

**The Process of Development of Mexico
in Today's Global World.**

By

Pablo Morales Noriega

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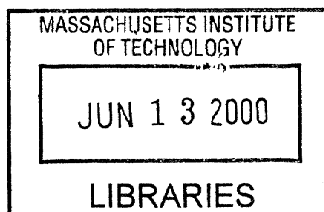
MIT Sloan School of Management
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Certified by _____

PhD. Kristin Forbes
Assistant Professor of Management
MIT Sloan School of Management, Thesis Supervisor

Accepted by _____

Toby Woll, Director
Sloan Fellows Program



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Abstract

Globalization has change the relation of the countries in the market, the way they participate and the way they compete for the scarce resources. Different economies have developed different methods to be successful in this environment. We will center our attention on how is Mexico's economy going through, since global trade has become part of the culture of the country, from 1980 to the year 2000 Mexico has signed more than 10 trade treaties with different countries worldwide. Nearly one generation has lived under the global thinking. Many questions have raise from these actions. What is Mexico offering in this matter? What needs to be done? Are the strategies implemented by the government working as they were planed to do? Is there another way to do it? Can Mexico take more advantages of the world trade?

The thesis would analyze how the different economies are getting into the global market. This would be the starting point in order to focus to the Mexican economy, analyzing the strategic positioning of the country on the market, the strength of its actual resources and the process of development of the nation. The second part of the work would focus on six structural challenges that the country have to face in order to get to the higher stages of the global market.

Thesis Supervisor:

PhD. Kristin Forbes
Assistant Professor of Management
MIT Sloan School of Management.

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Introduction

Modern economic history of Mexico started 1976, when the currency was devaluated under the regime of Luis Echeverria Alvarez, from then on Mexican economy started sharp cycles were the pressure of an unproductive country was manage with the valve of devaluating the currency. This valve corrected the pressure for the moment, but did not solve the problems from their roots. Even worst in the long run these phenomena affected the trust of the entire population, making it more difficult to develop a structure for the economy. But what else could be done, in order to solve the pressure, and in the long run generate the require growth of the economy? And how could development be reflected in better standards of living for the population?

Less than three months away form presidential election in Mexico for the period 2000-2006, political parties as well as candidates express their work program, in order to get votes to be elected. They consider their programs will help recover the economy, but they all are similar to the programs implemented in the past; they go far from the global context that the world is going through. They do not realize the way Mexico is struggling against other economies in similar positions, and they don't propose ways of developing the economic platform to increase the participation of the country in this market. Once we understand the market we can look for more profitable ways of interact with it, as well as for developing the country towards those activities.

This thesis would analyze how the different economies are getting into the global market. Then it would illustrate some mayor challenges that the Mexican people would have to focus in order to develop their economy towards this global framework.

Chapter 1

1.1 Proposal of an Economic-Social Model

By purposing an economic-social model for Mexico, I do not want to sound simplistic in assessing the situations that the country has been facing. I believe it is a complex situation directly affected by many internal and external variables. Nor am I judging the decision's made in the past by suggesting different measures, as certain figure of the country politics of the 80's and 90's, now on retire described mexican economic-social model as a mixture of compromises that nobody understands, but every one is capable of judging. The basic idea of this work is to view these problems from a different perspective in a dynamic environment. Understanding the changes that have been done in the country as well as the changes that have happened in the global market. Finding ways to harmonize the long-term development of this nation in the globalized environment.

Lester Thurow¹ compares the process of development of a country to a “long distance race” where the runners, have to focus on a goal of 100 years with the same consistency and performance. The problem of some countries is that they can run fine for several meters (sprint), but then they collapse, losing all thus none accomplished, up to that point or in some cases, even going backward.

Any economic-social model, in order to be successful has to go on further than a leader idea, or a political party. It needs to be persistent in its goals and it requires in some cases unpopular measures that, in the long-run should prove to be beneficial. Though modern history there have been radical changes in some nation's behavior driven by some of these aspirations.

¹ Professor in Economics form MIT. Proposal at the conference Re-Inventing Latin America MIT march 3, 2000

There have been other countries that have attempted to adapt the same measures searching for similar outcomes, but obtaining different ones. The basic notion is that every country has to develop its own model according to its own characteristics, its own resources, its own strengths and weakness, and its own commitment to accomplish its goals.

1.2 Setting Up The Strategy.

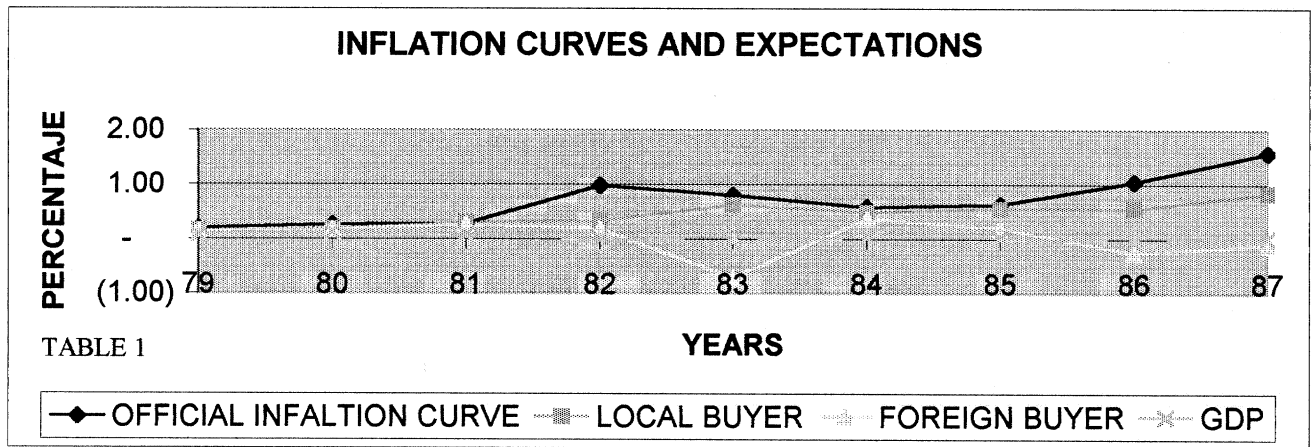
In order to align the resources of a country, it is important to establish a clear strategy that is consistent over time, in order to advance over the achievements of other administrations in the process of development. The Strategy should satisfy the majority of the actors in, the economy, not certain political party or political leader. The Strategy should help all parties achieve their primarily goals. It does not mean an end in itself, transformed into a meaningless game or a bureaucratic activity². Its main purpose is to identify the tasks, the resources, the position we play, the opportunities and threats, and the way we line up this means in order to achieve a sustainable advantage generated by the synergy of these resources.

This strategy has to merge the expectations of the actors of the economy in order to motivate them to align their resources to create a true synergy that benefits these contributors. The strategy can undergo certain modifications over time according to the events that surround the desired goals, but it is important to communicate these events as well as the new directions as to where the strategy is moving. In today's globalized world, the actors of the economies have new expectations that have to be understood by all the members in order to obtain them.

² Hax Arnoldo, Majluf Nicolas; "The Strategy Concept and Process".

The first intent in Mexico to align the active internal actors of the economy occurred in 1982 under the regime of Miguel De La Madrid when the first “pacto” was signed. It was an agreement between the government, representatives of business, and unions of workers. The purpose was to coordinate wages and prices in support of the overall macroeconomic strategy. Several “pactos” followed this one with the same purpose and results. People expectations have been aligned with these treaties, at least for some time. The problem starts when part of these expectations cannot be accomplished. According to Rudiger Dornbusch, “The central implication of the rational expectations approach is that people may not always get forecast right but they do not make systematic errors³”.

The pacto of 1982 help reduce official inflation. All of the actors of the economy were reaching a similar goal in 1984, when suddenly again the expectations of the people changed.



On table 1, we can see the information from the official inflation calculated on the base cost of some products (basket of basic products). In 1982, when the pacto was signed, the curve of official inflation was at its maximum, the population was convinced that the best thing for the

³ Dornbusch Rudiger, Fischer Stanley, Startz Richard; “MACROECONOMICS”.

economy would be to lower the inflation, and that was done. Every member of the economy has its own curve of inflation because every person buys different products and in different places according to their basic needs and preferences. The yellow curve (foreign buyer) shows the curve of inflation of a person who purchases all his/her products aboard. In real life, no person would likely behave this way. This tries to exemplify the inferior limit of the worst scenario, since it would be impossible to match the different curves of the population. The pink line (local buyer) represents the position of a normal person earning the minimum wage of the central zone (Mexico City). This line keeps the tendency of the dark blue line (official inflation) but normally one period behind. Every time the dark blue line is above the pink and the yellow line, the area between those lines represents, a reduction in purchasing power in real terms. From this table, we can conclude that if the strategy plan, and the expectations of the persons do not match, the outcome would fail turning the inflation back up and having the cost of reducing real wages of the working class. And as the theory of rational expectations says, you cannot fool the persons many times. The government has to develop logical strategies and has to commit to them in order to get enough credibility for the actors of the economy to trust them.

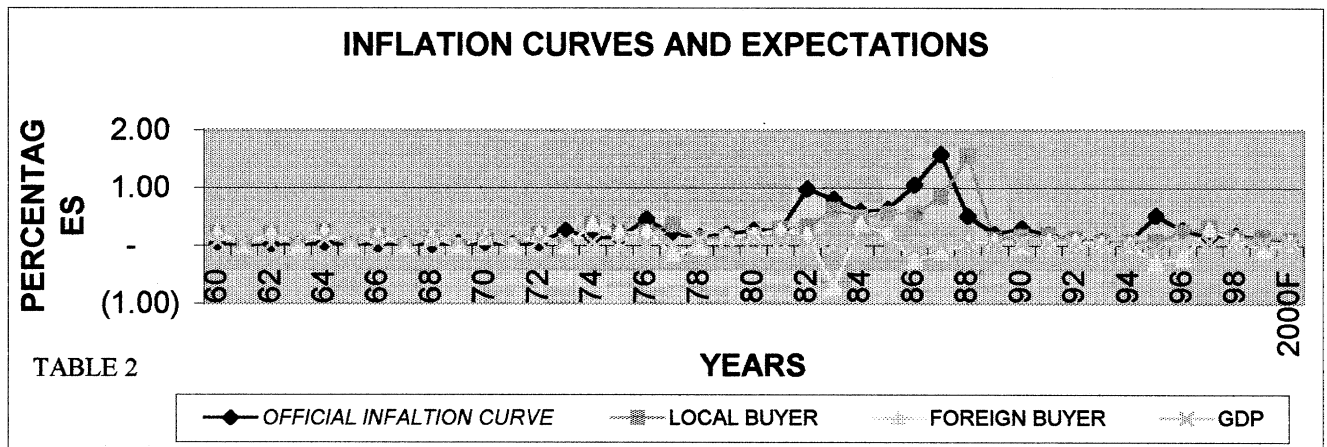


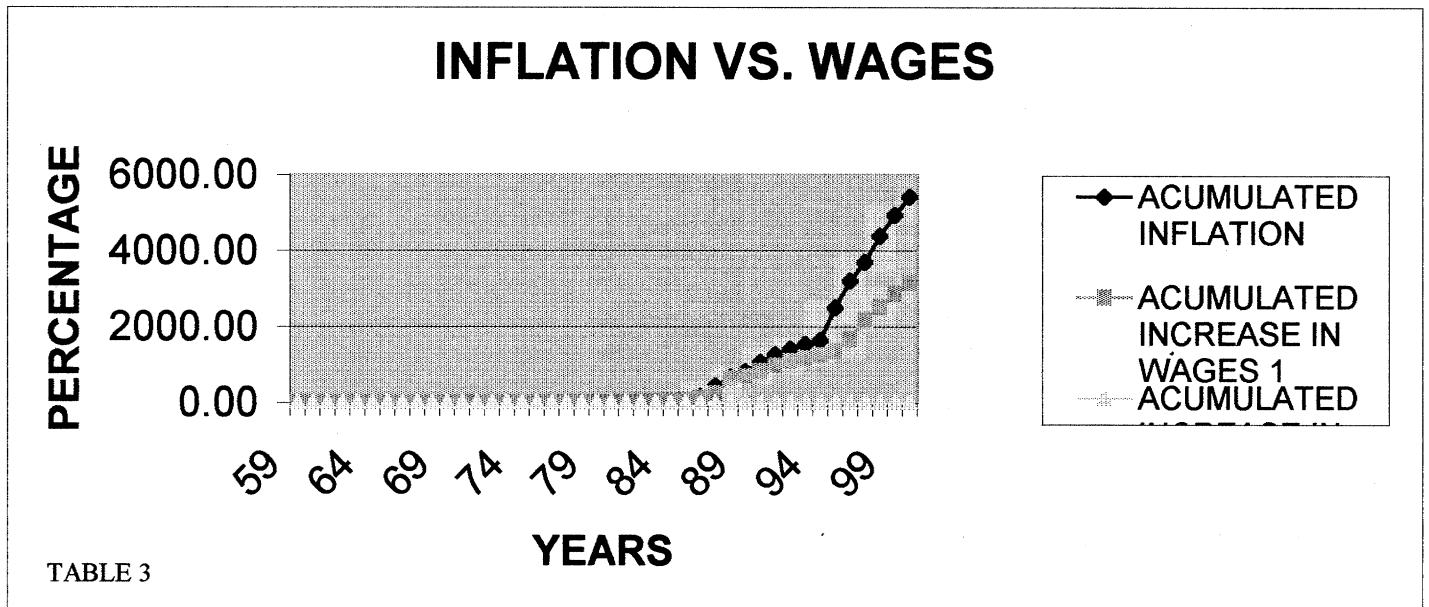
Table 2 depicts a longer scenario, for 40 years, from 1960 to 2000. It demonstrates how expectations of the people have moved through history. During the 1960s and at the beginning of 1970s, we can see a great deal of consistency, but from the middle of the 1970s, the situation changed.

Another intent of a strategic plan in Mexico would come from the Program of work of each government. Every presidential period a new program is developed, building on what is left from the past regime. These programs can guide the expectations of the people as well, but the pacto form has the advantage of generating responsibilities for the principal actors in the economy. We could conclude that the strategy should be clear in order to define the uncertainties. In that way, every actor would know what to invest and what to get, and every actor would be more committed to pursue that plan. Subsequently we will describe the goals that the government should focus through this strategic plan.

Once the trust of the actors of the economy is lost, it will take stronger measures of commitment from the government to recover it. Extreme measures could even mean losing part of the national sovereignty in order to get a third party to guarantee the acts of the government. Some examples are the currency board in Argentina, IMF plans for restructuring, or even a stronger one the dollarization that Ecuador followed this past year. I am attempting to stress the importance in the trust of the government and not suggesting this measure for the Mexican economy.

Returning to the first exercise described in table 1, if we accumulate the effects of inflation and wages over time, we would get the following result (table 3). The area between the yellow line

and the pink line represents the accumulation of all the curves of inflation from all the actors of the economy. No matter what preferences they had for purchasing, from domestic to abroad products, their curve would be in that area, tending to the yellow side if they purchase more products abroad and to the pink side if they purchase domestic products.



The curve of accumulated inflation (official inflation) exceeds the curves of accumulated increase in wages 1 and 2. The area between the dark blue line and the pink one represents the real diminishment in purchasing power. A small amount of inflation is good for the economy according to Rudiger Dornbusch ⁴, “In a changing world, some real wages need to go up and some need to go down in order to achieve economic efficiency and low unemployment” The problem comes when the majority of wages go down and for these periods of time. The internal market reduces its output, (demand side) since persons change their habits in purchasing goods to subsisting and, in some cases, from subsisting to deep poverty. People expectations can change with results. The importance of a good, well-structured strategic plan can start this change if it is efficiently

⁴ Idem p.150

communicated to the participants of the economy, and if it reconciles the objectives of these actors. For this strategic plan, it is important to consider some changes in the environment consequences of a Globalized.

Chapter 2

2.1 A Globalized World

What is this global environment? In recent years, every one is talking about the global economy. Different theories have come and gone, and diverse views argue about these economic and political phenomena. According to Richard Locke, Globalization is “ a set of changes in the international economy that tend to produce a single world market for foods, services, capital and labor⁵”.

Part of the discussion from scholars derives from the formation of a global economy. Some believe that these factors were given every since the beginning of the economies of the world, doubting “global economy” as a new concept. Capital used to flow in different directions and labor force as well through many times of history. Others believe that globalization has changed the rules of the market for all of its members, that its real and its here to stay. In today’s economy, there are no borders. Companies have to face worldwide competition as well as individuals and governments. According to Kenichi Ohmae, business and governments are just beginning to live with the consequences, since globalization means movement of people, ideas, information and capital across borders. Governments will face new dilemmas and will have to redefine their objectives in order to attract new resources⁶.

⁵ Richard Locke Associate professor of Management and Political Science at MIT “Globalization” December 1999.

⁶ Kenichi Ohmae “Putting Global Logic First” Harvard Business Review January 1995 p-119 and Kenichi Ohmae “The End of the Nation State: The Rise of Regional Economies”, London, HarperCollins, 1995.

Other theories considered the global economy as a closed system; if one country increases its resources another country is going to suffer a reduction. The total output of the world will remain equal. This could be true if all the countries of the world had similar technologies, and similar levels of employment and other resources. Only at that moment would the system be a closed one where resources would have the same impact on the output. If the other countries have underutilized resources, the output could increase. Besides, this theory considers the outcome of the total output of the world, it does not consider the output of a single country that is competing with other countries in order to obtain more resources.

To explain how different countries have different levels of productivity with their resources, we could use the national income accounting. This macroeconomic theory considers the following relations between the “ factors of production.”⁷

$$TotalOutput = \left[\begin{array}{c} Labor \\ Share \end{array} \right] \times \left[\begin{array}{c} Labor \\ Growth \end{array} \right] + \left[\begin{array}{c} Capital \\ Share \end{array} \right] \times \left[\begin{array}{c} Capital \\ Growth \end{array} \right] + \left[\begin{array}{c} Technical \\ Progress \end{array} \right]$$

Lest talk about these factors:

According to Robert Solow’s model, the most important determinant of total output (GDP) is technical progress. This is followed by an increase in labor supply and at the end, capital accumulation. The first consideration is that technical progress typically is not a factor that can be controlled by a society. It comes when new discoveries or inventions take place, but it is partially affected by investments in R&D. On the other hand, labor share and capital share are normally fixed factors, while labor growth and capital growth are more controllable factors.

⁷) Rudiger Dornbusch, others; “Macroeconomics” Seventh Edition (McGraw-Hill 1998)- 19.

This theory suggests that if fully employed these factors of production the potential output could be reached for periods of time. In the long run, potential level of GDP could only be improved if there is an improvement in technical progress.

Returning to the notion of globalization, companies are used to competing for resources. They even compete in their internal markets. At the beginning of globalization, they learn to compete with foreign companies. But governments will have to learn new forms to compete for these scarce resources. They have to understand that their role has changed and, in some cases, they have even lost some tools to control the internal economy. In a globalized world with free mobility of resources fiscal, monetary, and exchange rate policy could be limited by competition from other countries. To exemplify this, we will consider 2 cases of Mexican companies BIMBO and CEMEX. These companies were considered to have lower risk (according to S & P and Moody's) than the entire country. If the companies identify better options in infrastructure, taxes, financial rates, security, and stable currencies, they could end up moving their corporatives, or expanding new investments into other countries. We could consider this scenario with labor as well. When a country infrastructure is blocking the level of jobs, emigrants tend to go to other places to work. They may maintain emotional links to the original places, but not economic ones.

It is difficult to understand the new role of the government in a global environment. Through out history, it has been shown that in general, governmental institutions tend to be unproductive and bad innovators. Countries require industrial companies (privately owned) to invest resources in order to produce goods and service, and conduct research, for example in a productive way. Additionally, they need a well train labor force to increase the output of the economic investment. On the other side, their main economic purpose is to increase the quality of life for their people. This could be considered to be a bilateral relation since they both need each

other. Different countries have different characteristics, different strengths and weaknesses, but at least companies and the labor force expect certain standards. Even technological progress requires of certain standards to evolve and to assure its implementation.

Every government has to analyze the factors of production they account for, their strengths and weaknesses, and to develop a strategy to compete for the scarce resources of the world. According to the characteristics they possess, they have to develop their specific models in order to achieve their goals. They have to be more creative to develop their strategies because their competition has increased. Today's governmental institutions have to coordinate and align with each other in order to offer the main elements for trust and for increasing productivity (e.g., security, education, infrastructure, law) of the investments to the owners of the capital. Not only considering the capital, if technological progress (brain talent) takes place in a country that does not offer an adequate platform, the owner of these inventions could move to another countries where he/she satisfies this necessity in order to protect his/her idea.

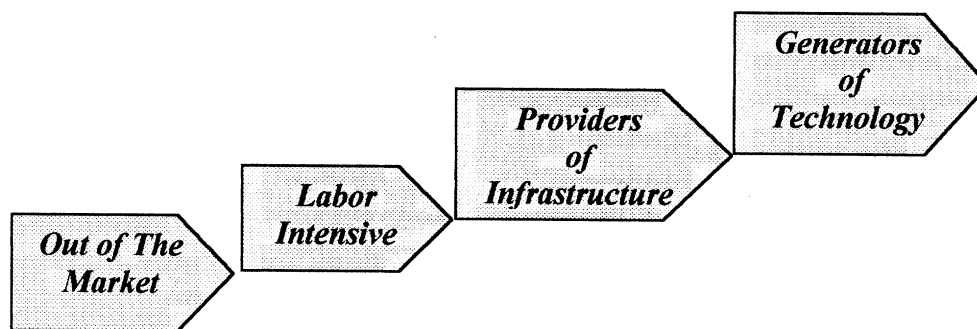
In the past, geographical regions tend to balance by themselves⁸. An example of this is Italy, where one side of the country tends to be more industrialized while the other side tended more to the primary activities. In this global world, regions are tending to balance too. Speculative forces play an important role in this balance. Invisible hand will tend to balance this new market⁹.

⁸ Kenichi Ohmae, Harvard Business Review January-February 1995 "Putting Global Logic First" p. 119 to 126

⁹ 5) Adam Smith, "The Wealth of Nations" 1776

2.2 Market Oriented Classification of the Economies of the World

Countries can be classified as developed and underdeveloped, and agricultural, Industrial, and knowledge-based economy. These forms of dividing the world can be deficient with today's idea of globalization, where we have free mobility of resources (e.g. capital and technology). We could classify the countries by the way they are participating in the market. More market oriented in this global environment.



As in the older classifications mentioned before, it is difficult to determine where to locate a specific country, because it is a dynamic world. They could be in transition to another stage, or they could have some improvements on a field from a higher stage, but their main characteristics could represent a lower phase.

Speculative Capital

This plays an important role in the world economy. We could group the owners of this capital as persons from more advanced economies or as persons from the same level economies

(stage) with enough knowledge of the movements of the economy, as well as technologies available to move resources. They have sufficient amounts of capital to make it profitable to move money around the world.

These people are willing to risk their money investing it in other countries in order to earn better returns. These investments are done for short periods of time; in the long run they belong to more developed economies. They only want to earn better returns than the ones they would obtain by investing in their local economy.

Government strategies have to care for the movements of these forces, because in recent years they have earned more power (speculative attacks). On the one hand they should give advantages to these investors, in order to attract their resources for developing the country. On the other hand they should be developing their own resources over time to generate stability, and reduce dependence from this sources of investment in the long run. An example of a stable economy with sufficient internal resources is Chile, where the government has developed a stronger middle class, owner of long-term resources (retirement funds). These resources have made the difference in speculative attacks. This middle class has opportunities for better education and in the long run, this could help them develop their own technology, thus increasing the possibility to move to higher stages of the model.

Stages of the classification

The first Stage would be “out of the market¹⁰” These countries do not offer to investors, in a free market the possibility to establish a business because they have low skill labor, low levels of security, and minimal infrastructure to set up any kind of industry. It sounds strange because we are always aware of the economies that are performing at the higher stages, but there are, indeed countries like these. Myanmar, Congo and Niger are examples. Although the center of the study goes to higher stages, we should not forget about these countries, since they can be reoriented to higher stages and could compete for scarce resources.

The second Stage is “Labor Intensive” These countries tend to differentiate their production system by low wages. They offer a cheap (devalued) currency in order to compete in the market, geographical localization and natural resources. One example is China. They pay to their workers very low wages (12 cents per hour). The country is building strong reserves for the future. It seems as if they are happy the way they are competing, taking advantage of their working force, and not accomplishing the governmental goal of increasing the income of the population, at least for this generation. If they wanted to move from this way of competing to a higher stage, they should be building infrastructure, education, etc. in order to get long term investments from other countries, and developing their own internal market, or competing in a higher stage on the market.

Countries competing in this stage could be using, as their strategic advantage, the price of the currency. They often suffer internal crises when another competitor in this area puts pressure on their currency. Devaluing is the easiest way to be competitive again. These countries attract international companies (speculative equity) in a short turn. They are willing to take advantage of a

¹⁰ Information based on Country reports and others.

cost structure that is going to move according to the cycles of the global economy and of the currency.

This is the easiest way to compete. Countries that lack a long-term plan normally apply this strategy. The question for applying this plan is, what is going to happen with the people? Are they going to learn to live with the cycles of the economy that the strategy is producing? And would they be getting somewhere in the pursuit of their long-term goal? Every time the currency is adjusted, several years of work are lost in achieving this goal still. Another example is Mexico, where the cycles have been shorter than in China as a result of less control by the government.

The third phase, “Providers of Infrastructure“ Considers the structure of the country as well as the way they apply that structure. This means that the country differentiates itself from the other countries by offering better infrastructure. But they really do not develop new technologies. An example is Chile, which offers stability, infrastructure, laws, security, savings and education. These kinds of countries attract investments in long-run relations. Their internal markets are important for international companies, since the level of GDP per capita is higher than for countries at the previous stage (labor intensive). Normally, the cycles of the economy are less affected by contagions and other economic phenomena in their regions. This stage also considers the way they are using this structure if they have a regulatory framework that provides safety to the investors. In these countries, governmental institutions are respected and tend to work toward the planned goal. They still do not develop technology, but patents are respected. As soon as new discoveries are made in other countries, they are brought to work in this region. Such factors offer them advantages in production since they have always the latest technologies.

At the final Stage, “generators of technology”, are the United States and Germany. These governments have given to their communities long-term trust, infrastructure and security. Their community members want to continue being part of the system (nationalism). Moreover, they want to contribute to this system with their work innovations and discoveries. They trust their new technologies are secure, granted with laws (patents) they do not want to go to another economy to develop. They are lock-in to their economy. Their economic platform offers them infrastructure, education, stability, security, technology and monetary means, but the main resources are innovation combined with the size of the internal market

No many countries are offering this economic platform. Every time we follow economic crisis around the world, we can see speculative flows of capital leaving unstable economies, moving towards these markets in order to achieve security.

The rates of new inventions that are generated in these economies are making them keep their leadership role, it turns out to be a virtual cycle. Even knowledge generated in other countries is flowing into these economies as a result of the platform they are offering.

Global markets have increased the competition among countries, regions, companies and individuals. Government strategies have to reconcile and align the necessities of all the actors of this market in order to create and maintain an advantage for the long-term generation of resources and to avoid speculative attacks. Competition will guarantee the survival of the efficient alignments.

An example of this changing environment is Japan's economy. They developed a model based on low wages and undervalued currency. Their competitive advantage was low price. This model helps them generate reserves form a strong structure and increase the potential of their economic structure. The government participation in the economy plays an important role, wisely using their resources in order to change the strategy in the long run. Today, we could say that Japan is moving, toward the stage "generators of technology". Japan is developing new technology and, in some cases, with the resources they have developed they are purchasing patents in order to achieve this higher environment. But it is not yet there.

Countries such as Korea started by copying the model of Japan's restructuring. The only difference is that they have not realized that they need to move to another strategy. They have to change to another stage if they want to obtain the long-term goal. For 25 years, Korea's GDP grew like no other country. This occurred because the initial level of development was lower than in other economies of the world. Today the government is starting to change the way they compete. Their industrial groups "Chaebols" develop a low productivity model based on low capital cost. Direct competition from other industries is changing the way Korea's economy is founded. It seems that the government is realizing this, as we can see in the new GM-Daewoo arrangement. Industries are going to struggle with these changes, and it is likely that some are going to disappear. But the ones that will remain are going to be stronger, and in the long-run, the economy will be more stable. Probably Japan's government had the first mover's advantage and it is why with similar structures one country has been more successful than the other.

If more countries reach the stage of "generators of technology", the potential of all the economies of the world could increase significantly because new technologies will be evolving. At the beginning, these economies will struggle because the standards could be changing with new

discoveries and with new technologies, but at the end, the potential of the world structure would increase. Many people would think that having new technologies from different countries could influence the standardization norms in products around the world, but in order to think of this, we would have to think in terms of a different economic perspective. The size of the world market would be much larger. In this context, 3 or 4 standards of products could be profitable for the companies. Of course, it would affect the speed of innovation driven by the change of a monopoly (where sometimes the best idea fails because it does not have the proper backup) to an oligopoly (where the best technology will triumph in a free market). Keeping the actual context if economic blocks are kept.

Chapter 3

3.1 Governments Objectives

We have seen the changes that are taking place in this global market. These changes have modified the relation of the actors of the economy. The question to consider is how these affected the relationship of the government with the other actors has it modified its goals. What trade-offs have to be made to reach those objectives in short and long-run, and finally what economic tools can they still control or affect in order to get there?

Traditionally, economic models attempt to summarize the performance of a country using the fewest variables possible when they are comparing them across the nations of the world. Usually, they use GDP in real and in per-capita terms, as a way to simplify the analysis. Since this work centers its attention in Mexico, I am going to propose specific objectives that the country's government should pursue in order to be able to subsist in this global environment.

Objectives of the Government

- 1) Pursue increasing rates of GDP growth
- 2) Maintain the stability of prices and a low level of unemployment
- 3) Reduce cost structure to a minimal level
- 4) Improve the distribution of the income across communities in order to reduce poverty and marginal groups
- 5) Maintain independence as a well-defined nation, e.g. economical and political
- 6) Maintain social stability, peace and trust
- 7) Protect the ecology and the natural resources

3.2 Achievements of these Objectives

1) Pursue increasing rates of GDP growth

It is necessary to establish a credible and achievable plan in order to earn the trust of the other actors of the economy, as noted before. The idea is to conceive a long-term plan with all the resources working towards the main goal, in this way, we are not devaluing the currency every cycle, losing the growth we have obtained up to that point, wasting resources. Devaluing (depreciating) the currency does not have to be viewed as a solution in itself. It should be seen as a valve that can be open only during emergencies, but once it is open it affects all efforts achieved in developing the population. Not only that, once it is open, it affects the level of trust for the future. The exchange rate has to reflect its value driven by the price on the market and, in a way, it needs to follow the difference in inflation in one country in relation to the rest of the world. If expectations of the people look to reduced levels of inflation, the exchange rate should be more stable than in cases with high inflation.

The notion is to make the companies productive in the process, and not to base their performance on the currency price. Free markets help to balance this cycle, making the strongest capable of surviving. The cycle will keep the economy growing, generating new technologies, innovating, so that the government has to build an infrastructure to develop that system.

In order to achieve this goal, the government has to help promote an internal platform. This has been discussed previously, indulging in the “new classification of the economies” where I describe the differences between the economies of the world. I noted how some economies are more effective than others and how some governments have contributed to this success. The

platform has to consider all of the factors of production (Solow Model). Although the government is not responsible for all of these factors, it can assist in the coordination of the activities to address these factors. If the goal of the country is to get to the higher stages and become a “generators of technology,” it requires having a healthy platform, as follows:

- a) Infrastructure e.g. energy, roads, telephone, postal service, etc.
- b) Skill Labor education plays an important roll.
- c) Capital and money markets.
- d) Economical stability.
- e) Juridical framework.
- f) Economies of scale. This involves making every person in the country involved directly in the economy. It can be on the supply side or on the demand side, giving opportunities to all the population to have jobs and with their wages consume in the economy. Helping these way industries to achieve economies of scale producing for an interesting size internal market, with out forgetting the markets abroad.

The current growth rate in Mexico (3.7 pts of GDP) is conservative. The country is growing in the shadow of the United States. The actual platform is yielding that outcome. The intent is to increase the size of the platform in order to obtain better returns at least until we saturate this new structure. From them on growth will be influenced by technical progress (Solow Model). Historically we have seen how Asian economies develop as a consequence of their optimization of the economic Platform¹¹.

2) Maintain the stability of prices and a low level of unemployment

¹¹ See Structural Problems “Centralization”.

This goal is similar to increasing the levels of GDP, but in real terms, pursuing a long-term goal, where different generations meet their goals, as a country. This long-term goal may be modified over time, but it should essentially be maintained in order to guide the actors of the economy in the same direction.

3) Reduce cost structure to a minimal level

The government has to focus all its activities to have positive returns. Competition in the world has created the need to focus on more productive operations. It will mean changing the actual structure, but we cannot live with a system that is outdated. Some government activities cannot be productive, but are needed in the society. In those cases the expenses should be reduced to the minimums.

4) Improve the distribution of the income across communities in order to reduce poverty and marginal groups

This can be done when the size of the productive platform is increased. Getting all the members of the economy inside the platform in order to make them participate in the outcome of the economy. Through education it should generate equal opportunities to all of its members of the community. Education could be considered as the only activity that is valid to subsidize, since it is the only activity that would reduce income distribution in the long run. It is difficult to fight against other styles of politics where they made subsidies part of the daily economic activity, creating a vicious cycles where producers do not want to invest in new technologies, since the

price of their products are limited (controlled) by certain laws. Free markets will destroy these kinds of unproductive activities.

Today, 27% of the Mexican population lives under poverty level. Keeping them away of the economic activities, will reduce the output, and blocks their potential. Further on in “structural challenges” we will address this situation.

5) Maintain independence as a well-defined nation, e.g. economical and political

That has to be an important goal for the government. It involves not only the subsistence of the country as it is, but also the subsistence of the government as well. If the situation gets worst we could return to military systems, ending the actual structure. Of course, this could damage even more the situation; it would be a desperate measure.

From an economic perspective, the country independence means to maintain a healthy balance of payments. This indicator reduces importance in countries at higher stages of the model (“generators of technology”) of the “classification of the economies of the world” e.g. the United States can have long periods of negative balance of payments. Countries at lower stages like Mexico need to keep more balance in those accounts. Today, Mexico’s new investment grade¹² has change the scene for investors around the world. Mexico needs to take advantage of this situation by investing the resources in productive activities. The flows of capital that enter the country have to be from investments on capital goods, being careful that those flows do not finance consumption goods.

¹² Moody’s grade to Mexico’s given 7 March 2000 “Baa3”.

6) Maintain social stability, peace and trust

In order to establish the bases of the platform (security), the system needs to develop in an atmosphere of peace. It is impossible in an economy that everyone shares the same ideas, but by giving all of its members an opportunity to advance, the community could keep the peace and stability required to develop. The best chance of amplifying the opportunities is through education.

7) Protect the ecology and the natural resources

According to the World Bank 40 additional countries of the world are going to face severe problems of poverty in 2020 as a result of irrational exploitation of their natural resources. This goal has to go much further than that to not only save them for future generations, but also to increase their productivity as well. Government goods are common to suffer externalities since they do not belong to any specific person. They belong to everyone and no one at the same time. The government has to regulate these resources in order to protect them. In other cases the government needs to invest new resources in order to increase their stocks for the future, as in the case of dams for water. Mexico has almost 6,000 miles of coastline, 3 mountain systems (range of mountains) cross over the country. This gives the country a unique opportunity to build a dam system to provide water to extent parts of the country, as well as to provide energy with hydroelectric plants.

3.3 Tools to Reach the Goals of the Government

Traditional macroeconomic theory deals with the instruments (policies) that can influence the behavior of an economy. However, in today's global market, the effectiveness of the policies could vary from one country to another. As to the "classification of the economies of the world," countries at higher stages can manage the tools in a more effective way than countries at lower stages that have to give extra premiums to investors in order to get their money, such as Arbitrage situations. If a speculative investor could earn the same return in real terms in a country with lower risk than in a country with higher risk, the investor would only invest in the country with lower risk. That is why there would have to be an extra premium in order to invest money in that country.

The table above shows the relation between the objectives and the tools that the government has to reach those objectives. The effectiveness of each policy fluctuates over time according to the situation the country is facing.

Objectives of the Government:	Tools that can Help Reach the Objectives:
<ol style="list-style-type: none">1) Pursue increasing rates of GDP growth2) Maintain the stability of prices and a low level of unemployment.3) Reduce cost structure to a minimal level.4) Improve the distribution of the income across communities in order to reduce poverty and marginal groups.5) Maintain independence as a well-defined Nation6) Maintain the social stability, peace and trust.7) Protect the ecology and the natural resources.	<p>Monetary policy. Fiscal policy.</p> <ol style="list-style-type: none">1) Revenues of the government.2) Expenditures of the government.3) Investments of the government. <p>Exchange rate policy. Savings policy. Exterior commerce policy. Education reform. Juridical framework.</p>

Chapter 4

4.1 Structural Challenges:

This section discusses the most important structural challenges that the government has to face in order to reach its objectives. The idea is not only to subsist in this global environment, but also to try to excel in it, by moving to higher stages of the model. The process to develop a nation is long and difficult to accomplish, it requires the compromise of all the society, something that is difficult to get since not all of their members are willing to sacrifice for others, or for future generations. Based on the idea of developing the country to higher stages of the model, I suggest achieving the following structural challenges:

- 1) Size of government.
- 2) Unemployment and underground economy.
- 3) Education.
- 4) Centralization.
- 5) Money market and capital market.
- 6) Corruption

1) Size of Government

In past regimes, important efforts were made to reduce the number of state-owned enterprises in Mexico. The number has fallen by privatization from more than 1,000 companies in 1982 to fewer than 200 in 1998.¹³ This is still a large number, but the primary problem comes from the total structure of the government itself. Today aprox. 1,650,000 people work for the government (fix base¹⁴) and for the armed forces. This number underscore the fact that there are only 14,759,000 workers at the Mexican Social Security Institute i.e., there is more than one person working at the government for each ten persons that actually work in Mexico.

It is important to define the role of the government. It is known to be inefficient in many of its actions, then it should be limited not only in the way The Neo-liberal Reform theory sees the size of the government, but even reduce to a minimal expression in order to increase productivity of the country. I am not suggesting the extinction of the government, but at least to reduce it to a healthy size in consideration to the labor force of the country. The crisis of 1994 reduced the number of employees of private companies up to 20%.¹⁵ This was done with downsizing as well as new investments, without hiring new employees, making more production with fewer resources. This reduction of personal and increase in productivity has not affected the governmental institutions where productivity is unknown.

The relation of bureaucracy per formal workers of the economy is incredible how come formal economy is supporting that number of personnel. Subsequently we discuss how the government generates its revenue (sources) to see how it affects this relation, as well as how the

¹³ CIA The World Factbook 1999 Mexico.

¹⁴ Considering floating bases the number could go up to 2.3 million persons

¹⁵ Source IMEF Instituto Mexicano de Ejecutivos en Finanzas (on average 20% reduction of personal).

relation of formal economy times the number of bureaucrats affects the volume of corruption in the country.

It is difficult to break vicious cycles. We do not want to affect the levels of unemployment, and expenditures from the government. Some bureaucracy is not productive, but the government is paying their salaries and the bureaucracy is spending those salaries on the market (the government is obtaining negative return on their investment). By down sizing governmental institutions there could be important effects on the market. The possible solution would be to identify all the bureaucrats and to establish a temporary program of 3 years with private companies where they could pay 5% of their revenue tax (ISR) by hiring some of these persons (certain percentages of every governmental institution). It would be beneficial for the companies because they would have more persons to produce for free (of course they would have to put them to work) in the long run it should mean more productivity. It would be beneficial for the government instead of making the triangulation of gathering money from the companies (taxes) to pay these unproductive persons (subsidy). In the long run, they would be spending less. It would be beneficial to the bureaucrats because they would get another opportunity in life and new training for developing their new chores.

The program should be temporary (only 3 years) because the intent is to reduce subsidies of the government, and that would be sufficient time to teach some skills to those workers in order to make them valuable to the private companies. The cost of this program would not be excessive, since you could put identification numbers of personnel you have hired from the government in your declaration form.

It could be argued that this program could affect normal persons to be hired by the companies, since they only have certain capacity of workers. There would have to be certain rules in order for the companies to keep their actual number of employees. In the case of young people getting into the labor market, they have their own advantages being young and, in some cases, with better skills than their older counterparts.

It is difficult to reduce old subsidies, but it needs to be done in order to provide enough tools for the government to generate and aggregate value to society. These structural problems need to be solved in order to get out from the vicious cycle of the past years. Another way to reduce the number of government employees would be to outsource some services.

Outsourcing

Recent experiences in private companies have demonstrated that outsourcing is more expensive in the long run for these businesses. However for any government (inefficient systems) it would be highly advisable, since outsourcing provides faster delivery with lower resources. In 1989, the Mexican government began outsourcing certain types of contracts such as maintenance for the modification of the Calzada Zaragoza, an important street in Mexico City. The results were that private companies could do the same work with aprox. $\frac{1}{4}$ of the money (includes cost of machinery, materials, construction plans and logistics,) the government needed. Other examples were evident, in the same period with private concessions of infrastructure. Critical mistakes were made in the terms of the concessions and executive technical projects, as well as in the calculations of the return of the investment. But the important point to focus on is the cost of construction of those projects that were cheaper in private hands than in public hands. With the mistakes

mentioned before, the projects had to be rescued by the federal government. But as usual, it took them several years to recognize this, making a big problem into an even bigger one.

After the previous experience, I am certain that not many people will agree with me about outsourcing. I would like to share some 1992 experiences in taking charge of the infrastructure area of one of the banks that participated in some of these projects, by specifying the types of mistakes made in the most representative project, “Autopista Cuernavaca-Acapulco.” This project consisted of building a new road from Cuernavaca to Acapulco. The word Autopista (highway) means 3 lanes in each side, 2 lanes for circulation one for emergencies.

The first type of error mentioned involved the terms of the concession. Initially, it was a fixed number of cars that could pass through. Once this number has come true the concession finished and the administration had to pass back to public hands. Once the road was finished, the owners of the concession had to charge large amounts of money to try to get their investment back with that fixed number of cars. They could not reduce prices for certain seasons because they were reducing their stock of cars.

The second type of error noted involved mistakes in the technical part. At the beginning in 1989, the project consisted of only about 100 km. They conducted the study of the soil for this section, when it was almost finished it was the banner of the “SALINAS” regime (of private concessions). Without any delays, they decided to extend the project to the city of Acapulco. They discovered certain antique ruins on the path of the road, and changing the plan of the road would be even more expensive than building a tunnel. In another section of the road, once the

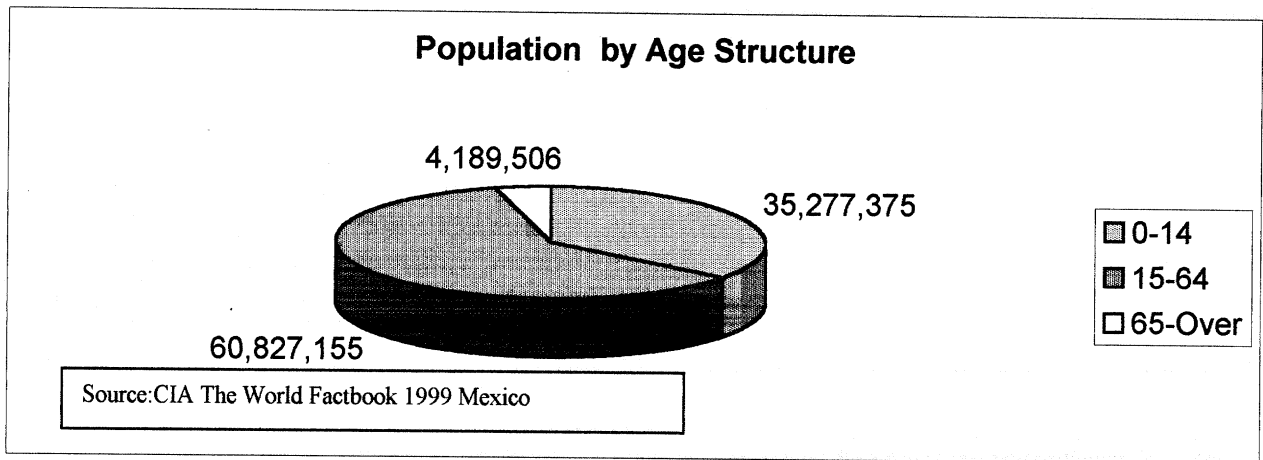
construction companies thought they have finished, 15 kilometers of road sunk due to characteristics of the soil.

Finally, as to calculations in the return of investment, we could aggregate the conditions in the loans granted to the project. The interest rate changed every 28 days, and ranged between 20% to 30% percent. At these levels, it was impossible for any project to succeed.

The idea of outsourcing goes further than maintenance and construction contracts. It should be used for almost any activity ranging from issuing a license (driving, construction, open a business, etc.) to any other activity that can be profitable by itself if the adequate logistics follow. Outsourcing in order to succeed requires the correct supervision, clear responsibilities and strict punishments in case of violations of the law. The correct supervision is very important because this idea could shoot you back if it turns into a source of power for corruption. They are delivering a service, and charging for it, and they should not be taking any other advantage of that position. The basic notion is that a smaller, private unit can deliver better service with an important reduction in cost.

2) Unemployment and Underground Economy

In every country, different methodologies are used to measure traditional open unemployment.¹⁶ In Mexico, it is important to know the rules that apply in order to calculate it. It is measured in the urban areas and, although it includes a broad segment of the population,¹⁷ it is partial because it does not include rural inhabitants. It adds population over 12 years old, available to work, did not work at that time, and look for work during the period. The official unemployment reported on December 1999 considers only 975 thousand peoples. This number seems low according to the circumstances that the country has been facing (e.g., 1994 crises and downsizing the number of employees). The best way to prove it is by developing our own data to determine if it is possible. The official information for labor force in December of 1999 was 37.5 millions.

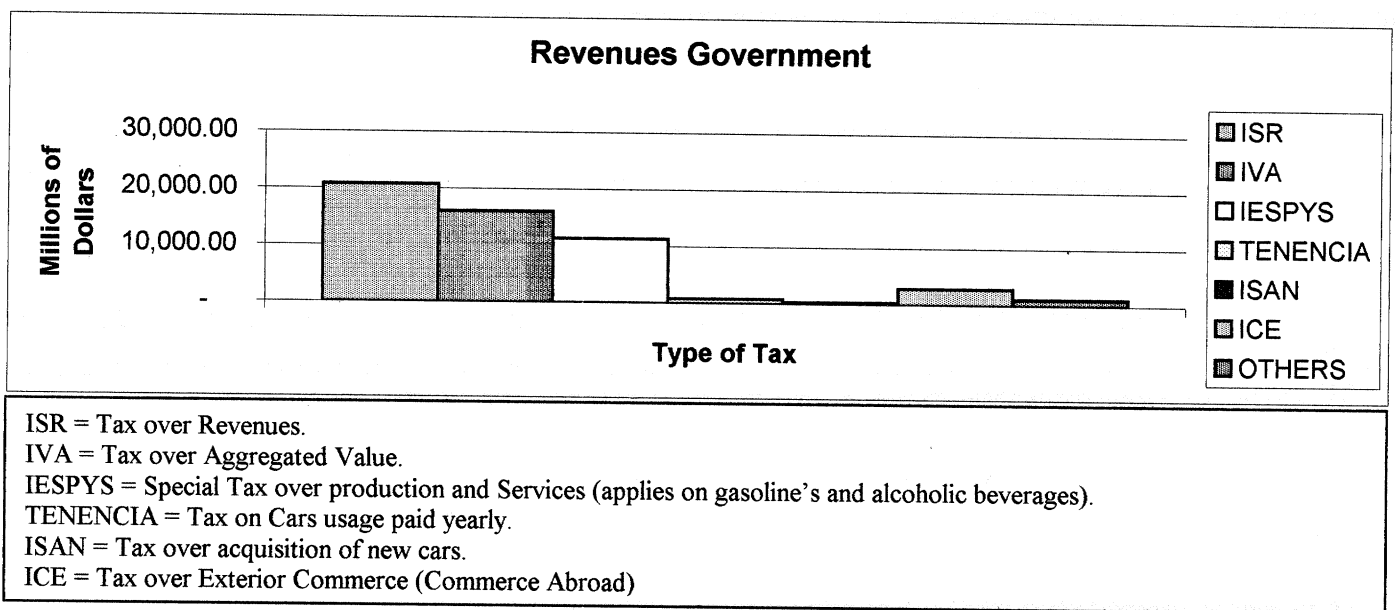


If we follow the information of the table above, we can see that population between 15 and 64 years of age is equivalent to 35 million, plus some persons older than 65 who have not retired and some children younger than 14 who are working now, less some persons who do not want to work such housewife's and disabled people. The problem comes when we add the number of

¹⁶ Indicadores de empleo y desempleo, INEGI (www.inegi.org)

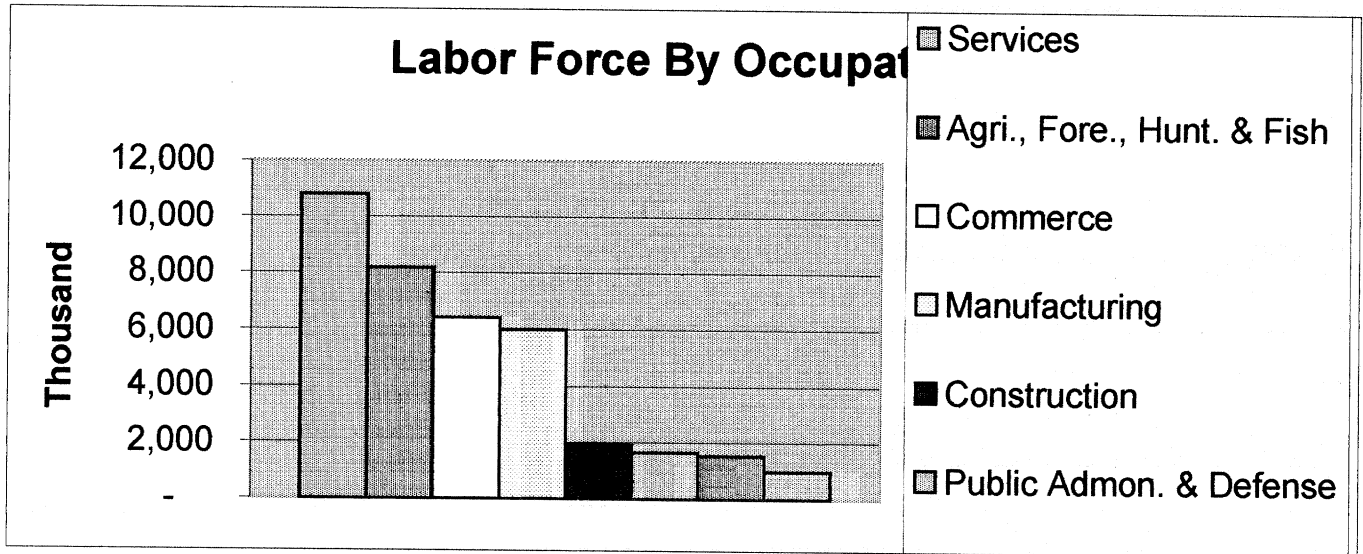
¹⁷ 71% of the population lived in urban areas data 1990 The Economist Intelligence Unit limited 1999. Country profile. p 12.

workers registered in the social security system (14.7 million) to the employees working at the government (1.6 million). This yields 16.3 million persons. The new system of retirement (Afores) reconciles with this broad numbers, but in a way, exacerbates the problem because not all of their accounts are active. About 37.1% of those accounts are not sending their bimestrial contribution to their fund. If we subtract this number from the official labor force we would find that around 20.7 millions persons are not working officially. This, in turn, would mean that about 55.94% of the labor force is working in the “hidden economy” without paying taxes, but taking advantages of the infrastructure of the system in general.



The revenues of the government are affected by the hidden economy. More than 50% of the population is not paying taxes in the country, but is using the infrastructure. The government is forcing them to pay at least certain fixed taxes such as the tax on consumption (IVA), tax on gasoline's, tax on usage of cars, as well as purchases of new cars (Tenencias), Affecting regular workers since they have to pay in addition tax on revenues ISR. By forcing hidden economy to pay

some taxes, they are making regular workers pay from 55.25% to 70% of their income in taxes, depending on their consumption habits. It is important to identify more creative ways of making them pay, not at the cost of regular workers, considering what can happen in a global economy with free mobility of workers.



Globalization has altered the normal distribution of occupations, in Mexico today, up to 1.1 million employees work in the maquiladora industry. 3,166 maquiladora plants have been installed near the boarder with the U.S. Part of the government role is to understand that these jobs are temporal. There would be work in Mexico for the maquiladora industry, as long as there are equal or better conditions than in the rest of the world. The competitive advantage that its offer in this kind of industry is the cost of labor. There could be a vicious cycle in this kind of work because with lower wages, there would be lower savings, and with this even a worse situation to get out of that cycle because the economy would be even more desperate for those jobs at the maquiladora. In a way, these jobs helped the country in the short-run acting as a valve, when we needed jobs due to the financial crises of 1994 we occupied labor immediately, but in the long run the structure of the government has to focus on ways to develop internal market, and ways to develop the correct platform for small and medium sized companies to survive the competition on international

corporations. The importance to develop the correct platform to develop small and medium companies is that they hired 80 % of the total work force. When we analyze the structural challenge of centralization we would see some of the problems of the actual platform.

3) Education

In 1997, during the government of Ernesto Zedillo, the new program of education, “Programa de Educacion, Salud y Alimentacion” (PROGRESA), “Program for Education Health and Food,” was introduced. It provided additional subsidies to some of the poorest families in Mexico. 27% of the population lives below the poverty line. Some extra subsidies are needed in this area. In these poor communities, the parents force their children to work as soon as possible, they do not see it as important for the children to invest their time in school because they do not see any economic results in short periods of time.

On the other side, the investments that the government realizes in this matter will not show any results until some 13 or 14 years later. When new generations enter into the labor force. For some previous administrations, having low levels of education was an advantage in order to keep control over the people. Today, the role of education is one of the most important facts on for competing in global markets if we want to get to the stage of “generators of technology.”¹⁸ The country requires as many brains as possible to get there.

The best way to fight against the inequality is through education, giving everybody an opportunity to achieve success. Inequality is the first contributor to the regions low growth rates in the long-run scenario. Inequality blocks the potential of the poor.¹⁹ Returning to the Solow model Low education could be traduce to unskilled labor that affects the relation with the other factors of production (land and capital), since the relation requires certain balance in all the factors (workers

¹⁸ See “*Classification of the Economies of the world*” .

¹⁹ Birdsall Nancy, Sabot Richard, others. “Beyond Trade Offs” Inter-American Development Bank Brookings Institution Press p.p 35.

understand the machinery they are using) in order to produce a maximum result in the output. We will return to this relation under the theme of centralization.

It is difficult for the government to encourage subsidies because in the majority of cases, they do not reach the place where they had to be. They cost a great deal of money and they do not pay back a return on the investment. Education has to be viewed as something different; it has to be perceived as an investment that will pay back an important return in the long-run. The government has to introduce incentives that encourage the poor to make investments in human capital and to contribute to, as well as benefit from, the growth process.

Number of Registered Students in Mexico						
Section	1992/93	%	1997/98	%	1998/99	%
Pre-School	2,858.90	11.27%	3,312.20	11.81%	3,378.40	11.85%
Primary	14,425.60	56.85%	14,647.80	52.21%	14,640.00	51.33%
Secondary	4,203.10	16.56%	4,929.30	17.57%	5,084.30	17.83%
High School	1,767.00	6.96%	2,323.10	8.28%	2,430.90	8.52%
University (Undergraduate)	1,144.20	4.51%	1,414.10	5.04%	1,505.80	5.28%
University (Postgraduate)	51.50	0.20%	107.10	0.38%	122.70	0.43%
Others	923.80	3.64%	1,323.20	4.72%	1,356.50	4.76%
Total Number of Students	25,374.10	100.00%	28,056.80	100.00%	28,518.60	100.00%
Source: EIU Country Profile 1999-2000						

According to the official information, 89.6% of the population knows how read and write.²⁰

The concept of education has to go further than that, thought, if the government expects positive returns in that investment. Of course, it will require different levels of education in an economy.

But the higher the distribution of high levels of educated population, the higher the probabilities of succeed in this new environment.

²⁰ Instituto Nacional de Geografía, Estadística (INEGI), Bulletin of statistical Information

4) Centralization

Centralization plays an important role on the actual output of the economy. According to the law of diminishing returns, when having a relatively small fixed structure, the marginal return of the investment would be reduced every time more is produced in that fixed structure. This situation could get to the point where the return on the investment could be negative.

The actual productive platform of Mexico is reaching to this situation, by producing almost 30% of the total output (GDP) in one state, and more than 50% (GDP) in the first 4 states. How productive would it be to produce certain amount of output in a fixed place, having to bring in enough personal to produce it, and having to bring to that same place sufficient services to accommodate those 22 million people. It is even worse considering in this example that this state (fixed structure) is located 8,530.18 feet above sea level and we are required to bring some basic services such as water form more than 310 miles. We are not using those resources in an efficient way. This platform (structure) will perform fine for certain time, but at the end it will be difficult to increase the output with out increasing the cost.

The government has to respect the role of the industry but they should collaborate in the planning of the platform (structure) that supports the economic activity. The Government should considerate it as an investment because when the economic activity grows in that structure it will also grow its revenues. More economic activity will increase the amount of tax collected.

Through out history, centralization helped to reduce costs when the population was small and when communication costs were high. But today it is the limitation of the economic structure

that is producing negative returns. Is imperative to make the whole country produce positive returns, based on productive activities that generate an aggregate value to society.

I will describe the effects of centralization on the football industry because is a simple illustrative case. This does not mean this should be the priority to proceed for. There are other activities much more important that should be done first, because they could bring better returns on the investment.

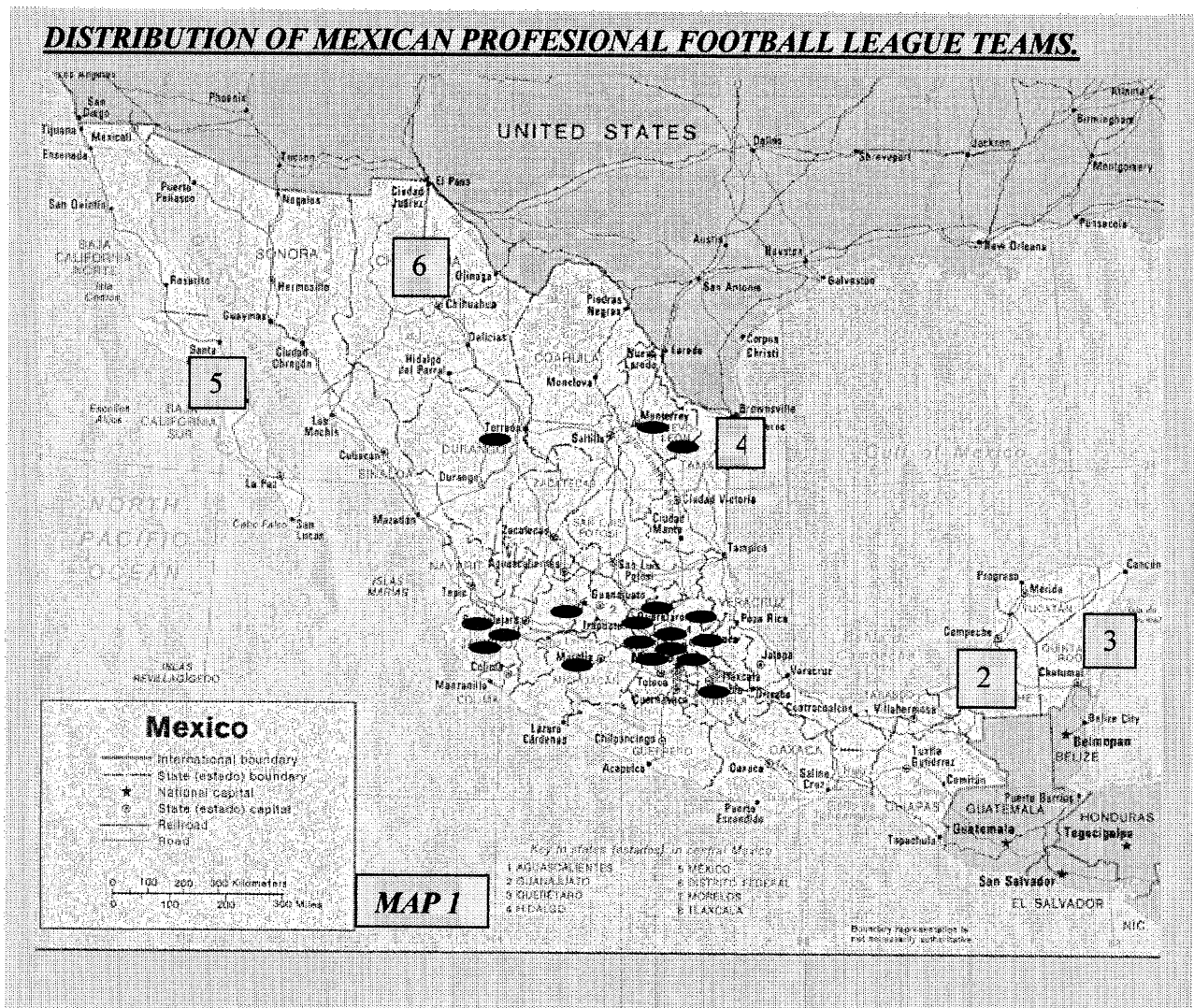
The Case of Mexican Professional Football League:

Today this league has 18 teams. The map (above) indicates the places where the teams are located. The idea is to have them close together, since Mexico's geography does not make it easy to travel by land to far away destinations. The teams generate their revenues through:

- a) Selling tickets
- b) Selling TV rights
- c) Buying and selling players (usually, they end up paying, but sometimes they make revenues)
- d) Selling souvenirs and memorabilia
- e) Publicity in the uniform and in the stadium
- f) Parking fees
- g) Food concessions

For some teams, about 70% of their revenues in positive cycles of the economy are originated in the stadium. With this platform, they are affecting only 9 states of the country. They are loosing the output of 23 states. The actual structure covers the mayor state capitals (Mexico City,

Monterrey and Guadalajara) and some states nearby Mexico City. It was designed this way because of the geographic proximity of these states, not because of the advantages these states could offer. The structure tried to save money instead of increasing the size of the market, to generate more revenues. The numbers that appear in the boxes on the map show the states that generate more GDP, apart from the capital of the country, which, by itself accounts for 30% of the total GDP.



The actual structure is losing output of 4 out of the 6 wealthiest states of the country. If the cost structure is so important there could be 2 leagues one in the north and one in the south so

that they could play the season in each league. At the end, they could play a final match between both leagues to see which team was the best one. The new structure would give a better output of the system.

We could say that the same case in the football league happens with many platforms around the country. In airports, any passenger from any state that wants to go to a important destination out of the country has to go to Mexico City in order to take another plane to its final destination. I am not considering opening hundred of unproductive routes, but the size of the country could provide sufficient productivity to 2 similar structures outside Mexico City that could take on this function. Building new structures will require large investments but in the long run, it will pay off because it will save money for the intensive users of that infrastructure. The actual structure of the central airport generates to the airlines additional costs, since the space is reduced they have to pay higher premiums for landing, for parking or fixing the airplanes, as well as for their installations. Even they have to pay extra premiums to the pilots in order to land there because it does not accomplish the safety regulations between the timing for each airplane to take off and to land.

By decentralizing some services and functions to other states, the people who work on those companies will demand services and products in their new locations e.g., schools, hospitals, other services. Creating a larger structure for the internal market to develop. A disperse platform will help stabilize the country from international flows of capital, it will strength the internal market.

It may sound strange that with centralized economy, the second state generator of GDP is so far away from the central government. This is due to the oil industry, Campeche is rich in oil, but there is no other important industry there, and there is no platform to support and develop the economy of the state. The third contributor to the GDP is Quintana Roo because of the tourist industry, but here as well, there is not a sufficient platform to develop the region according to all the goals set by the government. The fourth contributor of GDP likely has enough resources in its structure to develop. But it sustains 6 million people and is beginning to produce negative output, repeating the situation of Mexico City, the first contributor.

5) Money Market and Capital Market

The function of output (Solow model) is influenced directly by the level of savings of a country. When the level of savings is high, this money could be traduced into new investments in the Business. In Mexico, two main problems affect the savings level:

- a) On the supply side, savings are the higher good that any person can buy. Once a person has purchase all the goods and services he/she desires, the extra income he/she possesses can be directed to savings. The problem is that 27% of the total population lives below the poverty level²¹ they sometimes get enough money to eat, but not enough to save. On the other end, about 20% of the population generates over 55% of the output. These persons do not trust the economy in the long-run. They have the knowledge to move the money into different countries, with the advantage of being locals in the development of the economic matters of the country. Their savings can be considered speculative money,²² since they tend to move their money according to the position of risk that the country is facing.

- b) On the demand side, the level of interest rates that the system is paying for the money affects savings. The market is influenced by the government, which demands about 60% of the total market. Banks prefer to lend to the government by purchasing governmental debt rather than having the risk of getting their money back when they lend to private institutions due to the level of insecurity in laws in the country. At these levels of interest rates, even the owners of the money prefer to keep it invested in governmental debt, rather

²¹ Source CIA World Factbook 1999, Mexico.

²² See "*Classification of the Economies of the world*", Speculative Capitals (Source CIA world fact book 1999 Mexico).

than to open a new business, due to the elevated hurdle rates used to evaluate the return of the business. Although many would contend that the importance factor for evaluating a business should be the real rate (normal interest rate minus inflation), there has to be an extra effort from the company to grow at least greater than the inflation rate.

This situation affects the relation of the companies in different countries. If we put to compete two identical companies in the number of personnel, level of wages, the same technology and the same machinery, but with different cost of capital. In a matter of certain time the company with the best cost of capital is going to take over the one with more expensive capital. The higher cost of capital is going to affect the total investment (equity and liabilities). It could be consider a case of arbitrage.

Marin Feldstein,²³ as many other economists considers the first structural problem of Mexico to be the level of savings. The problem is how to solve the flows of savings with the level of trust. The Mexican government decided to copy Chile's model of structuring retirement funds. The AFORES are good because they force the money to stay. The only problem is with the volume of savings added each year. It will take 183 years for these funds to equal the amounts of debt of Mexican government (internal + external debts) without considering the amount generated by capitalization of interest.

The idea of these funds is to stabilize the economy, to make it grow with its internal resources, and not depend on the international flows of money. I consider these funds to be a good

²³ Martin Feldstein. "Public Policies an private Savings in Mexico" working paper 6930. National Bureau of Economic Research.

idea for a long-run scenario, in the short-term, the country will continue to depend on international funds. It is important to reduce the cost of the external debt,²⁴ and the best way to do so is by increasing trust in the system by the population.

The internal debt generates a vicious cycle affecting the money market structure, with one customer demanding 60% of the total market. This makes the rates increase. At those levels of interest rates, people prefer to have their money in bank accounts producing safe returns invested in governmental paper. They take the money of the market and invest it in unproductive activities.

Today's Mexico investment will generate more flows of capital coming into the country. The government needs to be cautious and should take advantage of this situation. It should be viewed as a short-term source of funds that should be focused to develop the platform that business needs in order to generate its own resources for the long run.

Mexico has to concentrate in reducing the size of the government, to stop wasting its resources paying unproductive bureaucrats²⁵ to focus in productive activities. It cannot support the rate of bad investments it has been involved in.

In order for a country to become "generators of technology" capital markets (equity markets) play an important role. Stewart Myers²⁶ considers the venture capital markets of the United States as the envy of the world, even from Europe. New ideas, new technologies and new

²⁴ In 1997 while Mexico had an external debt of 149,690 millions of dollars Brazil had 193,660 millions of dollars, Mexico was the country of the world with highest debt service 37,189 million while Brazil paid only 36,672, with 43,970 millions of additional debt. Source: The Economist, World in Figures, edition 2000. p-52,53

²⁵ See Structural Problems Size of the Government.

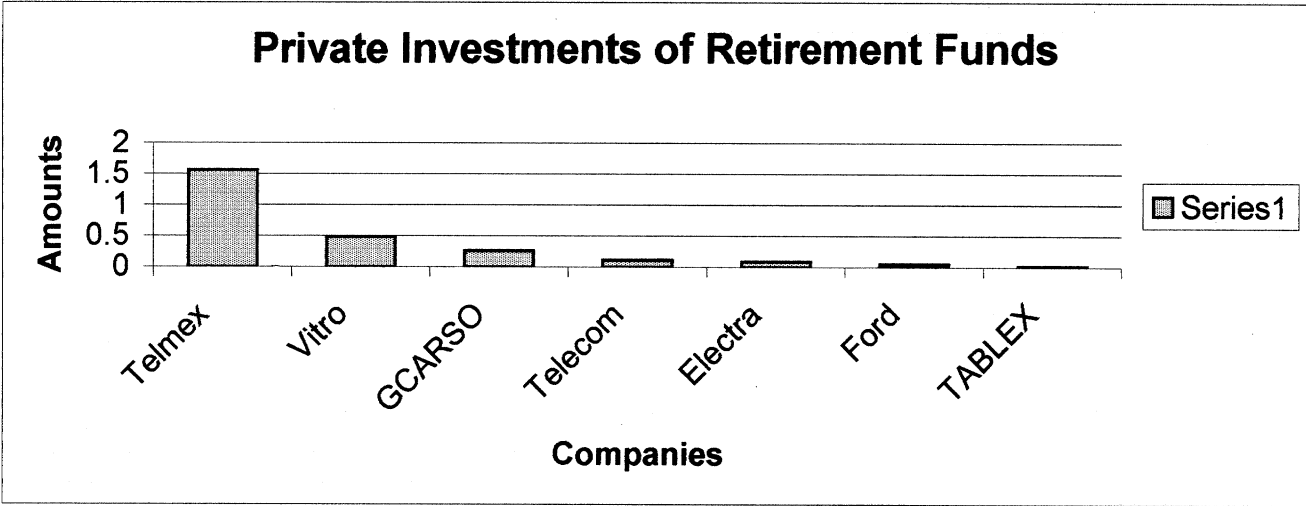
²⁶ PHD Stewart C. Mayers, Professor of Finance MIT.

ventures are emerging from this market. Other countries such as Germany are developing their markets, but some other countries of Europe are behind. The new economic power will emerge from these kinds of markets, since it will be generating the potential for new technologies.

The New System of Retirement Funds

The new system of retirement Afores, has not fulfill its purpose with only 14,622,225 accounts.²⁷ Of this number, only 62.90 % of the accounts are active today (33.6% are for women and 66.4% are for men). Active accounts are increasing their funds, with an average per contribution of 3.36 minimum wages. There is a limit in the contribution to the proportional part of 22 minimum wages. If a person earns 50 times the minimal wages his total contribution will be as high as the person that earns 22 times the minimal wages. The purpose of this comparison is to reveal how the fund increases every period, and what has been done with those resources? The program started in 1992 and it has added \$ 8,530 million. Of this amount 65.3% has gone to finance the government and only 2.54% has gone to finance private corporations.

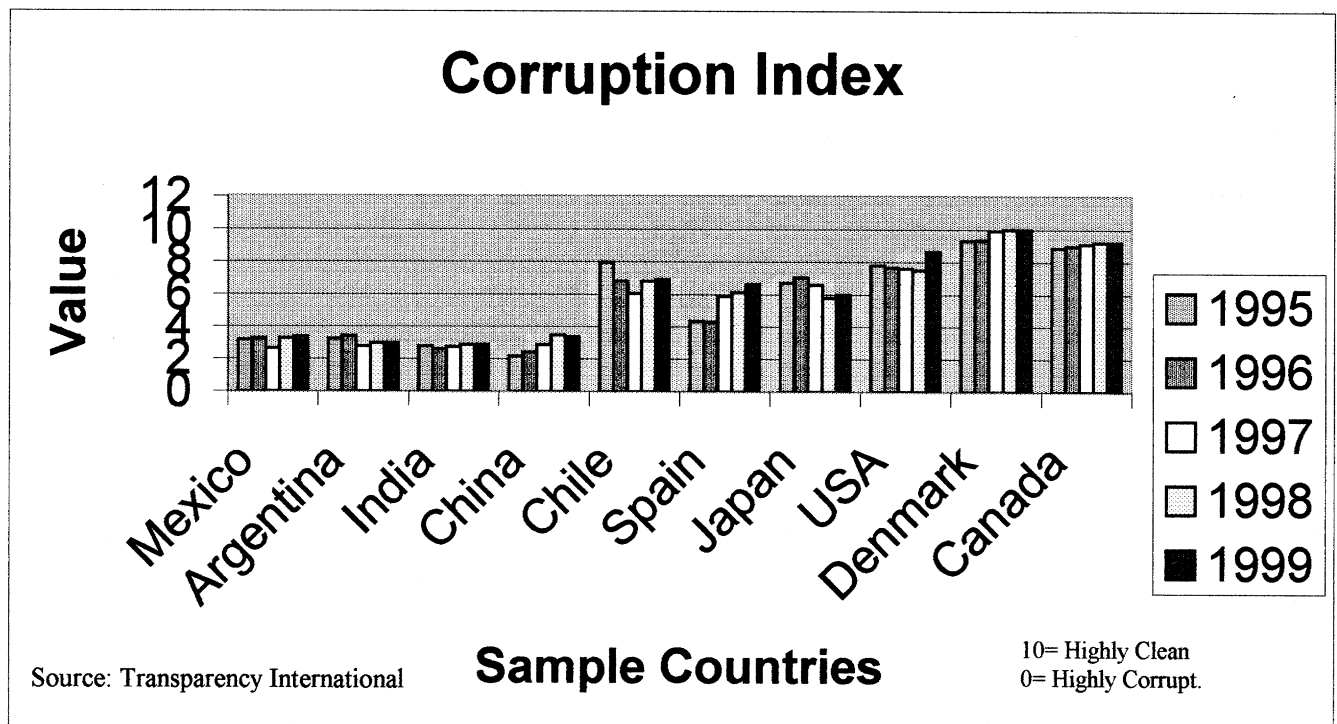
²⁷ Numbers at June 1999. Source Comision Nacional del Sistema de Ahorro Para el Retiro.



All of these corporations are able to obtain loans in the global market. The purpose of these funds has to go even further than to this. They need to fund new ventures, that could help Mexico innovate, i.e., turn into a “generators of technology”.

6) Corruption

When we analyze other structural problems before, where there was apparently official information about them, even when we doubted those numbers, we had a starting point on that matter. However, talking about corruption gives us no direct data, since it is not possible to measure the level of corruption. It is only possible to measure perceptions of the people interacting in a specific region. The perceptions of different studies are used to calculate corruption index. As a sample of that index the table above lists 10 countries that could have more meaning in their relation to Mexico. On one side the NAFTA partners, on the other side countries that could compete with Mexico for resources. The fight for corruption cannot be seen independently from the need to reform the role of the state.



This index can be misleading in the context of the wide range of actions that could be grouped under the category of corruption. According to Vito's Tanzi²⁸ theory, each act of corruption has two parts:

- a) The causes that promote corruption are those that affect demand by the public for corrupt acts.
- c) The causes that affect supply by public officials of acts of corruption.

Among the factors affecting demand, the most important are:

- 1) Regulations and authorizations
- 2) Certain characteristics of the tax system
- 3) Certain spending decisions
- 4) Provision of goods and services at below-market prices

Among the factors affecting the supply of acts of corruption are:

- 1) The bureaucratic tradition
- 2) The level of public sector wages
- 3) The penalty system
- 4) Institutional controls
- 5) The transparency of rules, laws and processes
- 6) The examples set by the leadership

²⁸ Vito Tanzi, "Corruption Around The World: Causes Consequences, Scope and Cures". IMF 1998 WP/98/63

From the Demand Side:

1) Regulations and authorizations:

In many countries, the role of the state is often carried out through the adoption of many rules and regulations. In some cases, these regulations are nontransparent, and complicated procedures are required in order to obtain permits. The existence of excessive regulation and authorizations gives a form of monopoly power to the officials who must authorize or inspect the activities. As noted in the structural challenges, “size of the government,” some of these activities could be outsourced from the government.

2) Certain characteristics of the tax system

Laws are difficult to understand, and can be interpreted differently, the wages of the tax administrators are low, thus creating opportunities to seek out extra incomes. Also the administrative procedures are not closely monitored with the tax or customs administrators.

3) Certain spending decisions

Public projects have, at times, been carried out specifically to provide opportunities to some individuals or some political groups to get “commissions” from those who are chosen to execute the projects, or to keep a specific political party in charge of the country.

4) Provision of goods and services at below-market prices

The government engages in the provision of goods, services and resources at below market prices, in order to keep the support of the majority of the population in the next election.

From the supply side

1) The bureaucratic tradition

Some bureaucracies are more efficient and less vulnerable to corruption than others. Rauch²⁹ and Evans have gathered information on the degree to which civil servant recruitment and promotions are merit-based for 35 countries. Their findings reveal that the less that recruitment and promotion based on merit, the higher is the extent of corruption.

2) The level of public sector wages

Over the years, observers have speculated that the wages paid to civil servants are important in determining the degree of corruption. Assar Lindbeck³⁰ attributes the low corruption in Sweden to the level of wages, the higher the wage level, the lower the corruption.

3) The penalty system

The penalty imposed plays an important role in determining the probability that illegal acts will take place. Higher penalties would reduce the number of acts of corruption, but they may lead to demands for higher bribes on the corrupt acts that still take place, according to the supply and demand model, where there is always going to be a price for a public servant to take the risk. The number of corrupt activities will decrease, making it easier to identify some of these operations.

²⁹ Rauch and Evans, 1977, "Bureaucratic Structure and Bureaucratic performance in less developed countries, (mimeo)

³⁰ Lindbeck, Assar, 1998 "Swedish Lessons for Post-Socialist Countries" (mimeo)

In the real world, relatively few people are punished for acts of corruption, making it easier for the same person to commit a second act, or not taking into account the possibility of a penalty when the corrupt act is taking place.

4) Institutional controls

With less volume in operations, it will be easier for supervisors to monitor the activities of their subordinates. If the situation comes from organized mobsters inside the institution, this could be monitored with comprehensive measures as the ones established in Singapore, Hong Kong, Uganda and recently in Argentina. They create anti-corruption commissions expressly charged with the responsibility of following operations through the governmental institutions. In Mexico, there are certain institutions that attempt to keep up with corruption matters, but with poor results, since at the end they consult with the president (facts known from the case of the activities of Raul Salinas de Gortari Brother of the president).

5) The transparency of rules, laws and processes

In many countries, the lack of transparency in rules, laws and process creates a fertile ground for corruption. It has to be an estate of law, where the law is executed. Small crimes should be punished in order to make persons change their attitudes about corruption.

6) The examples set by the leadership

Through Mexican history we can mention several examples of corrupt Mexican leadership. One of the most significant is the case of Jorge Diaz Serrano ex-CEO of PEMEX a Mexican state-

own oil company. In 1986, he was imprisoned in connection with fraud involving a \$34 million dollar. There were other amounts on the table, but they were never proven. He spent 7 years in jail. There is also the case of Raul Salinas de Gortari, brother of ex-president Carlos Salinas de Gortari, who was found guilty of killing his brother-in-law Jose Francisco Ruiz Masieur.

Not consider by Vito's Tanzi theory, probably because is not that common across democracies, we could add as another cause for corruption, competition among political parties, in order to keep control of the government everything can be done. Situation affecting Mexico for more than 70 years, the only goal for the actual government is to maintain the party in power.

Corruption And Growth

Two theories have evolved from the phenomena of corruption and growth. On the one hand, corruption may promote some growth. On the other hand, it will reduce any possibility of investment.

- a) Corruption promoting growth. Representatives of this theory set as an example Indonesia and Thailand, often mentioned as countries growing fast in spite of, or even because of high levels of corruption. They associated corruption with low degrees of uncertainty, every one knew where to go and how much to pay. The supporters of this theory Leff³¹ and Huntington³² assert that corruption can be efficient-enhancing because it removes government-imposed rigidities that impede investment and interfere with other economic decisions favorable to the growth. Thus, corruption "oils the mechanism" or greases the process.

³¹ Leff, Nathaniel 1964 "Economic Development Through Burocratic Corruption". American Behavioral Scientist, pp, 8-14.

³² Huntington, Samuel p. 1968, Political Order in Changing Societies, New Haven Yale University Press.

I see two problems with this theory. The first would be that corruption is ambitious, its going to be constantly evolving to try to generate more in favor of those public servers that support it, and less in favor of the growth of the economy. Every time they find out that a business is doing well, corrupt people are going to modify their traditional behaviors, inventing new ways to get money from that business. There are no written laws for corruption. The second could be even worse as I noted in the goals of the government. Some of them involve taking care of the resources of the country, preserving them for the future. If corruption facilitates modifications on the law (oils the system), then everything can be done because every law can be broken. It is impossible that a government can structure a program for development in a corrupt environment.

b) Corruption damaging the economy. It reduces investment, since it damages security, reduces expenditure for education and health because public expenditures for education and health do not lend themselves to easily corrupt practices. It reduces the productivity of public investment, reduces tax revenue and reduces foreign direct investment.

The effects of corruption on the economy are easy to describe. It reduces public revenue and increases public spending. It thus contributes to larger fiscal deficits, making it more difficult for the government to run a sound fiscal policy. Corruption is likely to increase income inequality because it allows well-positioned individuals to exploit government activities at the cost of the rest of the population.

Possible Solutions

Offer public servants the possibility to have a professional career in the companies or institutions they are working for. At the end of each period, every public server has to present his resignation together with the head of that public company or with the secretary of state. The new administration team that comes in hires only the persons they desire. There should be an important distinction between “career public servants” and persons of the trust of the president in turn. By offering them the possibility of a professional career, they would look for ways to develop and to learn more skills in order to have better position in the future. They would have opportunities to increase their wages by obtaining better positions. They would care more for their actual position, since its part of their achievements, and they would not risk it for a bribe. Of course, there is a supply and demand curve for any product, but at least with this way, bribes would be reduced. But in the end, there would be some people who would still be willing to risk all their achievements and risk penalties for large sums of money. The number of corrupt activities will decrease, making it easier to identify these operations. Of course, these policies agree with the solutions noted at the size of the government, since a small bureaucracy with better wages, and outsourcing some functions would help reduce corruption. Additionally there could be the policy of jobs rotation in the government, making the same team of public servants the ones who supervise the work of others.

Another solution could come from the changes that are taking place in the political arena. Since 1924, there has been only one political party in power, Partido Nacional Revolucionario (“PNR”, renamed in 1945 to Partido Revolucionario Institucional, “PRI”). The lack of competition makes people and institutions settle with their first effort, not with their best one. The lack of competition makes them do what ever they want to do, since they know no one is going to ask

them for the balance of their administration. The lack of competition makes them be part of the same team, where they could cover for the actions of the other members. But this situation is changing. The PRI governments rarely had announced victories with less than 85% of the total votes of the populations prior to 1982.³³ In the election of 1988, when Carlos Salinas was elected president, the PRI won with 50.4% of the votes. In the election of 1994, when Ernesto Zedillo was elected president, the PRI won with 50.2%. But the PRI lost its majority in the chamber of Deputies, forcing them to do better in matters of laws and budgets for example. Many persons are upset with this situation. They do not think that the rest of the world is immersed in competition, where only the strong survive. That is the free market philosophy and you cannot keep part of the country out of it.

New competition in the political arena has helped reduce corruption in certain way. Today, it is possible to denunciate a corrupt police and get him fired. The problem is that the political parties are taking to serious part of the competence between them, destroying all databases every time they leave a governmental office. When The PRD won the government of Mexico City (first election in history for the city, because in the past the president designated a "REGENTE" manager) in 1997 with Cuauhtemoc Cardenas, all databases were destroyed. The new government had to build new databases of information, in order to control the activities done by them, even to charge local taxes. There should be more coordination of resources across the country in this matter. E.g., when a police realizes an act of corruption and is fired from certain state force, there should be a national database to avoid another state force to hire him again. The control of these national databases should be given to political institutions that do not correspond to a specific political party.

³³ EIU Country Profile 1999-2000. p.5

Every new administration attempts to simplify the requirements to open a new business (to get a license, etc). At the end, these are still so many difficulties that many prefer to keep their business in the hidden economy and do not pay taxes. The best solution, at least for the corruption part of the requirements, could be outsourcing some of this activities to several companies in order to reduce power of one group and to bring introduce some competition that is going to make them give better service. This notion goes together with the privatization of public companies, in order to make them profitable, reducing corruption that usually surrounds these kind of companies.

The intent of modifying the anti-corruption commissions would be to give them independence from the president, and instead, report to the legislative body. Another important step would be to expand their activities to all kinds of governmental institutions, and at all the levels. To prevent corruption from getting into this corporation is necessary to execute strong penalties to its employees that are found guilty of doing these acts.

The formation of institutions that help enforce the penalties of small infractors. In some Asian countries, small criminals pay their debt to society with community work. Construction companies hire these persons, for reduced salaries. Part of the difference is used to teach them to work in the fields and pay additional security in order to keep them under control. The other part of the difference is traduced into a profit for the construction company that is using these programs. The advantages for the government are that there is more room to put big criminals in prison. Small criminals start paying for their acts, helping them reflect on them. The construction company hires low paid workers, and the small criminals could learn a profession that they could continue doing in other places.

Corruption Supply and Demand example

As to the supply and demand side of corruption, there is one clear example of what has been done in Mexico. The institutions (supply) act in the same way they did in the past, but the people (demand) has changed due to the crisis were been living. Young persons have done much to stop the corruption, changing one side the demand and discouraging the cycle. The institutions were not going to change these facts. They were pleased with the results, since they were the benefited parties. The culture aspect is changing today. Many people believe that “corruption always pays back.” This example took place in an important Mexican company that operates in several countries of the world. The company had problems conformating its financial statements, since they had to mention the bribes they had paid as part of their expenses. For an international public company this situation was unacceptable, they could not have any expense with out an official invoice.

This company had over 400,000 trucks (only in Mexico), used daily to deliver their products. Every time a truck came out of the factory, Mexican police used to stop them and tell them that the truck did not comply with official dimensions, or that it was heavier than it should be. If the truck driver gave them money, they would let the truck go, and they would give the driver a password so that no other police office would ask them for more money that day. If the driver did not bribe the police they would take them to police headquarters to weight the truck and to check its dimensions, which would take around 2 days and would make them loose the cargo because of spoiling. The police had all the power until this cultural change took place. The owner of the company decided to introduce a special office to deal with this problem. He hired a team of

lawyers and public notaries.³⁴ Every time a truck was loaded, a notary weighted the truck and measured its dimensions. The notaries stated this information in writing with their official seals and then they send the trucks to make their deliveries. If a truck was stop the driver would show to the police the document, if the police insisted they had to go to their headquarters, the company lawyers would be waiting outside the police headquarters ready to present a copy of the document to a higher authority in order to get the truck out. From that moment on, the company started the campaign of no more bribery. Today, this new department in the company has reduced the number of employees to a minimal level. The company trucks are never bothered and the company costs on bribery quotas were reduced to zero. It is difficult for medium and small companies to organize this way, but it is important to realize that an important part of the change comes from within the population.

³⁴ In Mexico a Public Notary is register in a special bureau with only a fix number of members, usually only layers make it to this position. Their primary objective is to give "FE PUBLICA" (BEAR PUBLIC WITNESS).

Conclusions

The economic platform determines the way the country competes in the global market. In Mexico's case the platform could be influenced by six structural factors that are the challenge to develop. Higher stages of development will increase the total output generated by the economy. Once we understand the market we can look for more profitable ways to interact with it, as well as long-term goals for developing the country towards those activities.

The structural factors are independent from each other, and they all require different resources to develop. Some of them will contribute to the goal faster than others, but they are all needed in order to develop the nation. Developing the country has to be seen as a long-term plan. It will take several years to accomplish this goal, but the process needs to start now. The country cannot wait any longer without consistency in the pursuit of its goals.

The way each economy participates in the world market affects the outcome of the others. When the competitive advantage of a country over the others cannot be sustained it will get them out of the market. The idea of the model is to search for other alternatives to develop as well as to participate on the market. The output of the global market can be increased, if other countries get to the higher stage of the model. It can be a win-win situation for the market if the output of every country moves towards this direction.

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