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The Inequality Trap and its Links to Low Growth in Mexico¹

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Abstract

The paper discusses the relationship between structures of inequality and economic policies and institutions in Mexico. It argues that in a number of areas, suboptimal policies and institutions from an efficiency and growth perspectives are products of unequal structures of wealth and influence. It focuses on two areas of unequal structures: concentrated wealth in the business sector; and unions in protected sectors, the heritage of corporatist institutional arrangements. The paper surveys some of the dimensions of advantage of the groups involved, and presents suggestive empirical evidence of their influence on policy. It argues that these unequal structures have persisted through economic liberalization and political democratization in Mexico, sustaining the suboptimal policies and institutions that lie at the core of the disappointing growth performance. The implication is that policy design will need to take account of structural inequalities if growth-related reforms are to be successful.

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1. Introduction

Inequality and slow growth are two of the most important problems faced by Mexico today. They are typically treated as separate problems, with different roots and different policy solutions. This paper argues they are closely interconnected. It examines a channel through which the link between inequality and low growth can be explained.

Inequality is generally considered to be a product of historically shaped inequalities of opportunity—transmitted across generations by education, ethnicity, social position and place of birth. It has been most commonly tackled in Mexico as a poverty-related issue, through measures that seek to assure decent education, health, and risk management instruments for all groups. There are some examples of very successful interventions; such as the program Progres-a-Oportunidades in Mexico.

Low growth, has primarily been understood as a product of macroeconomic instability and structural problems such as lack of infrastructure, high energy and telecoms costs, high costs of doing business, lack of competition, a narrow financial system and weak rule of law—a set of issues often put under the label of lack of “competitiveness.” With macroeconomic stability looking more robust in Mexico, the focus today is on addressing structural constraints and prioritizing interventions to get a stronger growth response.

But looking at inequality and competitiveness in a piecemeal fashion misses important parts of the dynamics of low growth. Understanding the loops and reinforcing mechanisms between the structures of inequality and weak growth dynamics is an important contribution to the public debate and opens many new areas for future research.

We argue that it is essential to understand the dynamics of the *whole* distribution in Mexico. The income of the elite is seldom captured by household surveys, and the distribution of wealth and power at the top of the distributional pyramid is often of greater importance than income alone. We then argue that inequalities of influence can result in lack of competitiveness, by affecting both markets and policies. Unequal structures can cause inefficiencies in how markets and other institutions function, through concentrated

corporate control and union influences on both product, financial and labor markets. There can also be influences on the choice of policy and institutional design that favor anti-competitive and rent-seeking policies, which are bad for growth.

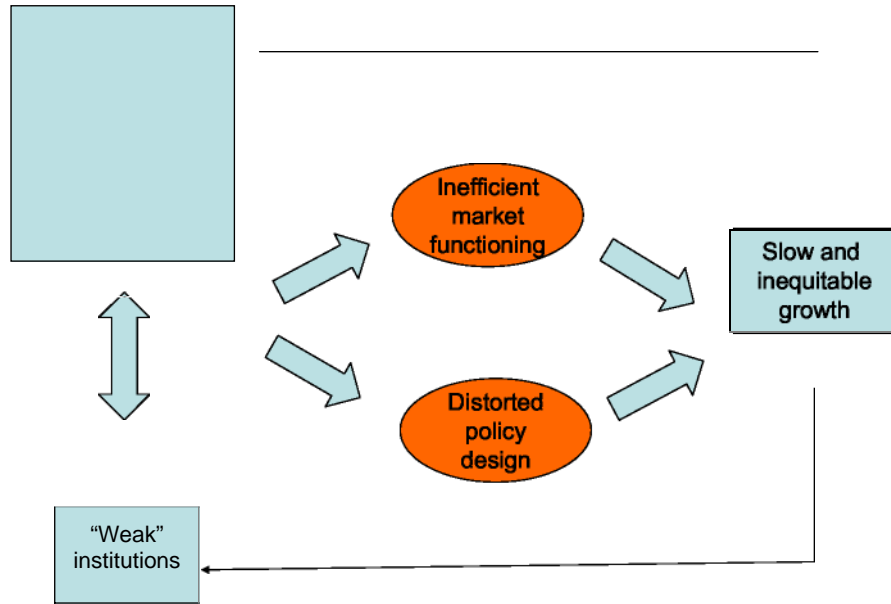
With a few exceptions, the *sexenio* of President Fox did not address the growth-reducing aspects of inequalities of influence. We argue in this paper that this is one of most important challenges behind the weak growth dynamics underlying the Mexican economy. The World Bank argued in the 2006 World Development Report that inequity is not only bad for poverty reduction, but that it can also hurt efficiency and growth. Mexico is an excellent example of how this is taking place today.²

Unequal Structures can Lead to low Growth.

We focus on the growth-reducing influence of two categories of unequal structure in Mexico: through concentrated wealth and monopoly power in the business sector; and through unions in protected sectors and organized farmer groups. The influence of interconnected elites, as well as the influence of some organized corporatist groups (teachers, Mexican Social Security Institute (IMSS) workers, etc.), are of particular relevance in underpinning *inequality traps*—structures of inequality that tend to perpetuate themselves over time.³

Strong institutions can countervail concentrations of power. But when a country's institutions are "weak", a few predominant groups can have adverse effects on market functioning as well as on the design of policy, as schematically presented in Figure 1. By "weak" institutions we mean those that are incapable of constraining the influence of powerful groups in the interest of the broader society, including future generations. Relevant institutions include regulatory bodies, the judicial system, the legislature, the civil service, political parties, and the executive itself.⁴ Policy can be distorted in two ways: when policy design directly serves powerful interests, and when policymakers are forced to undertake suboptimal policies to pursue their ends, owing to the effective veto of the powerful on first best reforms.

Figure 1. Unequal Structures Cause Suboptimal Development – a Schematic Portrayal



Both unequal structures and overall institutional arrangements are products of the broader pattern of power and history of each country. For Mexico we are particularly interested on whether big business and corporatists groups have continued to distort policy design and market functioning in the wake of the large changes associated with economic liberalization, North American Free Trade Agreement (NAFTA), and the recent democratization under President Fox.

Using the framework in Figure 1 as a basis for analysis, this paper examines the following questions:

- How are business elites and corporatist groups positioned relative to traditional measures of distribution in Mexico?
- What is the institutional context in which these structures operate?
- What are the potential channels of influence by each group, and is there empirical evidence that these matter?
- What is their impact on competition, competitiveness and low growth?

Currently groups with substantial power benefit from the status quo and have no incentives to deviate from current behavior. Until now there has been a political equilibrium in which

they receive substantial rents, at the cost of growth dynamism. We are interested in whether there exists a different equilibrium in which the Mexican economy could be in a lower inequality and higher growth path. Such an equilibrium, while better for the economy as a whole, would imply that existing powerful groups receive smaller rents.

2. The Wealthy and Corporatist Groups within the Overall Mexican Distribution

Both labor unions and wealthy economic groups have a valuable role to play in a dynamic economy and society. However, the primary focus of this paper is on the unequal *influence* of particular groups, under conditions that can hurt growth and resource allocation. It is useful to first position both business elites and corporatist groups within the traditional measure of the distribution of income, for which the basic reference is the national income and expenditure survey (ENIGH).

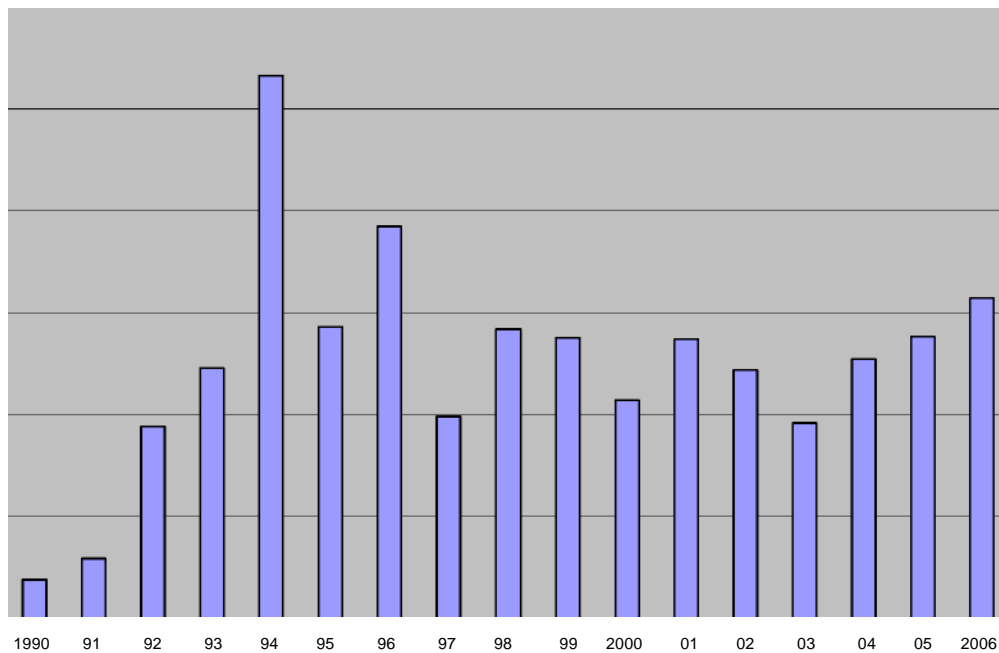
In assessing the position of the **wealthy**, the ENIGH already indicates that Mexico is highly unequal by international standards when measured by income: in 2000 the incomes of the top ten percent of the population were 45 times that of the bottom ten percent, according to this source. The Gini coefficient was 0.546, high by international standards, but slightly lower than in Brazil, Bolivia, Colombia and Chile.⁵ However, since the truly wealthy are not captured by these surveys, we complement these measures with the Forbes' listing of the wealth of billionaires. This source has many weaknesses, but it provides an independent basis for looking at extreme wealth in Mexico over time and in an international context.⁶ In 1996 there were 10 Mexican billionaires in the Forbes data basis with a total net worth of US\$51 billion, up from US\$24 billion in 2000. There is movement in and out of the list, with a total of 20 individuals or families declaring net worth of a billion dollars or more in the 1996-2006 period. Most of these inherited part of their wealth, and almost half benefited from the privatizations in the early nineties. Current wealth derives from businesses in a variety of sectors, including mining, banking, telecommunications, beer, cement, pharmaceuticals, retail, real estate, television and tortillas.

The total net worth of billionaires to gross domestic product (GDP) has been some 5-6 percent of GDP in the past three years.⁷ Over a longer time period there have been

significant changes. In both absolute value and as a ratio of GDP, there was extraordinary growth between 1989 and 1993, sharp fluctuations in the turbulent 1994-96 period, and steady growth since 2002 (Figure 2).

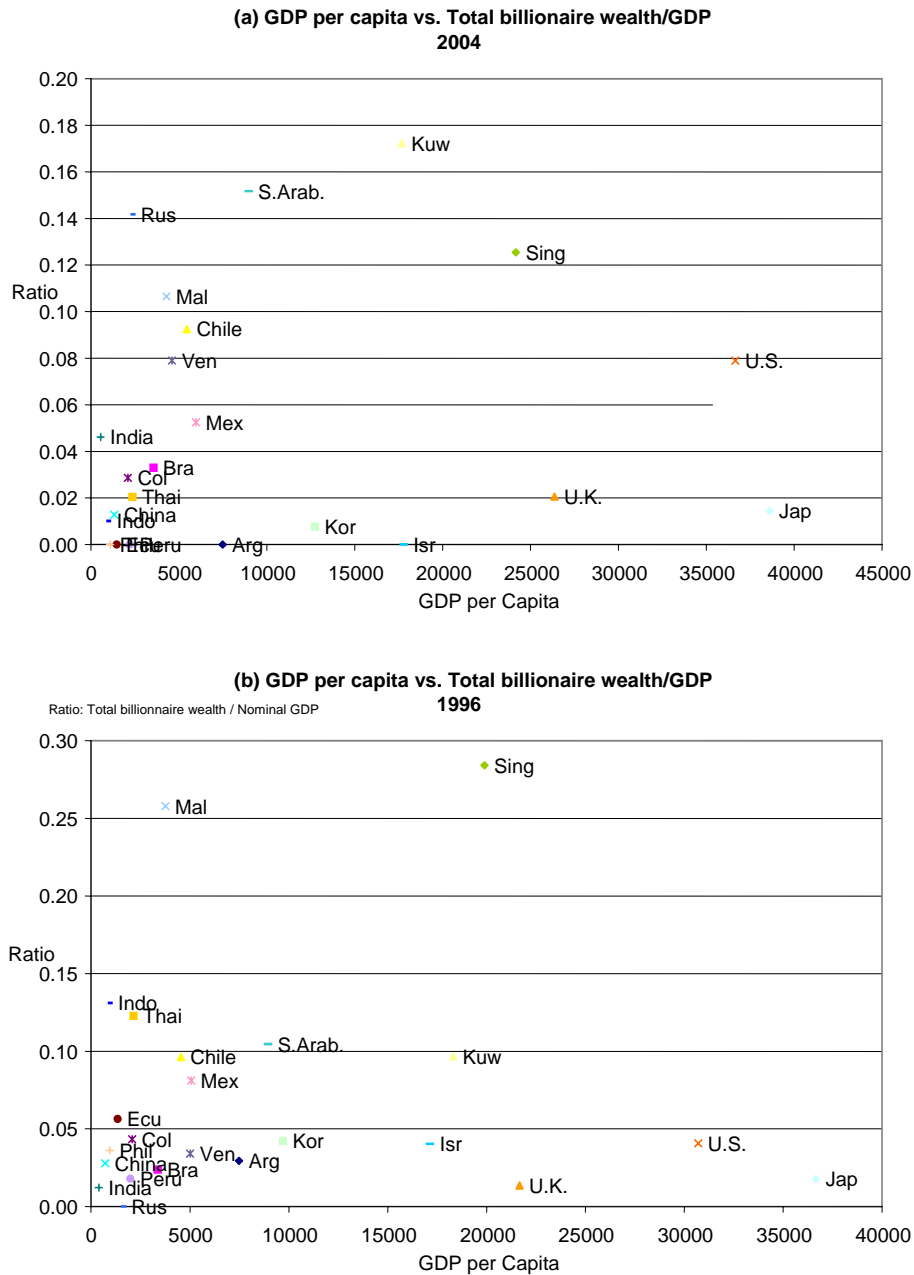
In an international context, the ratio of Mexico's billionaire wealth to GDP is higher than most countries, but not the highest. In 2004 Mexico had a higher ratio of billionaires than in Brazil, Colombia (both of which have higher measured income inequality) and most other lower and middle income countries. It also had a higher ratio of billionaires than the UK and Japan. It was lower than Chile and Venezuela in Latin America, and than Russia, Malaysia, Kuwait, Saudi Arabia and the US (Figure 3 (a)). Some of the same patterns were evident almost a decade earlier in 1996, though the effects of the East Asian crisis is evident in the fall in wealth-to-GDP ratios of affected countries (Figure 3 (b)).

Figure 2. Net worth of Mexican Billionaires as a Share of a GDP, 1989-2005



Source: Forbes.com for net worth, World Development Indicators and the Instituto Nacional de Estadística Geografía e Informática (INEGI) for GDP.

Figure 3. Net worth of local billionaires in relation to GDP, Mexico in international context, 2004 and 1996

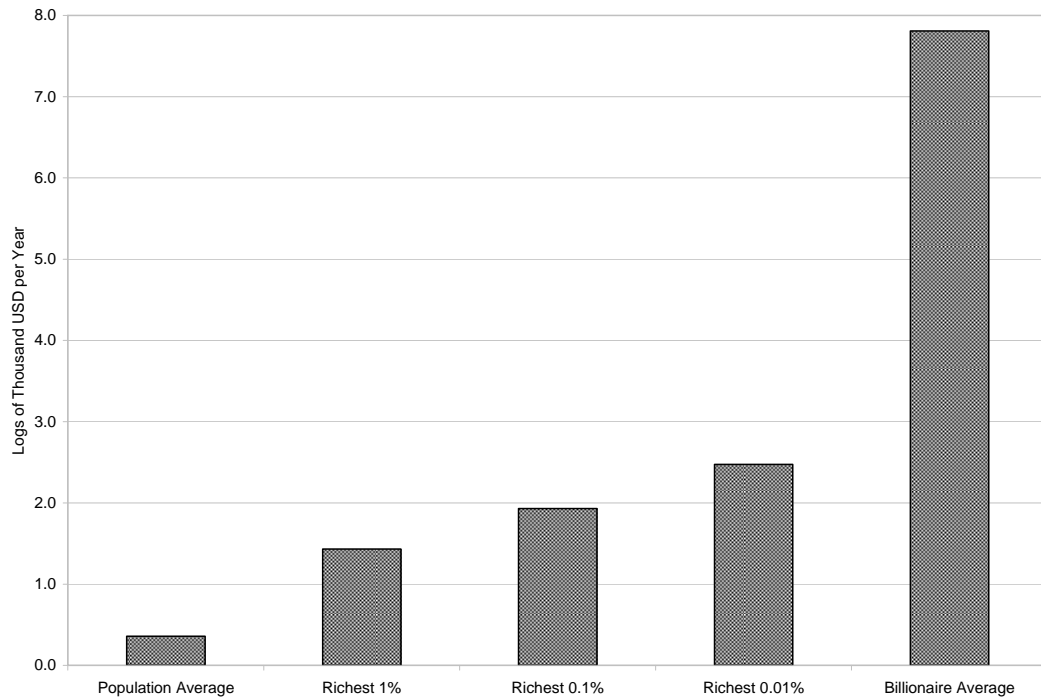


Source: Forbes.com and World Development Indicators.

How do billionaires compare with the measured income distribution? There is no information on the income of billionaires to compare with Mexico's income and expenditure survey. To give a purely indicative comparison we calculated their implicit income, conservatively assuming a return of 5 percent on their wealth, and comparing this

with both average income and the income of the top 1 percent, 0.1 percent and 0.01 percent of the distribution in the survey, shown in Figure 4.⁸ Note that incomes are on a log scale, since otherwise it would not be possible to put the figures in one graph. On this, purely suggestive calculation, billionaires have a potential income of almost 400 times the top 0.1 percent in the survey, and some 14,000 times that of the average of the population.

Figure 4. Implicit Income of Billionaires Compared with Income of the Richest Groups in the ENIGH, 2004



Source: Authors' calculations from ENIGH, 2004 and Forbes.com

Concentrations of family wealth can lead to much greater concentrations of corporate influence, through pyramidal structures of corporate ownership, in which inter-connected patterns of corporate ownership imply that families *control* assets that are a multiple of their actual ownership. For Mexico, there is evidence that family control is important: in the mid-1990s, 100 percent of both the twenty largest firms and a sample of ten medium-sized firms were family-owned, a high ratio by international standards (Table 1).

Complementing these indicators, securities markets are highly concentrated and play a very limited role in financing the bulk of the private sector. Amongst listed firms, 15 firms represent more than 80 percent of the sample used in the stock market index (*Índice de Precios y Cotizaciones*) and more than 40 percent of total stock market capitalization. This is an underestimate of the extent of big business control since accounting for pyramidal structures would show a higher concentration. Mexican Stock Market legislation makes it difficult to assess the importance of such phenomenon, given the absence of information regarding minority share-holding with control rights. Castañeda (2000) has analyzed the potential implications of pyramidal structures in the Mexican corporate sector, using existing information to track the true control-rights structure in several Mexican corporations. In particular, he shows that there is a high concentration of control rights, both because family members own large holdings of stock in these firms, and also because it is a common practice to use pyramids and to issue non-voting shares. More important for the purposes of our argument, control rights in the hands of few large shareholders can provide incentives for extracting rents from controlled firms at the cost of other shareholders (the phenomenon known as “tunneling” in the corporate governance literature), and can reduce aggregate productivity.⁹

Table 1. Measures of family control in various countries

Threshold	Twenty Largest Firms		Ten Middle-size Firms		Threshold	Twenty Largest Firms		Ten Middle-size Firms	
	20%	10%	20%	10%		20%	10%	20%	10%
Argentina	65%	65%	80%	80%	Japan	5%	10%	10%	10%
Australia	5%	10%	50%	50%	Mexico	100%	100%	100%	100%
Austria	15%	15%	17%	17%	Netherlands	20%	20%	20%	20%
Belgium	50%	50%	40%	40%	New Zealand	25%	45%	20%	86%
Canada	25%	30%	30%	50%	Norway	25%	25%	40%	40%
Denmark	35%	35%	40%	40%	Portugal	45%	50%	50%	50%
Finland	10%	10%	20%	20%	Singapore	30%	45%	40%	60%
France	20%	20%	50%	50%	South Korea	20%	35%	50%	80%
Germany	10%	10%	40%	40%	Spain	15%	25%	30%	30%
Greece	50%	65%	100%	100%	Sweden	45%	55%	60%	60%
Hong Kong	70%	70%	90%	90%	Switzerland	30%	40%	50%	50%
Ireland	10%	15%	13%	25%	United Kingdom	0%	5%	40%	60%
Israel	50%	50%	60%	60%	United States	20%	20%	10%	30%
Italy	15%	20%	60%	80%					

Note: Family control is inferred if the largest shareholder is a family and if its stake is greater than either a 20% or 10% voting-control threshold. Samples are the twenty largest publicly traded firms, ranked by December 1995 market capitalization, in each country; and the ten firms with market capitalization just greater than \$500 million in December 1995.

Source: Morck and Yeung, 2004

A similar picture emerges in the financial sector, where the banking system has traditionally been highly concentrated in a few banks with lending going to a few large firms, often related to bank owners and at favored terms.¹⁰ The reforms of the post-94 crisis cleaned up the system but led to an even more concentrated system. The share of assets of the five largest banks rose from 74 percent in 1994 to 88 percent in 2001, making it one of the most concentrated banking systems in the world. However, in contrast to pre-1994, the system is almost entirely in foreign ownership and there is not evidence of favored, related lending.

Let us look now at labor unions and other organized corporatist structures. As already noted, unions can play a valuable role in protecting the interests of their members and broader public debate in a democratic society. But union influence can have costs for society as a whole when it is exercised in protected sectors and via the political process. In Mexico of particular interest are unions in the state-owned sectors: the oil and gas company (PEMEX), the electricity producing companies (CFE and LFC), IMSS, parts of mining, airlines, and the education and health sectors. Farmers groups in the private and the “*ejido*” sectors (the system of community ownership of land in rural areas) are also part of the corporatist heritage. The influential *Consejo Nacional Agropecuario* (CNA), which represents larger farmers, falls under the business rather than union structure of organizations.

These groups are much, much less rich than the truly wealthy—as are all Mexicans. But they are generally significantly better off than average citizens in Mexico. Differences lie both in monetary earnings and a wide array of benefits enjoyed by workers in the protected corporatist sectors, including housing, pensions and health benefits, loans. We can make a direct statistical comparison on earnings, and Table 2 compares average monthly earnings for workers in four sectors—petroleum, energy (a proxy for electricity), telecoms and teaching—for both unionized and non-unionized workers. The closest measure to the corporatist groups is unionized workers in these sectors. As can be seen, while unionized workers in general earn more than others, unionized workers in these sectors earn significantly more, at 6,546 pesos per month for unionized teachers, to 10,573 pesos for unionized petroleum workers, compared with the average for all Mexican workers of 4,235 pesos per month. In all sectors except petroleum, unionized workers earn more (in petroleum the survey is probably catching non-unionized managers in the sector). Some of

the earnings differences may be due to differences in the characteristics of workers— notably more education and experience. We examine this in Section 4, when we look at evidence that groups are obtaining rents.

Table 2. Average Earnings of Unionized and Non-Unionized

Workers by Sector, 2004	
Mean Monthly Earnings	
Workers	August 2004 Pesos
Total all workers	4,235
Unionized workers	5,620
Non-unionized workers	3,911
Petroleum workers	10,573
Unionized petroleum workers	9,949
Non-unionized petroleum workers	12,337
Energy workers	7,787
Unionized energy workers	8,170
Non-unionized energy workers	6,467
Telecoms workers	7,523
Unionized telecoms workers	8,082
Non-unionized telecoms workers	7,283
Teachers	6,546
Unionized teachers	7,347
Non-unionized teachers	5,165
Other workers	4,081
Unionized rest of workers	5,124
Non-unionized rest of workers	3,917

Source: Authors' calculations from ENIGH 2004

This implies that most unionized workers in protected sectors are in the top quartile of the earnings distribution: 92 percent of petroleum workers and 79 percent of teachers for instance (Table 3 (a)). A small fraction live in moderate poverty (roughly the bottom half of the distribution), and an even smaller proportion in extreme poverty (some 20 percent of the distribution in 2004). However, quite a few non-unionized teachers and telecoms workers earn low incomes (Table 3 (b)). In light of these results, it is notable that union densities are much higher in these sectors than in the economy as a whole, and in the case of petroleum and energy workers, rose significantly between 2000 and 2004 (Table 4). These comparisons are only for reported earnings. Differences in non monetary benefits are substantially larger.

Table 3. Proportion of Unionized and Non-Unionized Workers by Quartile of the Earnings Distribution

(a) Percentage of unionized workers by earnings quartile				
Workers	q1	q2	q3	q4
Petroleum workers	2.49	4.36	1.45	91.71
Energy workers	1.51	1.31	16.75	80.42
Telecoms workers	n.a.	9.36	16.64	74.01
Teachers	0.52	2.57	17.96	78.96
Rest of workers	8.71	20.70	35.23	35.35
(b) Percentage of non-unionized workers by earnings quartile				
Workers	q1	q2	q3	q4
Petroleum workers	n.a.	n.a.	12.06	87.94
Energy workers	18.73	1.81	20.56	58.90
Telecoms workers	10.54	23.81	14.53	51.12
Teachers	19.17	15.07	25.61	40.15
Rest of workers	30.14	25.37	24.60	19.88

Source: Authors' calculations from ENIGH 2004

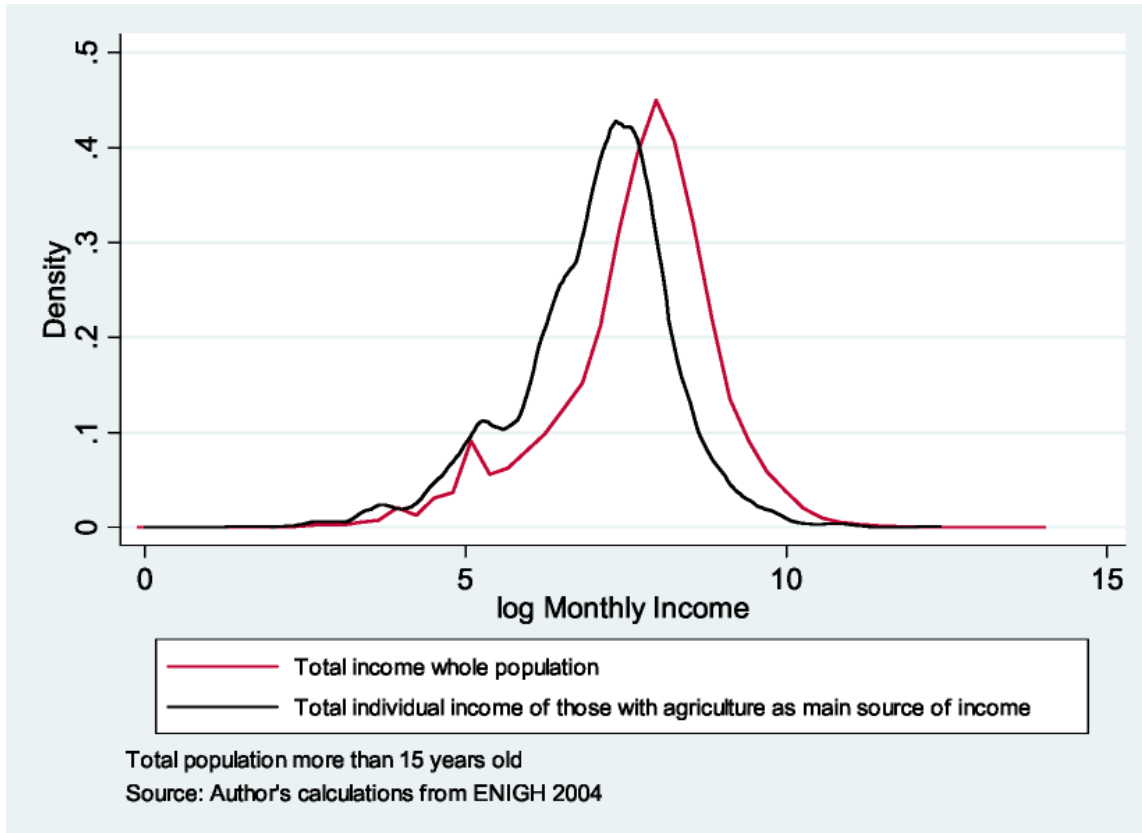
Table 4. Share of all Workers in Unions, 2000-2004

Sector	2000	2004
Petroleum workers	60.50	73.21
Energy workers	60.41	77.50
Telecoms workers	39.60	30.12
Teachers	67.00	62.06
Rest of workers	12.81	13.80
Total all workers	16.03	16.36

Source: Author's calculations from ENIGH 2000 and 2004

Farmers represent a different, and more diverse group. Farming households are disproportionately represented amongst the poor, and even more so amongst the extreme poor (World Bank, 2004). However, there are also significant inequalities amongst farmers—as Figure 5 shows, the distribution of earnings of agricultural workers overlaps that of non-agricultural workers. Some of the more successful elements of the organized farming lobby have come from relatively well-off farmers.

Figure 5. The Distribution of Incomes of Agriculture and Non-Agriculture Workers



Finally, we look at the recent pattern of growth of incomes or wealth of the various groups, for the 2000-04 period. As Table 5 shows, the ENIGH finds some equalization of individual incomes between 2000 and 2004, with poorer households and workers experiencing relatively faster growth, and the top parts of the distribution relatively slower growth. However, while the earnings of all workers in the top quartile of the distribution grew less than three percent in real terms between 2000 and 2004, corporatist groups saw their income grow in almost 50 percent in telecoms, and close to 30 percent in petroleum; only teachers experienced more modest growth of seven percent. By contrast incomes of unionized workers in other sectors (that faced more competition) grew only two percent. At the very top of the measured income distribution, the ENIGH finds large increases for the rich, though these may not be statistically significant owing to small sample size. The net worth of the billionaires also grew substantially faster than the mean at around 30 percent.

Table 5. Real increase in incomes or wealth 2000-04
(total percentage)

Group	Increase between 2000 and 2004
Average earnings	
Total all workers	4.13
Bottom quartile	10.95
Second quartile	9.01
Third quartile	6.60
Top quartile	2.55
Corporatist groups. Earnings of unionized workers i	
Petroleum	28.37
Energy	23.48
Telecom.	49.67
Teachers	6.87
Rest of sectors	1.91
Rich	
Top 10%	-10.81
Top 5%	-10.54
Top 1 %	4.00
Top 0.10%	66.50 ^a
Top 0.01%	211.53 ^a
Net worth of billionaires unweighted	27.3
Net worth of billionaires weighted	32.3

Note: all incomes are deflated by the *Indice Nacional de Precios al Consumidor* (INPC), the consumer price index.

a/ The sampling of the ENIGH makes these figures less reliable, with a very high standard deviation.

Source: Authors' calculations from ENIGH 2000 and 2004, and Forbes.com

In this section, we saw that standard measures of the distribution of income fail to capture the truly wealthy, or the extent of control of the corporate sector. We also saw that corporatist groups in protected or public unionized sectors earn incomes in the top quarter of the measured income distribution.

3. Existing Institutions Imperfectly Countervail Concentrated Market Power in Mexico

Every society in the world has unequal structures of power and wealth. However in developed countries, this power is partly controlled by institutions that provide checks and balances. Such institutions range from those designed to offset the power of the executive, through legislatures and independent judiciaries, to sector-specific regulators. However, the mere existence of a countervailing institution is not enough. Weak regulators can be “captured” by the firms they are designed to regulate; weak justice systems are more likely to serve the interests of the wealthy and powerful. This section focuses on the current situation. The contemporary analysis here draws on a number of historical interpretations: see in particular Haber, Maurer and Razo (2002), Castañeda (1996) Tornell and Esquivel (1995). For an account of the recent period see Haber et al (2008).

The **legislature** is now a genuine forum for the pursuit of interests, both between parties and factions. However, it remains in many respects in a transitional state. Corporatist groups have effective representation, through deputies and senators linked to groups such as teachers, farmer associations and specific unions (for example PEMEX.) On the positive side, Mexico does have the advantage of having relatively programmatic parties with distinct policy orientations. However, the party groups in the legislature have little experience in policy formulation and debate, and the incentives are to further short-run electoral prospects rather than long-term reform processes. The time horizon for policy design has been substantially reduced, with incentives shifting from long-term repeated interactions, to shorter-term opportunistic behavior. There is also a weak capacity to acquire and analyze information, an issue of particular importance in policy areas, such as tax reform or private participation in energy, where public opinion is also poorly informed as to the interconnection between policy choice and outcomes.

Regulatory agencies are an important set of institutions that counterbalance concentrated power in specific sectors in developed economies. However, in Mexico, regulators lack autonomous power. The exception, and a very important one, is Banxico, whose independence was granted in the wake of the vivid costs of macroeconomic instability of the 1970s and 1980s. Other regulators fall into two categories: (i) de-concentrated bodies,

which have technical and operational autonomy but depend on sector ministries; and (ii) departments within sector ministries. None of the regulating agencies is fully autonomous, since their budgets and personnel depend on the executive branch. The least autonomous are the transport regulators, which are administrative units within the Department of Transport. All other regulators function as de-concentrated bodies (OD) including:

- CONAGUA (*Comisión Nacional del Agua*), OD Environment Department, administers and preserves water.
- CRE (*Comisión Reguladora de Energía*), OD Department of Energy, regulates natural gas and electricity.
- COFETEL (*Comisión Federal de Telecomunicaciones*), OD Transport and Communication Department, regulates telecommunications.
- CNBV (*Comisión Bancaria y de Valores*), OD Treasury (SHCP), supervises and regulates banks and the financial sector.
- CNSF (*Comisión Nacional Seguros y Finanzas*), OD Treasury, supervises and regulates insurance.
- CONSAR (*Comisión Nacional de Sistemas de Ahorros para el Retiro*), OD Treasury, supervises and regulates pension funds.
- CFC (*Comisión Federal de Competencia*), OD Department of the Economy, sanctions monopoly practices and oversees competition.
- COFEMER (*Comisión Federal de Mejora Regulatoria*), DO Department of the Economy, ensures transparency in the elaboration and implementation of paper regulations (*trámites*).

There are, however, significant differences between agencies. We focus below on the contrast between COFETEL and CFC. COFETEL was set up with little power. It makes recommendations to the Secretary of Transport and Telecommunications, rather than directly imposing sanctions. The CFC, by contrast, was set up with greater structural independence, with commissioners appointed for extended terms. It has the capacity to make decisions on monopolistic practices, and impose fines or changes in firm behavior. These, however, ultimately depend on the judicial system.

An independent and well-functioning **judicial system** is also essential for the protection of property rights that firms and financial institutions need to support investment and lending decisions. It helps to avoid biases based on the capacity to bribe or use political influence. Legal and judicial weakness can have a negative impact on economic transactions and, even when there are compensatory informal mechanisms, the resulting distortions lead to excessive and usually unequally shared costs.

In spite of several reforms, perceptions of the efficiency of the judicial system in Mexico are amongst the lowest in Latin America. Courts lack sufficient legitimacy as conflict resolution bodies: only 27 percent of the overall population (and only 15 percent of young people) trusted the judiciary.¹² And a Transparency International poll of 38 government agencies, found the Mexican judiciary to be 28th in international rankings (where 1 is perceived as the least corrupt).

About 80 percent of all judicial cases, and the great majority of commercial cases, are initiated in state courts. The state court system receives about 800,000 cases per year and it does not have the capacity to handle such large volumes. The state courts are also subordinated to Federal courts through “*amparos*”, which are designed for federal judges to review possible violations at the state level. Some 50,000 *amparos* were sent to federal court in the year 2000, and 29,000 came from state judiciaries. These lead to extended length and cost of litigation and reduce the legitimacy of local courts. And because placing an *amparo* is costly and requires specialized counsel, its use is skewed to those with greater resources.¹³ The result is that the regulatory system is not a credible, independent threat to the behavior of large business interests.

4. Evidence on the Exercise of Unequal Power

Big business concentration would be expected to be linked with lack of competition, resistance to tax increases, favored lending and a narrow financial system. Corporatist influence would be expected to be associated with inefficient structures in social security, electricity, petroleum production, agricultural policies favoring large farmers, and restrictive labor policies. As emphasized above, unequal influence can work both through

how markets and institutions function, and through policy design. Furthermore, the capacity for these two groups to exercise unequal influence depends on the strength of countervailing institutions. In this section we present evidence for these effects.

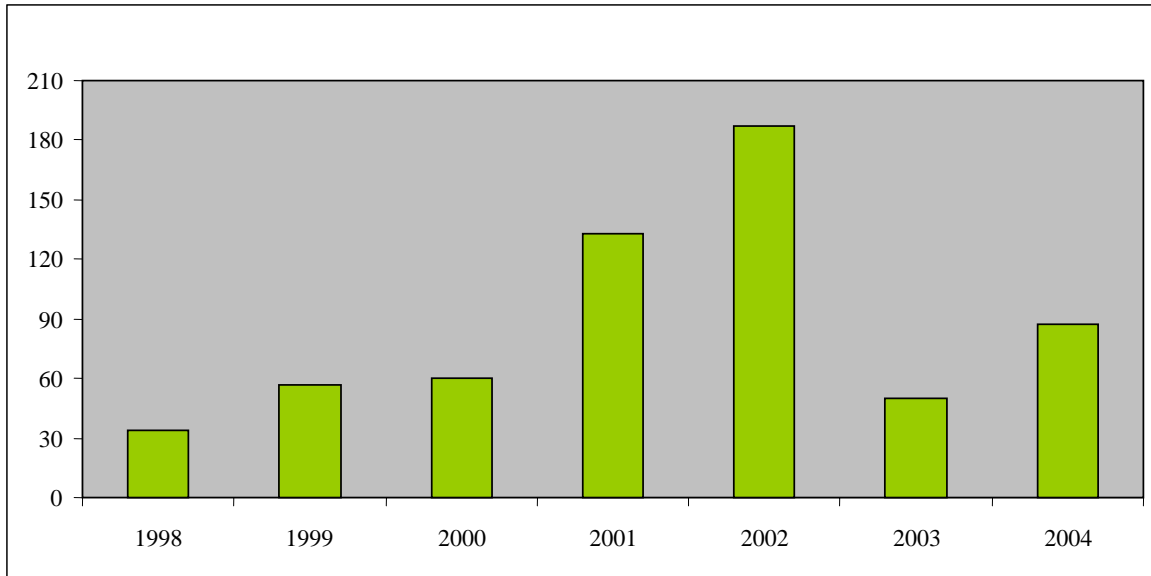
Evidence on Effects of Concentrated Wealth and Big Business

(i) Evidence from competition policy. For the field of domestic competition, the institutional situation is of a relatively independent regulatory agency, in the CFC, but one that is working within a weak overall judicial context. The CFC forms assessments as to whether a company's behavior is "anticompetitive"; if so, it imposes fines and/or requires changes in behavior. It is important to note that market share in the relevant market is only one variable considered in the investigations by CFC. Following the spirit of most modern competition codes in the world, having market power is not unlawful, but exercising such power and hurting consumers is considered as a fault. The company may then appeal to the CFC, and, if this is unsuccessful, it can further seek an *amparo* from a court. *Amparos* are more common when the resolutions imply changing practices that involve permanent monopoly rents. Prior to the June 2006 change in legislation, an *amparo* implied the company could legally ignore the finding of the CFC, pending judicial resolution, a process that could take years.

Since, the CFC is effectively independent, the hypothesis we explore is whether companies owned or controlled by the business elites are more likely to be found by CFC to behave in an anti-competitive fashion. And since the judicial system is generally judged to be weak, we expect the opposite, a bias in favor of these companies in issuing *amparos*. This is exactly what we find.

With the information published by the CFC we construct a database of all the resolutions issued in the period 1998 to 2006 on mergers and acquisitions, and monopolistic practices. In this period the CFC recorded 381 resolutions, involving 612 specific decisions, concerning monopolistic practices (Figure 6).¹⁴

Figure 6. Resolutions on monopolistic practices by CFC
(total number)



Source: CFC

In 39 cases, the resolutions that declare abuse of market power have been prevented by the use of *amparos*. In 12 of these, the *amparo* eventually resulted in a judicial decision favorable to the firms (Table 6).

Table 6. Distribution of Resolutions by CFC

Resolutions	Cases
Guilty	206
Not guilty	367
<i>Amparos</i>	39
TOTAL	612

Source CFC.

Some of the companies that were found guilty of monopolistic practices and have invoked *amparos* include *Teléfonos de Mexico*, *Radiomovil Dipsa* or *Telcel*, *Ferrocarriles del Sur*, *Fomento Económico Mexicano S.A. (FEMSA)*, *Grupo Modelo* and *Grupo Televisa*, among others. For example, the company *Avantel* has sued *Teléfonos de Mexico (TELMEX)* nine times for abusing market power. The resolutions by CFC that have been favorable to *Avantel* have implied fines of about 11 million dollars (which does not mean these has been collected.). Other important cases include Cable TV companies (*Grupo Televisa* and subsidiaries) and beer production and distribution (*Grupo Modelo* and *Cervecería Cuauhtémoc Moctezuma*).

To explore whether there is a big business bias, we categorized all companies with respect to whether they were controlled, directly or indirectly, by billionaires as listed by Forbes. About 24 percent of the cases of abuse of monopoly power are related to firms controlled by the Forbes billionaires. To explore statistically whether billionaire-controlled companies are more likely to be found guilty of the CFC of monopolistic practices, we run a logit model using a dummy variable for billionaire control and a variety other of controls for other factors influencing the decision.¹⁵ We also explored the probability of an *amparo* being upheld by a judge. We found that billionaire-controlled companies are more likely to be found to be engaged in monopolistic practices and more likely to secure an *amparo*; both results are statistically significant (Table 7), and the change in probability, relative to other companies, are noticeable (Figure 7).

Table 7. Statistical Results on the Probabilities of Finding Monopolistic Practice and of Securing an *Amparo*.

(a) Probability of Finding Evidence of the Exercise of Monopoly Power		
Resolutions. Guilty	Coefficient	Robust t statistics
Billionaires' companies	1.368	(4.65)***
Observations	569	

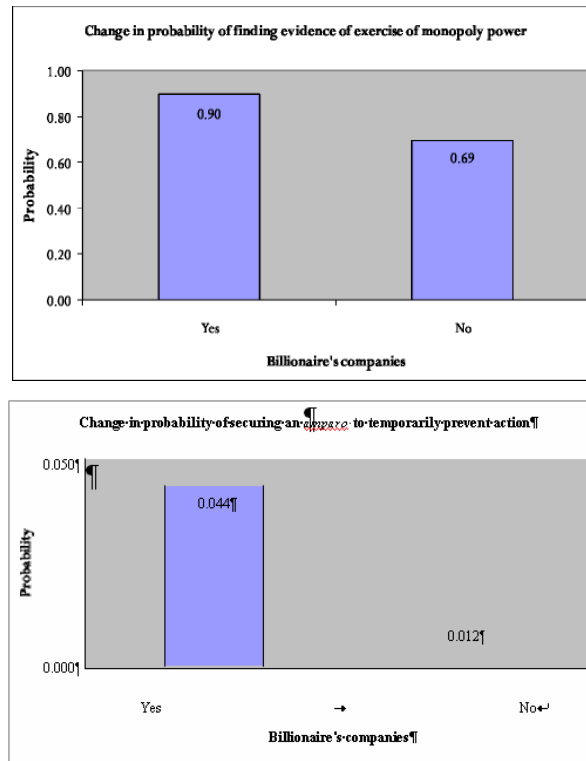
(b) Probability of Securing an <i>Amparo</i> to Temporarily Prevent Action		
Resolutions. <i>Amparo</i>	Coefficient	Robust t statistics
Billionaires' companies	1.360	(3.28) ***
Observations	477	

* significant at 10 percent; ** significant at 5 percent; *** significant at 1 percent

Note: Controlling by resolution's year and sector
Sectors are classified based on the CMAP (Clasificación Mexicana de Actividades y Productos).

Source: Authors' calculations from CFC data.

Figure 7. Effect of being a Billionaire-linked Company on the Probability of CFC Finding Monopolistic Practices and Obtaining an *Amparo*.



Source: Authors' calculations from CFC data.

The CFC also reviews and authorizes mergers and acquisitions for their impact on competition. Between 1998 and 2006, there are 1297 cases submitted for analysis, out of which only 14 have been prevented by the CFC. Of the total submitted, 106 submissions were related to billionaire-controlled firms, and only one of them was rejected. With so few rejections, a statistical analysis does not make sense.

Using CFC's data base, we have found that billionaire-controlled companies are more likely to be engaged in monopolistic practices than other firms, and, if they were, to obtain an *amparo*. We have no view on the rights and wrongs of individual cases, but note that this statistical evidence is consistent with the hypotheses over the interaction between concentrated business influence and institutional context.¹⁶

(ii) Evidence from the regulation of telecommunications. We now look at evidence from one sector, telecommunications. This is of interest for two reasons: first, in the privatization under President Salinas, a temporary monopoly was granted to one of the

principal companies involved in the sector, TELMEX, that could have allowed this company to acquire a position of market dominance once competition was allowed in the sector; second, as noted in the previous section, there is some presumption that the regulatory agency, COFETEL, is relatively weak, since it was set up with less structural independence than CFC. In contrast to the case of CFC, we would here expect regulatory decisions to be biased in favor of powerful incumbent firms. And this is what we find.

We constructed a database with COFETEL resolutions for those years in which public information is available (1996-1998, 2003-2006). Two categories of cases are important:

- (a) the award of concessions (telephony including cellular, cable TV, radio, TV, and public telephone).
- (b) decisions on sanctions, in the form of recommendations to the Ministry on practices that hurt consumers.

Statistical analysis is then undertaken, with a logit model, to explore the effect of a firm being billionaire-controlled (in the sense noted above). This finds that such companies were significantly less likely to have a request for concession rejected (Table 8(a)) and a sanction recommended owing to practices that hurt consumers (Table 8(b)). The last result contrasts with the relatively large number of cases of decisions on monopolistic practices on the same companies by CFC. As Figure 8 shows, the effects of being a billionaire controlled company are not trivial.

Table 8. Statistical Results on the Probabilities of COFETEL Disapproving a Concession or Recommending a Sanction in the Telecoms Sector

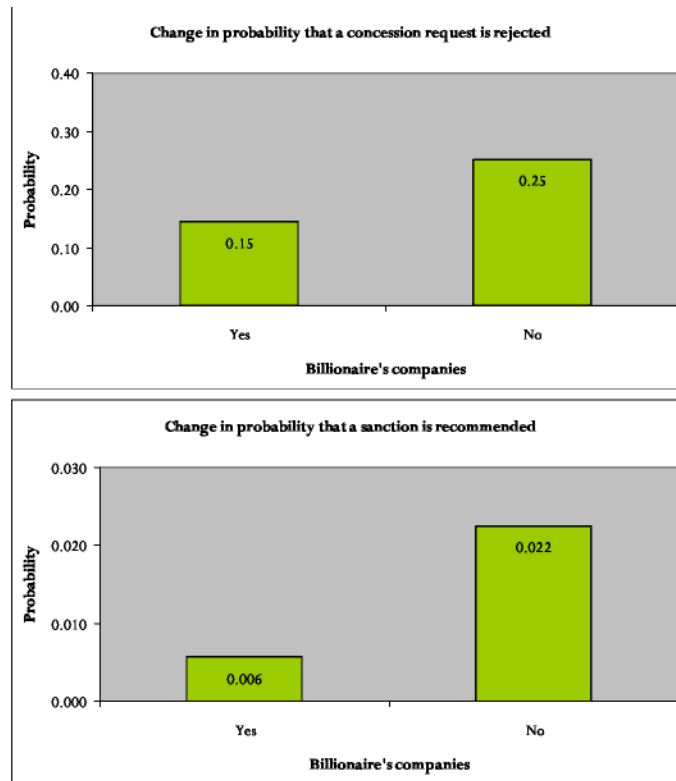
(a) Probability that a Concession Request is Rejected		
Billionaires' companies	-0.678	(2.06)**
Observations	53 8	
(a) Probability that a Sanction is Recommended		
Billionaires' companies	-1.399	(2.82)***
Observations	446	

Significant at 10 percent; ** significant at 5 percent; *** significant at 1 percent.

Note: Controlling by resolution's year.

Source: Authors' calculations from COFETEL data.

Figure 8. Effect of being a Billionaire-linked Company on the Probability of COFETEL Rejecting a Concession Request and Recommending a Sanction



Source: Authors' calculations from COFETEL data.

As with the analysis of CFC data, we have no view of the merits of individual cases, but again note that the statistical pattern is consistent with our expectations on the interaction between concentrated business influence and, in this case, a less independent regulatory structure.

(iii) Evidence from the financial sector. The case of Mexican's financial system has been well-documented in past work (see, for example, Haber, 2004, 2005, Haber, Razo and Mauro, 2003). We briefly outline the evidence. The long history is of the evolution of a highly concentrated and protected financial system, which furthered the private interests of the intermingled banking and industrial elites of the society. Bankers influenced laws that protected them from competition, and in turn provided finance for the government, as well as for investment in economic sectors. While independent regulation was weak, prior to the

1982 “nationalization”¹⁷, the group of private bankers operated as a self-monitoring club, with a mutual interest in sustaining financial viability.

There were two areas of post-Tequila crisis resolution in the financial system. First, there was a bailout, which was probably highly regressive (Halac and Schmukler, 2004), sustaining the belief system that market-oriented reforms supported or bailed out the rich at the cost of others. Second, there were a set of financial sector reforms that substantially strengthened the regulatory framework, accompanied by opening the sector to foreign ownership. The result was that over 80 percent of the banking system was in foreign hands by the early 2000s and the whole system has been restored to financial health. This constitutes an institutional break for this sector from the old pattern of dependence on the domestic business elite. But the highly concentrated financial sector remains, with unusually low lending to the private business sector by international standards. Much of the private sectors, especially small and medium sized firms, are effectively rationed out of the system. The yet unanswered question is whether more competition is needed in the financial sector for higher growth.

(iv) Evidence from market valuations. A further source of evidence is of an indirect character, and concerns market valuations of the benefits of control in the corporate sector. Specific evidence that control rights lead to private benefits in excess of the value to non-controlling shareholders, comes from the premium of block and voting purchases (that confer control rights), to the market value (that reflects the value to non-controlling shareholders). Data compiled from two cross-country studies by Morck, Wolfenzon and Yeung find premia of 34-36 percent for Mexico (Table 9). This relates to a broader point: groups owned by the most powerful families could be the *best* performing firms in a poor-performing economy, if unequal influence leads to either policy design or influence over institutional functioning to create rents for these groups.

Table 9. Estimated Private Benefits of Control in Different Countries Measured as Block and Voting Premiums
(percentage premium over market value)

Country	Block Premium_a	Voting Premium_b	Country	Block Premium_a	Voting Premium_b
Argentina	27		Netherlands	2	
Australia	2	23	New Zealand	3	
Austria	38		Norway	1	6
Brazil	65	23	Peru	14	
Canada	1	3	Philippines	13	
Chile	15	23	Poland	11	
Colombia	27		Portugal	20	
Czech Republic	58		Singapore	3	
Denmark	8	1	South Africa	2	7
Egypt	4		South Korea	16	29
Finland	2	-5	Spain	4	
France	2	28	Sweden	6	1
Germany	10	10	Switzerland	6	5
Hong Kong	1	-3	Taiwan	0	
Indonesia	7		Thailand	12	
Israel	27		Turkey	30	
Italy	37	29	United Kingdom	2	10
Japan	-4		United States	2	2
Malaysia	7		Venezuela	27	
Mexico	34	36			

a. Block premium is average across control transactions of the difference between the price per share paid for the control block and the exchange price two days after the announcement of the control transaction, dividing it by the exchange price two days after the announcement and multiplying the ratio by the proportion of cash flow rights represented in the controlling block and expressed as a percentage premium. See Dyck and Zingales (2003), Table 2, for details.

b. Voting premium is average of estimated total vote value as a percent of firm value. See Nenova (2003), Table 5, for details.
Source: Morck, Wolfenzon and Yeung, 2004.

Evidence on Effects of Corporatist Groups

(i) Evidence on effects of unionized workers in protected sectors. Unions can influence outcomes in the sectors in which they work in two ways: through effective bargaining for better working conditions; and through influencing overall policy for the sector. We are particularly interested in those unions, originally part of corporatist structures, in the major protected or public sectors—notably petroleum, electricity, IMSS own workers and teachers. Workers in telecommunications are also of interest in light of the dominant market position of billionaire-controlled firms.¹⁸

As seen in Section 2, earnings in petroleum, energy, telecoms and teaching are on average above those of other sectors, and especially for unionized workers in these sectors. However, to see if there is evidence of workers enjoying rents we want to know if these premia still hold after controlling for other influences on earnings. Using the ENIGH we can control for the education and experience of workers—the main individual characteristics affecting earnings in the labor market. We use data for all workers with a Heckman-corrected earnings function and show results in Table 10. Being unionized and being in the petroleum, telecoms and teaching sectors confer significant premia, after controlling for characteristics—petroleum workers earn 71 percent more, telecommunications workers 30 percent more and teachers 48 percent more than would be expected from their education and experience, while the premium for energy workers is not significant. These premia contrasts with a premium of only 7 percent for workers in manufacturing, who generally work in sectors facing international competition. In addition returns to education are about 9 percent per year of education, and there is a premium of 13 percent to being male, after controlling for other characteristics. The interaction between being unionized and belonging to the sectors examined is insignificant, suggesting that the primary source of any rents flows from sectoral characteristics rather than any differential effect of being unionized *within* the protected sectors. This data source does not allow us to control for firm characteristics, though we are here effectively concerned with the joint influence of union and working for a protected firm (or government).¹⁹

Table 10. The Effects of Union and Sector on the Earnings of Workers

Ln salary per hour	Coefficie	Robust t
Schooling (a)	0.087	(39.44)***
Age	0.054	(18.10)***
Age_squared	-0.001	(13.80)***
Gender	0.127	(4.86)***
Other (omitted)	.	.
Petroleum	0.71	(3.75)***
Energy	0.187	(0.84)
Telecoms	0.297	(3.05)***
Manufacturing	0.074	(3.58)***
Teachers	0.481	(8.89)***
Union	0.401	(1.73)*
Petroleum*union	-0.27	-0.88
Telecoms*union	-0.086	-0.32
Manufacturing*unio	-0.300	-1.28
Teachers*union	-0.120	-0.50
Rest of	-0.093	-0.39
Constant	0.63	(8.93)***
Observations	46,270	

* Significant at 10 percent; ** significant at 5 percent; *** significant at 1 percent

(a) In years.

Note: the earnings equation was estimated with a Heckman correction for labor force participation.

Source: Author's estimates from ENIGH 2004

As noted earlier, earnings differences almost certainly understate the relative advantage of groups in corporatist sectors, who receive much greater non-monetary benefits. This would imply the above results are biased downward in terms of the premia inclusive of benefits. Indeed, in a competitive labor market, we would expect monetary wages in jobs that received higher benefits to be *lower* than in other jobs, since workers would move between sectors to equalize total remuneration, inclusive of benefits. Levy (2006) presents evidence of large movements of workers in and out of IMSS-related jobs.

Further evidence of union appropriation of rents comes from estimates of the relationship between current and contingent liabilities implied by labor contracts and asset values. Table 11 shows that for the two electricity companies future labor obligations are of the

same order of magnitude as assets, implying no return to capital for the public owners.²⁰ The end-2005 net worth of IMSS was -81,662 million pesos after taking account of the pension liabilities of IMSS own workers, but +58,702 million before these liabilities; income was -68,047 million pesos after, but +200 million pesos before pension costs.²¹ Exactly comparable data is not available for PEMEX, but calculations from public sources finds that PEMEX has suffered a sharp decline in net capital over the past 15 years, after allowing for debt and liabilities for labor (Figure 9).

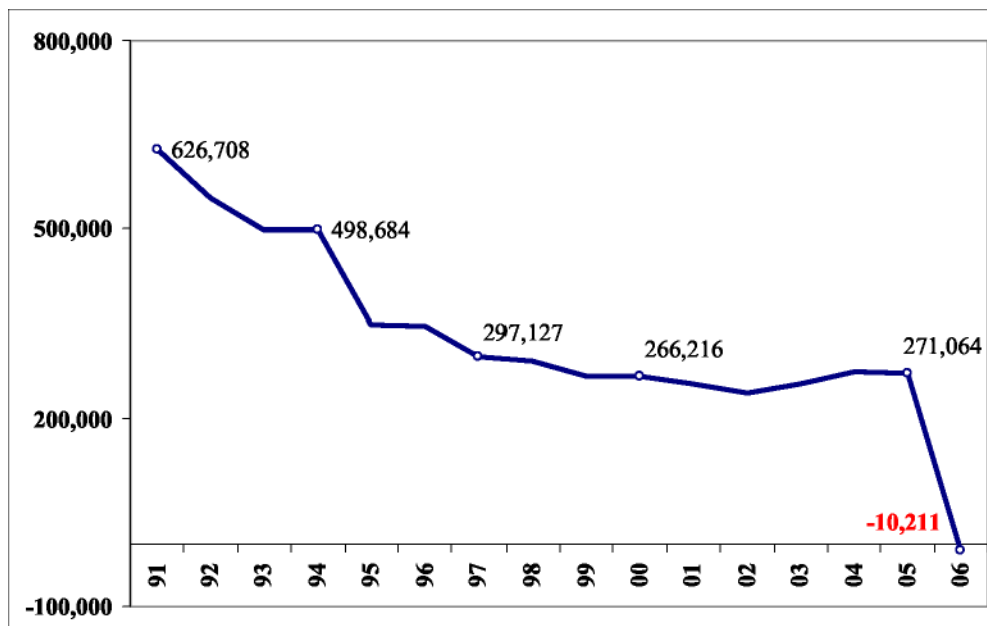
Table 11. Liabilities in Collective Labor Agreements in Relation to Firm Value for Electricity Companies

Present value of liabilities in collective labor contract/net assets

LFC	1.2
CFE	0.8
Benchmark	0.20<x<0.30

LFC: Luz y Fuerza del Centro, CFE: Comisión Federal de Electricidad, IMSS: Instituto Mexicano del Seguro Social.
Source: Authors' estimates based on information from the companies.

Figure 9. Net accounting capital of PEMEX
(2006 million pesos)



Source: PEMEX, cited in Reforma newspaper, August 2006

With respect to policy and institutional design, unions in protected sectors have been active in resisting policy change, for example with respect private investment in petroleum and

energy. For PEMEX, Le Houcq (2006) reviews the evidence on reform. He argues that there is a “widespread consensus that PEMEX is not a well-run company....By international standards, PEMEX has too many employees (approximately 138,000)...80 percent of which belong to a union aligned with the PRI...A corrupt union sells posts and lets members ..will their posts to their offspring.” (p.22) But attempts at reform to increase operational autonomy and increase efficiency have been limited. President Salinas did succeed in breaking up PEMEX into four different companies. President Zedillo sought to privatize one of these, but never sent the bill to Congress. President Fox sent several bills to Congress, but only succeeded in relatively minor changes on the appropriation of oil revenues and a stabilization fund for extraordinary revenues. There was a failure to get agreement on measures to improve corporate governance, including a seemingly mild proposal to place “independent experts” on the board. While Le Houcq argues for a number of influences behind the lack of reform, including the increasing number of veto players with interests in the oil revenues and the public resistance to any dilution of state control, part of the story clearly lies in the behavior of the union.

(ii) Evidence on the impact of teachers unions on education quality. The relationship between the teachers’ union and education quality is a further channel of indirect influence on institutional functioning. There is widespread concern that schooling quality is low in Mexico: the analysis of standardized student tests (PISA) finds Mexico at the bottom of the ranking among the Organization for Economic Cooperation and Development (OECD) countries and among the bottom three countries in Latin America. At the same time it displays relatively low variance in the test scores across schools. Many observers attribute this pattern to weak links between teacher performance and learning outcomes, associated with the system of centralized bargaining over many aspects of working conditions (World Bank, 2006). This arrangement was secured by the National Teachers Union (SNTE), in the 1992 agreement on decentralization, an example of how policy design is distorted relative to an optimal design.

However, the 1992 agreement allowed for supplementary negotiations with state governments, and this allows for further exploration of the relationship between unions and outcomes. Álvarez et al (2006) explore the impact of two variables on student learning, the level of conflict between the teachers’ union and the state government (based on a simple

categorization of low, medium and high levels of conflict) and the salaries of the teachers. Relative to high levels of conflict, medium or low conflict levels increases student tests scores by 4.6 and 9.5 points, respectively (Table 12).

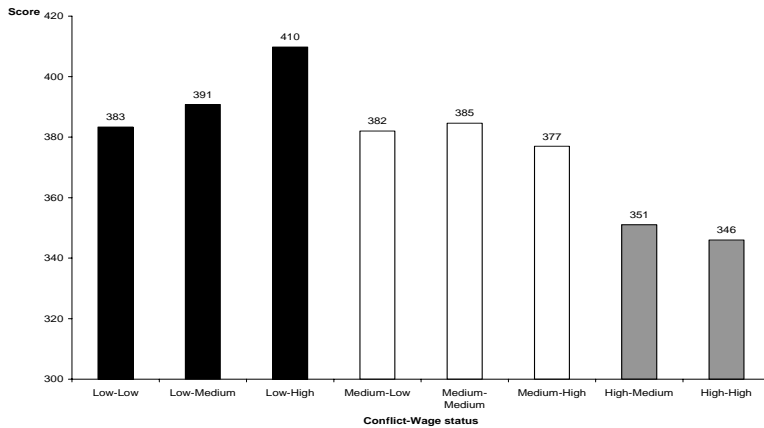
Table 12. State Characteristics, State Level Conflict with Unions and Student Learning

Explanatory factor	Significant	Coefficient
<i>State Accountability System</i>		
Complete process and design intervention strategies	Yes	13.1
<i>Conflict between state and union (relative to high levels of conflict)</i>		
Medium	Yes	4.6
Low	Yes	9.5
<i>Controls for:</i> Parental participation		
Within-state decentralization	incl.	
Union influence to appoint teachers	incl.	
Student characteristics	incl.	
Family background	incl.	
Home incentives and inputs	Observations incl.	12,311

Source: Álvarez et al., 2006

The level of conflict also affects the association between salaries and student learning. Higher teacher salaries have no relationship with learning in medium and high conflict states, but a significant positive link in low conflict states (Figure 10). (Colima, for example, would be a state with low conflict and high salaries.) These results do not allow us to draw conclusions on causality, but are indicative of a richer relationship between union behavior and learning outcomes than the nation-wide results suggest.

Figure 10. The interaction between levels of state level conflict and the impact of teacher incentives



Notes: (a) the first adjective refers to the level of conflict between state and union and the second to teacher wages. For example Low-High is a low conflict state with relatively high teacher wages. (b) test scores scale does not begin at origin. Source: Álvarez et al. (2006).

(iii) The design of social policy. Unequal influence also shapes social policy in a variety of ways. We highlight two processes here—the role of the IMSS union, and the expansion of social protection spending in the past decade.²²

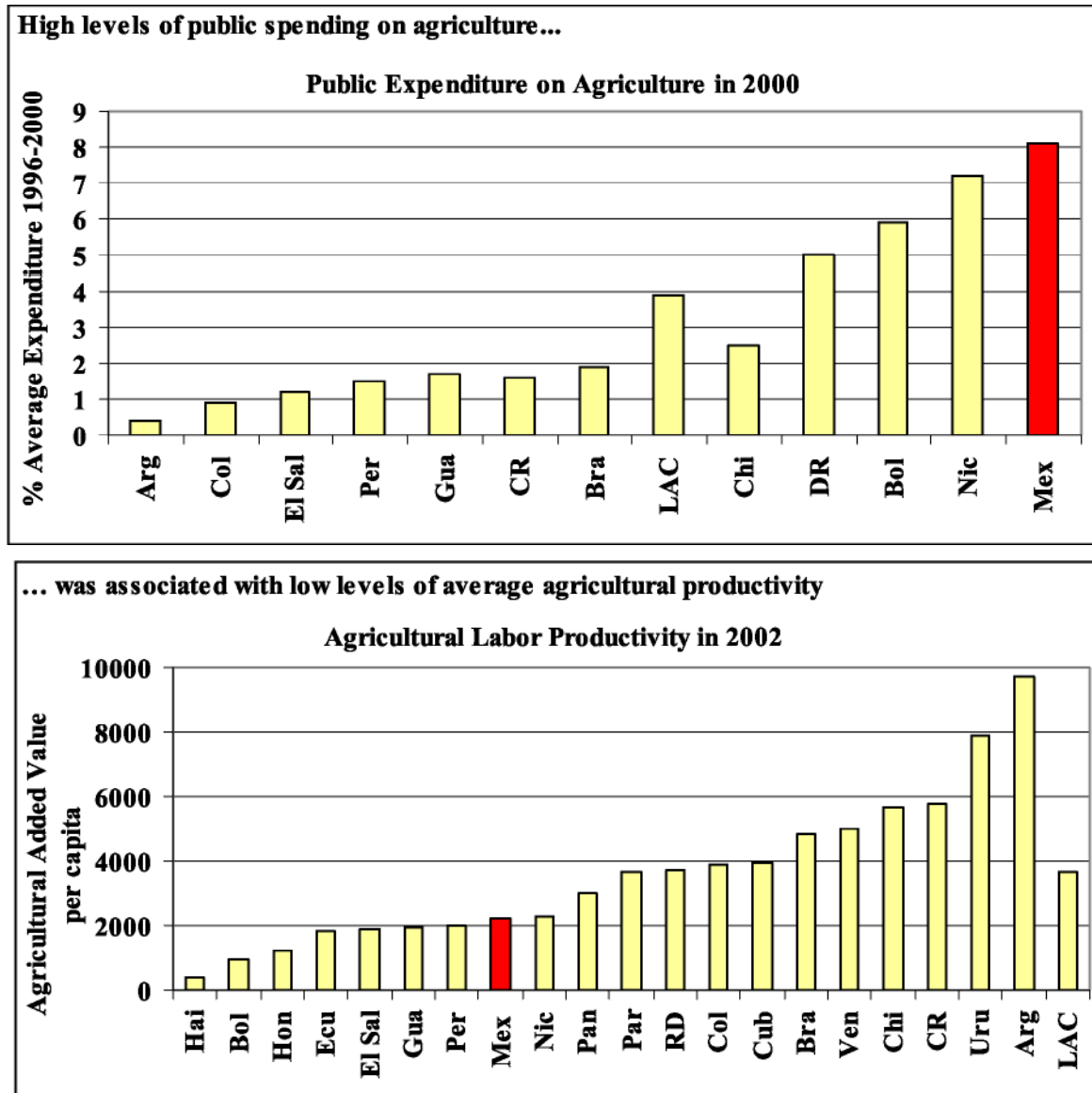
IMSS' own workers enjoy social security benefits that are better than those of private sector workers affiliated to IMSS, and are effectively cross-subsidized by these other workers. After lengthy and conflictive negotiations over reducing these privileges, a reform was eventually agreed in Congress: this involved protecting the benefits of all existing IMSS workers while new entrants would be on the same basis as private sector workers. The loser was thus not existing incumbents but the union, since this effectively withdrew its powers of patronage in allocation of IMSS jobs. The IMSS union successfully pressed the Executive to withdraw the reform. This was not only a set back for the functioning of IMSS and its workers, but also for the overall design of social security and social protection in Mexico.

The position of IMSS own workers is only part of the broader distortions in the structure of social provisioning. All private sector workers affiliated to IMSS have access to a fixed package of benefits, including health, pensions, childcare, and array of other services. As Levy (2006) argues, it is unlikely that these are fully valued by all workers—owing to heterogeneous needs and preferences, problems of access and quality of services, and features of the design of benefits itself (for example the required years of service to qualify for a minimum pension). This provides incentives for workers and firms to choose informal work. At the same time, there has been considerable expansion of social provisioning for workers outside the IMSS system, driven both by social concern and the political popularity of this category of spending. This has included increased support for conditional cash transfers to the extreme poor (under *Oportunidades*) and increased health spending for the poor (under *Seguro Popular*). Yet to the extent that this further provides incentives to informalization, this leads to shifts of workers into lower productivity activities. This is less of a concern for spending oriented to the extreme poor, who would have been unlikely to be in the informal sector in any case. However, for all categories of social spending, there has not been any link with increased taxes, so it has been effectively financed through reduced infrastructure spending, leading to losses in growth potential.²³ This is a further example of unequal structures rendering infeasible first-best policies—such as an integration of social

provisioning, and de-linking from the labor contract—and creating distorted policy mix that are neither equitable nor supportive of growth.

(iv) The agriculture lobby and policy design. Where groups do not have direct market power, concentrated influence can still work through the political process. Farmers' groups provide a good example in Mexico where an extended period of protection was provided under NAFTA. While this was partly to provide protection for the poor, Tornell and Esquivel (1995) argue that this was also based on a political judgment. The farmers' lobby can also operate through policies on input subsidies and service provision. There is ample evidence of regressive subsidies for water, electricity and other agricultural inputs (World Bank, 2004, 2005). Moreover, agricultural labor productivity is one of the lowest in Latin America in spite of the fact that Mexico has one of the highest levels of public spending on agriculture (Figure 10). While some programs (such as PROCAMPO) reach a wide range of farmers, many subsidies to agriculture go to the richest farmers, and the aggregate impact has not solved Mexico's problem of low productivity.

Figure 11. High Public Efforts on Agriculture have not Led to High Agricultural Productivity



Source: World Bank (2005b)

5. What is the Impact of Unequal Influence on growth?

The impact of unequal income and wealth on growth depends on whether it is the result of dynamic, wealth-creating individuals or of rent-seeking entrepreneurs with high levels of influence. International evidence finds self-made billionaire wealth to be associated with higher growth, but inherited billionaire wealth to be associated with lower growth.²⁴ As

noted in Section 2, most contemporary billionaires inherited their initial wealth, while some benefited from the privatizations. Few are fully self-made.

Why should concentrated wealth hurt growth? An interpretation is that some forms of wealth concentration are associated with extensive control that distorts market functioning and policy-making. As Morck, Wolfenzon and Yeung argue:

“Entrusting the governance of huge slices of a country’s corporate sector to a tiny collection of elites can bias capital allocation to advantage those elites, and can also reduce the pace of innovation.....In addition, to preserve their privileged positions under the *status quo*, the controlling elites arguably use political connections to stymie the institutional development of capital markets and to erect a variety of entry barriers.”²⁵

In the preceding section we documented areas where there is specific empirical evidence of the influence of either wealthy business elites or corporatist groups on economic institutions in ways that tends to preserve their economic position. The question is how these interact with growth processes.

By way of context, there is some cross-country evidence of a negative association between oligarchic family control and development (see Table 13, taken from Morck and Yeung, 2004, using the indicators of family control shown in from Table 1). Among significant results, growth is lower, health status worse, the quality of government worse and income inequality higher with greater family control. These results should be treated as only suggestive, since they face the standard problems of potential omitted variables and endogeneity of cross-country country regressions.

Of more direct relevance is work on specific constraints to growth in Mexico. The World Bank has carried out extensive analytic work on competitiveness, both in a series of programmatic reports (World Bank, 2006) and through the preparation of Development Policy Loans on Competitiveness and on the Financial Sector and Growth. This work stressed the importance of competition for growth in Mexico, as well as the lack of autonomy of regulatory agencies. The following section draws mainly from that work. We

find a number of economic institutions and policies that are shaped or affecting by unequal structures are indeed constraints on Mexico's growth process.

Table 13. The Association between Oligarchic Family Control and Economic and Social Outcomes
Economy Characteristics and Oligarchic Family Control, Controlling for *Per Capita* Income

Economy Characteristics and Oligarchic Family Control, Controlling for *Per Capita* Income

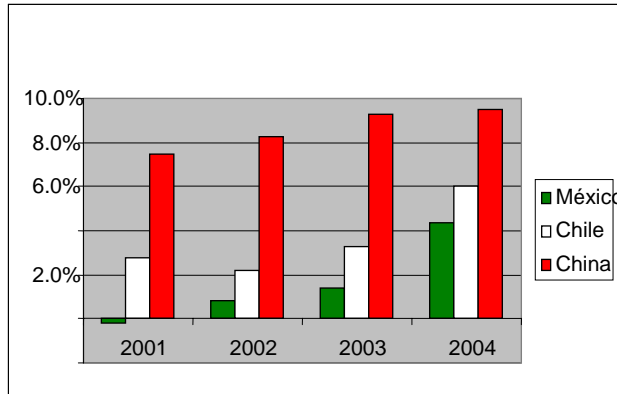
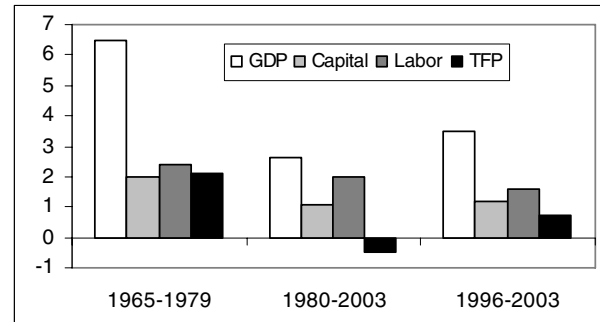
		Regression coefficient of Oligarchic Family Control Measure				
		Twenty Largest Firms		Ten Middle-size Firms		
	Threshold	20%	10%	20%	10%	Sample
Economic Development	<i>Growth in per capita GDP at purchasing power parity, 1990 to 2000</i>	-2.37 (0.10) [0.66]	-2.57 (0.09) [0.62]	-3.31 (0.00) [0.62]	-3.10 (0.02) [0.55]	27
Physical Infrastructure	<i>Average scores for roads, air ports, telecom, & power for how well each meets business needs</i>	0.398 (0.45) [0.53]	0.431 (0.44) [0.53]	-0.340 (0.51) [0.52]	-0.055 (0.91) [0.51]	25
Health Care Provision	<i>Logarithm of infant mortality rate per 1,000, 1993</i>	0.879 (0.00) [0.73]	0.802 (0.01) [0.69]	0.454 (0.14) [0.62]	0.491 (0.09) [0.64]	25
Education System	<i>Percentage of respondents agreeing that education system meets the needs of a competitive economy</i>	-0.811 (0.26) [0.18]	-0.681 (0.37) [0.16]	-1.26 (0.07) [0.26]	-1.05 (0.19) [0.23]	25
Quality of Government	<i>Average monthly inflation from 1990-2002</i>	0.00483 (0.00) [0.66]	0.00443 (0.01) [0.62]	0.00399 (0.00) [0.62]	0.00266 (0.09) [0.55]	25
Social Development	<i>Income inequality as measured by a Gini coefficient</i>	13.6 (0.01) [0.24]	14.1 (0.01) [0.23]	11.5 (0.03) [0.19]	10.9 (0.03) [0.18]	27

Note: Numbers in parentheses are probability levels for the null hypothesis of a zero coefficient on oligarchic family control in regressions of economy characteristic of that variable and the logarithm of 1995 per capita GDP. Numbers in square brackets are regression R² statistics.

Note: Numbers in parentheses are probability levels for the null hypothesis of a zero coefficient on oligarchic family control in regressions of economy characteristic of that variable and the logarithm of 1995 per capita GDP. Numbers in square brackets are regression R² statistics.

Source: Morck and Yeung, 2004

The first element worth noting is that growth in Mexico has been much lower than growth in India, China, and Chile for well over a decade. This did not improve in the last sexenio, with growth in Mexico averaged around 1.6 percent between 2001 and 2004, while China was growing at 8.6 percent (Figure 12 (a)) Relative to Mexico's own history (as well as the comparators), disappointing growth both since 1980, and since the Tequila crisis, is associated both with lower investment in capital and, especially, lower total factor productivity (Figure 11 (b)). We argue here that one of the main reasons behind the low productivity is lack of competition both in labor and in crucial non-tradable or protected product markets.

Figure 12 Mexican growth: international perspective and sources of growth**(b) GDP Growth in Mexico and its Components 1960-2003**

Contributions to real GDP Growth in Percent.

Source: Faal (2005).

Many studies confirm that lack of competition is a crucial problem holding back the possibility of strong growth in Mexico. The Mexican Competitiveness Institute (IMCO) developed a model to assess the main factors behind the low and falling competitiveness Mexico. Drawing on cross-country information, they estimated point elasticities for the impact of investment per worker of a ten percent in different dependent variables. The top four interventions which would bring about an improvement in competitiveness in Mexico are: (i) Improvements in the competition environment; (ii) Changes in taxes and tax regulations; and (iii) improvements in *trámites* (administrative regulations) and the investment climate (iv) education (Table 14).²⁶ Problems of logistics, corruption, finance and energy also hurt investment. Moreover, a survey from *Centro de Estudios Económicos del Sector Privado* (CEESP), finds that the two largest obstacles to business development identified by firms in Mexico are public and private monopolies.²⁷ And The Global Competition Review ranked Mexico near the bottom, with a score of 2.25 (out of 5) which is only better than Greece and Argentina.²⁸ Note that these results are largely based on conditions for formal firms: informal enterprises would be expected to have greater problems with lack of access to finance, electricity and labor market regulations—though exploration of this would require further empirical work.

Table 14. Constraints on Competitiveness

Subject areas	Impact on investment per worker of a 10 percent improvement in
1) Competition environment	7.5 %
2) Taxes and tax regulations	7.1 %
3) Regulatory and investment climate	6.8 %
4) Education	6.0 %
5) Trade facilitation and transport /	5.8 %
6) Corruption	4.7 %
7) Innovation	3.8 %
8) Finance	3.6 %
9) Energy	2.7 %
10) Labor market	1.9 %
11) Macro environment	1.0 %

Note: The percentages are point elasticities, which reflect the effect on investment per worker of a 10 percent isolated improvement in each variable. Simultaneous interventions could have multiplicative effects.
Source: World Bank extrapolation of IMCO subcomponent elasticities.

This suggests that reforms to increase competition could have a significant impact on growth in Mexico. Cross country evidence as well as recent research show that improving competition can increase productivity, promote innovation, promote investment and increase long run employment.²⁹ Increasing competition can increase firm innovation by more than 50 percent³⁰. And regulatory reforms to improve competition in several industries in the US resulted in annual gains of 7 percent in those parts of GDP. This is exactly what Mexico needs at this stage.

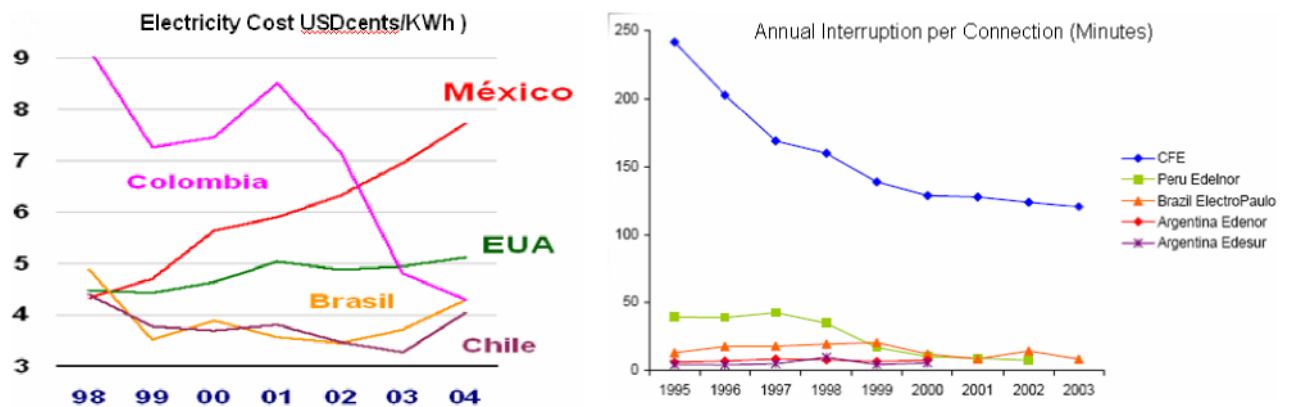
From Table 14, we can see that other areas of interventions are also affected by unequal structures in Mexico. Education, as noted earlier, is an example of capture by teacher's unions; finance is difficult to access for many firms because of a history of high concentration in the banking system and capital markets; the energy sector needs much greater competition and a strategic shift to ensure its long term sustainability; and the labor market and associated social security taxes creates a disincentive for formalization.

The lack of competition creates a heavy burden for Mexican producers that want to compete in international markets, through increased production costs and unreliable supply. For example, both the quality and price of utilities affect competitiveness in Mexico. Business

opinion surveys give Mexico the lowest ranking of any OECD country in terms of energy efficiency and adequacy.³¹ And prices of natural gas, electricity and fuel oil are amongst the highest in the world. High electricity costs when adjusted for fluctuations in frequency and voltage, result in effective costs that are 10 to 60 percent higher than in the USA.

If we analyze in more detail the energy sector, we find that inadequate investments in infrastructure have had a significant negative impact on input costs and (and so investment incentives) in Mexican manufacturing.³² The performance of CFE, for example, is very poor when compared to other Latin American companies (Figure 13). Mexico's electricity costs are growing and are now amongst the highest in Latin America. And annual interruptions in connections are substantially more frequent than in Argentina, Brazil and Peru. This is a difficult position for any firm that wants to compete in international markets with products that require electricity as an input. Service interruptions and voltage fluctuations affect overall productivity levels of industries and prevent the installation of modern equipment.

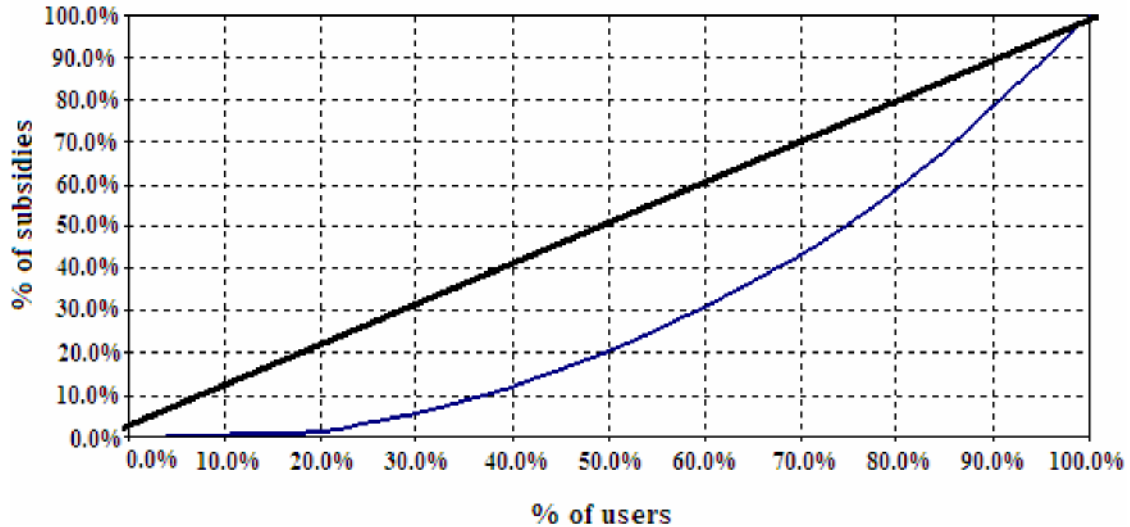
Figure 13. High Costs and Low Quality of Service in Electricity



Source: World Bank (2006)

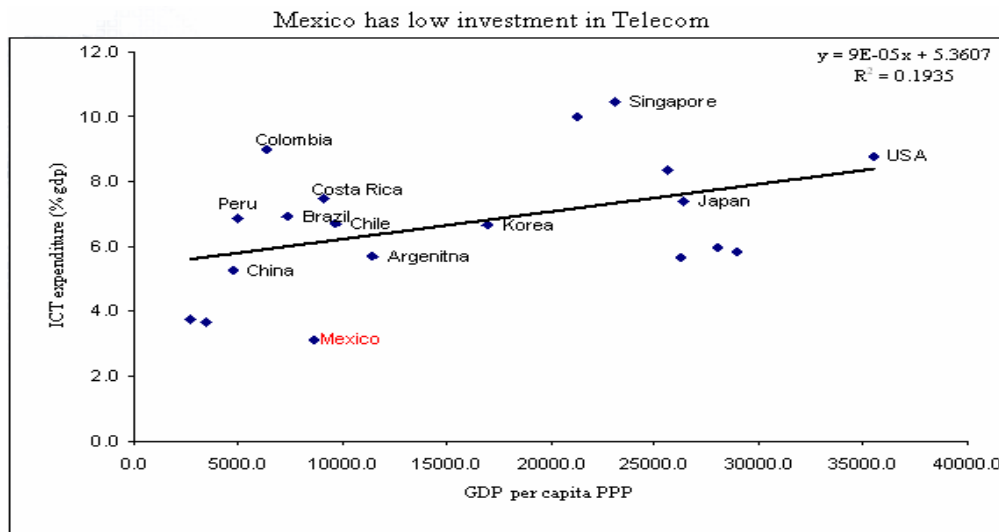
The latter is accompanied by large subsidies, which are regressive in distributional terms. A quasi-Lorenz curve of the incidence of electricity consumption subsidies shows that less than 20 percent of the subsidy goes to the bottom 50 percent of the income distribution (see Figure 14). Also, the service with the highest subsidy is for irrigated land in agriculture, which goes to wealthier farmers, while poor producers own rain-fed land.

**Figure 14. The Distribution of Electricity Consumption Subsidies is Biased to the Rich
Lorenz Curve, Tariff 1A**



A similar situation is present in telecommunications, where the major firms have substantial market power, as noted in Section 4. Despite impressive growth in information and communication technologies (ICT) the 1990s, Mexico lags behind other Latin American and OECD countries in investment (Figure 15). 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.

Figure 15 Mexico has unusually low investment in telecommunications



Source: World Bank 2006

As a growing number of studies have found,³³ countries with higher levels of investment in ICTs experience higher economic and social development growth. Low investment in ICT has meant that fixed line growth has not kept pace with comparable countries and the digital divide between rural and urban areas has increased. Southern States are falling behind the rest of the country in ICT. Costs are also high, when compared to other countries. Telmex dominates the long distance, local and cellular markets. Their net profit margins are more than twice its closets rival. And telephone charges are high in Mexico, when compared to Latin America, especially in local prices for business (Table15). Business telephone charges (factoring installation costs, monthly fees, and per minute rates) are over 3 times in Mexico than in Argentina and 4 times greater than in Brazil.

Table 15. Mexico has High Telephone Rates

<i>Country</i>	<i>Monthly rate Commercial (US\$)</i>	<i>Monthly rate Residential (US\$)</i>	<i>Cost per connection</i>	<i>Cost per call three minutes</i>
Mexico	18.35	14.51	104.7	0.14
Argenti	12.94	4.56	51.72	0.02
Chile	9.20	9.20	43.95	0.10
Brazil	13.71	7.72	13.81	0.05
Korea	4.36	4.36	50.35	0.03

Source: World Bank, 2006

Lack of access to finance is an additional part of the story, especially for small and medium sized firms and new entrants. As noted above, while Mexico's financial system appears to now have escaped from the long history of concentrated control by the domestic economic elite, private credit remains extremely low by international standards. Foreign control undoubtedly helped solve the problem of low asset quality and connected lending, but has left Mexico with an unusually risk-averse banking system (Haber 2005).

There are also sector-specific stories, related to the unequal structures discussed above. Low productivity, and weak growth dynamics in both petroleum and agriculture hurt overall growth both directly—and through linkages to other sectors (important revenue-related linkages in the case of petroleum).

Finally, we note the low levels of infrastructure spending in Mexico. The political economy of the relationship between this and unequal structures is less direct than in other areas, but is still central. In essence, infrastructure spending was squeezed between three forces: inability to raise taxes above a dismally low rate for a middle income country; the growth in social spending; and the pursuit of fiscal prudence. Of these only the third—fiscal prudence—is unrelated to political economy concerns addressed here. Failures in tax reform reflect a combination of unwillingness of the middle classes and elites to pay more taxes, and weak administration.

While this paper will not get into the policy implications of this analysis, we suggest exploring a general approach, which seeks to define a sequence of policies that is:

- (a) politically feasible, in the sense that it is consistent with the initial political equilibrium;
- (b) designed to be resilient to capture and to increase competition, and
- (c) helps shift the system to a political equilibrium that is both more equitable and more supportive of efficient policy design and reduced inequality of influence—that moves the society away from the current inequality trap.

This implies not only designing policies that are socially desirable, on grounds of efficiency and equity, but doing so in ways that builds the political constituency for change as part of the policy design. The variation in experience across institutions and sectors already provides examples of the potential for change. In Section 3 we saw that the CFC was already a much more effective countervailing institution than COFETEL, a product in part of how it was set up. CFC is going to be further strengthened by the amendment to the Competition Law, which will make its resolutions binding immediately, as and until an appeal is resolved. With respect to education, despite the centralized power of the teachers union, in some states a more cooperative relationship between union and state government has evolved, making other reforms more effective. And while the financial sector needed a massive crisis to induce reforms away from a captured system, it has successfully passed through the first stage of effecting an institutional break. Policy design will have to go further than these examples, in developing the political support for stronger regulation,

measures that support entry of firms into protected and concentrated business sectors, and counterbalancing of the power of corporatist influence.

6. Conclusion

This paper has developed a two part argument. First, unequal structures of power continue to exert influence over policy design and the working of economic institutions in Mexico in ways that tend to reproduce the structure of inequality. We focused on two categories of inequality: extreme wealth and corporate control in the business sector, and “corporatist” groups. Traditional analyses of inequality fail to capture the nature and extent of inequalities associated with these groups. In terms of income and wealth, the truly wealthy are never captured by surveys of income and expenditure, and have incomes way above even those of richest households within such surveys. Corporatist groups are included in the surveys, and we find that unionized workers have incomes in the top part of the distribution. As important as income levels is the way in which unequal influence is exercised: this is a product of the interaction between these unequal structures and institutions. We argue that democratization did not lead to any fundamental change, and in some respects the resulting political equilibrium is worse with respect to the exercise of unequal influence and efficiency. We provided a series of empirically grounded examples of the exercise of unequal influence.

Second, in many areas the economic institutions that are shaped by unequal influence lie at the center of Mexico’s problem of growth and competitiveness. These range from the anti-competitive conditions associated with concentrated market power, to low quality in education. Unless the link between inequality and competitiveness is addressed, it is unlikely that Mexico will be successful in addressing its growth challenge.

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End Notes

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2. See also Bourguignon and Walton (2006) for a general discussion of these issues for Latin America.
3. For informal accounts of the concept of an inequality trap see World Bank (2005) and Rao (2006); Bourguignon, Ferreira and Walton (2007) present a formal account.
4. See Glaeser, Sheinkman and Shleifer (2003) for a discussion of how weak justice systems tend to benefit the rich and powerful.
5. De Ferranti et al (2004).
6. The listing is based on self-declared wealth, and so is likely to suffer errors of under-reporting (and possibly also over-reporting.). See also de la Torre (2006) for discussion and use of this source in an analysis of wealth in Mexico.
7. This is not a “share” of GDP, since GDP measures a flow of income, and net worth is a stock of wealth; the purpose of using this ratio is to get a comparable scale across countries with very different income levels.
8. For consistence we used the same family size of three recorded for the top one percent of the ENIGH.
9. Castañeda (2000) argues, for example that, according to the data from the 20-F report of the Securities Exchange Commission (SEC) submitted by 25 Mexican firms listed on the New York Stock Exchange (NYSE) in 1996, the president of the board, usually the main stockholder and the general director, has practically no opposition from independent board members. On average, only 20 percent of the firms present a majority of external members on the board -and this fact does not necessarily mean independence, since they could be related to another company of the same group. Besides, on average, 35.2 percent belong to the family of the president and 38.7 percent are executive managers. All in all, close to 57 percent of board members are either employees or relatives of the president. Thus, the structure is characterized by the following facts: (i) large stockholders hold executive positions, (ii) firms continue being family centered, and (iii) the board of directors represents the interests of a block of large shareholders, instead of being formed by autonomous external auditors monitoring the interests of small shareholders.
10. See Haber, Mauro and Razo (2003) on history, Haber (2005) on the crisis and cleanup, and La Porta et al (2003) for evidence on related lending.
11. There is a long literature on regulatory capture, starting with Stigler (1971). On the judicial system, Glaeser, Scheinkman and Shleifer (2003).

12. World Bank Project Appraisal Document on Judicial Reform, quoting Ministry of Interior in 2001.
13. The *Libro Blanco de Justicia*, to be published in the future by the Federal Court, confirms this problems and adds that judges face many problems for the implementation of their sentences and the *cumplimiento de mandatos judiciales*.
14. Some cases involve more than one firm, though the resolution has to sanction or exonerate each specific action. Thus, the resolutions actually involve 612 specific decisions.
15. Controls included time and sector dummies. Information is not available on firm size.
16. We treat this as a suggestive result, rather than a definitive causal account, since the data do not support a clean identification strategy for the influence of billionaire-controlled companies.
17. While referred to as a “nationalization” this was actually an expropriation by the state of domestic private banking interests.
18. Unions can extract rents, as shown below, but also can prevent productivity-enhancing reforms from taking place or reduce aggregate productivity through the impact in quality of health services or education. Thus, introducing a more efficient and competitive union institutions also has spillover effects in the overall economy.
19. Maloney and Ribeiro (2001) analyze the *Encuesta Nacional de Empleo, Salarios, Tecnologia y Capacitacion* (ENESTYC) and find wage premia for unions disappear once firm characteristics are controlled for—implying workers are more likely to be unionized in particular types of firms.
20. In all cases, the denominator is an estimate of the replacement value of the firms’ assets. Given that these firms and the social security institute are not publicly traded companies, it is not possible to obtain a market value.
21. *Informe al Ejecutivo Federal y al Congreso de la Unión sobre la Situación Financiera y los Riesgos del IMSS, 2005-2006*.
22. This argument draws on ongoing work by Santiago Levy; see Levy (2006)
23. This argument is developed in full in Levy (2006)
24. Morck, Wolfenzon and Yeung (2004)
25. (ibid p.3)
26. The methodology does not allow identifying interactions between competitiveness dimensions.
27. CEESP (2005)
28. Global Competition Review, Volume 6, Issue 6, June 2003

29. Nicoletti and Scarpetta (2003, 2004).
30. World Bank (2004a).
31. IMD World Competitiveness Yearbook (2004).
32. World Bank IPER, 2005d; IMCO (2005).
33. See OECD (2004).