Chapter 3: MEXICO’S REGULATION, COMPETITION AND INVESTMENT CLIMATE: SOME PROGRESS BUT KEY CHALLENGES AHEAD

Jose Luis Guasch and Keta Ruiz

Growth and productivity improvements in Mexico have been modest in recent years and overall competitiveness has been weak—underperforming—relative to per capita income and not improving, according to the usual rankings. Mexico’s competition environment, regulatory framework and investment climate are major priority reform areas to increase Mexico’s competitiveness. This policy note highlights main constraints in those areas and identifies key high impact interventions to maximize Mexico’s efficiency potential for generating jobs and secure sustained growth. If major improvements are made, Mexico could quickly increase its income per capita, as a number of countries have recently done. This note draws on a series of focused analytical pieces done by the World Bank and others, including a recent analysis on competitiveness.¹

A. KEY COMPETITIVENESS CHALLENGES

1. Growth and productivity improvements in Mexico have been modest in recent years. Over the last decade, Mexico has benefited from a relatively stable economy, and more recently from favorable oil prices and has avoided the pattern of financial crises that have plagued many of its past political cycles, thanks in large part to prudent fiscal and monetary policies. Despite this stability, structural economic constraints have held back growth and therefore poverty reduction. Growth rates have been particularly low over the last decade when compared with similar income countries in East Asia. While real GDP per capita in Mexico only grew at an annual rate of 1.2 percent between 1994 and 2004, it grew at 7.7 percent in China, and at 5.9 percent on average in the East Asia and Pacific region. Productivity growth rates have also been lackluster. The share of growth attributable to total factor productivity was negative on average between 1980 and 2003, although there has been a slight increase in recent years (Figure 1).

¹ World Bank (2006a).
Figure 1: GDP Growth in Mexico and its Components in %: Growth Accounting, 1960-2003 (Contributions to GDP Growth in Percent)

Note: Numbers are for real GDP growth (not GDP per capita).

Figure 2: Competitiveness versus GNI per Capita Rankings

Note: Lower-ranking numbers are better.
Source: World Economic Forum (2005) and World Bank, World Development Indicators.

2. **Mexico’s competitiveness is weak—underperforming—relative to per capita income, and although small recent gains, it still means lost opportunities for poverty reduction.** The World Economic Forum’s 2006-2007 *Global Competitiveness Report* gives Mexico a rank of 58 out of 125 countries, up one spot from last year. In comparison, Mexico’s GNI per capita rank within that same sample of countries is 39. While this gap between income and competitiveness rankings is not atypical for Latin America, it indicates that Mexico is falling well short of its potential. In contrast, Chile, India, China, and other East Asian economies enjoy competitiveness rankings that exceed their income placing (Figure 2). Nearly all the countries that have had long term success in reducing poverty have done so with higher rates of economic growth. This association is also true for Mexico, where poverty reduction has tracked growth in GDP per capita over the last decade. Nonetheless, after experiencing robust GDP per capita growth following the 1994 Tequila Crisis, income levels have been nearly stagnant since 2000.

3. **Its competition environment, regulatory framework and investment climate are major priority areas to increase Mexico’s competitiveness.** The IMCO (2005) study develops a model to assess Mexico’s competitiveness and establishes priorities among themes in terms of impact on investment (gross capital formation) per worker. From that model, “point elasticities” are estimated, giving the impact on investment per worker of a ten percent improvement in the respective independent variables (Table 1). As shown, the high-impact themes are the competition environment, taxes and its regulations, regulatory and investment climate, education and innovation, trade facilitation, transport and logistics, corruption, finance and energy. These impact

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2 Competitiveness is broadly defined as the “collection of factors, policies and institutions which determine the level of productivity of a country and that, therefore, determine the level of prosperity that can be attained by an economy.” World Economic Forum (2005), p.xiii.

3 This ranking is for the Growth Competitiveness Index.


5 IMCO (2005).
estimates provide guidelines for prioritization of interventions in order to increase Mexico’s competitiveness. The identification of those themes is also supported by two other relatively comprehensive reports: a Competitiveness Focus Groups report\(^6\) and the World Economic Forum’s (WEF) Global Competitiveness Report 2005-2006. Finally, the identified priority areas are validated by analyzing competitiveness constraints through a growth diagnostic framework (Hausmann, Rodrik, and Velasco, 2004).

### Table 1: Constraints to Competitiveness\(^7\)

<table>
<thead>
<tr>
<th>Subject areas</th>
<th>Impact on investment per worker of a 10 percent improvement in the variables behind each subject area</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Competition environment</td>
<td>7.5 %</td>
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<tr>
<td>2) Taxes and its regulations</td>
<td>7.1 %</td>
</tr>
<tr>
<td>3) Regulatory and investment climate</td>
<td>6.8 %</td>
</tr>
<tr>
<td>4) Education</td>
<td>6.0 %</td>
</tr>
<tr>
<td>5) Trade facilitation and transport / logistics</td>
<td>5.8 %</td>
</tr>
<tr>
<td>6) Corruption</td>
<td>4.7 %</td>
</tr>
<tr>
<td>7) Innovation</td>
<td>3.8 %</td>
</tr>
<tr>
<td>8) Finance</td>
<td>3.6 %</td>
</tr>
<tr>
<td>9) Energy</td>
<td>2.7 %</td>
</tr>
<tr>
<td>10) Labor market</td>
<td>1.9 %</td>
</tr>
<tr>
<td>11) Macroeconomic environment</td>
<td>1.0 %</td>
</tr>
</tbody>
</table>

Note: The percentages are point “elasticities” which reflect the impact on investment per worker of a 10 percent improvement in the variables behind each subject area.


### B. HOW COULD MEXICO MAXIMIZE ITS EFFICIENCY POTENTIAL?

4. To compete in what the World Economic Forum (2005) calls the “efficiency-driven stage” of development, Mexico needs to develop more efficient production processes, increase productivity, move up the value chain and reduce costs throughout the economy.\(^8\) To reduce costs and improve productivity, Mexico should focus on improving the competition, regulatory and investment environment, to facilitate effective


\(^7\) It should be noted that the impact numbers in Table 1 are for single effects or isolated improvements in each category. A broad package of reforms across most of the high-impact categories could have a positive bundling effect. In other words, the interaction between the individual variables should create an overall impact that is substantially larger than the sum of the individual improvements.

\(^8\) The World Economic Forum (2005) classifies Mexico as being in the efficiency-driven stage along with Argentina, Brazil, and Chile, for example. At the efficiency-driven stage, firms increase productivity by adopting efficient production practices. Among the countries in the first stage—the “factor-driven stage”—where firms compete on price by taking advantage of cheap capital, labor, and energy factors, are China, India, and Bolivia. At the innovation-driven stage, firms need to produce innovative products using sophisticated production methods, e.g., Finland, Germany, and Japan.
competition among firms.\(^9\) These are all high impact areas, as shown in Table 1. Mexican authorities are supporting improvements in most of these areas, but further progress is necessary. Especially key are the non-traded sectors of the economy, particularly energy, telecommunications, transport and financial services, which because of its non-traded nature and its importance as inputs to most products and services, are priority areas discussed in the following subsections.\(^{10}\)

5. **Greater competition leads to efficiency gains.** Competition, and the benefits it brings; lower prices, greater variety and product mix and the development of new products; is crucial for increasing welfare, poverty reduction and the overall wellbeing of a society. Policies that enhance competition are expected to bring not only static improvements in efficiency, especially in “disciplining” monopolies, but also dynamic improvements in efficiency, through improvements in productivity and innovation. Recent empirical research indicates that regulation that lowers entry barriers and state control increases productivity and technological innovation, stimulates business investment, and increases long-run employment rates.\(^{11}\) Therefore, reforms to enhance competition could have significant effects on growth. A study of the impact of pro-competitive regulatory reform in several industries in the United States found that annual welfare gains in the part of GDP affected by reform were more than 7 percent, with 90 percent of the benefits flowing to consumers.\(^{12}\) Increasing competitive pressure can increase the probability of firm innovation by more than 50 percent.\(^{13}\)

6. **Along with being a pioneer in Latin America in private sector participation in the economy starting in the late 1980s,\(^{14}\)** Mexico was a pioneer on establishing regulatory regimes. In the 1990s, Mexico undertook major reforms to establish the regulatory institutional framework to protect consumers against the abuse of monopoly power while ensuring the protection of investors for efficient operation and to attract and maintain enough investment in the regulated sectors. The Federal Competition Commission (CFC) and the sectoral regulators were created covering the whole spectrum of aspects and sectors that because of its nature needed regulatory systems in place (see Box 1). But the regulatory and competition structures and framework put in place, were flawed and as a result have not been able to stop anti-competitive behavior and provide for healthy expansion and operation of the sectors as noted below. **In particular four key sectors with strong economy wide effects—energy, telecom, transport and financial—are significantly underperforming—when compared with their equivalent elsewhere—with high prices, tepid expansion, and quality concerns.**

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\(^9\) This note focuses on the top three factors, although, the topic of taxes is not a subject analyzed in this report since it is the subject of the Mexico Country Economic Memorandum: Challenges and Prospects for Tax Reform.

\(^{10}\) The topic of finance, although suffering from competition constraints is not discussed here since it is addressed in the chapter on Public and Private Finance.

\(^{11}\) Nicoletti and Scarpetta (2003) and Nicoletti and Scarpetta (2004).

\(^{12}\) OECD (2002).

\(^{13}\) World Bank (2004).

\(^{14}\) Starting in the late 1980s Mexico sold off state-owned enterprises, privatized banks, and started major initiatives in infrastructure, including a program of private sector participation in toll roads and in 1989 became the second country in Latin America to privatize its telecommunications sector, with the privatization of the then state-owned Telmex.
Box 1: Mexico Pioneers Competition and Regulatory Frameworks in Latin America

**Antitrust and Consumer Protection**

- Although Article 28 of the Mexican Constitution of 1917 prohibits monopolies and monopolistic practices, competition policies and their implementation are relatively new in Mexico. It was only in 1993, following the important wave of reform of the mid 1980s, that the Federal Law of Economic Competition (Ley Federal de Competencia Económica) was enacted and the Federal Competition Commission (Comisión Federal de Competencia, CFC) was created. Regulations to the law, that defined the actual procedures that the CFC would use to implement the law, were later published in 1998.

- Competition and consumer protection is also enforced through the Federal Consumer Protection Law (LFPC) by the Federal Prosecutor for Consumers (PROFECO). The objective of the Consumer Protection Law is to promote and protect consumer rights and procure equity and legal security in relationships between suppliers and consumers. PROFECO, created in 1975, is a Federal governmental decentralized public agency, with legal personality and own endowment. Article 28 of the Constitution, the LFPC, its Regulatory and Organic Statutes, the Federal Law of Metrology and Standardization and other regulations constitute its normative framework.

**Sectoral Regulation**

- The Federal Telecommunications Commission (COFETEL), which is a decentralized agency (órgano deconcentrado) of the Secretariat of Communications and Transportation, to regulate telecommunications. In 1995, a new Federal Telecommunications Law was enacted and COFETEL was established in 1996.

- The Energy Regulatory Commission (CRE), a decentralized agency of the Secretariat of Energy, to regulate electricity and gas, created as a consultative agency in 1993 but modified in 1996 to provide CRE with a wider scope to regulate electricity and gas.

- The National Water Commission (a decentralized agency of the Secretariat of the Environment and Natural Resources, SEMARNAT) to administer and preserve national waters, to contract, to award concessions or to decentralize the provision of water supply and sewerage services that are of their jurisdiction, or as agreed with the State Governments and municipalities, or with third parties; regulation of water quality, but water tariff regulation is practically non-existent.

- The National Insurance and Bonding Commission to regulate insurance and bonds.

- The National Retirement Fund System Commission that regulates pension funds.

- The Federal Regulatory Improvement Commission (COFEMER), a decentralized agency of the Secretariat of Economy, to guarantee transparency in the development and application of regulations, as well as ensure that the benefits of regulations outweigh their costs to society.

- The transportation sector is regulated directly by the Secretariat of Communications and Transportation.

- The Secretariat of Finance and Public Credit, the National Banking and Securities Commission, and the Mexican central bank regulate the financial and banking sector.

7. **Studies show overall competition deficiencies in Mexico.** For instance, according to a recent governance survey, the two largest market obstacles to business development identified by firms in Mexico are monopolies, private or public.\(^{15}\) The Global Competition Review 2003 ranking of competition regimes in 25 countries places Mexico near the bottom with a score of 2.25, in a rating from 0-5, only above Greece (2.0) and Argentina (1.5).\(^{16}\)

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\(^{15}\) Centro de Estudios Económicos del Sector Privado (CEESP) (2005).

\(^{16}\) Global Competition Review (2003).
8. **Performance of regulated sectors, such as energy and telecommunications, has also been inadequate.** Both energy and non-energy businesses’ investment decisions are based on expectations about energy prices and service quality levels. And unfortunately, expectations of Mexican businesspeople are quite low. Business opinion surveys give Mexico the lowest rank of any OECD country in terms of energy infrastructure adequacy and efficiency (Figure 3). Natural gas, electricity, and fuel oil prices have seen dramatic increases in recent years and are among the highest in the world. High electricity costs are compounded by fluctuations in frequency and voltage, resulting in effective costs that are 10-60 percent higher than those of U.S. counterparts. When annual interruptions are compared with Latin American privatized distribution companies, the performance of Mexico’s National Electric Company (CFE) is weak. Furthermore, electricity subsidies are highly regressive and amount to about 1.1 percent of GDP. The critical issues in the energy sector are: investments levels to support expected economic growth, the efficiency of the state-owned firms providing the service, the level of prices, the subsidy structure, and regulatory and governance structure. All need to be addressed to ensure Mexico’s required increase in competitiveness.

![Figure 3: Energy Infrastructure Adequacy and Efficiency (2005)](image)

Note: Scores (between 0 and 10) are based on business survey responses to the question: “Is the energy infrastructure adequate and efficient?” The highest value indicates the most positive perception.

Source: IMD World Competitiveness Online.

9. **Likewise, Mexico lags on Information and Communications Technology (ICT) and Telecommunications, and more competition is needed.** Despite impressive ICT growth during the 1990s, Mexican investment in ICT lags behind other Latin American and OECD countries. Mexico’s level of ICT expenditure as a share of the overall economy (3.1 percent) is significantly below OECD countries such as Japan (7.4 percent), US (8.8 percent) and New Zealand (10 percent). It is also nearly half that of Chile and Brazil’s rates of 6.7 percent and 6.9 percent respectively. As a growing number
of studies have found,\textsuperscript{17} countries with higher levels of investment in ICT experience higher economic and social development growth.

10. **The telecom sector is lagging in LAC and even more within the OECD countries.** Despite being, after Chile, the first country to privatize its company in 1990 and the first to liberalize its sector in 1996, Mexico indicators are worse than many countries that privatized and liberalized later on. Box 2 below shows the comparison with Brazil, that privatized much later, in 1998. Also, Table 2 shows Mexico’s poor telecom sector performance vis-à-vis other OECD countries. The main cause is the lack of effective competition in the sector and a dysfunctional regulatory framework.

<table>
<thead>
<tr>
<th>Concept</th>
<th>Mexico’s Position</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residential</td>
<td>4th most expensive</td>
</tr>
<tr>
<td>Business</td>
<td>Most expensive</td>
</tr>
<tr>
<td>International</td>
<td>Most expensive</td>
</tr>
<tr>
<td>Mobile</td>
<td>5th most expensive</td>
</tr>
<tr>
<td>Interconnection</td>
<td>7th most expensive</td>
</tr>
<tr>
<td>Internet Broadband DSL</td>
<td>Most expensive</td>
</tr>
<tr>
<td>Internet Broadband</td>
<td>3rd with lowest penetration</td>
</tr>
</tbody>
</table>


11. **The Telecom and ICT sector faces a number of issues, including the following:**
   - Network readiness needs to be improved.
   - Fixed line growth has not kept pace with comparable countries.
   - There is a digital divide between urban and rural areas and between states—with Southern states particularly falling behind.
   - More competition is needed. Telmex, the incumbent, dominates the long distance, local, and cellular telecommunications markets, and controls the last mile. It provides service to over half of all dial-up internet accounts and over a third of high-speed internet access accounts. Telmex’s net profit margins and earnings per share from continuing operations are more than twice that of its closest rival.
   - Telephone charges are high in Mexico compared to Latin America, especially local loop prices for businesses.
   - Mexico’s ICT regulatory framework is weak and regulators have been reluctant to take action on controversial issues. COFETEL lacks adequate enforcement powers and independence.

\textsuperscript{17} See OECD (2004).
**Box 2: Brazil’s Telecommunications: Better Regulation and Better Performance**

Despite being reformed many years after Mexico’s telecommunications sector, Brazil’s telecommunications outperform Mexico’s in all dimensions. While Mexico’s penetration rate was larger than Brazil before privatization in 1990, Brazil’s rapid expansion after its privatization in 1998 has brought its penetration above that of Mexico (see table below). Regarding quality, both countries’ performance is similar, but on pricing, Brazil’s prices are significantly lower than Mexico’s.

<table>
<thead>
<tr>
<th>Año</th>
<th>Total number of subscribers per 100 in habitants</th>
<th>Failures per 100 lines</th>
<th>Comercial</th>
<th>Residencial</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mexico Brasil Mexico Brasil Mexico Brasil Mexico Brasil Mexico Brasil Mexico Brasil</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1994</td>
<td>10 8 6 3</td>
<td>310 1748 24 8</td>
<td>530 1748 12 1</td>
<td></td>
</tr>
<tr>
<td>1995</td>
<td>10 11 4 4</td>
<td>406 1107 13 9</td>
<td>236 1107 9 3</td>
<td></td>
</tr>
<tr>
<td>1996</td>
<td>14 18 3 6</td>
<td>383 60 10 13</td>
<td>107 60 14 8</td>
<td></td>
</tr>
<tr>
<td>2000</td>
<td>27 32 3</td>
<td>370 27 21 10</td>
<td>119 27 16 7</td>
<td></td>
</tr>
<tr>
<td>2002</td>
<td>41 42 2 4</td>
<td>362 14 20 8</td>
<td>117 14 16 5</td>
<td></td>
</tr>
<tr>
<td>2004</td>
<td>54 60 2 2</td>
<td>162 14 18 14</td>
<td>105 14 15 8</td>
<td></td>
</tr>
</tbody>
</table>

What is behind these important differences in performance in their telecommunications sectors? It seems that key to Brazil’s better performance was that the privatization took place only after the sector had gone through a well structured reform, including the establishment of an independent, accountable and transparent regulatory system.

Among the differences between both processes, Brazil’s reform was conceived based on the objectives of achieving universal coverage, increasing competition and to a lesser extent, maximizing revenue through the transaction, while in the case of Mexico, the emphasis was on the latter. Also key, was the restructuring of the sector that took place before it was privatized in Brazil. Before its privatization, the incumbent state-owned utility TELEBRAS was restructured on the basis of two criteria: geography and the nature of service. It was divided into 3 regional companies of fixed telephony, a long distance company, and eight cellular companies. The regional providers were allowed to compete within their regions for long-distance service with EMBRATEL (the long-distance service incumbent) creating a duopoly for these services.

The next step in the privatization was to introduce competition in the local and long distance markets until 2001, and in 2002, to open these markets to greater competition. At the present time, in most markets there are two companies that provide local services and four that provide cellular services.

Another key feature of the successful reform of Brazil’s telecommunications sector was the establishment of the main regulations, including the General Law of Communications, and of the regulatory agency, ANATEL, well ahead of the privatization. ANATEL, established in 1997, was already in operation and counted with the regulatory, administrative, supervisory and sanctioning attributions that were key elements for good regulation.
• **Administrative Autonomy:** Although ANATEL is linked to the ministry of communications, there is no hierarchical subordination with respect to sectorial attributions nor could the ministry revoke ANATEL’s decisions.

• **Transparency of Decisions:** The collegial character of ANATEL’s direction—a board of directors conformed by 5 members (of which one is the president with a tie-breaking vote)—provides fewer opportunities for abuse. Members of the board are proposed by the President and ratified by the Senate. Their mandate is for five years without renewal. Their mandates can be terminated after a disciplinary process.

• **Financial Autonomy:** ANATEL is funded through the “Fundo de Fiscalização das Telecomunicações,” a fund where, in addition to budget transfers, all the income collected by ANATEL (concession fees, authorizations payments, spectrum fees, fines) is deposited.

• **A Broad Range of Regulatory Instruments and the Capacity for their Application:**
  - Regulation of tariffs based on the cost of capital and “price cap” regulation were adopted in order to minimize costs and promote efficiency
  - Interconnection policy is based on 3 principles: mandatory interconnection to the network, non-discrimination, and free negotiation between the parties with the possibility of intervention of ANATEL
  - ANATEL provides specific regulations to avoid anti-competitive practices (prices discrimination, misuse or concealment of information, abusive conduct) and ensure quality of services
  - Monitoring and enforcement are priorities for ANATEL that spends approximately half of its human and financial resources in these activities

• **Transparency and Accountability:** ANATEL is mandated to put under public consultation their proposed norms before being sanctioned and to have its annual report of activities approved by congress.

• **Integrity and Ethics:** ANATEL’s statutes prohibit that its employees participate in administrative processes in which they (or their spouse or relatives) have direct or indirect interest. The ANATEL employees can be subject of investigation if there is suspicion of friendship or affinity with the interested party.


12. **Mexico’s regulatory burden is hindering productivity.** Several studies demonstrate how regulatory burden in Mexico is still hindering business growth. The OECD, in its most recent review of the effect of product market regulations on investment and growth found that when regulation is restrictive, productivity growth is generally below the OECD average. The OECD also estimates that if those sectors that lag in terms of productivity were to modernize their regulatory framework and align it to best practice, then productivity could increase by as much as 10 percent.

13. **Doing Business and IMCO have shown that regulation is a drag on the Mexican economy.** Mexico climbed in the overall rankings in the WBG’s Doing Business in 2007, up to 43rd out of 175 countries on the publication’s “Ease of Doing Business” scale. Mexico was noted as the “third top reformer in 2006” thanks to improvements in starting a business, protecting investors, and paying taxes. But this progress is not enough. Compared to other countries OECD countries and even Latin American countries, Mexico clearly lags behind in: a) time and cost to open a business;

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18 See cited OECD, World Bank Doing Business and IMCO Competitiveness studies.
20 Cotis (2005).
b) getting credit; c) registering property; d) trading across borders; e) contract enforcement; f) cost of hiring; and g) cost of tax compliance (Doing Business 2007, World Bank). The Mexican Institute for Competitiveness (IMCO) produced its own benchmarking report in 2005, which concludes that the cost of the regulatory burden currently represents 15 percent of Mexico’s GDP, while the benefits from regulatory improvement could yield a 5-10 percent increase in GDP.

14. **The trade and investment environment in Mexico has been transformed over the past two decades.** This is in part due to the 1994 launch of the North American Free Trade Agreement (NAFTA) with the United States and Canada, and, more recently, trade agreements with the European Union, Japan, and others. Growing competitive pressures from countries such as China have also generated policy reform measures to lower trade transactions costs. The engine of export-led expansion in the second half of the 1990s, however, has slowed down in recent years. And while exports have begun to diversify away from petroleum and related products, Mexico still remains heavily dependent on a single market—the U.S.

15. **Domestic reforms can have a large impact.** Hanson and Robertson (2005) suggest that internal conditions in Mexico associated with its ability to expand export-supply capabilities—areas directly related to trade costs and facilitation—are a more important factor in limiting the country’s export growth than China’s expanded trade into the U.S. Soloaga, Wilson, and Mejía (2006) find that trade facilitation reforms in Mexico could increase exports by $29.3 billion, equivalent to 21 percent of total Mexican manufacturing exports.

16. **Logistic costs are particularly high in Mexico.** They are estimated at over 20 percent of product value, while the OECD average is 9 percent. A pilot survey of a new Logistics Perception Index (LPI), aimed at measuring operators’ perceptions of countries’ logistics environments, gives Mexico a score of 3.6 (7 being the best and 1 the worst), below other Latin American countries like Argentina (4.5) and Brazil (3.8). Recent analyses by the government and the private sector, both of whom were concerned about Mexico’s potential disadvantage vis-à-vis its competitors, also highlighted considerable logistics weaknesses.

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22 The LPI is a World Bank initiative implemented with the support of the Turku School of Economics and Business Administration, Finland. A pilot survey was carried out in 2003.
C. SYSTEMIC UNDERPERFORMANCE OF MEXICO’S COMPETITION AND REGULATORY SYSTEM

17. **With the exception of Banco de Mexico, most of the regulatory institutions created in the 1990’s are underperforming.** Although most of these agencies were created with certain degree of autonomy, since they are deconcentrated agencies and their governance structure (e.g., the commissioners’ terms) provides certain degree of independence, their effectiveness is limited due to the following systemic factors:

   (i) **Lack of accountability.** Although the commissioners and personnel of these agencies might put all their effort into fulfilling their role, there is a lack of an incentive system for the autonomous agency to confront the large mono/oligopolies. There is neither a system of checks and balances nor penalties that would make these agencies effectively fulfill their role.

   (ii) **Limited transparency that jeopardizes legitimacy and credibility of the regulatory system** and limits public support for competition and regulatory policies.

   (iii) **Constraints in statutory authority and judicial review processes** that lengthens the time it takes for enforcement and sanctions due to the “amparo.”

18. **All these systemic factors with the presence of private or public monopolies or oligopolies impose constraints to the effectiveness of the competition and regulatory agencies.** Theses monopolies and oligopolies appear to have significant influence over the oversight agencies and institutions, and are capable to limit their ruling and block reforms required for economy-wide competitiveness. An example is the recent ruling by a federal judge that Telmex should not be considered a "dominant" player in five key segments of the Mexican telecoms market (see Box 3). To remove the systemic constraints and increase the effectiveness of the competition and regulatory agencies in Mexico, actions are needed that will:

   - Provide accountability to competition and regulatory agencies, making them accountable to the executive. Rather than having the ability to revoke the agency’s decisions, the executive (and maybe the legislative as is the case in the U.S.) could periodically evaluate the sectors and the agencies’ performance and use an incentive system (e.g., through the budget process) to improve performance.

   - Increase transparency of the decisions of the agencies so as to gain legitimacy, credibility and public support for competition policy.

   - Remove the constraints in statutory authority and judicial review processes; allow for preventive measures. The “amparo” system should be limited in its use and/or reformed to shorten the process; and frivolous petitions could be sanctioned.

23 An “amparo” (injunction) is a remedy against acts by any authority that violate any of the individual guarantees recognized by the Mexican Constitution. It is available in all legal matters and may be invoked in criminal, civil and administrative trials.
Box 3: Telmex is Ruled as not being a "Dominant" Player in Five Key Segments of the Mexican Telecommunications Market

- In October 2006, a federal judge ruled that Telmex, the fixed-line incumbent, should not be considered a "dominant" player in five key segments of the Mexican telecoms market: local telephony, domestic long-distance (DLD), international long-distance (ILD), network access, and carrier (wholesale) services. The ruling is in response to a lawsuit brought in 1998 by Telmex against the CFC's decision to designate it as a dominant player in these segments. Telmex says that as of August it controlled 58% of DLD minutes, 36% of incoming traffic, and 76% of outgoing traffic.
- Telmex reported that of Mexico's nearly 23 million fixed lines in service, it serviced the vast majority of some 14.5 million unprofitable residential and business customers and that its competitors controlled some 47% of the remaining 8.4 million lines.
- Although Telmex is facing an increasing number of competitors (32 fixed-line, 33 long-distance, 25 data providers, 1,000 licensed ISPs, and 80 cable TV operators licensed to offer voice), it is the largest player in the market and analysts consider that it would be designated a "significant market power" in many other markets. With its market dominance, through delayed interconnection, and the use of legal challenges, Telmex has the ability to restrict effective entry of new competitors.
- In early October as well, a law on convergence was approved that will allow Telmex to enter the cable TV market, but will also introduce greater competition from the cable TV operators into voice telecommunications.

Source: Various industry analyses.

Reforms of Competition Policy

19. To improve the effectiveness of competition policy in Mexico, actions are needed that will:

- Remove the constraints in statutory authority and judicial review processes; allow for preventive measures. Reduce the time it takes for enforcement and sanctions due to the “amparo.” The “amparo” system should be limited in its use and or/and reformed to shorten the process. Sanctions could also be imposed if the amparo request proves to be frivolous.
- Establish “stare decisis” for CFC’s decisions so that they become binding while they are being subjected to a judicial review;
- Enhance CFC’s collaboration with different regulatory agencies and states through harmonization agreements, or/and align jurisdiction;
- Improve the deterrent effects of the existing Federal Law on Competition Policy, by improving the collection of sanctions; and
- Increase public support for competition policy.

20. The amendments to the Federal Law on Economic Competition have been a great advance, but it is critical that the associated regulation is provided as soon as possible and its application and enforcement implemented. The amendments—that reform 25 articles, repeal 1, and add 11 more—were approved in April 2006 and went
into effect on June 29, 2006. The amendments are designed to increase the effectiveness of detecting and sanctioning monopoly practices. They classify new anticompetitive actions, increase fines and expand the capacity of the CFC to divest the assets of firms that engage in anti-competitive practices, in cases where they have not complied with previous orders; undertake verification visits; implement leniency programs; and order preventative measures. To make the amendments concrete, the corresponding regulation needs to be issued, which is expected to occur by the end of December 2006. Training and diffusion efforts will then be necessary to support the implementation and application of the amended law.

Box 4: Competition: Selected Evidence and Effects

- A study of the effect of pro-competitive regulatory reform in several industries in the United States found that annual welfare gains in affected sectors were more than 7%, with 90% of the benefits flowing to consumers (OECD).
- Increasing competitive pressure can increase the probability of firm innovation by more than 50% (World Bank, 2004).
- According to a survey of Mexican firms, the two largest obstacles to business development are government monopolies and private monopolies (CEESP, 2005).

Reforms of Sectoral Regulatory Systems

21. Mexico needs to implement a number of strategic measures to ensure the long term sustainability and competitiveness of the energy sector. In the hydrocarbons sector, about US$130 billion is estimated to be required in the period 2004–2012 to restore reserves and minimize imports through activities in exploration and production, refining, petrochemicals, and others. Likewise, the electricity sector needs an important amount of resources to finance additional capacity and modernize interconnected infrastructure. The growing dependence on fuel imports and the gradual deterioration of energy infrastructure calls for the implementation of a number of far-reaching strategic measures, which may include the following:

- **Lower fiscal dependence on oil revenue.** Ways need to be found to lower the country’s fiscal and budgetary dependence on oil revenues and allow for autonomous enterprise management in hydrocarbons and electricity. One way is to strengthen other sectors of the economy so they can act as a substitute for Mexican Petroleum (PEMEX) budgetary support. The high leakage factor of subsidies (64 percent of value in electricity) is highly regressive and increases the fiscal burden. Private sector participation can also help minimize the fiscal burden and financing needs of the hydrocarbons and electricity industries. Increased transparency of sector performance is key to inducing improved performance.

- **Initiate national dialogue.** A structured national dialogue should include relevant stakeholders and expert analysts to review the options that could ensure the long term sustainability of the energy sector (e.g., national expert committee). In parallel, strengthen the capacity of political parties, senate and congress members, and the civil society to analyze energy sector bottlenecks.

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- **Modernize the energy sector and reduce dependence on fuel imports.** Strategies should include a) the implementation of a sound program of investments and capital expenditures; b) fuel diversification measures; c) taking advantage of private sector investment interests; and the promotion of strategic partnerships that bring additional sources of capital; d) design and implementation of innovative legal and financial instruments to lower risks associated with fuel price, fuel availability, and other (e.g., innovative covenants in power purchase agreements, phasing out of PIDIREGAS (infrastructure projects with deferred expenditure recording), fuel price hedging, fixed price coverage with reference price or cap); and e) implementation of a program to improve service quality and performance to international levels.

- **Improve the efficiency of the service providers to lower prices and improve quality.** The service quality and productivity of Mexico’s main electricity provider, the *Comisión Federal de Electricidad* (National Electric Company, CFE), has improved but still significantly lags behind similar international comparators. For example, when annual interruptions and distribution losses are compared to Latin American private distribution companies, the CFE’s performance is poor25 (Figures 4 and 5), and the service quality and operating efficiency of the other electricity provider, *Luz y Fuerza del Centro* (LFC), are worse (Table 3).

**Figure 4: Annual Interruptions (hours) per Electricity Connection and Electricity Distribution Losses (%)**

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25 No data on annual interruptions have been reported for public utilities or public distribution companies.
Figure 5: Number of Electricity Connections per Worker in Distribution Segment

Sources: CFE financial data; and Andres, Foster, and Guasch (2006).

Table 3: CFE and LFC Performance

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<tbody>
<tr>
<td>Interruption of Service (min/customer)</td>
<td>CFE 242</td>
<td>225</td>
<td>124</td>
<td>120</td>
<td>89</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LFC —</td>
<td>374</td>
<td>144</td>
<td>135</td>
<td>119</td>
<td>113</td>
</tr>
<tr>
<td>Complaints (no./1,000 customers month)</td>
<td>CFE 14</td>
<td>10.7</td>
<td>4.2</td>
<td>4.1</td>
<td>3.8</td>
<td>3.9</td>
</tr>
<tr>
<td></td>
<td>LFC —</td>
<td>6.7</td>
<td>4.4</td>
<td>4.3</td>
<td>6.6</td>
<td>9.3</td>
</tr>
<tr>
<td>Connection time, new customers (days)</td>
<td>CFE 2.3</td>
<td>1.4</td>
<td>1.2</td>
<td>1.1</td>
<td>1.1</td>
<td>1.1</td>
</tr>
<tr>
<td></td>
<td>LFC —</td>
<td>10</td>
<td>5.5</td>
<td>6.0</td>
<td>6.1</td>
<td>6.3</td>
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- **Strengthen policy and regulatory frameworks.** New investments will require the consolidation of policies and regulatory frameworks that increase long term certainty levels for all participants in different segments of the hydrocarbons and electricity supply chains, and attract desired investment, and effectively discipline the current service providers. Lack of autonomy is also an issue. The CRE as a “deconcentrated” agency does not have constitutional autonomy like BANXICO and lacks the necessary resources. Also greater transparency regarding the performance of the sector is necessary. Lastly, the CRE lacks appropriate regulatory instruments: (i) the capacity to fix economically efficient electricity tariffs, without cross subsidies, and to bring transparency to the allocation of subsidies; (ii) a system of regulatory accounting that allows the proper inference and evaluation of costs and also allows for the vertical separation of the business or operations centers (generation, transmission and distribution); (iii) rules for a dispatch system to increase competition and to reduce costs; (iv) a regulatory framework for co-generation; and (v) appropriate jurisdiction for quality regulation (and for setting penalties and fines for tension variation, and blackouts).

- **Consider allowing for competition in the energy sector.** That could be secured by PEMEX participating in the generation of electricity and by CFE in Natural Gas.
Box 5: Energy: Selected Evidence and Effects

- Inadequate investments in energy infrastructure have had a significant impact on TFP growth in Mexican manufacturing (Castañeda Sabido, 2003).
- The quality of the electricity service is poor compared to other countries. Service interruptions and voltage fluctuations affect the overall productivity levels of industries and prevent the installation of modern electronic equipment (World Bank, 2005d; IMCO, 2005a; and others).

22. Private sector provision of telecom and ICT infrastructure needs to be expanded. Although current government programs provide important contributions towards the development of a knowledge economy, they do not adequately address the most important challenge: that of dramatically increasing and expanding private sector provision of ICT infrastructure in Mexico. To do so would require a level playing field, elimination of entry barriers, healthy competition, and increased access to ICT services. The following are some recommendations to facilitate these tasks:

- **Create a level playing field through institutional changes.** Rebuilding the credibility, effectiveness, independence, and transparency of COFETEL is necessary. Critical weakness exists in regulatory governance and regulatory substance, and in the judicial procedures. The following changes could benefit COFETEL:
  
  o Grant to COFETEL real independence and strengthen its regulatory capacity. The COFETEL is a deconcentrated agency that does not have constitutional autonomy like, e.g., BANXICO. The Secretariat of Communications and Transport rather than having a revoking capacity, should play an overseeing role, making, for example periodic evaluations of the performance of the sector.
  
  o Require that the processes of decision making be open to increase their transparency. Instead of bilateral negotiations and close round tables, use public consultation (i.e., public hearings, consultative documents, etc).
  
  o Focus judicial review on the cases that have a reasonable justification. Since the “amparo” system almost has paralyzed the sector, an alternative mechanism for the resolution of conflicts needs to be developed, with specialized courts, arbitration and mediation.
  
  o Ensure that COFETEL has the adequate regulatory tools. It should count with appropriate methodology (complemented with benchmarking analysis) to evaluate interconnection charges.
  
  o Ensure that COFETEL and the CFC can obtain adequate data for the regulatory process and anti-trust cases, respectively. Currently, companies can present “amparos” against requirements of information by the regulator or the CFC, which is not conducive to an atmosphere in which entry and competition is encouraged.
  
  o Effective application of the law against anticompetitive practices, deficient provision of services by dominant carriers to other operators, exclusionary access, etc, from CFC and COFETEL is necessary.
• **Eliminate entry barriers and foster competition.** The licensing regime for new entrants should be simplified and streamlined. Requirements to register contracts with COFETEL for all but the incumbent should be eliminated. Legacy voice-centric regulations should be eliminated and automatic review of regulations should be required. Mexico is the only OECD country without broadband competition in the last mile, now controlled by TELMEX. That should be changed.

• **Structural reforms in the telecom sector.** An extreme case that could foster competition would be the break up of large incumbents in order to foster competition as it was done in the case of AT&T in the U.S. in 1982 (see Box 6).

• **Promote equity and increase access.** Broadband deployment should be fostered and local loop costs reduced through competition, eliminating TELMEX control of the last mile. The universal access program should be strengthened. The government should undertake a consensus-building campaign on the priorities for universal access and cross-subsidies issues should be addressed.

**Box 6: The Divestiture of AT&T and its Benefits and Costs**

- After a lengthy anti-trust suit against AT&T that started in 1974 by the U.S. Department of Justice, a settlement was finalized in 1982 by which AT&T agreed to divest its local exchange service operating companies. The settlement liberated AT&T from a 1956 antitrust consent decree that prevented it from entering and competing in non-regulated businesses, such as data processing. Effective January 1, 1984, AT&T's local operations were split into seven independent Regional Bell Operating Companies (RBOCs), The settlement created a competitor in the long-distance market, and it allowed the RBOCs to introduce new technologies, but it forbid them to carry telephone calls from one local access and transport area to another.

- The divestiture of AT&T, by introducing competition in the long-distance market, was expected to produce benefits in that segment. An evaluation after 10 years of the divestiture, estimated that the per minute price has fallen 65% relative to the general price level. Furthermore, other evidence suggests that local telephone markets have also produced benefits: local exchange carriers realized cost savings in responding to competitive pressures with gains of 3-5 percent of total cost or of about US$72 million for the representative firm.

- One cost of the divestiture, however, has been the prohibition to RBOCs to manufacture telephone equipment or design new telephone products. This was done with the intention to prevent them from using their profits from local telephone service to subsidize new businesses. It has, however, hampered incentives to innovation by the RBOCs. Also, this provision created the need for judicial supervision of the RBOCs and imposed lengthy waits for the RBOCs to sell or license a new technology. These costs/limitations were removed with the Telecommunications Act of 1996, that deregulated some segments in order to induce innovation and introduction of new technologies.

Source: Ying and Shin (1993) and Robert E. Hall

**Box 7: ICT and Telecommunications: Selected Evidence and Effects**

- Countries with higher levels of investment in ICTs experience higher economic and social development growth (OECD, 2004).

- Mexico’s level of ICT expenditure (3.1%) as a share of GDP is substantially lower than Latin American countries such as Chile (6.7%), Brazil’s (6.9%), Argentina (5.7%), and Peru (6.9%) (World Bank World Development Indicators, 2003).

- Business telephone charges (factoring in installation costs, monthly fees, and per minute rates) in Mexico are over 3 times greater than charges in Argentina and 4 times greater than charges in Brazil.
23. **Regulatory reforms to boost competitiveness include:**

(i) Procedures that impose unnecessary large burdens on entrepreneurs need to be eliminated, or improved (e.g., starting a business, licensing, registering property, employment regulation, contractual enforcement, tax regulation); and

(ii) Business interaction with government needs to be streamlined, so as to reduce uncertainty and implementation efficiency issues;

24. **There are substantial differences in the business environment across states in Mexico.** Studies by the World Bank’s Foreign Investment Advisory Service (FIAS) / Doing Business highlight important differences across states, suggesting regional priorities for reforms. Sub-national analysis is particularly relevant given that state and local governments have jurisdiction over many investment climate reforms, including procedures to open a business, issue licenses, register property, and enforce contracts.

25. **When ranked globally on the cost of starting a business, Mexican states vary significantly** (Figure 6) Aguascalientes is the least costly—7.3 percent of state income per capita—and yet it still ranks 33rd globally in the cost to start up a business. Jalisco follows, costing 10.9 percent of state income per capita, at 52nd place, behind Gaborone (Botswana) and Santiago (Chile). Estado de México ranks lowest at 127th place—far behind Lima (Peru) and Guatemala City. However, it is less expensive to start a business in any of the Mexican states than in Jakarta or Managua.

![Figure 6: Business Start-Up Cost in Mexico and other selected economies](source)

26. **Benchmarking at the sub-national level can spur competition and generate needed reforms.** Mexico City and the 12 states, of the sample, vary dramatically on Doing Business indicators, with Aguascalientes outperforming the rest (Table 4). But a big gap remains between Mexico’s best and the ease of doing business in Bangkok or Johannesburg. Similarly, IMCO showed a large variation in investment and competitiveness factors across states. States may look for best practices within Mexico—
for example, by introducing online procedures to register businesses or property as in Aguascalientes—while also aiming for the pace and nature of reform in countries like Colombia, Vietnam or Georgia. Establishing benchmarks at the sub-national level allows reformers to focus on the main constraints to economic growth. Pressure to reform can come from contrasting how different localities implement identical national-level regulations. Much of the inefficiency is in local administrative procedures, which can be changed by a governor or a mayor. And as the news about reforms spreads, there is increased interest to replicate success stories.

<table>
<thead>
<tr>
<th>Table 4: Doing Business in Mexico: Where is it Easiest?</th>
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<tbody>
<tr>
<td>1 Aguascalientes (Easiest)</td>
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<tr>
<td>2 Guanajuato</td>
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<tr>
<td>3 Chihuahua</td>
</tr>
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<td>4 Jalisco</td>
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<td>5 Nuevo León</td>
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<td>6 Veracruz</td>
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<td>7 Yucatán</td>
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Source: Doing Business database.

27. **Important actions to improve regulation include:**
   - Strengthening public consultation;
   - Harmonizing of regulations across the different levels of government;
   - Expanding the implementation of the Rapid Business Opening System (SARE) to reduce the time and cost of business opening regulations, and creating a system to measure the SARE’s effectiveness and monitor its implementation;
   - Reinforcing the Regulatory Impact Assessment (RIA) process in federal institutions, as well as creating a monitoring and evaluation framework for RIAs; and
   - Increasing cooperation with sub-national jurisdictions and the private sector to keep improving regulations at all levels.

**Box 8: Regulation: Selected Evidence and Effects**

- Modernizing regulatory frameworks could increase productivity by as much as 10 percent in lagging sectors (Cotis, 2005).
- Starting a business takes 58 days in Mexico, compared with 5 days in the United States. Dealing with licenses takes 222 days at a cost of 159 percent of income per capita, while it only takes 70 days in the United States at a cost of 17 percent of per capita income (World Bank, Doing Business database).
- The cost of the regulatory burden in Mexico is 15 percent of GDP (IMCO, 2005).
28. Key actions to facilitate trade and reduce logistics costs include:

- **Further lowering tariffs and non-tariff barriers and reducing the dispersion of tariff rates (consolidation at a few levels).** Lowering trade barriers offers gains for consumers and allows firms to acquire lower cost inputs. The simplification or harmonization of tariffs would make more productive chains viable.\(^{26}\) This is particularly important given the need to continue to diversify exports beyond oil and the major export destination, which continues to be the United States.

- **Expanded use of information technology and reduced regulation can help lower trade costs.** Making trade procedures and documentation available electronically will reduce the time and costs for firms to conduct business abroad.

- **Key internal corridors and logistics centers could be improved,** as manufacturers face high costs to deliver their products from/to the border, ports, or airports and access to those facilitates are already fairly congested. Elevated transport costs, times and incidence of delays have also led to high inventory levels for businesses.

- **Enhancing customs efficiency.** The lack of flexibility in working hours and locations for product clearance adds on delays and costs. The customs administration would also benefit from a modernization of its infrastructure, including better use of information technology in ports, airports and land border crossings.

- **Strengthening the organization of firms’ supply-chains.** Manufacturing companies, especially SMEs, often incur higher costs due to a lack of skills in modern supply-chain management techniques. This involves, through BDS and logistic assistance, rethinking the complete supply chain from material and services sourcing to the use of specialized distribution companies to deliver the end product to the client.

**Box 9: Trade Facilitation and Logistics: Selected Evidence and Effects**

- Trade facilitation reforms in Mexico could increase exports by $29.3 billion, equivalent to 21 percent of total Mexican manufacturing exports (Soloaga, Wilson, and Mejía, 2006).
- Despite the gains from NAFTA, Mexico has been losing export market share within the United States in recent years. Of the top ten types of Mexican imports in the United States, only two—petroleum and total agricultural products—gained market share between 2001 and 2005 (U.S. Census Bureau, Foreign Trade Statistics).
- Export-supply capabilities were more of a constraining factor than import-demand conditions in the United States for Mexican exports (Hanson and Robertson, 2005).
- Reducing logistics costs from over 20 percent to 12 percent in Mexico would have a significant impact on economic activity and job creation (Guasch, 2004; Guasch and Kogan, 2003).
- Mexico spends almost double what the United States does on transport as a percentage of GDP (IMCO, 2005 based on INEGI).

29. **But if an intensive reform effort to remove the systemic and specific constraints to the competition and regulatory system is not possible, Mexico could**

\(^{26}\) Currently, in some sectors it is more profitable to import final goods under preferential treatment than importing the inputs and raw materials to produce those same goods domestically.
take a more gradual approach. Although this might not ensure the needed competitiveness gains, it could specifically:

- Start with a simple approach and consider administrative reforms that they do not need legislative changes.
- Introduce transparency by publishing as much regulatory information as possible.
- Eliminate unnecessary procedures, reducing the required number of opportunities for bureaucrats to interact with entrepreneurs.
- Create opportunities for reform by making public benchmarking information on outcomes and performance in the regulated sector.
References


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