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The challenges that the mexican economy faces to achieve high growth in the medium term

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I. Introduction

This article discusses the causes of the low growth that Mexico has exhibited in recent decades, in order to identify possible courses of action that could be taken to boost the potential growth of the economy in the medium term.[1] This analysis has become particularly relevant in the context of the current global crisis. In the absence of structural changes that may boost the potential growth rate of the economy, Mexico's growth rate could actually decrease if the potential growth of the United States diminishes due to an adjustment to the spending patterns currently being observed in that country.

The central argument that is derived from the analysis in this paper is that the low potential growth of the Mexican economy responds ultimately to an institutional framework that leads to adverse incentives. In particular, this institutional framework has tended to

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[1] The potential growth of the economy can be defined as the maximum growth that can be achieved in an economy, its given available resources, without generating inflationary pressures.

reward rent extraction relatively more than the search for new and better production methods, and has led to low rates of investment in physical and human capital. Obviously, this leads to low economic dynamism, greater income inequality, and increased poverty.

This paper is structured as follows. The second section describes the growth that Mexico has exhibited in recent decades, compared with that observed in more successful emerging economies. The third section identifies the immediate factors that have led to the Mexican economy's low potential growth.

The fourth section describes the deep institutional factors behind the low performance of the more immediate determinants of growth. The fifth section discusses the possible effects on the potential growth of our economy derived from the current global economic crisis. The sixth section outlines courses of action that could change the incentive structure that currently characterizes the economy and thereby have a positive impact on competitiveness and growth. Finally, the last section presents some conclusions.

2. Low growth in Mexico, 1960-2007

From 1960 to the present, Mexico has registered a poor performance in terms of its economic growth when compared with other regions that started this period with similar levels of development. From 1960-2007, Mexico's average GDP growth rate reached 1.9%. In contrast, the average per-capita annual GDP growth rate in East Asia was 5.2%, while the most recently developed countries in Europe, such as Greece, Ireland, Portugal and Spain, achieved annual growth rates of 3.3%.[2]

Due to this performance, Mexico has lagged considerably in terms of living standards. While Mexico in the 1960s saw GDP per-capita levels similar to those of Chile, Spain and Ireland and higher than in countries such as Korea, in 2007, GDP per capita in Mexico was well below that of these countries. A comparison between Mexico and Korea is particularly illustrative: while in 1960 per-capita GDP in Korea totaled 42% of that of Mexico, in 2007 the situation was exactly reversed—GDP per capita in Mexico accounted for 42% of that of Korea. Mexico's deficient growth performance is important

[2] Asian countries considered include Korea, Hong Kong, Malaysia, Singapore, Thailand, and Taiwan.

when considering the fundamental role that growth plays in opening up opportunities for the alleviation of poverty.

Table 1: Per Capita GDP Adjusted by Purchasing Power Parity (2000 Dollars)

Levels						
	1960	1970	1980	1990	2000	2007
Mexico	3,695	5,109	7,201	6,877	8,082	8,752
European 4	4,629	8,690	11,594	14,459	18,578	21,475
East Asia	1,530	2,589	4,641	8,387	12,947	16,664
Latin America Excl. Mexico	3,733	4,896	6,648	6,275	7,058	8,089
Annual Growth Rates						
	1961-1970	1971-1980	1981-1990	1991-2000	2001-2008	1961-2007
Mexico	3.3	3.5	-0.5	1.6	0.8	1.9
European 4	6.5	2.9	2.2	2.5	1.6	3.3
East Asia	5.4	6.0	6.1	4.4	3.3	5.2
Latin America Excl. Mexico	2.7	3.1	-0.6	1.2	2.1	1.7

Note: Regional averages weighted by population.
Source: Penn World Table 6.2 and World Economic Outlook, IMF.

3. Factor accumulation, the efficient allocation of resources and productivity as growth determinants

The average low growth in the Mexican economy registered in the period 1960-2007 partly reflects the stagnation during the "lost decade" of the eighties. However, as shown in Table 1, this is not the only factor associated with this poor performance. On the one hand, since the sixties, growth in Mexico was significantly lower than in European countries and the newly industrializing countries of East Asia. On the other hand, even after the "lost decade" and the achievement of a stable macroeconomic environment, the Mexican economy continued to register growth rates lower than those observed before the turn of the eighties and displayed by other developing countries. It follows that, apparently, the economy has a problem of low long-term potential growth.[3]

[3] As shown in Table 1, the Latin American region as a whole is also characterized by low long-term growth. In this regard, Cole et al. (2005) conducted a study for this region and arrive at similar conclusions to those presented here in the particular case of Mexico. Indeed, as is stated in this article, these authors concluded that the stagnation in Latin America is not only a consequence of the debt crisis, but of an unsatisfactory performance in terms of growth in Total Factor Productivity (TFP) that has characterized the region for a long period of time. Consistent with what is stated in this article, the authors suggest that this could reflect inefficient production resulting from the presence of high barriers to competition in the markets of the region.

Banco de México has conducted several studies to estimate the country's potential growth. Regardless of the techniques used, the finding seems to be that potential growth is currently located within an interval ranging from 3% to 3.5% annually. This potential growth should be considered as low, given the level of development of Mexico. For example, given its population growth rate, the Mexican economy would have to grow about twice its current potential growth to achieve by 2020 the current levels of per-capita GDP in Korea.

It is also important to emphasize that the potential growth of 3-3.5% estimated for Mexico is supported by a potential growth of around 2.7% for the United States (Congressional Budget Office, 2008). As discussed in Section 5, it is feasible that the potential growth of that country will decrease in the coming years as a result of the longer-term consequences of the current crisis. This would have a negative impact on potential growth in Mexico and highlights the urgency of implementing the reforms needed to offset this effect through a greater impulse to the economy's potential growth. Obviously, it is essential to first identify the factors that prevented Mexico from growing faster in the past.

On the basis of the concept of a neoclassical production function, it is possible to identify the most immediate causes of the country's low growth to a combination of: i) a low accumulation of factors of production; ii) an inefficient allocation of these factors; or, iii) the use of a low-productivity technology. The importance of these factors as possible determinants of the country's low growth is discussed in the following three sections.

3.1 Accumulation of physical and human capital

Mexico has shown much lower rates of savings and investment in physical and human capital than those of other emerging economies between 1960 and 2007. Mexico invested about 20% of its GDP during this period, while European countries and newly industrializing countries in East Asia invested 26% and 28% of their national incomes, respectively. Similarly, domestic savings rates in Mexico during this period, which averaged 19% of GDP, compare unfavorably with the figures of 22% and 28% in European countries and newly industrializing countries in East Asia, respectively.[4]

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[4] Calculations based on Penn World Table 6.2 (Heston and Summers (2006)) and World Economic Outlook (WEO) (IMF (2008)).

Similarly, Mexico also exhibits a poor performance in terms of human capital accumulation, which in turn has limited the possibility of our country's escalation in the value chain. Indeed, both in terms of quantity and quality, the accumulation of human capital in Mexico has been inadequate. Although improving in recent decades, the average schooling of the population, both as the proportion of students completing secondary education and entering tertiary education, remains low compared to other countries with better economic performance (See Table 2 and Figures 1 and 2).

Table 2: Average Years of Schooling
(Population 25 years and older)

	1960	1970	1980	1990	2000
Mexico	2.4	3.3	4.0	5.9	6.7
European 4	3.7	4.5	5.2	6.2	7.2
East Asia	3.3	4.1	5.3	6.9	8.1
Latin America Excl. Mexico	3.3	3.5	4.0	4.7	5.5

Source: Barro and Lee (2000), weighted by population using Penn World Table 6.2.

Figure 1
Secondary School Complete
(% of Population 25 years and older)

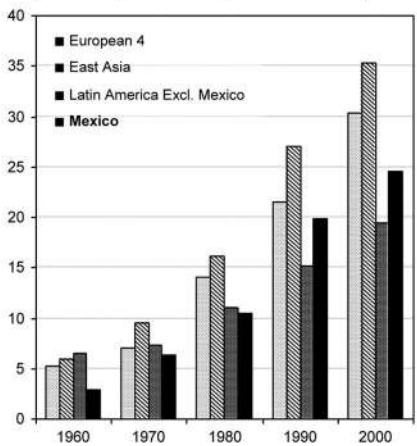
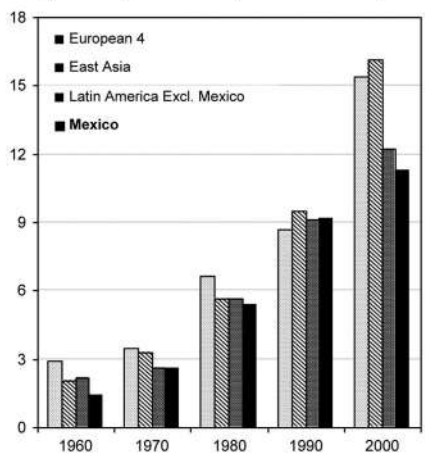


Figure 2
Higher School Attained
(% of Population 25 years and older)



Source: Barro and Lee (2000), weighted by population using Penn World Table 6.2.

Also, the low quality of the education system is clearly manifested in the results of standardized tests performed in several countries, like the PISA study, in which students in Mexico have shown the worst performance of all OECD countries in math and science (see OECD, 2004, 2007 and 2008).

This, however, does not mean that the low accumulation of physical and human capital is necessarily the deepest cause of Mexico's low growth. Actually, it could be the result of factors that influence both the accumulation and the allocation and productivity of these inputs.

3.2 Efficient allocation of resources

Indeed, even taking as given Mexico's production factors endowment, these inputs could be allocated more efficiently. In particular, there are various barriers and market distortions that hinder the efficient allocation of resources in Mexico (Conway et al., 2005, and World Economic Forum, 2006, 2007 and 2008). This prevents the full exploitation of the country's comparative advantages, and leads to low levels of productivity. These barriers and distortions appear to be of particular importance in the labor market and in sectors known as suppliers of inputs through networks. A discussion in greater detail of these issues follows.

3.2.1. Distortions in the labor market

Various rigidities and adverse incentives in the labor market have led an to inefficient allocation of labor. Indeed, Mexico stands out negatively in various international comparisons in terms of high barriers to labor mobility (Botero et al., 2004, and Heckman and Pagés, 2000).

For example, as shown in Figure 3, in an international comparison the Mexican labor market is characterized by relatively high dismissal costs and a high degree of stickiness in contract creation. In particular, we can distinguish three types of distortions that tend to keep the allocation of labor away from its optimum:

- First, there are rigidities in the way that companies can establish, modify or terminate an employment relationship. Examples are: i) the limited capacity of firms to hold temporary contracts; ii) the absence of the figure of probation contracts; and, iii) the use of seniority scales as the criterion for promoting workers inside the company. Regarding contract termination,

costs are particularly high due to i) compensation for unjustified dismissal; ii) the payment of years–of-service premiums; and, iii) dismissal notification rules.[5]

- Second, there are distortions emerging from the bargaining power of trade unions in sectors producing nontradable goods. This distortion, coupled with limited competition in these sectors, tends to generate a pattern of rent sharing that translates into high prices, low service quality, and restrictions on the creation of productive employment and investment in human capital and modern technologies. This leads to a loss of consumer welfare, low business competitiveness, and high levels of informal, low-productivity employment.

- Finally, distortions exist from high non-wage labor costs which do not translate into equivalent welfare gains for the worker. Specifically, non-wage costs are composed primarily of a series of benefits for workers that are forcibly incorporated into the contract; *i.e*., workers in the formal sector cannot stop paying for any of those benefits even if they do not require them (Inter-American Development Bank, 2006). Also, the amount of non-wage labor costs is a very important part of what the company spends per employee.[6]

According to Levy (2008), some social protection programs, originally designed to support the most vulnerable Mexican labor segments, provide social security benefits to the informal economy without most of their costs being covered by employers or workers in this sector. In this way, the current scheme could be inducing an increase in the proportion of workers in the informal economy. (See figure 3)

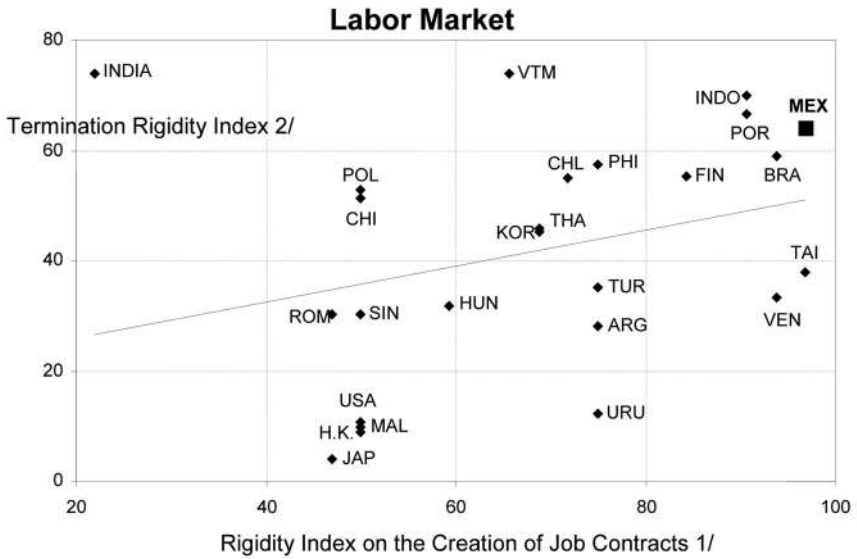
These distortions in the labor market have direct consequences in terms of economic growth and persistent poverty and income inequality. In particular, i) they inhibit labor mobility to sectors or regions where productivity is higher, ii) they discourage the adoption

[5] Undoubtedly, the protection of workers during periods of unemployment is crucial both from a standpoint of social welfare and market efficiency. However, the design of mechanisms for the protection of workers against dismissal do not necessarily have to be based on high severance payments. Section 6 discusses an alternative.

[6] Non-wage labor costs total over 30% of the salary of the employee (Levy, 2008).

of advanced technologies and investment in human capital (Parente and Prescott, 2002), iii) they mainly affect women and young people, because these workers often require more flexible recruitment and working –hour schemes (Feldmann, 2008), and, iv) they promote the expansion of a low productivity informal sector.

Figure 3



Higher levels of the index show higher rigidity on labor markets . 1/ Corresponds to the value of the index of the creation of alternative job contracts. 2/ Corresponds to the average of the dismissal costs index and the dismissal procedures index.

Source: Botero *et al.* (2004).

3.2.2. Distortions in sectors that provide inputs through networks

Another type of distortion that has affected the efficient use of production factors and reduces competitiveness to the Mexican economy is the fact that there are still sectors where inputs are supplied through networks in which current regulations do not guarantee quality and generalized non-discriminatory access. Some examples are telecommunications, financial services, and electricity. Network sectors have four key features (see Shy, 2001, for a formal treatment of this topic):

- First, there are complementarities in the use of more than one product and therefore, the need to address issues of compatibility and technical standards. For example, there are complementarities between cellular phone providers and suppliers of equipment receivers, and between content providers and providers of broadband networks.

- Second, there are consumption externalities where the benefit of using a particular service is increased to the extent that other users consume the same service. This type of externality is clear, for example, in the case of mobile telephony.

- Third, users face high switching costs for changing suppliers, as, for example, in changing banks or changing providers of fixed or mobile telephone services.

- Finally, the provision of services through networks usually has high economies of scale. In particular, the installation of the network (telephone, electric, transportation, water or gas) usually involves large investments (high fixed costs). However, once the network is in place, the costs of providing additional services and connecting new users appear to be very low (low marginal costs). This feature leads to significant economies of scale and scope.

Together, these characteristics mean that, in the absence of proper regulation, dominant suppliers generally capture a large share of the market, allowing them to offer the service at higher prices and lower quality. In particular, the dominant suppliers may limit generalized access to inputs and exploit externalities that can be used to erect barriers to entry for other industry suppliers and to design strategies to extract rents at the expense of consumers and the competitiveness of industries using these inputs intensively. It is noteworthy that in these sectors, demand for services is generally inelastic, making for a high degree of market power and leading to particularly high rents that can be drawn from consumers.

Therefore, it is essential to achieve reforms to the regulation of these sectors to ensure a supply at competitive prices and an efficient use of resources by companies engaged in the provision of these inputs. In this context, it is important to mention that most countries are now directing their efforts towards promoting competition by regulating such markets adequately.

3.3 Modern production technologies

It is important to emphasize, however, that while the problem of barriers to entry may be particularly evident in suppliers through networks, lack of competition may be a more widespread feature

of the economy. As discussed below, this issue, combined with the lack of free mobility of factors mentioned above, are perhaps the features that lead Mexico to a low adoption of advanced technology and efficient work practices. This, in turn, translates directly into low productivity.

Indeed, the extent of the adoption of modern technologies leading to high productivity, depends on the institutions that influence the degree of flexibility and competition in markets, as well as in general on the incentives for the investment in research and development. Certainly, the economic literature has identified a formal relationship between the degree of flexibility and competition in markets and the use of productive technologies and efficient working practices (see, for example, Parente and Prescott, 2002, and Bergoeing et al., 2002, for a formal treatment of this topic). When there are no barriers to market entry, the agents who decide to participate in an activity make investments based on the use of modern technologies. Barriers to entry, in contrast, allow the firms that dominate the market to obtain monopoly rents from the use of inefficient technologies and thus reduce incentives to adopt more productive technologies.

Moreover, incumbent firms may interfere with the design of public policies and try to influence the regulation in order to block the entry of new competitors with more productive technologies. Thus, in markets that do not operate under competitive conditions, there are significant losses related to an inefficient resource allocation and an use of less productive technologies. The value of these losses is generally higher than the rents received by those sectors protected from greater competition. This leads to two implications: i) decreased public welfare due to lower efficiency; and, ii) a deterioration in income distribution. It is precisely due to the latter that many of the competition policies in developed countries have emerged or been considerably strengthened, with the firm intention of preventing monopolies from influencing state institutions.

4. Deep Determinants of low productivity, slow accumulation and inefficient allocation of productive factors

It follows from the above that the performance of the accumulation of factors and productivity, as well as the efficiency with which these factors are allocated to different productive activities, should not be taken as exogenous factors that determine economic growth.

Rather, they are endogenous consequences of the incentives faced by economic agents and policymakers. In particular, the deepest and most fundamental determinant of economic growth is the institutional framework that defines the incentives system establishing the extent to which economic agents invest in physical and human capital, the degree to which they adopt modern technologies and efficient work practices, as well as to what extent public policies do correct for market failures.

On the basis of the above discussion, one can conclude that what has led to low productivity growth and consequently to low competitiveness in Mexico, has been an institutional framework that has failed to promote more competitive and flexible markets, as well as the lack of adequate incentives for the adoption of modern technologies and efficient work practices. This has been reflected in various indices that seek to rank countries in terms of competitiveness. For example, in the World Economic Forum's 2008-2009 Competitiveness Index, Mexico ranked 60 out of 134 countries. If one takes as a basis the 131 countries that were ranked in the 2007-2008 edition of this index, Mexico lost 7 positions. By component, Mexico is most unfavorably rated in labor market efficiency (placing 110), level of institutions (placing 97), propensity for innovation (90), and higher education and training (74). Obviously, the country's most apparent weaknesses within this index are consistent with the previous discussion. Specifically, an inappropriate institutional framework that generates various distortions and imposes high barriers to competition, and lack of flexibility in some markets, such as the one for labor, inhibit both innovation and adoption of improved technologies and the investment in human capital.

In this context, four institutional elements follow which, if reformed, could have a major impact in boosting the country's competitiveness. Section 6 discusses areas in which these elements can be improved for this purpose.

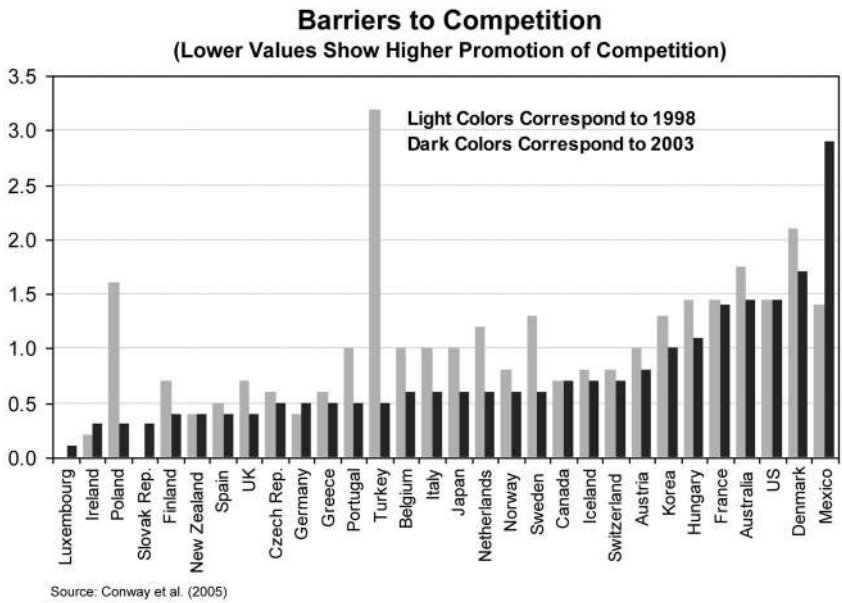
a) To promote competitive conditions in markets for inputs of widespread use, inputs provided through networks, and final products

As mentioned, both economic theory and international experience show that when an economy operates under competitive conditions: i) a higher rate of innovation is induced and firms adopt the latest

technologies and the most efficient work practices; ii) consumers have access to a greater variety and quality of goods and services at lower prices, and iii) the population has more opportunities for jobs that pay according to their productivity.

In this context, according to the OECD (Conway et al., 2005), Mexico stands out negatively in terms of barriers to competition, as it has shown a clear deterioration from 1998 to 2003, years for which this measurement is available (see Figure 4).

Figure 4



b) To promote flexibility in resource allocation

As mentioned, rigidities such as those in the labor market cause an inefficient allocation of resources by limiting the movement of factors to their most productive uses. Additionally, these rigidities also tend to hinder the adoption of modern technologies and investment in human capital.

c) Efficient application of public policies

Public policies also have an important role to play, participating actively in those areas of the economy where social returns exceed private returns. Clearly, in order to achieve an effective implementation of

public policies, we need the individuals responsible for designing and implementing those to face appropriate incentives to maximize the social returns of these policies.

d) Promoting the rule of law

There is an extensive literature on the link between institutional quality and economic growth (Acemoglu et al., 2004, and Acemoglu and Johnson, 2005). In particular, a weak rule of law increases production costs and, therefore, affects a country's competitiveness.

Loss of competitiveness is especially important in those sectors that are inherently more dependent on the provision of an efficient institutional framework. Examples include sectors with a larger number of contracts with suppliers to produce a final good or service (Nunn, 2007, and Levchenko, 2004). In this context, these sectors show lower production levels in countries with weak institutions. This is particularly important because these activities are typically located in a higher position in the value chain, and they lead to a higher rate of innovation. This implies that countries with an inefficient institutional framework allocate proportionally more resources to less dynamic and productive sectors, thus generating a lower potential growth.

5. Possible long-term effects of the current crisis

It is still too early to predict the magnitude of long-term consequences of the crisis we are experiencing globally. Indeed, there is uncertainty regarding the balance of growth that each country should maintain. In particular, it seems increasingly clear that several countries require adjustments in their consumption patterns towards a more sustainable path. One country that is clearly in this situation is the United States. In this context, given that the United States remains the main market for Mexican exports, if the potential growth of that country diminishes as a consequence of this needed adjustment, keeping other factors constant, this would lead to a further reduction in Mexico's potential growth.

Long-term adjustments in the United States would have permanent effects on Mexico's potential growth. First, U.S. private consumption could decrease not only in level, as has been the case since August 2008, but also in the rate of long-term growth. This would be due mainly to the fact that recent U.S. household consumption was fueled by a

perception of household wealth based on increases in both financial and real estate asset valuations which proved to be unsustainable. Following the collapse of these asset prices, the general opinion of financial analysts is that once markets touch bottom, the rate of price recovery will be lower than rates observed in the last decade. The latter is a consequence of a necessary process of financial system deleveraging and of ongoing changes in regulation and supervision, as well as a generalized loss of confidence, which will recover only with the passing of time.

Second, the production model of the U.S. auto industry seems to be wearing out. Currently, the American automotive industry is attempting to reform itself quickly, but there is a high level of uncertainty about this transformation. In this context, the fate of U.S. automotive firms will clearly impact Mexico's automotive sector and hence its industrial sector.

Finally, potential long-term effects from the current crisis are linked not only to conditions prevailing in the United States, but also to other factors. On the one hand, policies implemented by some countries to counter the negative effects of the global crisis have focused not only on fiscal and monetary measures, but also protectionist policies have resurfaced, mainly in the form of higher barriers to international trade. It is too early to tell the extent of the use of trade policies and by whom, especially when the G-20 countries have expressed a commitment not to raise barriers to trade. However, it is important to note that trade distortions suffer from a bias towards the status quo; *i.e*., once a protectionist policy is enforced, it is difficult to reverse it. The greatest barriers to trade result in a less efficient allocation of resources and, therefore, a lower rate of global economic growth.

It should also be noted that the international financial crisis has contracted international capital flows dramatically and even more for emerging economies. This implies, at the margin, smaller sources of funding for productive activities and infrastructure. The level of persistence of the reversal of capital flows is still a question. The answer will depend on the new architecture of the global financial system and the speed of the deleveraging process mentioned above. A possible source of easing of this restriction in the medium term are the actions recently announced at the meeting of the G-20 in April 2009 to triple the financial resources of the IMF, and to increase the lending capacity of the World Bank. In this context it

is noteworthy that in April 2009, Mexico received approval from the International Monetary Fund for a Flexible Credit Line (FCL) in an amount of about US$47 billion. The FCL, which has no ex-post conditionality, can be granted only to countries with sound economic fundamentals. In the current global crisis, the FCL will help protect the Mexican economy and reduce the risks to growth that persist with the possibility of unfavorable conditions in international capital markets.

As illustrated in this section, there are risks from the current global context which could affect potential growth in Mexico. In this environment, it becomes even more urgent to take measures that could counteract the long-term effects of the crisis and, more importantly, contribute decisively to achieve a higher potential growth than the growth Mexico has experienced in recent decades.

6. Lines of action

From the discussion held in the previous sections, it is possible to conclude that to a large extent, Mexico's poor economic performance reflects the fact that it has an institutional framework that prevents competition and perpetuates a series of distortions that reduce market flexibility, causing an inefficient allocation of resources and discouraging investment and the use of modern technologies and more efficient work practices.

In this context it is clear that to boost growth, what is needed is to change the system of incentives, replacing schemes that have allowed the extraction of rents with a new framework that promotes competition, flexibility in resource allocation and adoption of modern and efficient technologies and work practices. Additionally, it is especially important to remove the existing distortions in various markets in which services are provided through networks. These points are discussed in more detail below.

6.1. Competition policy

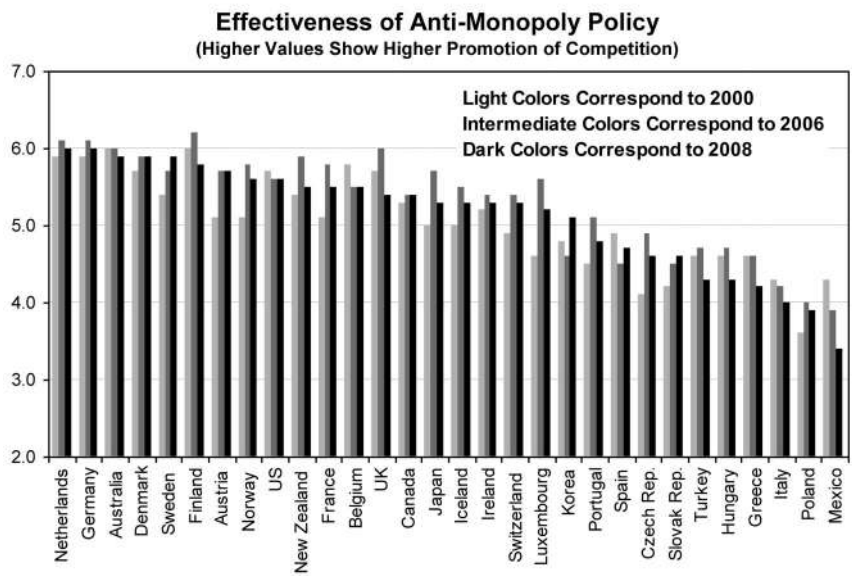
It is clear that a key strategy for economic growth is a more active promotion of competition. The key challenge is to avoid pressure from powerful groups which seek exemptions or preferential treatment by influencing the design of the country's regulations. It is also important to increase the costs faced by the economic agents engaging in anti-competitive practices.

Recently, important progress was made in the promotion of economic competition in Mexico, through the reform in 2006 of the Federal Economic Competition Law. This reform gave additional powers to the Federal Competition Commission (COFECO), specifically to: i) increase the number of typified monopolistic practices that can be prosecuted; ii) carry out immunity agreements with companies that cooperate with its investigations; and, iii) increase its capacity to obtain relevant information. Additionally, COFECO is now able to tackle barriers or taxes on interstate trade, and the federal government is required to consider its views on economic competition.

However, key areas remain within the field of competition where additional progress can be made. Indeed, despite the reforms, according to the World Economic Forum, the Effectiveness of Competition Policy in Mexico decreased significantly from 2006 to 2008 (Mia and Lozoya, 2008, see Figure 5).

In this regard, it is essential to give COFECO more and better legal instruments to enable it to carry out its activities and decisions in a more autonomous, expeditious, and decisive way. COFECO should be considered by all economic agents as a defender of consumer

FIGURE 5



The Anti-Monopoly Policy Effectiveness Index goes from 1 to 7 and measures the effectiveness of the Anti-Monopoly Policy of a country: 1= the anti-monopoly policy is relaxed and does not promote competitiveness effectively and 7= the anti-monopoly policy is effective and promotes competitiveness.

Source: WEF (2000), (2006) and (2008).

rights and not just a promoter of economic competition. In particular, it is essential to take action in the following areas:

- Autonomy. It might be appropriate for COFECO to be operationally autonomous and independent rather than to be located under the umbrella of the Ministry of Economics. Countries with success stories in the implementation of competition laws have fully independent competition agencies that report directly to Congress.

- Competition and Consumer Protection. Ideally, as seen in other developed economies (*e.g.*, Australia and the United States), COFECO and the Federal Consumer Protection Agency (PROFECO) should be merged into a single institution, given the inherent relationship between competition and consumer welfare.

- Resources. COFECO needs greater financial and human resources. COFECO currently has 175 employees, while its Australian counterpart has 723 (Federal Competition Commission, 2009, and Australian Competition and Consumer Commission, 2008).

- Protection and Judicial System. "Amparo" judgments have hindered the implementation of the Competition Act. These have been used extensively by the companies surveyed by COFECO as a tool for delaying investigations and, in most cases, to evade resolutions. In this context, the current judicial system is considered by several studies as an obstacle to the implementation of competition laws (Avalos, 2006, and OECD, 1999, 2004b and 2006).

- Penalties. When compared with other countries, Mexico is still far behind in this vital area.[7] In this context, an increase in the fines applied by COFECO has been promoted in order

[7] For example, the maximum fine for absolute monopolistic practices in Mexico amounts to little more than 75 million pesos, while in other countries fines for this kind of practice are imposed for up to nearly 7 billion pesos (91 times more than in Mexico). In the case of relative monopolistic practices, the maximum penalty possible in Mexico is about 46 million pesos, while other countries have come to punish such practices with fines up to the equivalent of nearly 6.7 billion pesos (an amount approximately 147 times greater). In fact, in other countries, there have been several cases in which executives have gone to prison when found guilty of deliberately orchestrating anti-competitive practices.

to have the sanctioning and dissuasive effect expected from an economic penalty. In particular, it is necessary to establish fines as a function of the firm's assets and income as opposed to fines based on a certain amount of minimum wages, which produce fines that are insignificant compared with the benefits agents derive from monopoly practices. In this regard, COFECO has already proposed more effective penalties.[8]

- Competiton Culture. Finally, it is necessary to actively promote in society a culture of both pro-competition and consumer protection through various means.

6.2 Labor market

The Reform of the ISSSTE Law (Ley del ISSSTE) enacted in 2007 was an important step in the Mexican labor market, converting state employee pensions from a defined-benefit to a defined-contribution system by means of the creation of individual accounts. This reform favored market flexibility by allowing workers to maintain their savings even if they change sector of employment. Another important development is the recent Alliance for Quality Education (Alianza para la Calidad Educativa), which may in the future have a beneficial impact on levels of workers' human capital formation and on the quality of education.

However, given the above discussion, it seems particularly important to conduct a comprehensive reform of labor legislation that promotes greater labor market flexibility.[9] Among other goals, this reform should focus on achieving the following:

[8] In particular, an amendment is proposed to Article 35 of the Federal Economic Competition Law as follows: i) absolute monopolistic practices should be fined for up to 15% of the value of assets or total annual income; ii) relative monopolistic practices, or concentration practices 9% of assets or total annual income, and iii) in cases of backsliding, 20% of assets or total annual revenues.

[9] Mexican labor law is characterized by a high degree of job protection. This legislation is based on the development model of import substitution implemented in Mexico in the past, when companies had a high degree of market power, which could adversely affect worker welfare, especially if firms' market power allowed them to exercise monopsony power in the labor market. In this context, the labor law was established as a mechanism for redistributing to the workers part of the rents obtained by firms from trade restrictions. The important changes that have occurred in the Mexican economy since that time, in particular trade liberalization, have not been reflected in amendments to the Federal Labor Law. Indeed, the Federal Labor Law has not been substantially amended since its inception in April 1971.

- Lower rates of informalty. This would result in better use of labor in more productive activities, a more equitable distribution of income, and greater tax revenues.

- Increased coverage of major social security and welfare programs.

- Better incentives for human capital formation and adoption of new technologies.

In this context, two particularly important courses of action (among others) should be evaluated in the analysis of a reform to make the labor market more flexible:

6.2.1. Review the current social security scheme. According to some studies (*e.g.*, Levy, 2008, and the Inter-American Development Bank, 2006), it seems appropriate to assess whether all the benefits associated with mandatory social security are truly valued by employees in a manner consistent with the cost involved. Additionally, it may be desirable to decouple public health services from the labor market. A gradual move from a public health system financed by contributions from wages to a funded system with stable sources of income (*i.e.*, income or consumption taxes) could be implemented. This move would avoid conditioning access to public health to the status of the worker (*i.e.*, formal or informal), would tend to reduce incentives for informal employment, and would maintain a policy of universal health care without creating distortions in the labor market in Mexico.

6.2.2. To assess the feasibility of replacing current dismissal costs with a system of unemployment insurance or a separation fund. This action could increase market flexibility by reducing the costs of labor mobility. In this context, using the existing infrastructure of the Savings for Retirement System could facilitate implementation. A similar system was implemented successfully in Chile in 2002. In this regard, Acevedo, Eskenazi and Pagés (2006) argue that the main advantages of the new Chilean system would be that: i) it reduces companies' labor costs; and, ii) it reduces the problem of moral hazard induced by traditional unemployment insurance schemes. The authors also argue that this system could be implemented in other emerging countries that have a relatively developed financial sector, such as Mexico.

6.3. Sector of inputs provided through networks

Important linkages exist between labor markets and final product sectors that provide inputs through networks. The particular characteristics of these sectors often lead to more bargaining power for unions, generating rent-sharing schemes at the expense of price, service quality, and sometimes, public finances. Blanchard and Giavazzi (2003) developed a theoretical model of an economy with these features and highlight the importance of coordinating competition policies and regulatory sectoral policies with labor regulation. Indeed, effective regulation that would translate into an increase in competition in the market for goods would generate a reduction in monopoly rents and thus could reduce the power of unions, thereby facilitating changes in employment regulation. Among the most important challenges in these sectors, the following may be stated:

- Monitoring the network infrastructure. Without proper regulation, the firms that control the network tend to vertically integrate the business segments that are in the network nodes as a strategy for capturing monopoly rents. Currently, the international trend in these sectors has been to separate the ownership and operation of the network infrastructure. For example, in some countries it has been the case that companies lease their telecommunications network capacity to others. In the electricity industry, some countries have established independent bodies comprising other companies in the sector for the operation of the transmission network.

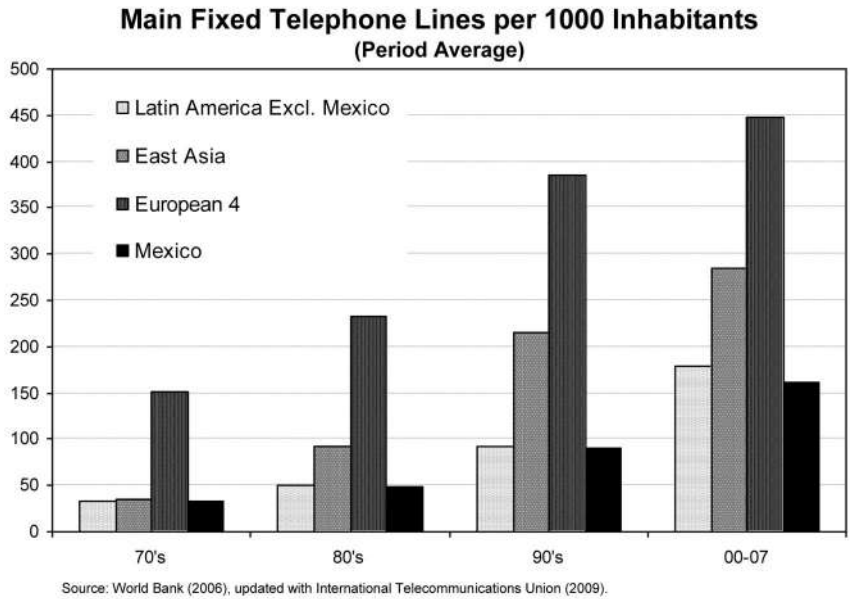
- Interconnection regulation. The welfare of users is increased if different networks or new entrants in the industry are able to interconnect themselves. To promote competition among networks it is necessary to regulate the practices of interconnection to ensure non-discriminatory access and standard pricing. This problem has been evident in Mexico in various sectors such as telecommunications, transportation, and electricity.

Other more specific problems of these industries in Mexico are the following:

- Telecommunications: While there has been progress in introducing competition in this sector, Mexico continues to

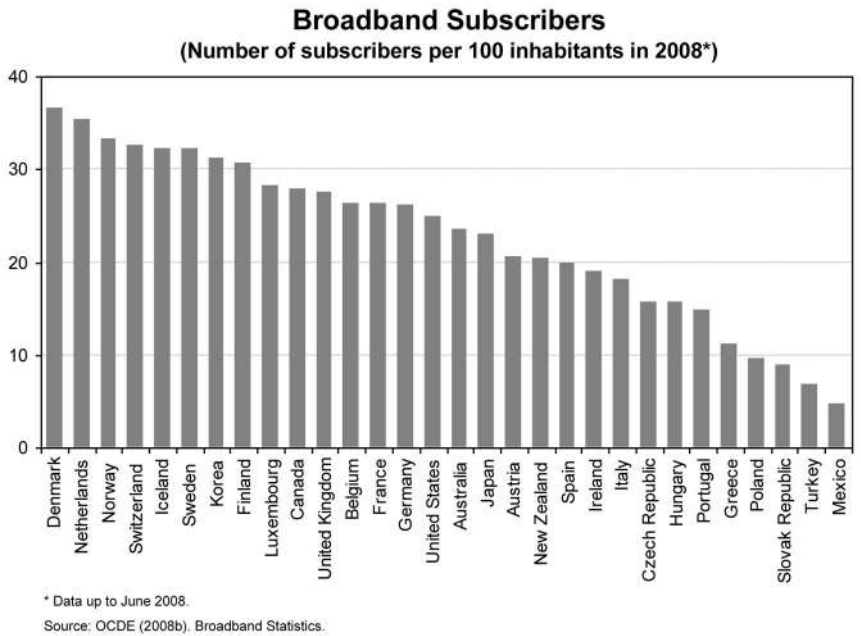
compare unfavorably with other countries in terms of prices and the fixed telephony penetration levels (Figure 6) and broadband (See Figure 7). While several initiatives have induced more competition in recent years, many have been blocked by legal means, making it necessary to redouble efforts in the legal field to complete these initiatives.

Figure 6



- The electricity Industry: Mexico's situation in terms of energy infrastructure, quality, and the price of electricity has been unfavorable, as compared to major competitors in the international market. The challenge facing the electricity industry in Mexico is to create mechanisms to induce cost reductions and improve service quality. A first set of actions to undertake, given the current institutional framework, is the reorganization of the sector. These include: i) aligning the incentives to reduce costs and improve service quality, including containment of union pressure; ii) creating an independent body to oversee the operation and performance of the two electricity companies, CFE and Luz y Fuerza del Centro (LyFC); iii) separating the accounts of the various segments of public enterprises; iv) separating the operation of the electricity network from the providers, and v) strengthening the regulatory powers of the Energy Regulatory Commission.

Figure 7



Another set of appropriate measures might be to modify the institutional framework so as to allow greater private sector involvement.

- Transportation: International comparative indicators, as well as perceptions of the companies located in Mexico, point to serious problems in freight transportation and infrastructure, even when comparing with similar economies with which Mexico competes internationally. A common problem in the sector is the lack of infrastructure, which leads to congestion and high transport costs. Other problems include a lack of competition and a lack of legislation and regulation.

- Banking System: The banking system is the primary means of access to financial services in the country. It is therefore necessary to ensure competitive conditions in this sector. To achieve this and to ensure that the benefits of the non-discriminatory access to the payments system infrastructure transferred to users, a regulation that promote transparency and cost reduction to a higher extent is needed.

7. Conclusions

From a medium-term perspective, Mexico's economy has shown an insufficient growth rate compared with other countries with similar characteristics. This largely reflects an institutional framework that, in relative terms, tends to promote the extraction of rents instead of driving the search for activities that create value and promote economic growth.

Specifically, the current institutional framework fosters an environment of lack of competition and perpetuates a series of distortions that reduce market flexibility, causing an inefficient allocation of resources and discouraging the creation of value. In particular, barriers to competition and to the efficient allocation of resources generate a low rate of adoption of new technologies and investment in human capital and therefore, low growth.

The urgency of implementing structural the mentioned reforms is shown in the view of the current international situation the Mexican economy is facing. Indeed, the proposed measures would help Mexico adapt more quickly to this environment and thus, offset the costs that the current global economic crisis could impose on Mexico's future performance. They would also bring a renewed impetus to the exploitation of Mexico's full potential growth.

In this context, it is of fundamental importance to eliminate the existing barriers to market entry and to allocate resources more efficiently. This would be facilitated to the extent that:

- Greater market competition and flexibility is promoted, and
- Productivity and efficient allocation of resources are encouraged in strategic sectors, given their market characteristics (those with inputs provided via networks) or due to their importance in output and trade.

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