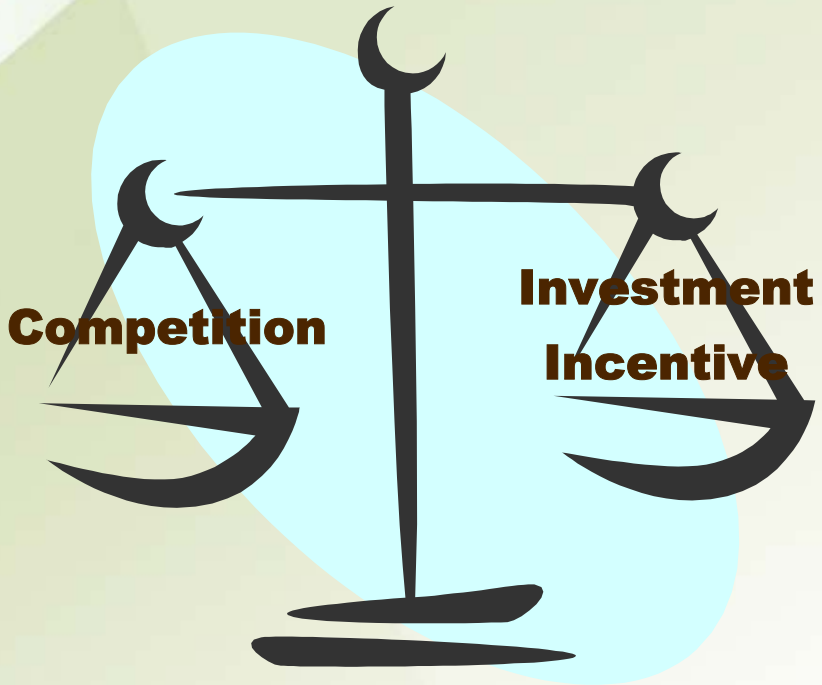
Telecom Market Structure



Action taken

- LLU (2001)
- Number Portability
  - local telephony (2003)
  - Wireless (2004 in Sequential Order)
- LRIC (2004)
- MVNO (In Consider)

Designing Incentive Regulation



Asymmetric nature of regulations for the effective competition reduces investment incentive.

Action taken

- Privatization Act(1997)
  - remove the government influence on procurement, business plan and business function
- Tariff Deregulation
  - continuous tariff deregulation
- Line of Business Deregulation
  - Positive Listing to Negative Listing

Digitization and Convergence

Challenges

- High-Powered Network allows the Emergence of New Services
- Incumbent Network Operator is Advantageous in Supplying Convergent Services
- New Market will Outgrow the Current Regulatory Structure

Remedy

- Re-Classification of Telecom Services in Accordance with Telecom Business Act
- More Sophisticated Regulatory Framework Evolving for Effective Competition
- New Market Definition in Discussion

Resolving the Differences

Effective Regulation vs. Industry Promotion

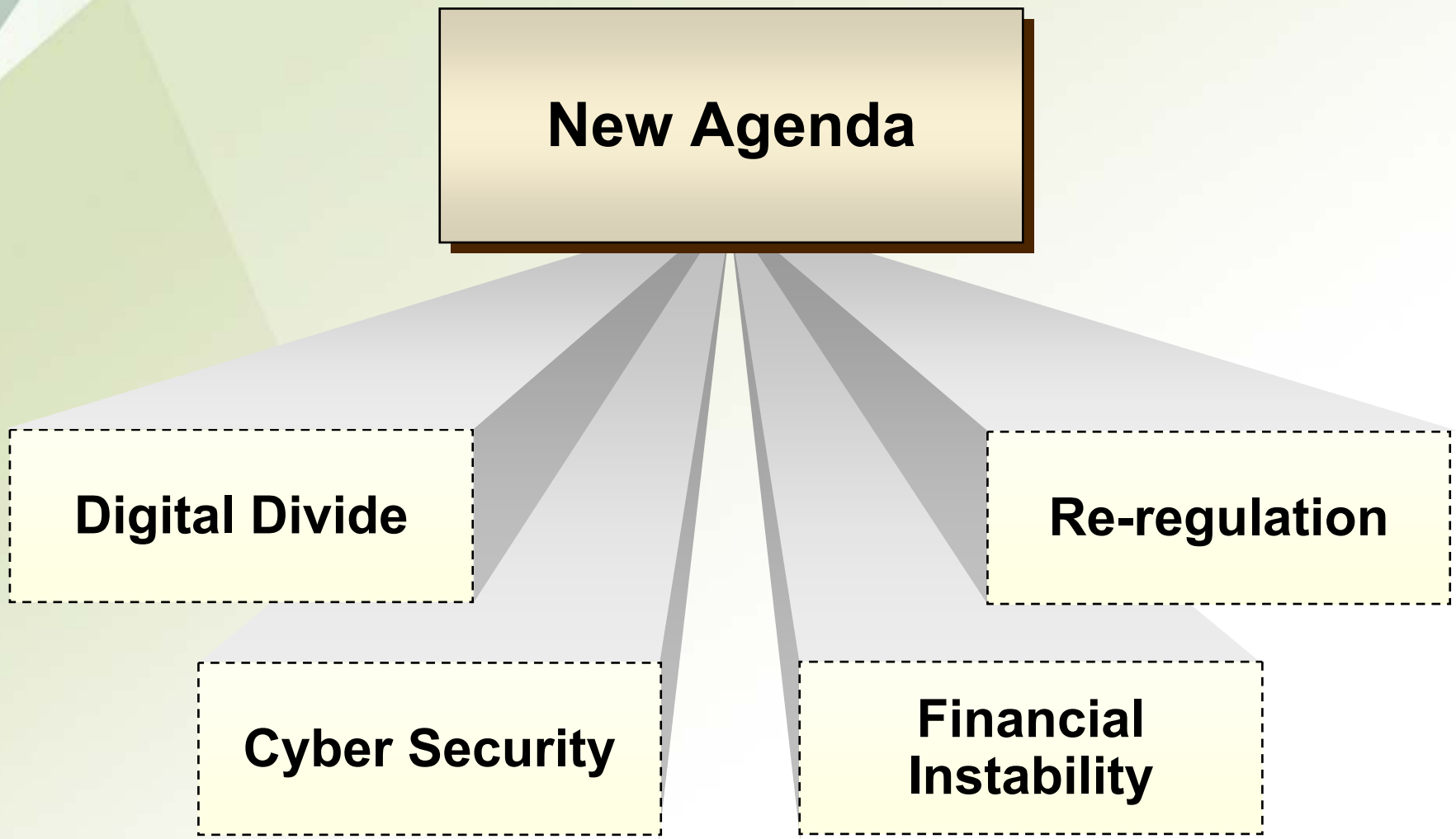
Challenges

- Needs to Adjust the Interest of Service Operators and Equipment Manufacturers
- Compromise between Two Policy Objectives

Remedy

- Reduce the Informatisation Contribution Collected from Telecom Operators
- Fortifying the KCC's Independence

Need More Work?



Re-regulating Dominant Player

Challenges

- Market Dominance is No Longer a Simple Matter
- Asymmetric Regulation is Still Necessary for Effective Competition
- But Adverse Dynamic Effect on Investment and New Service Undertaking

Remedy

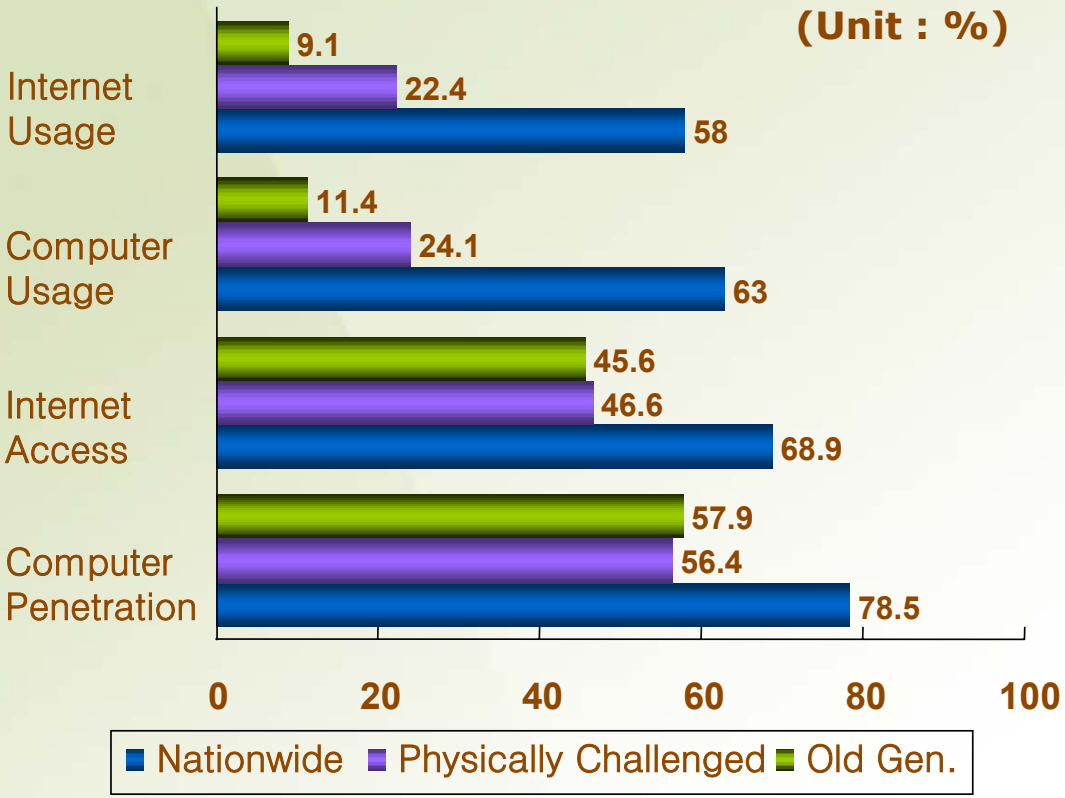
- Implement Traditional Method Such As Regulation on Tariff, Interconnection
- Set Measures Against Anti-Competitive Behavior Such as Bundling, Cross-Subsidy
- Flexibility Based on Market Competitiveness rather than a Uniform Rule

Facility-Based Competition First!

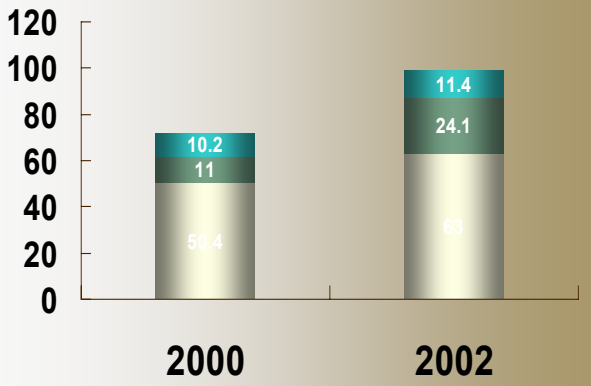
- **First Stage**
  : Facility-Based Competition Provides Proper Incentive to for Network Build-out.

- **Second Stage**
  : Service-Based Competition Encourages Service and Process Innovation

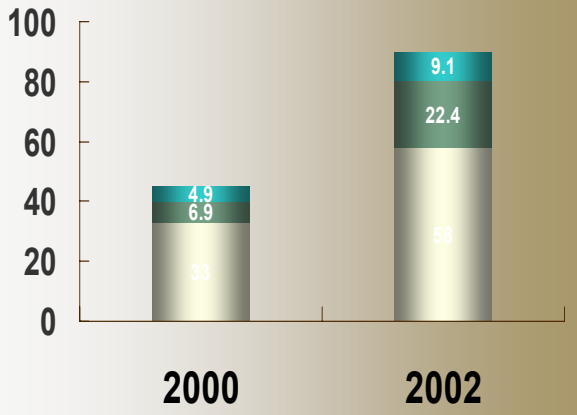
Digital divide



Computer Usage Rate(%)



Internet Usage Rate(%)



Internet Security

Virus Disturbances

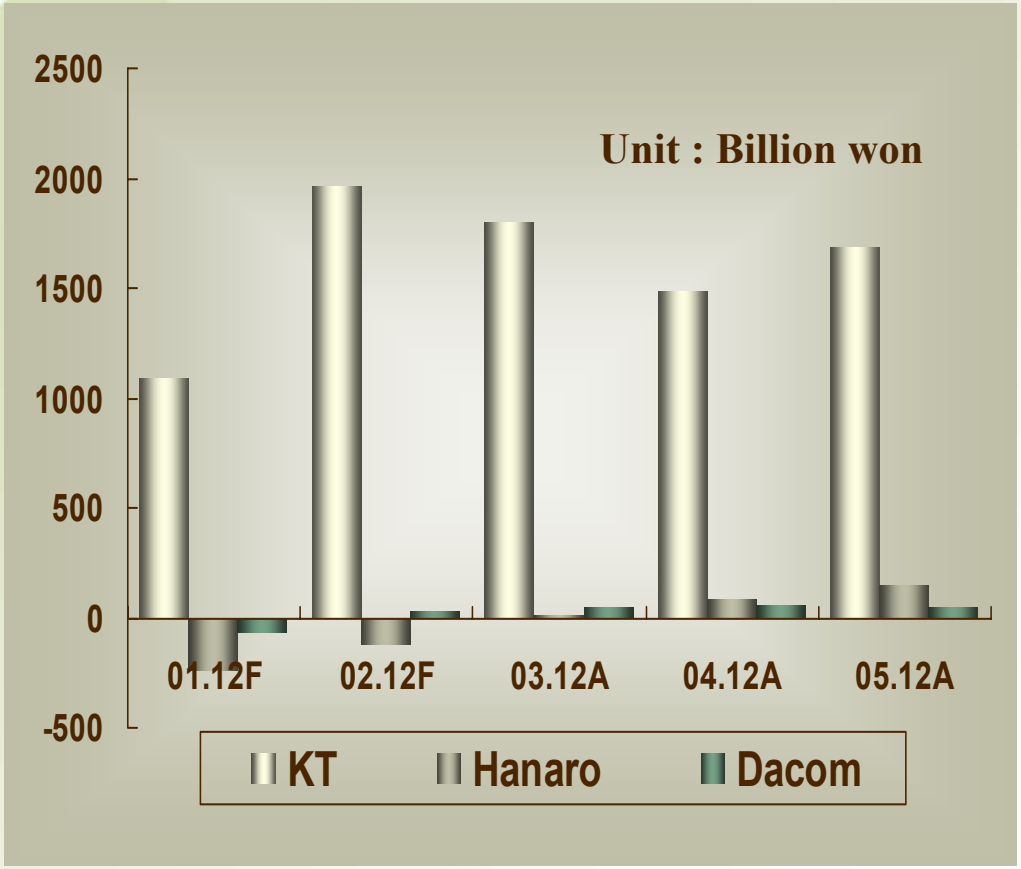
•2001(194), 2002(232)

Date	Content
2000.5	Love Virus Disturbance
2001.7	Code Red Virus Disturbance
2001.9	Nimda Virus Disturbance
2002.10	Various Mutated Virus Disturbance
2003. 1.25	A Slammer Worm Disturbance

• 2002

Hacking has broken out 15,192 times in Korea

Financial Instability



Appearance of New Broadband Services

- 2.3 GHz Wireless Internet
- 2.4 GHz Wireless LAN
- Beginning of VDSL Service

IV. Lessons

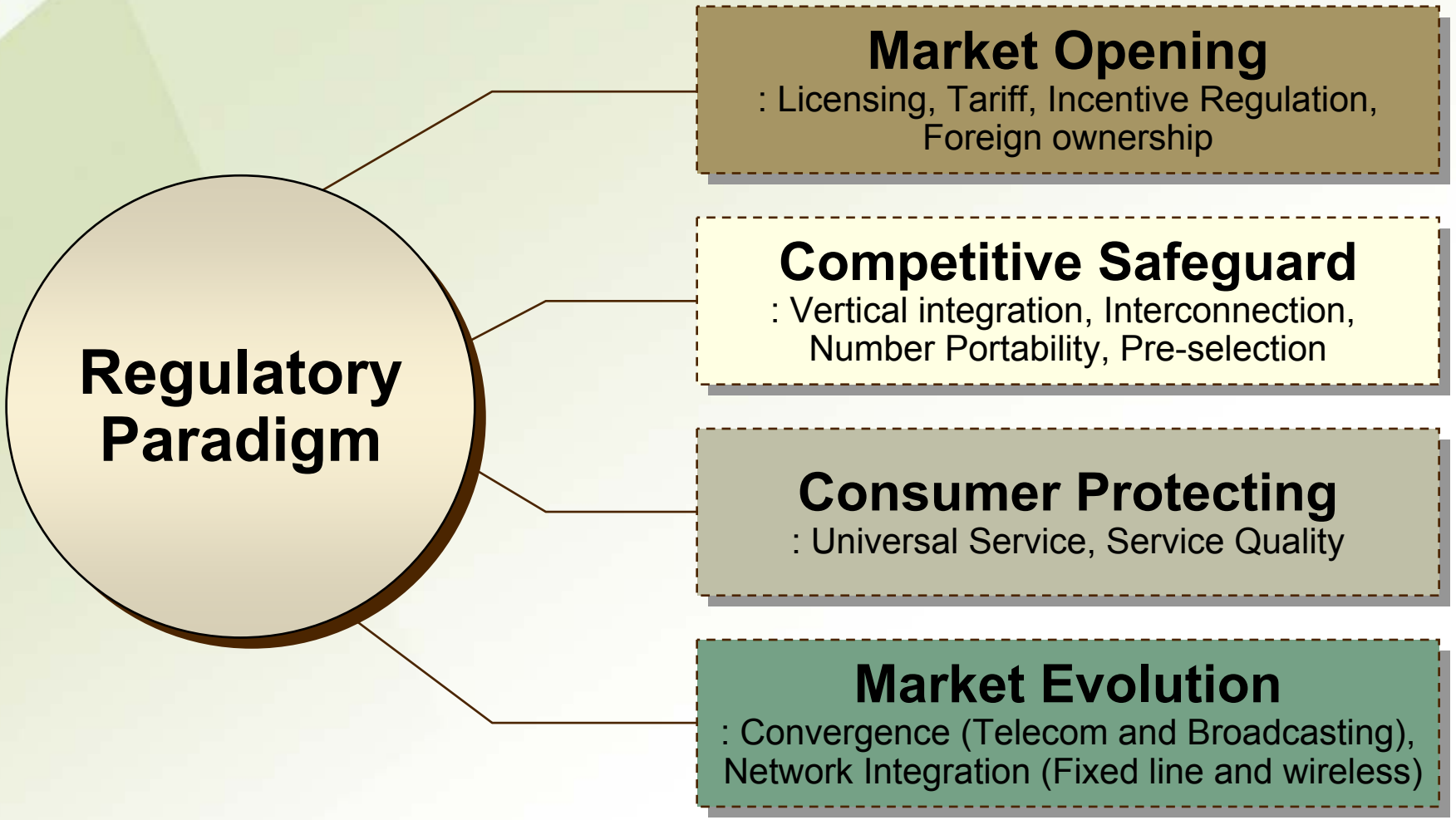
Lessons

- Textbook Approach
- Facility-based competition
- Pursuing the Global standards

- Concrete Competitive Safeguards
- Responds to environmental changes

V. Summary

The Recap


Regulatory Paradigm
Market Opening
: Licensing, Tariff, Incentive Regulation, Foreign ownership
Competitive Safeguard
: Vertical integration, Interconnection, Number Portability, Pre-selection
Consumer Protecting
: Universal Service, Service Quality
Market Evolution
: Convergence (Telecom and Broadcasting), Network Integration (Fixed line and wireless)

The Recap

- Regulatory Framework is based on Economic Principles
- Telecommunication market aims Efficiency and Progress

Global Cooperation

Information Sharing is Essential
Benefit from Global Standard Should Diffuse

Initiate and Vitalize Perspective Building Discussion
Form Consensus for Future Directive among Nations

Utilize International Fora
: WTO, OECD, ITU, APEC, and CJK

SEMINAR ON COMPETITION AND REGULATION IN THE TELECOMMUNICATIONS SECTOR

THEME:

ASYMMETRIC REGULATION: THE CASE OF TELMEX.

1. Asymmetric Regulation Concept:

   Long run considerations were taken into account when modifying it in 1990, and foresaw the complete period of the concession.

   Disparity in the regulation that applies to Telmex regarding its competitors in the rendering of telecommunications services is what is commonly referred to as “asymmetric regulation”.

TELMEX

… Asymmetric Regulation

Has not been defined as such in the literature in our country nor has it been defined in telecommunications regulation.

Symmetric, according to the dictionary of the “Royal Spanish Academy” means *“adecuate proportion among the parts of a whole and with the whole itself”*

Asymmetric is “all that does not keep symmetry”.

The textual meaning of asymmetric regulation is: regulation that DOES NOT establish proportion among its parts and among said parts and their totality.

TELMEX

… Asymmetric Regulation

Normally asymmetric regulation refers to tariffs, quality of service, coverage and information delivery.

By regulation we should understand not only that contained in the Concession Title of Telmex; but also that contained in the Titles of its competitors.

TELMEX

… The Case of Telmex

2. Asymmetric Regulation in telecommunications*; The Case of Telmex:*

Telmex´s Concession Title changed in 1990, it was divided in 8 chapters which contain 81 conditions for the rendering of public services under the concession.

Principal differences between Telmex´s Concession and concessions granted to its competitors:

TELMEX

	TELMEX	OTHER OPERATORS OF LOCAL AND LONG DISTANCE CALLS
I.	**COVERAGE**	
3-1	**Universal Service Objective.** Achieve in the shortest possible period access to basic telephone service either in public phone booth or home service.	Not indicated in their Concession Title
3-2	**Expansion and Modernization Programs.** Publication of the Annual Expansion Plan	The are not obliged to do this.
3-4	**Rural Telephone Networks**. The obligation to arrange every four years with the Ministry rural telephonic expansion programs; such authority will formulate the criteria for the programs.	Not indicated in their Concession Title.
3-5	**Public Phone Booths.** Periodically consult with the Ministry the criteria to determine the program of installation/ Program "Put your line to work"	Not indicated in their Concession Title.

5

TELMEX

II.	**TARRIFS**	
6-1	**Tariff regulation for basic public telephone services**. Commercial exploitation of basic public telephone services that Telmex provides through a public concessioned network, will be carried out according to tariff controls authorized by the Ministry (Basket of basic goods)	Not indicated in their Concession Title. Their tariffs are only registered.
6-2	**Tariff Criteria**. Long Run Incremental Average Costs. Fixing the initial level of the basket and the adjustment factor "X"	Not indicated in their Concession Title.
6-3	**Price Cap System**. Apply a maximum limit to the weighted average tariff of a basket of basic controlled services.	Not indicated in their Concession Title.
6-9	**Rural Telephone Tariffs**. They are subject to changes according to basic telephone tariffs.	Not indicated in their Concession Title.
6-10	**Tariffs for Public Phone Booths**. Local and long distance calls tariffs are subject to the basic telephone tariffs.	Not indicated in their Concession Title.
6-14	**Publication of Tariffs**. Telmex will elaborate a book of current tariffs for the general public´s consultation and will publish the main current tariffs for public services of basic telephony in the Federal Government's official daily register and the two most important newspapers in the country.	Not indicated.

6

TELMEX

III.	QUALITY OF SERVICE	
4-6	**Measuring equipment and quality control**. It is compulsory to allow the Ministry to review and inspect the manner in which measuring equipment is used and Telmex will allow tests in order to evaluate precision, reliability and compliance with laws.	Undertake by themselves tests on their equipment and provide at the request of the authority the results of said tests every three months of the calendar year. Also provide documents that show that adjustments have been carried out.
4-7	**Service Interruption**. Must be repaired 72 hours after being reported even if the suspension is the result of an act of God or fortuitous circumstances.	No obligation is required in cases of acts of God or fortuitous circumstances.
4-8	**Emergency Services**. Such a plan will be revised annually.	No review periods are indicated.

7

TELMEX

IV.	INFORMATION	
4-4	**Phone Directory**. Obligation to publish and annually distribute for free a telephone directory among its users.	Not indicated in their Concession Title.
4-9	**Commercial practices code**. Will be reviewed every three years.	Only an extract of it will be published in one of the mayor newspapers of national circulation when the Ministry requires it.
6-6	**Study of the Incremental costs for services**. Every 4 years a study about the estimation of the incremental costs for controlled services is presented.	Not indicated in their Concession Title.

8

TELMEX

V.	INTERCONNECTION	
5-3	**Interconnection capacity and quality**. Install enough capacity to satisfy the interconnection services demand.	They are not pointed out in their Concession Title.
5-4	**Interconnection with long distance public networks**. Since January 1997 the Ministry authorized Telmex to interconnect with other long distance public networks in such a way that users could choose through which basic network the traffic would be dealt with.	They are not pointed out in their Concession Title.
5-6	**Open network architecture**. It´s obligatory to apply the criteria of open network architecture design so other networks can interconnect; facilities and functionalities of the network should be included.	They are not pointed out in their Concession Title.

9

TELMEX

VI.	ECONOMIC COMPETITION	
2-10	**Prohibit Monopoly Practices.** Monopoly practices that prevent equitable competition with other enterprises are forbidden.	Not indicated in their Concession Title.
4-2	**Prohibit discriminatory treatment**. It is forbidden to establish privileges or distinctions in favor or against enterprises or legal persons in a discriminatory manner.	Not indicated in their Concession Title.
4-12	**Prohibit tied sales**. A user cannot be obliged to acquire other goods, values or services as a condition to provide the required service.	Not indicated in their Concession Title.
4-13	**Exclusive Dealings**. Telmex cannot condition its purchase of material, equipment or services in general to the suppliers' promise to sell such goods or services exclusively to Telmex.	Not Indicated in their Concession Title.

10

TELMEX

VII.	SANCTIONS	
8-3	The Concession Title establishes causes for the expiration the Concession.	They are not pointed out in their Concession Title.
8-4	The Concession Title establishes the reduction of the Concession's scope by region or service if Telmex commits a monopolistic practice in any service rendered.	If in one or more cities coverage commitments fail or quality conditions or any other obligation established in the Concession, its authorization to render services in those cities can be revoked.
8-7	**Conventional Penalties**. Telmex is obliged to pay conventional penalties for non compliance of certain conditions in its Concession.	Not indicated in their Concession Title.

TELMEX

… the Case of Telmex

Conditions of Telmex´s Concession Title described under index IV means that Telmex is subject to double and triple regulations for the same type of conducts.

Prohibited Practices:

- Discriminatory.
- Monopolistic.
- Tied Sales.
- Exclusive dealings.

TELMEX

… the Case of Telmex

Telmex has an asymmetric regulation due to its concession title which establishes greater tariff, coverage and information delivery obligations

3. Telmex´s Situation:

The asymmetric regulation that applies to Telmex is more than enough for:

- A healthy competition.
- Transfering benefits of competition to consumers.
- Preventing anticompetitive practices.

TELMEX

…The Case of Telmex

The determination of substantial market power that this entails and consequent obligations, would only harm Telmex and provide a benefit for its competitors without achieving the objectives of better prices, greater coverage, quality and diversity in services.

Regulation should benefit competition, not competitors.

If the objective or result of asymmetric regulation is to benefit service competitors and not consumers, regulation objectives as objectives of any competition laws would be seriously truncated.

TELMEX

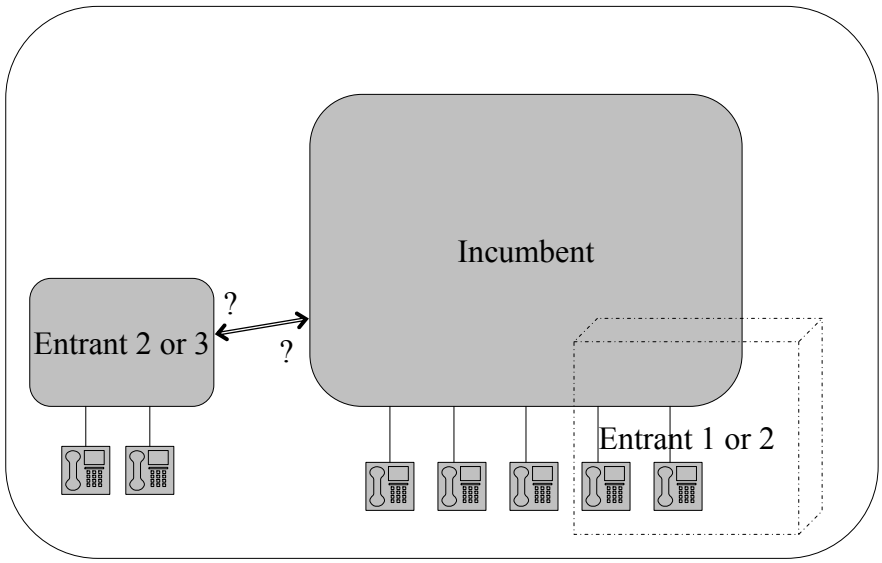
Competition Policy and the Problem of Interconnection: Some Experience from the U.S.

W. Robert Majure
George A. Rozanski
U.S. Department of Justice

The 1996 Telecommunications Act: Modes of Competition for Local Services

1. *Resellers* obtain local-exchange service at wholesale price (retail price less avoidable costs of retailing)
2. *Entrants use unbundled elements* (in part or in whole), leased at a price equal to incumbent's long-run incremental cost
3. *Facilities-based entrants* use their own facilities, interconnect with incumbent

Local Interconnection

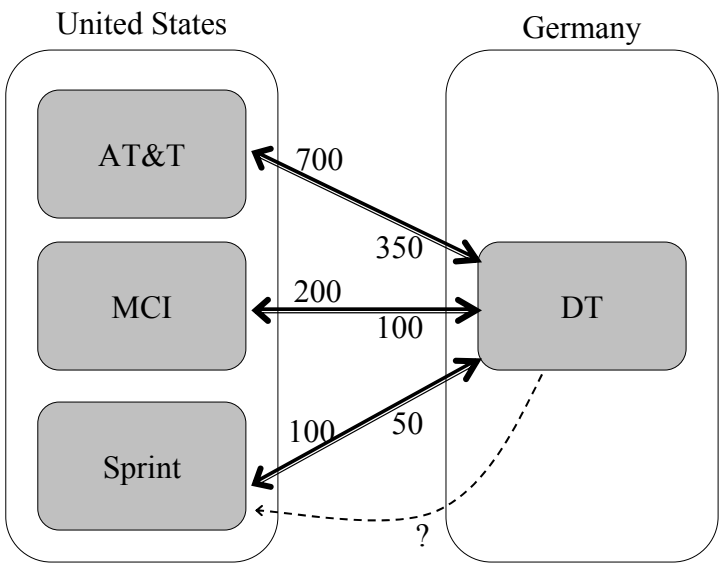


Interconnection Rules Matter

To minimize regulatory costs, we need a regime that is:

1. Not so sensitive to errors
2. Robust to structural changes
3. Not regulation at all ?

International Interconnection

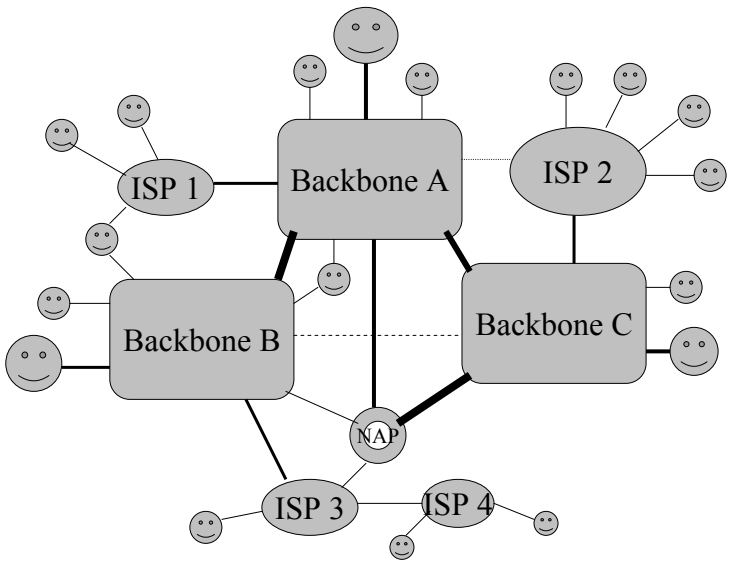


Concerns about Effects on Competition

- Disadvantage U.S. competitors by providing higher-quality interconnection (or refuse to connect at all)
- Misuse competitively sensitive information
- Circumvent reciprocal pricing mechanism by returning disproportionate share of traffic to partner (or shifting costs onto rivals)

- Regulatory benefits can be very sensitive to structural changes

Internet Interconnection



Concerns about Effects on Competition

- Increased price for connectivity
  - Anticompetitive agreement
  - Unilateral price increase by a dominant firm
- "Dominant" firm would adopt a strategy of high price/low quality interconnection, to try to tip market to monopoly
- "Dominant" firm would refuse to support interconnection standards for new services, to try to tip market to monopoly

- What is a "dominant" firm? What structural changes are significant?

COMISIÓN FEDERAL DE COMPETENCIA

Seminar on Regulation and Competition in the Telecommunication Sector

ALTERNATIVES FOR TELECOMMUNICATIONS REGULATION IN MEXICO

Javier Lozano

Septiember 12th 2003

STRUCTURAL CHANGE

- 1988 – 1994
  - Privatization of state-owned enterprises.
  - Financial Sector Reform.
  - Ammendment to article 27 of the Constitution.
  - Central Bank Autonomy.
  - Creation → Federal Electoral Institute; Human Rights Commission; Federal Competition Commission
  - North America Free Trade Agreement

THE STRUCTURAL CHANGE

- 1990: Telmex privatization.
- Until 1988, most of the public services were regulated and administrated by the Goverment.
- Telecommunications were regulated by the General Communications Law (enacted on 1940):
  - Concessions granted for service.
  - Discretional granting of spectrum frequencies.

TELMEX PRIVATIZATION FRAMEWORK

PHILOSOPHY:

1. Redefinition of the role of the State.
2. Realignment of public expenses.
3. Competition Openness

PREPARATION:

•CONCESSION TITLE:

–Develop efficiently the telephone public network of the country
–Improve service quality
–Healthy Competition Basis
–Allow interconnection with new networks
–Suppress cross subsisdies

•CONCESSION TITLE:

- It functions as a public law contract and cannot be modifed unilaterally by the Government.
- First asymmetric regulation on the telecommunications field.

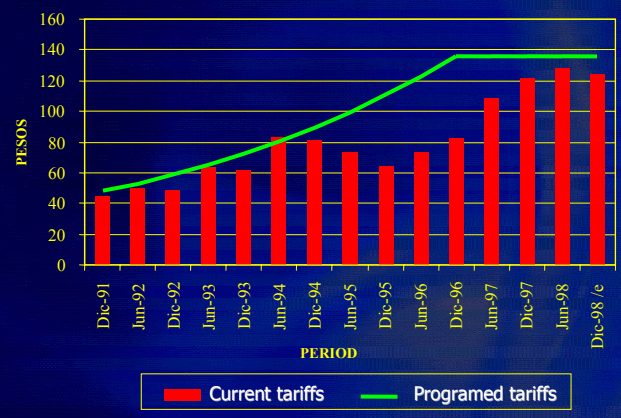
- TELECOMMUNICATIONS REGULATION:
  - Regulates telecommunications networks.
  - The Regulatory domain and content are not enough for opening to competition.

TARIFF RE-BALANCING

- Concession title of TELMEX established 6 years of exclusivity in long distance calls for:
  1. Tariff Re-balancing
  2. Cross subsidies supression
- Gradual process interrupted by the 1995 crisis.
- As a result, high interconnection tariffs prevailed at the begining of the opening process.

BASIC MONTHLY RESIDENTIAL FEE

Current tariffs in real terms vs. Programed tariffs
(Index: August 2000 = 100)



Source: Cofetel

PUBLIC LONG-DISTANCE NETWORK INTERCONNECTION PLAN

- July 1st 1994: Resolution regarding the interconnection Plan:
  - Services quality and competitive prices.
  - Free selection of long distance operators.
  - Non-discriminatory, cost-based interconnection tariff.

NEW LEGISLATION

- Ammendment to Article 28 of the Constituttion to permit private investment on satellites and railways (March, 1995).

- Enactment of the Federal Telecommunications Law (June, de 1995):

  - Competition in all services.
  - Spectrum allocation through public biddings.
  - Foreing investment limited to the 49%, except for mobile telephony.
  - Provisions about the creation of the Federal Telecommunication Commission (COFETEL).

Federal Telecommunications Law

Introduction of the Public Telecommunication Network Figure

Convergence between service and technology

- Public Networks that do not use spectrum are not required to make payments to the state.

- Value added services are only requiered to register.

DIVERSE PROVISIONS OF GENERAL CHARACTER

- Long Distance Service Rules.
- International Long Distance Rules.
- Public Telephony Service Regulations.
- Satellite Communication Regulations.
- Local Service Rules.
- Restricted Television and Audio Regulations.
- Signaling and Numbering Fundamental Plans.
- Introduction of "who calls pays" mode on mobile telephony.

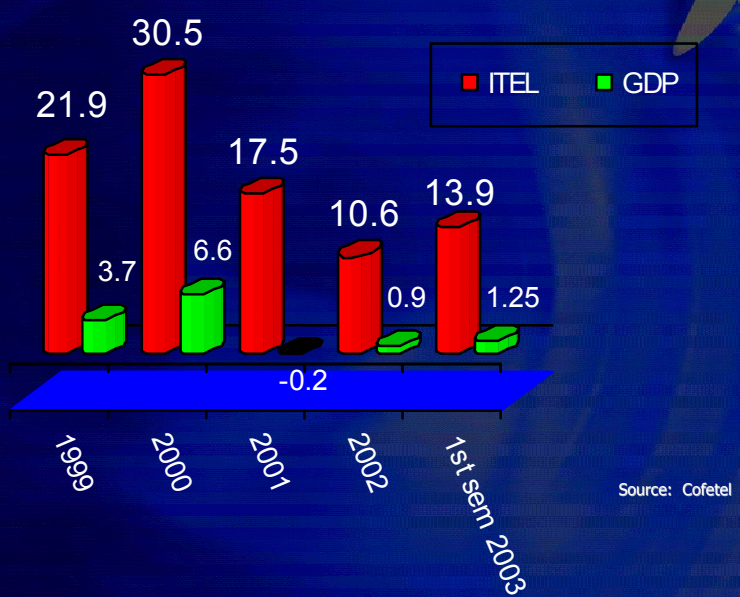
- August 1996: Federal Telecommunications Commission creation :
  - Technical and operative Autonomy
  - Deconcentrated body of the Communication Ministry.
  - Free appointment and removal of Commissioners.
- January 1997: Openning to competition in long distance telephony.
- April 1997:

WTO COMMITMENTS = FTL CONTENT

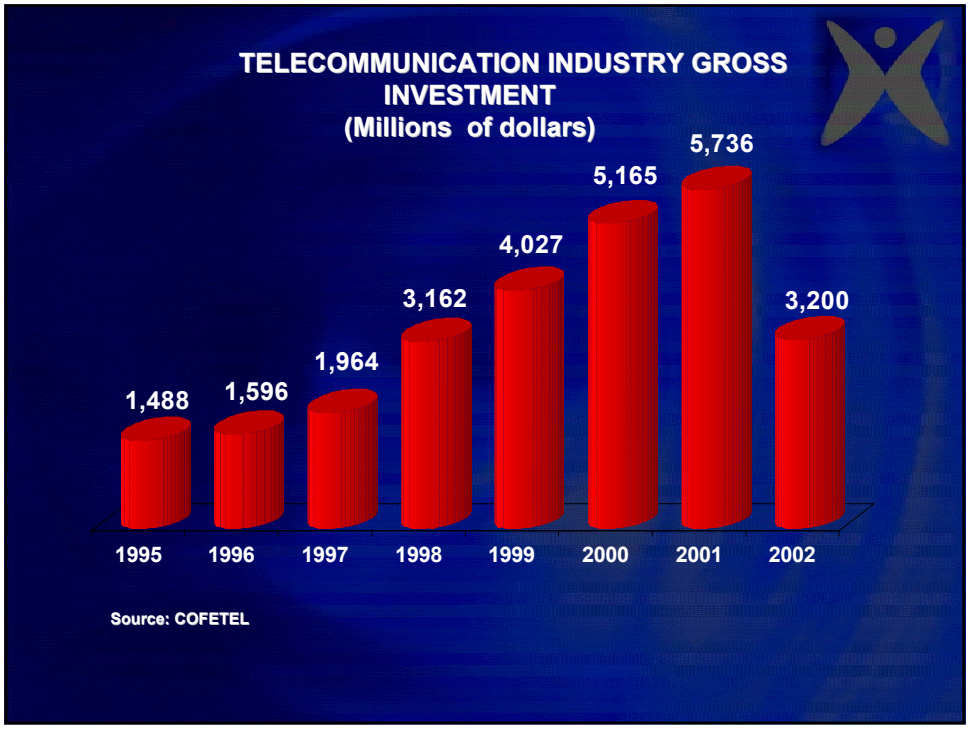
OUTCOMES OF THE SECTOR OPENNING TO COMPETITION

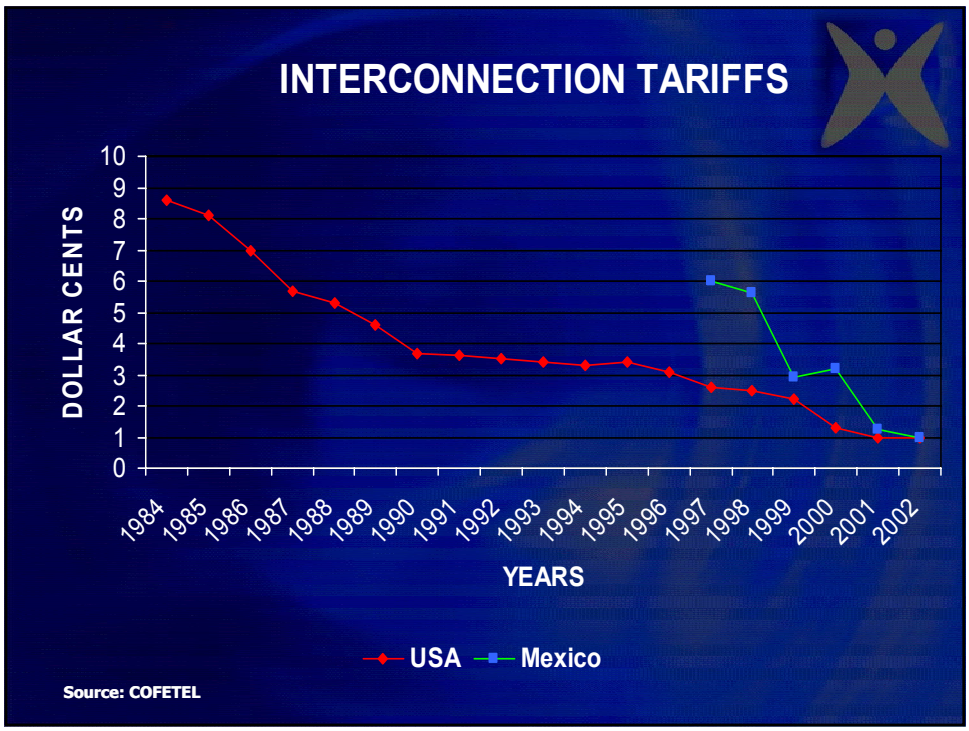
- Increase of market participants.
- Openning in:
  - Local telephony
  - Long Distance
  - Mobile Telephony
  - Trunking
  - Payed TV
    - Satellite
    - Cable
    - MMDS

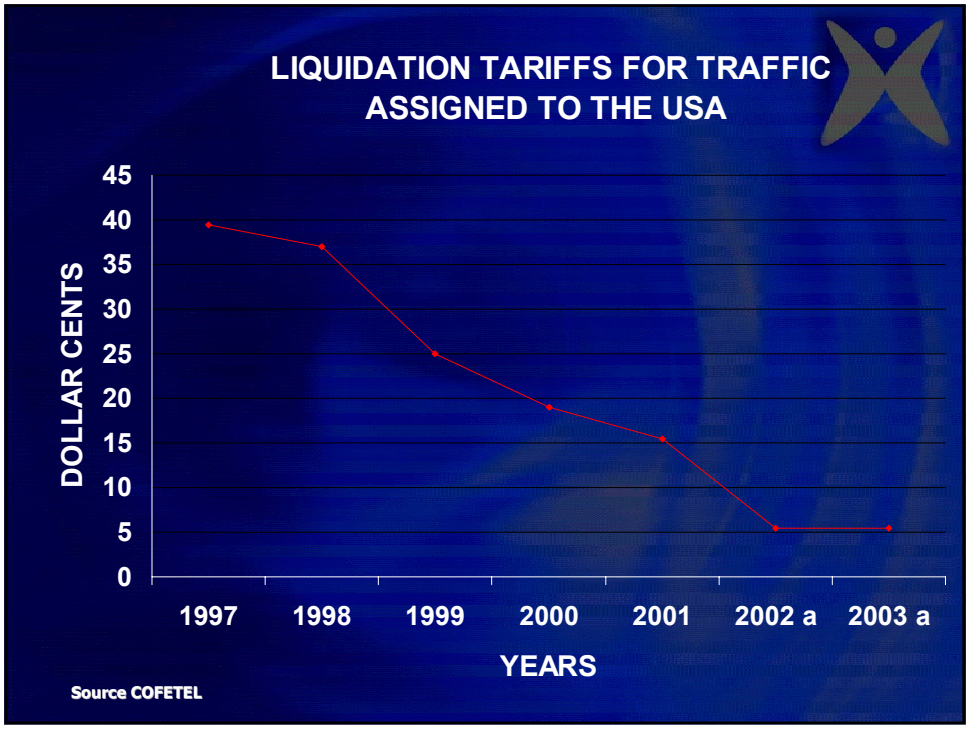
TELECOM SECTOR PRODUCTIVITY INDEX

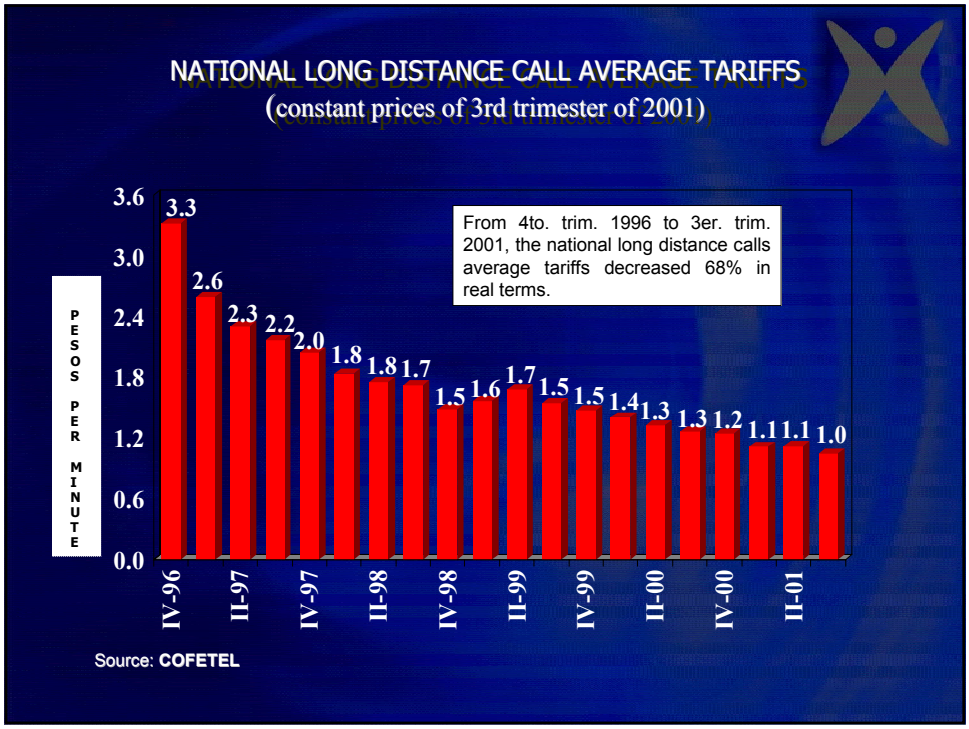


Source: Cofetel

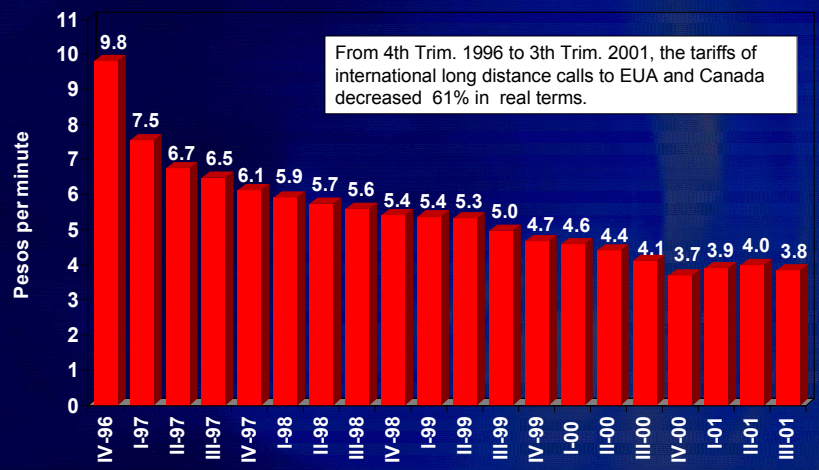

TELECOMMUNICATION INDUSTRY GROSS INVESTMENT
(Millions of dollars)
1,488
1,596
1,964
3,162
4,027
5,165
5,736
3,200
1995
1996
1997
1998
1999
2000
2001
2002
Source: COFETEL


INTERCONNECTION TARIFFS
DOLLAR CENTS
10
9
8
7
6
5
4
3
2
1
0
1984
1985
1986
1987
1988
1989
1990
1991
1992
1993
1994
1995
1996
1997
1998
1999
2000
2001
2002
YEARS
USA
Mexico
Source: COFETEL


LIQUIDATION TARIFFS FOR TRAFFIC ASSIGNED TO THE USA
DOLLAR CENTS
45
40
35
30
25
20
15
10
5
0
1997
1998
1999
2000
2001
2002 a
2003 a
YEARS
Source COFETEL

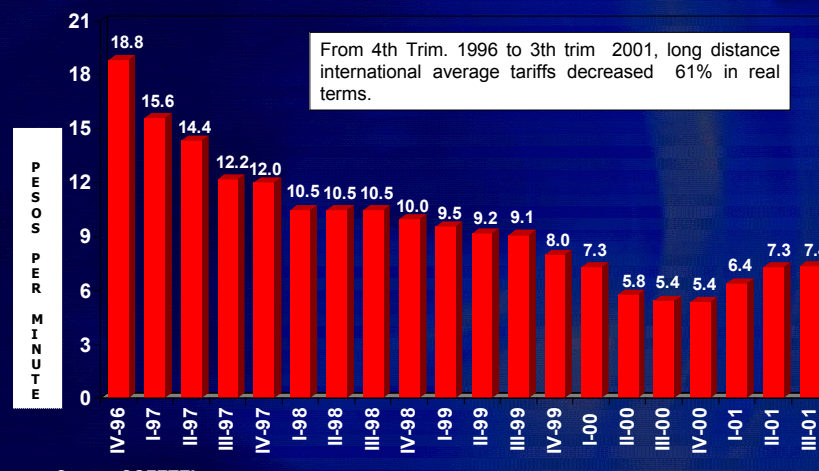

NATIONAL LONG DISTANCE CALL AVERAGE TARIFFS
(constant prices of 3rd trimester of 2001)
PESOS PER MINUTE
3.6
3.0
2.4
1.8
1.2
0.6
0.0
3.3
2.6
2.3
2.2
2.0
1.8
1.8
1.7
1.5
1.6
1.7
1.5
1.5
1.4
1.3
1.3
1.2
1.1
1.1
1.0
IV-96
II-97
IV-97
II-98
IV-98
II-99
IV-99
II-00
IV-00
II-01
From 4to. trim. 1996 to 3er. trim. 2001, the national long distance calls average tariffs decreased 68% in real terms.
Source: COFETEL

AVERAGE INTERNATIONAL LONG DISTANCE CALLS TARIFFS TO USA AND CANADA
(constant prices of 3rd Trimester 2001)

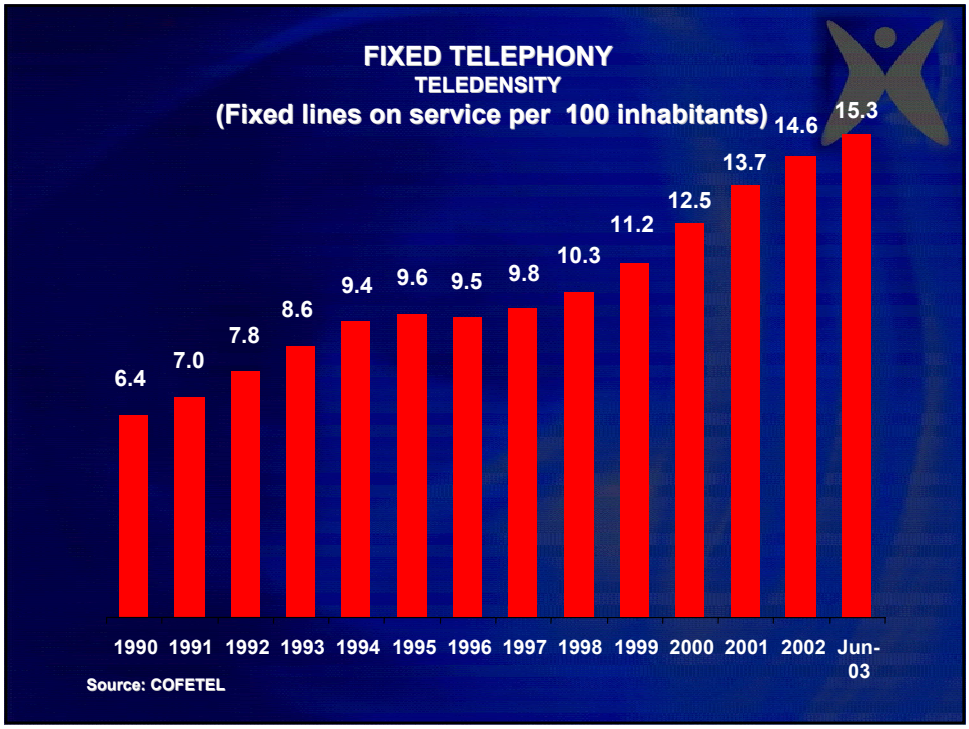


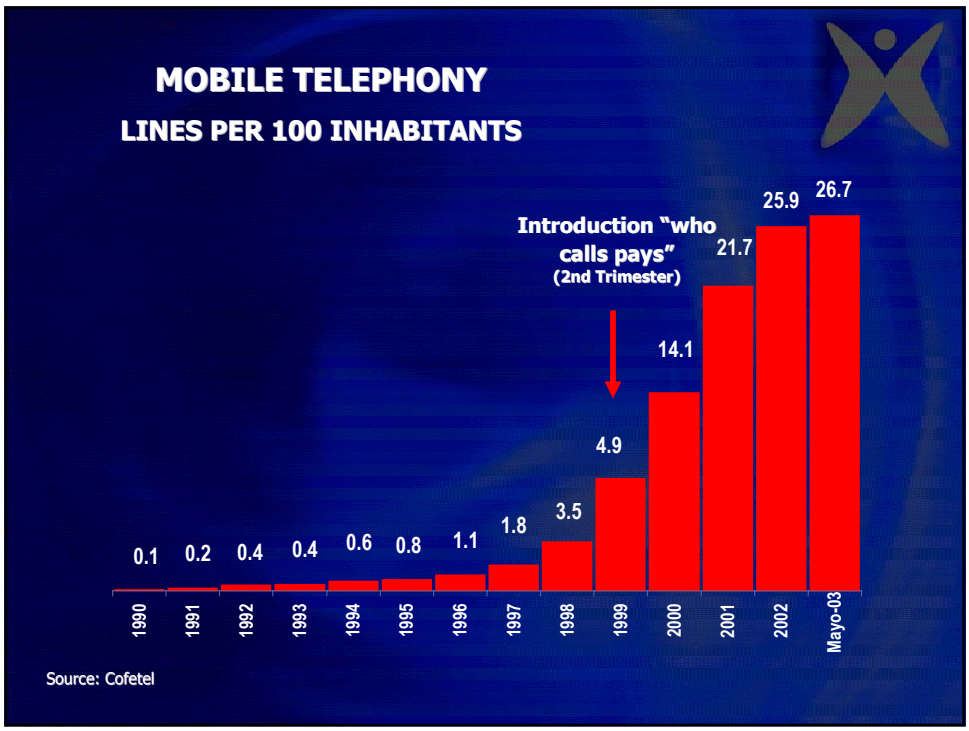
Source: **COFETEL**,

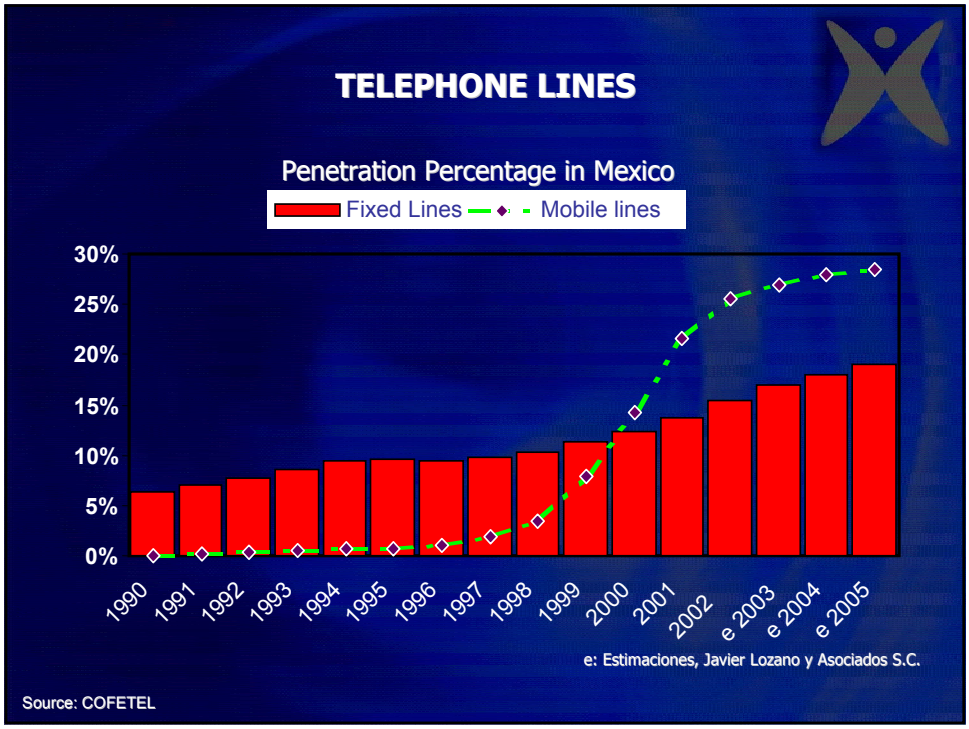
INTERNATIONAL LONG DISTANCE AVERAGE TARIFFS TO THE REST OF THE WORLD (constant prices for 3rd Trimestre of 2001)

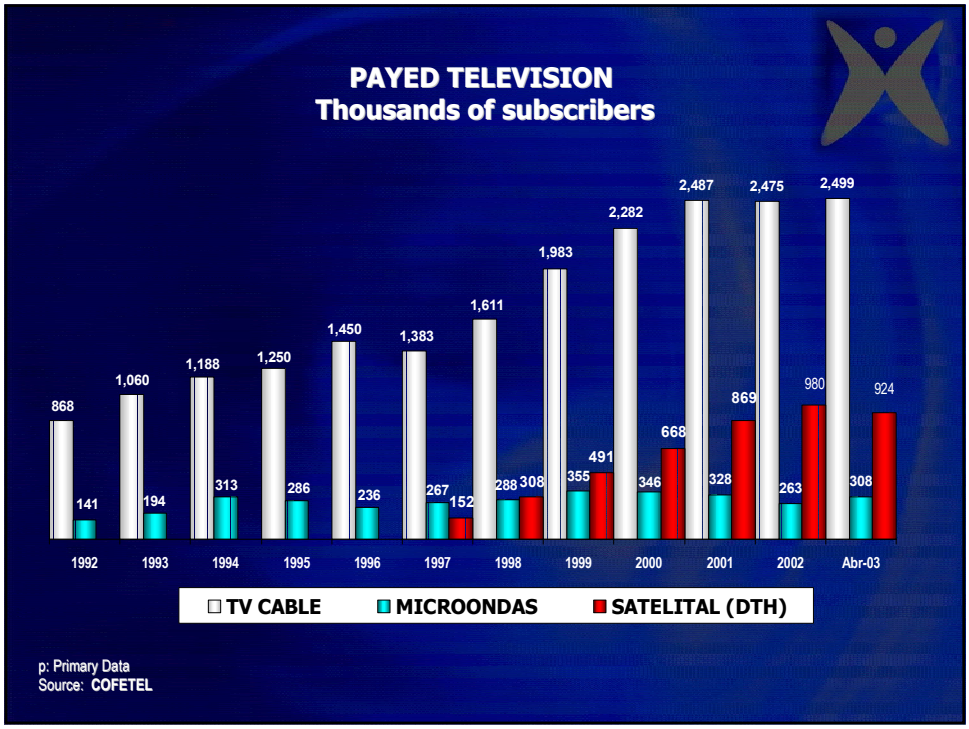


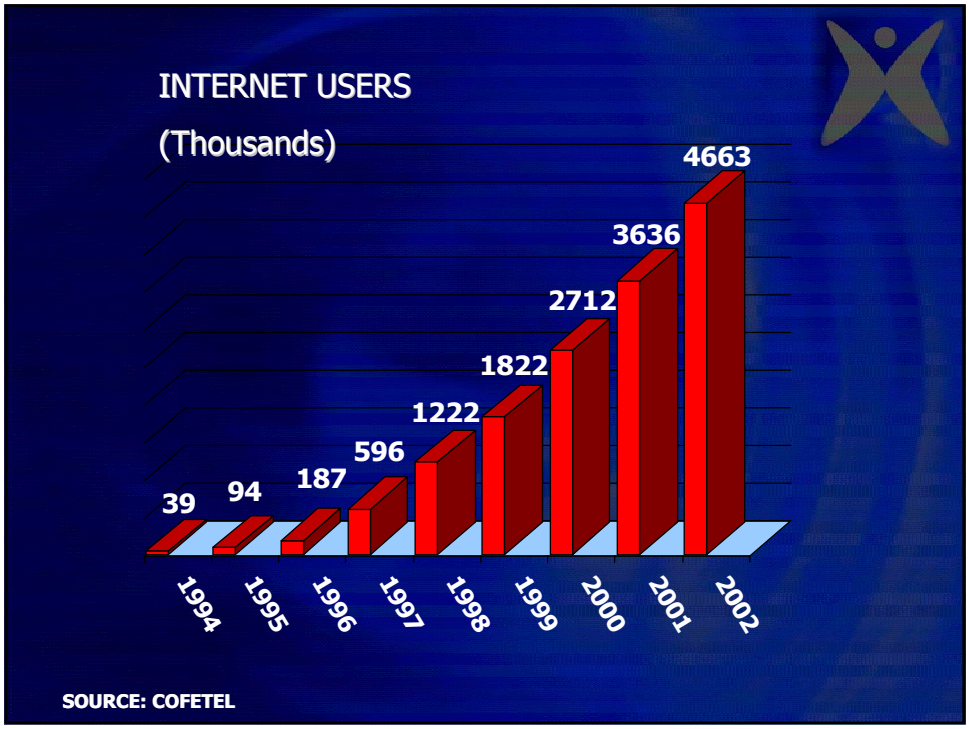
Source: **COFETEL**

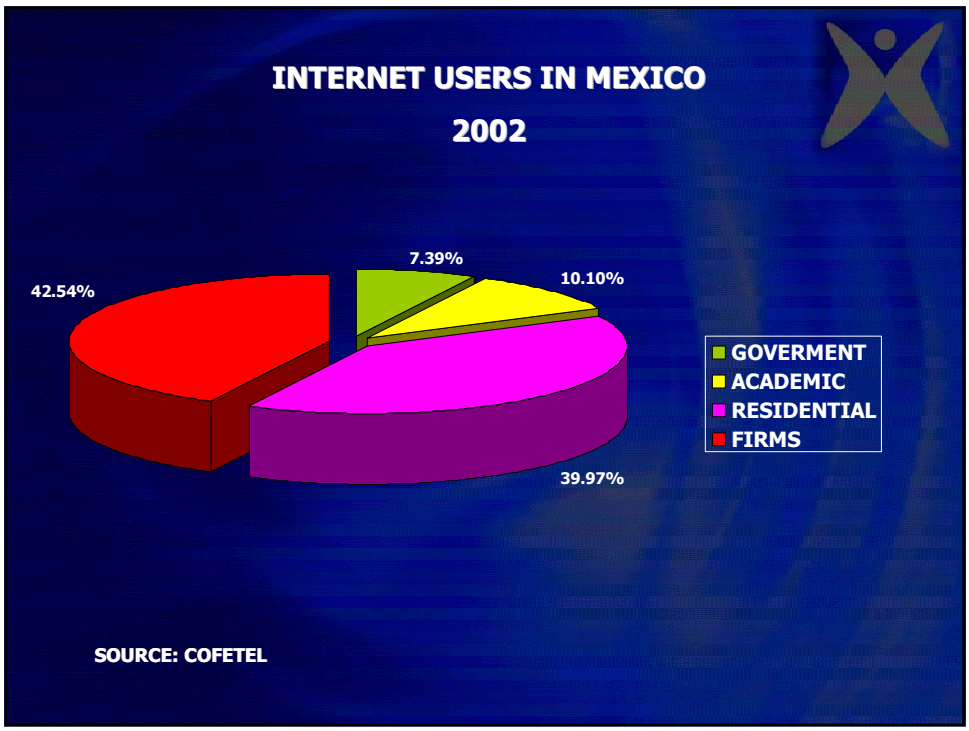

FIXED TELEPHONY
TELEDENSITY
(Fixed lines on service per 100 inhabitants)
6.4
7.0
7.8
8.6
9.4
9.6
9.5
9.8
10.3
11.2
12.5
13.7
14.6
15.3
1990 1991 1992 1993 1994 1995 1996 1997 1998 1999 2000 2001 2002 Jun-03
Source: COFETEL


MOBILE TELEPHONY
LINES PER 100 INHABITANTS
Introduction "who calls pays"
(2nd Trimester)
0.1
0.2
0.4
0.4
0.6
0.8
1.1
1.8
3.5
4.9
14.1
21.7
25.9
26.7
1990 1991 1992 1993 1994 1995 1996 1997 1998 1999 2000 2001 2002 Mayo-03
Source: Cofetel


TELEPHONE LINES
Penetration Percentage in Mexico
Fixed Lines
Mobile lines
30%
25%
20%
15%
10%
5%
0%
1990
1991
1992
1993
1994
1995
1996
1997
1998
1999
2000
2001
2002
e 2003
e 2004
e 2005
e: Estimaciones, Javier Lozano y Asociados S.C.
Source: COFETEL


PAYED TELEVISION
Thousands of subscribers
868
141
1,060
194
1,188
313
1,250
286
1,450
236
1,383
267
152
1,611
288
308
1,983
355
491
2,282
346
668
2,487
328
869
2,475
263
980
2,499
308
924
1992
1993
1994
1995
1996
1997
1998
1999
2000
2001
2002
Abr-03
TV CABLE
MICROONDAS
SATELITAL (DTH)
p: Primary Data
Source: COFETEL


INTERNET USERS
(Thousands)
39
94
187
596
1222
1822
2712
3636
4663
1994
1995
1996
1997
1998
1999
2000
2001
2002
SOURCE: COFETEL


INTERNET USERS IN MEXICO
2002
7.39%
10.10%
42.54%
39.97%
GOVERMENT
ACADEMIC
RESIDENTIAL
FIRMS
SOURCE: COFETEL

SECTORAL DEVELOPMENT PLAN 2001 - 2006

- Principal Action Principles:
  1. Impel the coverage and penetration of telephony (universal access).
  2. Competition.
  3. Technological Convergence.
- Commitments:
  - Cofetel strengthening
  - Foreign investment promotion
  - Teledensity growth
  - LFT Reforms
  - Promote legal reforms to access information society

SECTOR DEVELOPMENT PLAN 2001 - 2006

Service	Sector Program goals 2006	Cofetel Outcomes (2nd trim. 2003)
Teledensity	25	14.6
Percentage of households with telephone	52.6	36.22[1]
Mobile telephony Lines per 100 inhabitants	29	27.3
Trunking (thousands of consumers)	583	681
Paging (thousands of consumers)	Not foreseen	209
Internet users (thousands)	10,000	4,663[2]
Restricted TV (thousands of subscribers)	6,164	3,721

Source: Cofetel, Development Sectoral Plan 2001-2006

SECTOR PLAN

- **COMPETITION OPENNESS IN SATELLITE SERVICES**
  - ✓ **Tariff reduction**
  - ✓ **More options**
- **e-Mexico**

THE ABSURD

1. Three years gone waiting for a new LFT
2. Law in force but not positive
3. Three years without spectrum public biddings
4. Creation of the IEPS (special tax on goods and services)
5. Number ~~mobility~~
6. ~~SMS~~
7. Discriminatory Foreign investment regime
8. There is no convergence between Radio and Television systems and telecommunication services
9. Fracturated Industry (Canieti, Anatel, etc.)
10. Five and a half years without dominance regulation

NEW VISION

- Regulation is a means and not an end in itself
- Regulation must be part of a state policy
- A state policy should:
  - Involve all actors
  - Look at the long run
- Federal Govenrment should be an actor and not an expectator of the change

Mexican Case

Challenges:

- Teledensity and teleconnectivity increase (reduce digital gap)
- Competition process consolidation :
  - To make the cake grow and do not snatch away the current cake
  - Do not tie TELMEX's hands but provide and monitor conditions of equity with its competitiors
- Foster technological development and convergence

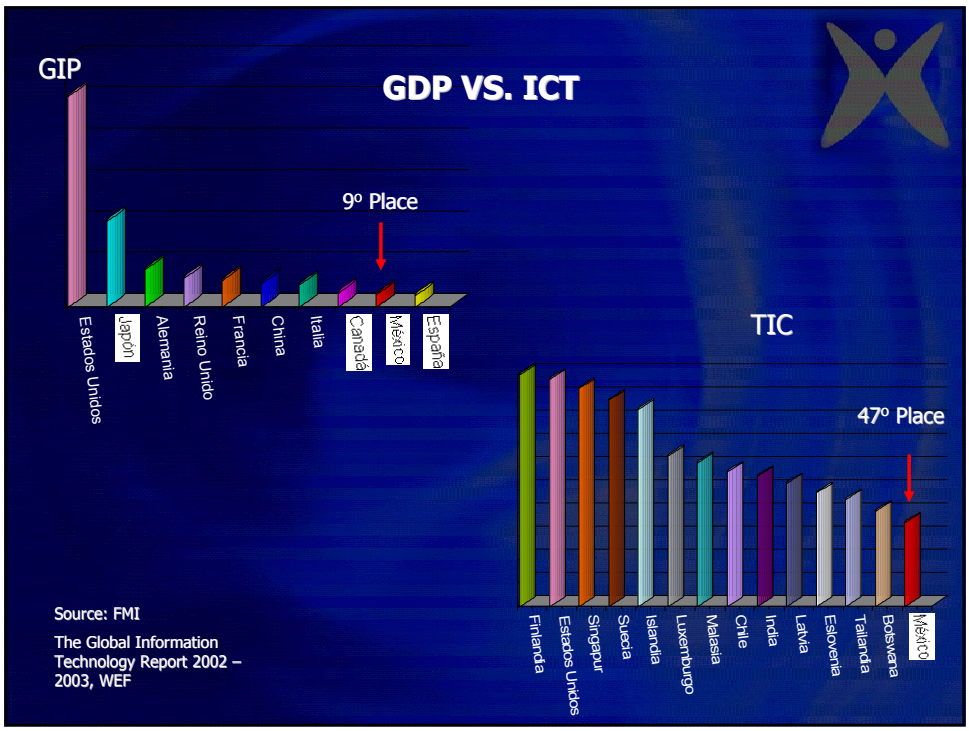
INFORMATION SOCIETY

THE DIGITAL GAP

Household Percentages availability of goods and services (2000)

	Computers	TV	Restricted TV subscribers / Households with TV	Telephone
National	9.35%	85.86%	19.8%	36.22%
Aguascalientes	13.00%	95.85%	19.70%	41.13%
Chiapas	2.83%	59.41%	6.54%	11.82%
Mexico City	21.46%	96.84%	30.81%	65.97%
San Luis Potosí	6.61%	79.26%	12.53%	25.88%

Source: COFETEL, Canitec, INEGI



Source: FMI

The Global Information Technology Report 2002 – 2003, WEF

REGULATORY PROPOSALS:

Constitution:

Recognize societys´right to information access

Laws:

- Strengthening the regulator
- Foreign Investment
- Spectrum assigment flexibility
- Accelerate convergence with TV and radio
- Relieve interconection for SMS
- Essential resources access
- Fiscal treatment Homologation
- IEPS total suppression

Regulations, Decrees and Rules

➢ **Long Distance Rules**

Suppress:

- Proportional return
- Sole liquidation tariff

Eliminate "by pass"

VOIP Telephony

Regulations, Decrees and Rules

- **Local Service Rules**
  - ✓ Broaden "who calls pays" to a national level.

- **Reactivate public biddings for the spectrum**
- **Direct spectrum assignment to social coverage programs.**
- **Social coverage fund application**

Regulations, Decrees and Rules

- Initiate number MOBILITY studies
- Revise LOCAL TARIFF squemes for a higher penetration of telephony service
- Revise with TELMEX its CONCESSION TITLE
- DEREGULATION to foster convergence
- Shape Cofetel CONSULTIVE COUNSEL
- Release the SMS conflict
- New **coordinated** procedure for DOMINANCE regulation

THE INDUSTRY

- Stand on a united front and form A SOLE INSTANCE
- Negociate unbundling and networks sharing on a good faith basis
- Battle against the IEPS and further taxes
- To set the terms for a MINUMUM BUT SUFFICIENT LEGAL REFORM

CONCLUSION

THERE IS NO WORSE DECISION…

THAN THE ONE THAT IS NOT TAKEN


JAVIER LOZANO
javierlozano@jlamx.com
www.jlamx.com
September 12th 2003

AN EARLY PHASE OF TELECOMMUNICATIONS COMPETITION IN INDONESIA

Prepared by : Mr. Moh. Iqbal
Commissioner of Indonesian Competition Commission
Email: iqbalindo@hotmail.com

Abstract

There are two key elements in the transition of the telecommunications sector from a monopoly to a competitive structure in Indonesia, i.e. the restructuring of the state-owned company and the entry of private operators. Until the mid–1990th, the Indonesian telecommunications industries was a monopoly. But, lack of telecommunication infrastructure and rapidly increasing demands for telecommunications services forced the government to reform the telecommunications industries structure.

The implementation of this reform was initiated in 1995, firstly by inviting private participations through KSO (joint co-operation) scheme for the purpose of accelerating deployment of telecommunication infrastructure (fixed wired-line network). Then, in the same year, the government issued some new licenses for regional/national wide cellular operators. Till the end of 2002, there are many crucial telecommunications business issues happened in Indonesia which shown unprecedented changes from a government monopoly to a competitive environment.

However, the process of restructuring the government monopoly operator, the structure for introduction of private operators, the license conditions and their implications for competitive shown some inconsistencies of legal, regulatory, and policy framework for telecommunications sector in Indonesia.

This paper is intended to present some keys issues of liberalization and competiton of telecommunications sectors in Indonesia that need to be resolved to strengthen and enhance the competitive process.

Economy and Sector Background

Since 1997, the impacts of crisis monetaire has changed drastically the economy in Indonesia. The GDP per capita dropped less then US$ 800 and in 2003 economic growth rate is expected 4%. But, uncertainty of politic, economic and social had influenced national development in all industries sectors. Mainly, the sectors which depends highly on foreign investments such as telecommucations industries. With population approximately 230 milions, it requires about 1 millions US dollars just to increase 0.5% of teledensity in Indonesia.

As the result, the fixed wire-line telephone penetration rate achieved only 3,8% as of Januari 2002 and the celluler penetration rate was almost 4% . The teledensity for rural area was less then 0,1%.

The country's Internet user-based started showing a siginificant growth, from one million users in 1999 compared with 7.5 millions in 2002 with 180 total numbers of ISPs.

Policy and Regulatory Framework

Even, the participation of private sectors with KSO scheme has already encouraged since 1995, but some of the targets of KSO scheme were not achieved as envisaged. The deployment of a new telephone line remained unfulfiled.

In order to accelarate development of telecommunications infrastructures, a new policy and regulatory is prepared. The current policy and regulatory framework is guided by the new Telecommunications Acts No. 36 Year 1999 and Competition Act No. 5 Year 1999. These new policies documents are purposed to accommodate the liberalization and to support the competition telecommunicatios sector.

However, some crucial telecommunications competition issues are not yet covered on both policies documents. The regulations are not able to adopt and to anticipate the rapid changes of business and technology developments. Further, from the national point of view, there is no an adequate policies guidelines and directions to determine the role and the goal of the country in the global era, mainly in the transition from monopoly to competition.

In addition, exsisting regulatory procedures can not ensure a good regulatory decision-making i.e. transparency, objectivity, professionalism, efficiency, and independence. In order decisions are able to be applied, a proper procedures must be prepared to make better regulatory decisions. For example, using and designing an effective public processes to publish and accommodate useful input on the issues to be determined.

Essential Facilities

Major operator and essential facilities are defined clearly at WTO Reference Paper on Telecommunications Basic Services. But, the new Telecommunication Act No. 36/1999 treats incumbent operators and new entrances for the same conditions. As the result, incumbent operators could continue their power to control the essential facilities to increase a competitor's cost. The competitor's cost can be increased by increased prices of essential facilities and make its services less attractive to customers.

Interconnections Regulations

Availability of interconnections to incumbent network operator and its tariff are two major issues which could prohibit a fair competition. For example, refusal or delay in providing essential facilities to competitors, providing services or facilities at excessive prices or on discriminary terms, predatory pricing or cross-susidization of competitive services with revenues obtained from services which are subject to less competition. These abuses of dominant are a common strategies of incumbent operator to attack new entrances. There is no yet standard tariff and standard interconnections agreements that could be very useful to ensure a fair business.

In addition, bilateral interconnection agreement between incumbent and a new operators could become serious interconnection problems for settlement and reconcilitation process.

Competitive Profile of Telecommunications Sectors

Celluler Services

It is important to note that cellluler services were first introduces as " Value Added Services" to be provided mainly by private operators. It is probably not anticipated that celluler services would acquire a status comparable to wire-line fixed telephone services. In fact, it becomes

a major competitor to fixed wire-line. At early phase, the privates sector has had a free-play in this sector with insignificant presence of government operators. Starting with a duopoly when the first two GSM national-wide licences were awarded in 1994/1996 , Indonesian's mobile market now is evolving into a more competitive four-player market for national-wide licences with total numbers almost 10 million subscribers in mid-2003.

There is a significant change in terms of the introduction of "limited mobility" for Wireless Local Loop (WLL). In mid 2003, PT TELKOM as state-owned company launched CDMA limited mobile celluler phone as an alternatif solution for fixed wireline local phone.

Basic Fixed Wire-line Telephone Services

On the other hand, as mentioned at blue-print of national telecommunications, basic fixed wire-line telephone services are still monopolised by PT TELKOM (domestic call) and PT INDOSAT (international call) as state owned company. PT TELKOM as an incumbent domestic communications provider could continue their exclusivity right to monopoly the services of fixed wire-line telephone market till 2010 (local call provider) and 2005 for long-distance provider. PT INDOSAT as an incumbent for international communications provider got its exclusivity right till 2010.

But, in the mid-2002, the government rescheduled the exclusivity right of PT TELKOM and PT INDOSAT. Both operators got licences to compete on fixed wired-line local and international call. As concequencies, government also awarded GSM-1800 license to both incumbent operators with some additional compensation-fee to PT TELKOM. Until now, there is no yet decision concerning the amount of compensation-fee that must be paid to PT TELKOM.

By rescheduling the blue-print, duopoly PT TELKOM and PT INDOSAT is expected as an initial step of competition on basic fixed local and international telephone providers. But, until now, this competition is not yet effective.

There are some crucial issues on basic telecommunications services i.e., un-established of infrastructure, lack of investment, very low basic tariff and high cost technology solution. Since early 2002, the government has started increasing local call tariff around 46% during three years gradually. Because the existing tariff structure is less attractive for investor.

Until now, competition in the wireline segment does not show a significant progress. Duopoly PT TELKOM and PT INDOSAT is not effective yet to accelerate teledensity of fixed telephone.

Government Intervention to Implement Competition Policy

The main objectives of government intervention are to respond to market failures, to limit abuses of the market power and to improve economic efficiency. Ideally, in a perfect competitive market, there would be little or no reason for government intervention to implement competition policy.
However, the flexibility and ability to tailor rules and principles to specific circumtances are required, normally for the countries where law and regulations framework are not well prepared. For the case of Indonesia with specifics constrains and handicaps requires a specific rules and principles to strengthen competition. Un-establishment of infrastructure, un-sufficient of law and regulatory framework and un-awareness of business ethics are some handicaps which need government intervention during transition.

Independent Regulatory Body

In the last of June 2003, the minister of transportation has established BRTI (Indonesian Telecommunications Regulatory Body) as an independent regulatory body to promote competition sector. Based on the scheduled, the member of committee will be selected and appointed by Minister next October 2003. BRTI will be headed by Director General of Telecommunications with four member of committee. The BRTI will be financed fully by government.

Competition Commission

As stated in Competition Act No. 5 Year 1999, Indonesia Competition Commission (KPPU) has a mandate as supervisory body of business competition in Indonesia. KPPU has two main duties, first to enforce the law base on Act No. 5 Year 1999 and secondly to submit policy advices to Indonesian Government on any matters related to competition. Base on these authorities, KPPU has the job to ensure an effective competition in all business sectors in Indonesia including telecommunication industry.

Since it was previously regulated monopoly business, the transition phase to competitive one has raised many competition related problems and behaviours. The role of Independent Regulatory Body and KPPU as competition agency should be clearly identified and understood. It will be very fruitful for Indonesia to get inputs from many other countries which have been experienced longer on competition in telecommunication industry on this matter. Supports from international institution to establish a good regulation on competition in telecommunication sector are really needed and appreciated.

COMPETITION DEVELOPMENT IN THE PERUVIAN PUBLIC TELECOMMUNICATIONS MARKET

ANA ROSA MARTINELLI
MANAGER ON BUSINESS RELATIONS OSIPTEL-PERU
SEPTEMBER 2003

Competition Development in the Peruvian Public Telecommunications Market

1. Deregulation and competition in the Peruvian Telecommunications Sector

The telecommunications sector is now one of the most dynamic in the Peruvian economy, despite of the sector's stagnation in the early 90's due to the Estate's monopoly in the provision of telecommunications services. By the end of 1993 there were only 2,94 fixed telephones lines per 100 inhabitants[1] and a scarce development of other telecommunications services, such as mobile cellular telephony, beepers and cable TV services[2].

In 1991, as part of the Peruvian Estate's reform and modernization process, a new Telecommunications Law was approved, replacing the telecommunications services supplier estate-controlled entity model with a model in which the private sector assumes the responsibility for the telecommunications development, leaving the regulatory and supervising functions to the Estate.

In 1994 the privatization process took place through the successful selling of shares of the telecommunications sector estate-controlled entities: the Compañía Peruana de Telecomunicaciones and the Empresa Nacional de Telecomunicaciones. Telefonica del Peru took control of both entities by paying 2,002 million dollars, the highest offer. The sales offer included a period of limited competition which granted Telefónica del Perú a 5 years exclusivity[3] to provide fixed telephony, international and domestic long distance calls services; allowing competition in the other public telecommunications services such as payphones, mobile telephony, beepers, local carrier, cable TV, among others[4]. By the end of the same year, the entities acquired by Telefónica del Perú merged.

During the period of limited competition the markets in which competition first showed improvement were mobile telephony and payphones. In 1996 the number of mobile telephony suscribers significantly increased due to OSIPTEL's approval of a new tariffary system known as "calling party pays". This increase allowed the two companies providing mobile telephony services to reduce their costs and agressively compete offering different promotional plans.

[1] It is important to point out that in Lima, the Peruvian capital, existed 6,61 fixed telephone lines per 100 inhabitants, while in the rest of the country existed only 1,23 fixed telephone lines per 100 inhabitants.
[2] At the beginning of 1994 existed 7 cable TV companies and 8 beepers'. The mobile telephony market had around 40,000 suscribers.
[3] During this period the rate rebalancing program was going to be applied, in order to eliminate the distorsions created by crossed subsidies between the long distance services rates and the fixed telephony service rates.
[4] Law 26285 – Law of Progressive Demonopolization of Public Telecommunications Services

The opening of the telecommunications market, foreseen to happen in 1999, took place one year earlier, because goals set up for the period of limited competition had been accomplished [5]. For that purpose the government approved the Guidelines for the Opening of Telecommunications Market [6] which established the policies to be followed regarding concession contracts, allocation of the frecuencies spectrum, free and fair competition, rates, interconnection and users access to long distance carriers.

The privatization and later liberalization of the telecommunications market has generated a strong expanssion and diversification of the services, the growth of the infrastructure and the arrival of new operators. New operators have entered with new technologies such as digital trunking, personal communications services and access to internet through cable TV. All these have brought benefits to the users that now have access to more and diverse services to fulfill their needs.

After the liberalization of the market, the competition has mostly developed in long distance[7], mobile services[8] and internet access[9] services. As a result of this competition and the agressive price discounts and promotional plans campaigns, rates have drastically been reduced allowing the access of more users to these services.

Nowadays there are 52 providers of long distance carrier services, 24 providers of local carrier services, 8 providers of fixed telephony services and 4 of mobile services, 126 providers of cable TV services and around 189 registered companies supplying value added services, among which 72 are ISPs.

Addendum I contains charts showing the Peruvian telecommunications services development since the privatization process started.

2. The Supervising Agency for Private Investment in Telecommunications (OSIPTEL) and its role as promoter of the competition

After the privatization process started, the Estate assumed the role of regulator and promoter of private investment in the sector. The responsibilities for the sector's regulation were assigned to two entities: the Ministry of Transport and Telecommunications, responsible for establishing the sector's policy including market access through concessions and licenses, as well as the regulation of the frecuencies spectrum; and OSIPTEL, in charge of the market regulation and supervision having among its principal objectives the promotion of free and fair competition in the sector, enforcement of antitrust legislation and protection of users rights.

Ministry of Transport and Communications	OSIPTEL
- Establishes the telecommunications sector's policy - Grants concessions, authorizations and licences - Administers the frecuencies spectrum and approves the Frequency Allocation National Plan	- Regulates and supervises the telecommunications market ensuring services quality and efficiency; - Promotes free and fair competition as well as investment in the sector; - Protects users interests; - Administers the Telecommunication

[5] The rate rebalancing program had been completed, and the expansion and quality service goals complied by Telefónica del Perú.
[6] Approved by Supreme Decree Nº020-98 MTC, August 1998.
[7] Through pre-selection, calling cards and "call by call" system.
[8] Especially since the pre-paid plans were introduced.
[9] With the arrival of new technologies such as cable modem and access through wireless network.

and the numbering policy.	Investment Fund; - Solves interconnection and free and fair competition related conflicts between operators.

For the compliance of its goals OSIPTEL has normative, regulatory, supervision, controversies and claims resolution and, auditing and sanctioning functions. The regulatory and controversies' resolution functions assigned to OSIPTEL have been fundamental for the compliance of it's role as promoter of free and fair competition in the market.

As a promoter of competiton, whose goal is to facilitate new operators' access to the market eliminating any possible entry barriers, OSIPTEL intervenes in the market regulating conducts and evaluating market structure ("ex-ante" intervention); as well as supervising compliance of regulations and sanctioning for violations of such ("ex post" intervention).

Ex- ante	Ex-post
- Previous to any event - Telecommunications sector regulation - Objective: order the market and progressive deregulation (projects market competition) - Examples: Acces regulation, interconnection regulations, tariff regulations, etc.	- Subsequent to an event - Auditing and sanctioning ilicit behaviors - Objective: supervise and promote the legal framework compliance (ensures respect to competition) - Examples: controversies fo dominant position abuse, sanctioning procedures, etc.

OSIPTEL as a regulatory entity establishes policies for users acces to network and services, rates regulations[10], and interconnection policies, as well as approves interconnection agreements between operators.

According to Peruvian legislation interconnection has a mandatory nature, as a mechanism for market's protection and development. Likewise, has established that public telecommunications service networks must be interconnected observing the principles of equal access, no discrimination, neutrality and open network architecture[11]

As competition agency OSIPTEL proceeds anticipating anticompetitive conducts issuing guidelines[12] and mandatory precedents. To perform this function is empowered to settle disputes arising between telecommunication service providers and to sanction sector's regulations violations as well as free and fair competition legislation violations, basically the abuse of dominant position in the market[13].

3. Telecommunications Market Free and Fair Competition Legal Framework

[10] Rates can be freely established, notwithstanding OSIPTEL may fix maximums for determined services when no effective competition exists.
[11] In order to operators to interconnect it is required to previously define the legal, techn
[12] Guidelines don't have mandatory nature but provide a departure point for the analysis OSIPTEL will carry out, making it's decision-making more predictable to operators and users.
[13] Peruvian legal framework promotes free and fair competition in the telecommunications market, outlawing any practice such as monopolies, price discrimination and collaboration, which restraints competition, establishing sanctions for violation of such.

According to the "Guidelines for Opening the Peruvian Telecommunications Market"[14], OSIPTEL as the agency in charge of fostering free and fair competition in the sector, has the power to issue guidelines compiling the general principles OSIPTEL is applying or will apply whenever the regulator's intervention is needed.

In that sense, OSIPTEL has issued "General Guidelines to Enforce Free Competition Regulations in the Telecommunications Market" and "Guidelines regarding Unfair Competition in the Telecommunications Market", both to make OSIPTEL's decisions regarding behaviors contravening the principles of free competition predictable, enhancing juridical stability and creating a framework of guarantees for private investment.

General Guidelines to Enforce Free Competition Regulations in the Telecommunications Market	Guidelines regarding Unfair Competition in the Telecommunications Market
Establish the methodology for the analysis OSIPTEL will carry out in matters of free competition, setting the criteria to define the relevant market and the dominant position. Defines which behaviors are considered illegal per se and which have to be analyzed according to the rules of reason.	Define OSIPTEL's competence and the main principles for the application of restraining unfair competition legislation, as well as the criteria to analyze forbidden practices depending on the transaction characteristics and the services involved in each case.

In accordance with the legislation for the promotion and defense of free and fair competition in the telecommunications market, OSIPTEL applies sector's specific regulations and, as suppletory, the free and fair competition general rules. Only in such cases where the behavior is not regulated by the sector's regulations, free and fair competition general rules are applicable.

With regard to the structure to solve conflicts between operators – which can be brought by a party or officially started – OSIPTEL has two independent jurisdictional instances: the "Cuerpos Colegiados" and the Tribunal for the Solution of Controversies. The Tribunal's final resolution can be reviewed by the Judiciary Power.

With regard to the competition rules enforcement, the Telecommunications Law granted OSIPTEL investigation and sanctioning faculties, established the instances in charge of conflicts between companies resolution and a scale of sanctions that OSIPTEL had to apply in case of infringement. Notwithstanding, as the market developed, the functions granted to OSIPTEL did not appear sufficient, the scale of sanctions was not a disincentive for the companies, and the model for controversies resolution with a second instance in charge of one person who worked for OSIPTEL in a way rested independence to the conflict resolution process and, therefore, did not appear appropriate.

Because of that, and in order to change this situation, strengthen the regulatory agency and get OSIPTEL to achieve its role as promoter of free and fair competition, the Congress promulgated two laws:

- The Private Investment in Public Services Regulatory Agencies' Law (Law Nº 27332) gave OSIPTEL the same auditing powers enjoyed by the National Institute for Competition and Intellectual Property (INDECOPI) in fostering free and fair competition.

[14] Approved by Supreme Decree Nº020-98-MTC

- OSIPTEL's Functions and Powers Act (Law Nº27336) confirmed and expanded the organization's powers in various fields, such as free and fair competition among others.

This law allowed OSIPTEL to solve conflicts between companies when the public telecommunications services market was being or could be hurt, even when only one of the parties was a telecommunications operator. It also introduced the following changes:

BEFORE LAW 27336	AFTER LAW 27336
Conflicts Resolution between companies	
Only among companies operating public telecommunications services.	Conflicts between companies operating public telecommunications services and with non-operator companies when the public telecommunications services market is or may be hurt.
Investigating and Resolution Bodies	
Not foreseen	A distinction between the instance which investigates the facts and the one which resolves the conflict and sanctions, is made.
Second Instance Conflict Resolution Proceedings	
One-Member-Body represented by OSIPTEL's President	Collegiate body sitting five members (Conflict Resolution Tribunal)
Sanctions	
Infringements fined with up to 30 to 50 Tax Units[15].	Not very and serious infringements fined with up to 1000 Tax Units Very serious infringements fined with more than 1000 Tax Units (up to 10% of the transgressor's sales)[16].

As consequence of such, OSIPTEL has now more powers to investigate anticompetitive practices and a schedule of fines in line with the different levels of infringements.

The organization's powers improvement has allowed OSIPTEL to fully comply it's role of promoter and supervisor of free competence in the sector, which is evidenced by the several conflicts relating to presumed breaches of free and fair competition regulations solved up to date and the level of fines imposed to transgressors.

Addendum 2 contains graphics showing the number of controversies between companies solved by OSIPTEL ever since it's creation, with indications of the matters involved.

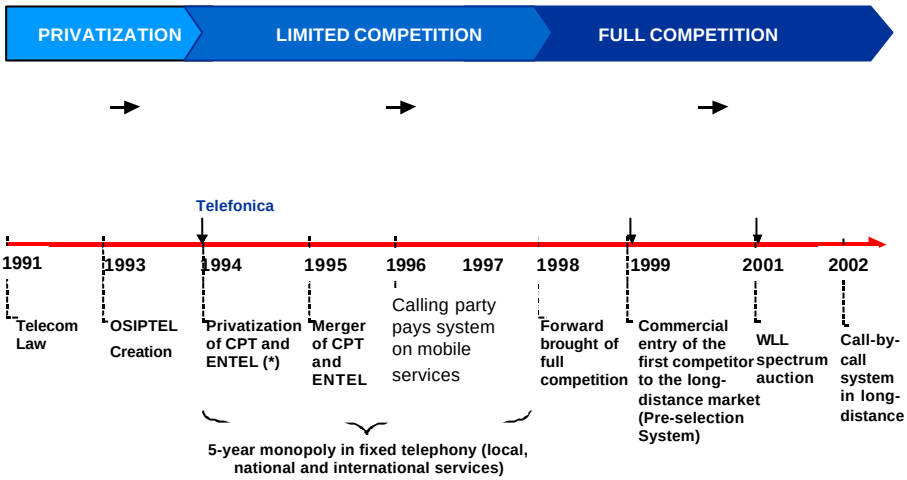
Finally it is to be pointed out that OSIPTEL's active involvement in conflicts resolution allows it to have an important feedback to comply it's regulatory function. From the moment a statement of claim is files and through the whole conflict resolution procedure, OSIPTEL's gets to know the problems in the market and the changes or precisions that the regulatory framework might need.

15 A Tax Unit is equivalent to US$ 890.

16 The new schedule for fines equals sanctions for violations for free and fair competition in the telecommunications sector to the amounts imposed by the National Institute for Competition and Intellectual Property (INDECOPI). This regulations annuls the maximum amounts included in the Telecommunications Act that prohibited the public telecommunications services sector to establish fines directly related to the seriousness of the offense.

Addendum 1

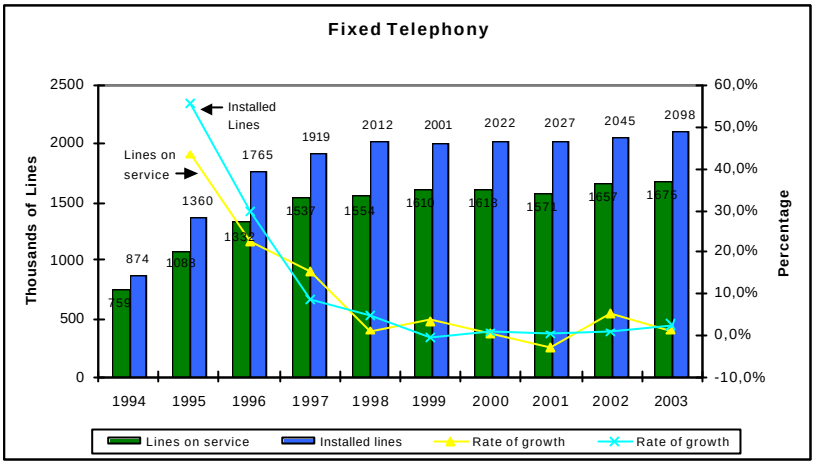
Principal Facts in the Telecommunications Sector



More and better services for the users

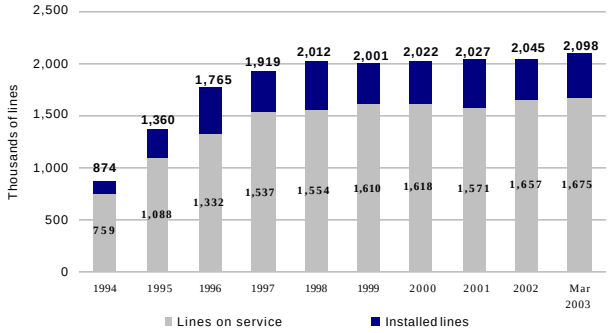
	1993	Aug-1998	jun-03
Local fixed telephony operators	2	1	4 in Lima, 1 in ROP
Installed fixed lines (000)	670	2.012	2.108
Average waiting period for the connection of a fixed line	118 meses	45 días	10 días
Connection tariff	US$ 1,500	US$ 170	US$ 79
Network digitalization	33%	89%	96%
Mobile services operators	2	2	4
Mobile lines (000)	37	736	2.493
Long distance carriers in operatio	1	1	24

Fixed Telephony

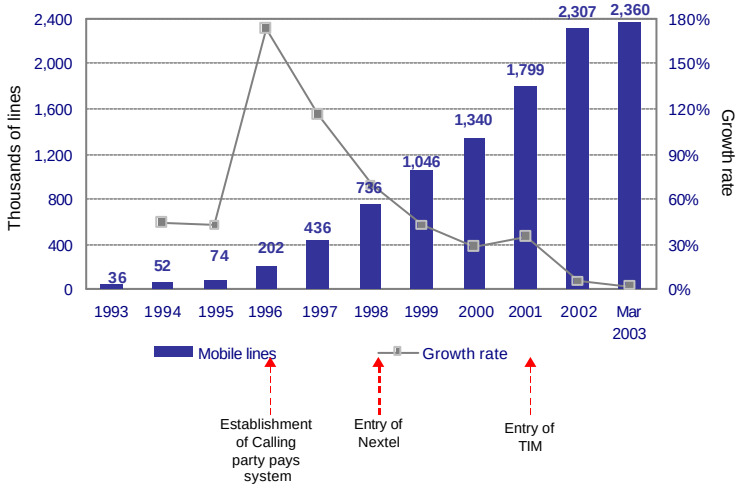


Fixed Telephony

Fixed teledensity: 6.2 lines per each 100 habitant (Mar-2003)



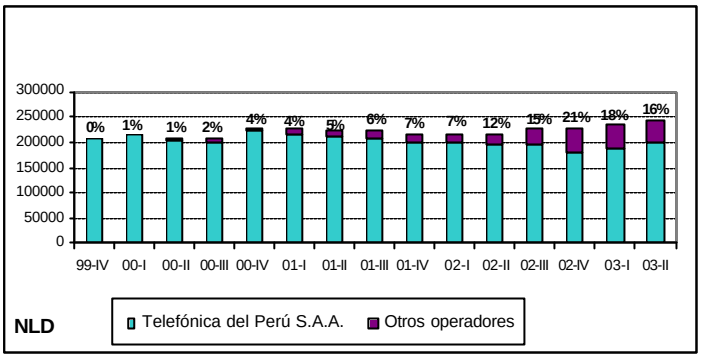
Mobile Services



National long-distance (Jun-2003)

Quarterly traffic evolution (in thousands of minutes)

Monthly traffic per line: 30 minutes



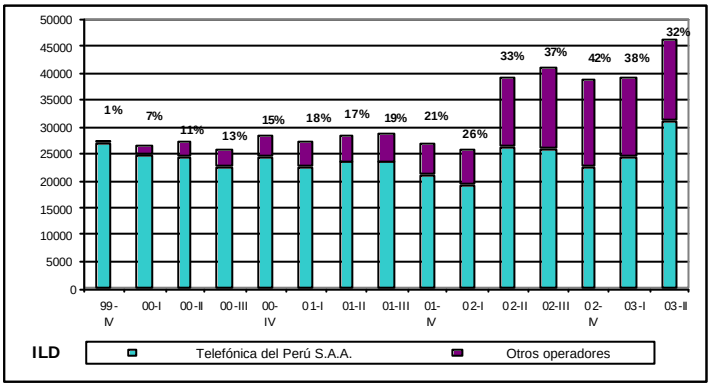
The values on percentage indicate the market share of other operators.

(*) Mobile traffic non-included
(**) Mobile and payphones traffic non-included.

International long-distance (Jun-2003)

Quarterly traffic evolution (in thousands of minutes)

Monthly traffic per line: 7 minutes (Dec-2002)

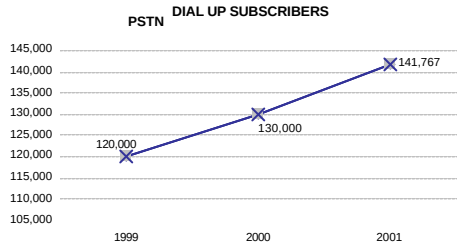


The values on percentage indicate the market share of other operators.

(*) Mobile traffic non-included
(**) Mobile and payphones traffic non-included.

Internet Access

Dec-2002: 180.363 dial-up subscribers (141 767 PSTN)
5.779 dedicated links subscribers
125.893 new technolpgies (WAP, ADSL, cablemodem and others)



Public centers:
1.272

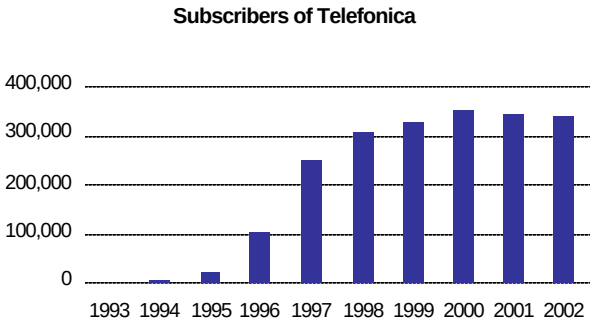
Main operators:
Telefonica Data, RCP, Terra, AT&T, Millicom, Comsat.

7 operators in the NAP: AT&T, Comsat, RCP, Diveo, Impsat, T. Data, BellSouth

Users access to internet through public centers is not included

Cable TV

2002: 443 000 subscribers



2002 Beginning

Aproximately 60 operators

Main operators:
Telefonica Multimedia, TeleCable Siglo XXI, Boga Comunicaciones

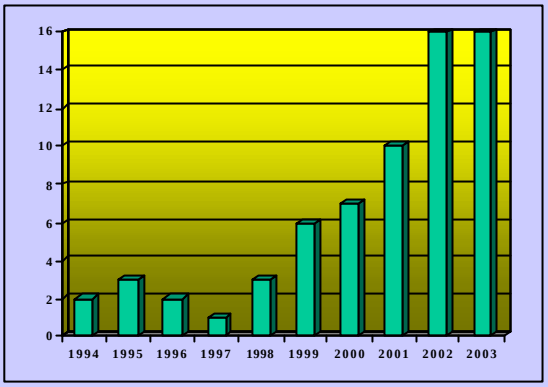
ADDENDUM 2

Number of controversies per year

(1994 – Aug.2003)

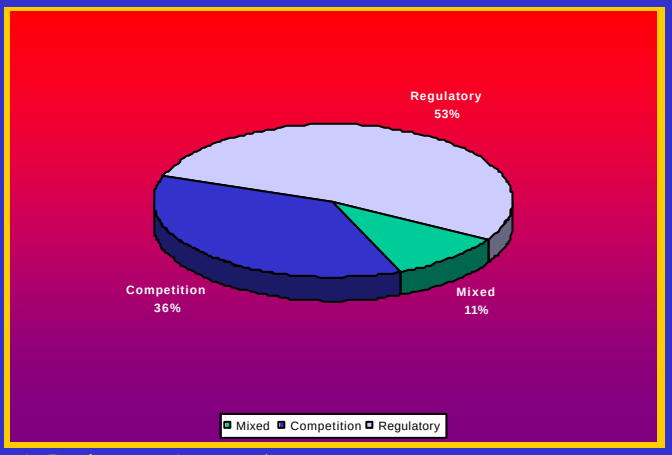
Year	Number
1994	2
1995	3
1996	2
1997	1
1998	3
1999	6
2000	7
2001	10
2002	16
2003*	16
Total:	66

*Aug. 2003



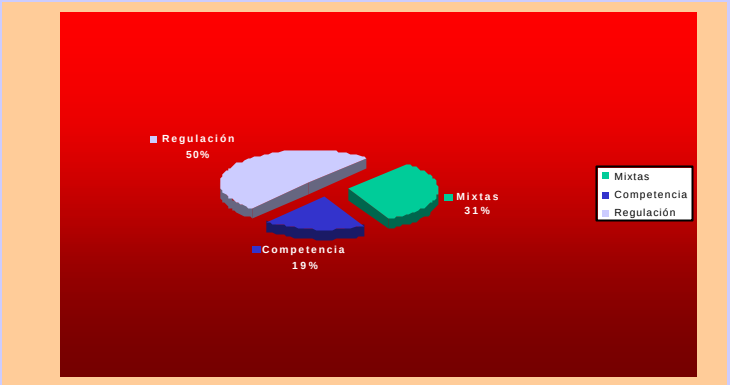
Types of Controversies - Historic

(From 1994 to August 2003)



* **Regulatory** : Interconnection
** **Competition** : Free and fair competition
*** **Mixed** : Competition and regulations

Types of Controversies
(January – August 2003)



* **Regulatory** : Interconnection
** **Competition** : Free and fair competition
*** **Mixed** : Competition and regulations infringement

SANCTIONS IN CONFLICT RESOLUTION PROCEDURES

Date	File	Sanctioned	Cause	Sanction	
				First Instance	Second Instance
Sep-96	001-1996	Telefónica del Perú	Failure to fulfill a disposition set by the First Instance's resolution.	35 UIT	Revoked
Jan-97	001-1996	Telefónica del Perú	Failure to comply First Instance's information requirement	30 UIT	Confirmed
Oct-97	001-1996	Telefónica del Perú	Violations to free competition	50 UIT	Confirmed
Oct-97	001-1996	Telefónica del Perú	Concession contract infringement	10 UIT	Revoked
May-97	002-1996	Red Científica Peruana	Unfair competition	30 UIT	Confirmed
Jul-97	002-1995	Telefónica del Perú	Violations to free competition	50 UIT	Revoked
Oct-00	006-1999	Telefónica Multimedia	Failure to comply First Instance's information requirement	15 UIT	Confirmed (SAN)
Oct-00	002-2000	Telefónica del Perú	Interconnection regulations infringement	151 UIT	Confirmed (SAN)
Nov-00	003-2000	Compañía Telefónica Andina	Misconduct during process	Warning	Confirmed (SAN)
Dec-00	006-1999	Telefónica Multimedia	Violations to free competition	Warning	Confirmed (SAN)
May-01	006-2000	Luz del Sur	Violations to free competition	50 UIT	Revoked
Jun-01	001-2001	Compañía Telefónica Andina	Misconduct during process and others	10 UIT	Confirmed

* **SAN : Aplicación del Silencio Administrativo Negativo**
** **UIT : Unidad Impositiva Tributaria (US$ 890 aprox.)**

SANCTIONS IN CONFLICT PROCEDURES

Date	File	Sanctioned	Cause	Sanction	
				First Instance	Second Instance
Jun-01	001-2001	Compañía Telefónica Andina	Misconduct in process and others	10 UIT	Confirmed
Dec-01	004-2001	Telefónica del Perú	Interconnection regulations infringement	151 UIT	Confirmed(SAN)
Feb-02	004-2001	Telefónica del Perú	Failure to comply First Instance final resolution	151 UIT	Confirmed (SAN)
Apr-02	004-2001	Telefónica del Perú	Failure to comply final resolution	150 UIT	Confirmed(SAN)
May-02	006-1999	Telefónica Multimedia	Failure to comply final resolution	350 UIT	105 UIT
Jul-02	003-2001	Telefónica del Perú	Regulations infringement and dominant position abuse	1097 UIT	In process
Jan-03	009-2001	Telefónica del Perú	Dominant position abuse	25 UIT	Confirmed
Jun-03	010-2002	Nextel	Regulations infringement	151 UIT	In process

*** SAN : Aplicación del Silencio Administrativo Negativo**

**** UIT : Unidad Impositiva Tributaria (US$ 890 aprox.)**

Regulation and Competition in Telecommunication service in Vietnam

by Pham Quynh Mai
Multilateral Trade Policy Department
Ministry of Trade

I. Current status of telecommunication service

Vietnamese telecommunication sector has developed only for several decades after the reunification of the country after the war. Realizing the important role of telecommunication in the development of the country, the Government has attached great importance to the development and modernization of this sector. A decade ago, telecommunication service was provided only by the State owned enterprises. Since Vietnam has embarked on its renovation, telecommunication sector has been opened for the participation by other type of enterprises. The number of Vietnamese enterprises acting as telecommunication service providers in Vietnam includes:

- Vietnam Post and Telecommunication Corporation, which is the leading enterprise in providing telecommunication service;
- Vietnam Army's Electronic and Telecommunication (Vietel);
- Sai Gon Post and Telecommunication Service Joint-Stock Company (Saigon Pos Tel);
- FPT Company, specializing in internet service provision;
- Netnam Company, specializing in internet service provision, ect...

Regarding the participation of foreign enterprises, according to the Law, Foreign companies or any foreign legal entities are allowed to cooperate with Vietnamese operators in providing telecommunications services in Vietnam in the form of Business Co-operation Contract (BCC), under which no new entity will be established. Up to now, there are 7 partners who have signed BCC with Vietnamese telecom enterprises, namely Korea, Japan, France, Sweden, Australia, Singapore and the US.

Until the second half of the year 2003, there are 9 manufacturing joint ventures in telecom sector with partners coming from France, Korea, the US, Germany, Taipei, Japan and Belgium.

II. Legal mechanism for competition in telecommunication sector

At present, Vietnam does not have a separate competition law. However, competition policies, while they are incomplete, are specified in a number of laws and sublaws. Such provisions reflect the policies of the Vietnamese Government to create a legal environment for all economic entities to enjoy equal treatments before the laws, to ensure lawful competition with the objective of increasing economic efficiency, improving living standards and protecting legitimate benefits of producers and consumers. However, in order to establish a comprehensive legal mechanism for the management of all kinds of economic activities, The Law on Competition and Anti-Trust is under construction and is expected to be submitted for the approval by the National Assembly in 2004. The Competition and Anti-Trust Law is designed to protect and encourage fair competition, prevent competition restriction behaviours and prohibit the Abuse of Dominant Position which may lead to monopolistic position.

However, the Competition and Anti-Trust Law provides only the legal framework to govern competition activities in general and it needs to be supplemented by other sublaws and regulations in specific sectors.

In telecommunication sector, regulations on the operation of telecommunication enterprises are contained in the following documents:

- Ordinance of Postal and Telecommunication dated 7 June, 2002;
- Government Decree No. 109/1997/ND-CP dated 12 November 1997 on Posts and Telecommunications;
- Circulars providing guidelines on the implementations of the Government's Decree 109/ND-CP on posts and telecommunications;
- Circular No 01/1998/TT-TCBD dated May 15, 1998 on the quality control of Posts and Telecommunication equipment, accessories, networks and services;
- Circular No 04/1998/TT-TCBD dated September 29, 1998 on the telecommunications networks and services. This circular provides guidelines on the implementation of construction, management and provision of telecom networks and services.

In order to foster the development of post and telecommunication sector by creating a fairer competition environment for different economic sectors in the country, as well as foreign investors, in 1992, the National Assembly issued the Ordinance on Post and Telecommunication, which contains regulation on competition in telecommunication sector as follows:

- Telecommunication enterprises with telecommunication services holding dominant market share are those holding more than 30% of market shares of the particular type of service in a geographical area that they are permitted to provide and therefore may exert influence on penetration into the market of such service by other telecommunication enterprises. The agency exercising state management over post and telecommunication shall identify those telecommunication enterprises with telecommunication services holding market shares;

- Telecommunication services with telecommunication services holding dominant market shares shall have the following rights and obligations not to use their advantages to restrict or cause difficulties by the provision of telecommunication services by other enterprises;

- To account separately the telecommunication services holding dominant market shares, to be subject to the inspection and control by the competent State bodies of market shares, quality and charges rate of the telecommunication services holding dominant market shares;

Efforts to develop Vietnam's post and telecommunication sector to catch up with other countries in the region and in the world is supported by the Vietnam Post and Telecommunication Development Strategy till 2005 and the Development Strategy till 2010 and orientations till 2020, approved and issued by the Prime Minister. The 2005 strategy aims at expanding the domestic market for fair competition among internet suppliers, aiming at having from 3 to 5 IXP, 30 to 40 ISP and other licensed OSP; encouraging all kinds of economic components to develop telecom technologies; developing forms of investment with the transfer of high technologies, even 100% foreign owned capital.

The Development Strategy till 2010 and orientations till 2020 aims at encouraging domestic and foreign economic sectors to participate in the development of posts,

telecommunications and information industries; and various forms of foreign investment with the transfer of high technologies, including forms of 100% foreign capital; accelerating the restructuring of enterprises where the State holds dominant or special equities, and enterprises of all social-economic sectors. By 2010, to bring into play all the country's internal resources in competition with efficient international cooperation for market expansion and development, to continue eliminating domains where enterprises hold monopoly, strongly shift to the competitive market, create conditions for all economic sectors to participate in postal, telecommunication and internet services while firmly maintain the leading role of State- run economic sector. The new enterprises (beside the leading ones) will hold a share of 25% market by 2005 and 40-50% by 2010.

It is hoped that with such endeavors, by the year 2010, telecommunication sector of Vietnam will be modernized and will further develop in a more competitive environment, where enterprises of all types will have equal access to this sector.