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PUBLIC DEBT AND NATIONAL ECONOMIC GROWTH

BY

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Summary

The following paper shows the difficulties implied when the government has external debt which involves bad management. The paper also tries to explain and understand the benefits when the debt is properly managed.

The beginning relates the Mexican debt history to present how it started and to show some points of view of the different researchers to understand the behavior of the policies over time.

Finally, the paper brings in an economic analysis in an attempt to explain the advantages of the external debt and to conclude that some countries can grow with the debt.

Introduction

Definitely, one of the most important issues today is the management of debt, particularly the risks that this entails. The bankruptcy of Lehman Brothers in September 2008 was a glimpse at market risks. These risks have been perceived as moderate, but the risks are no longer moderate. With the collapse of Lehman Brothers, banks, governments, entrepeneurs and investors have mentioned some perceived risks to debt are extremely high, which has created a climate of uncertainty in international financial markets and in some extreme cases it has created social unrest.

Today, developed countries have shown that the result of high debt levels has led to a crisis that has forced governments to take drastic austerity measures, which shows that sovereign debt can be a drag on the economy in general and for the world economy.

In this situation, it is expected that the financial authorities' responsible decisions, despite the political costs that these entail, will start to generate an atmosphere of trust to restore the positive functioning of the global economy.

It is worth mentioning that the debt issue should be handled with absolute responsibility and should not start a general panic among developing countries and society in general. Through these mechanisms, many countries have sustained growth and a common good for the population.

Added to this, it is important to note that one of the most important reasons why countries began to have foreign debts is because of the cost of war since belligerent countries are seeking finance, whether to aquire more weapons or to rebuild their territory. Mexico cannot be an exception.

One of the major wars that Mexico experienced was the War of Independence, which began in 1810. Spain finally recognized the triumph of Mexicans in 1821, when the main leader Agustin de Iturbide signed the treaty along with Don Juan de O'Donojú which recognized independent Mexico. Iturbide seized the moment and was proclaimed the first emperor in Mexico. He created Mexico´s economic policy which is based on excessive spending, and he recognized the debt which the Spanish viceroyalty had with government of Spain.

This leads Mexico into a long career of foreign debt. However, there is nothing wrong with having a foreign debt, which will be further investigated throughout the paper.

I. External Debt History

I.I. Independence era

It is important to note that one of the objectives of Iturbide to recognize the debt was to gain external recognition of his government. However his decision to recognize the debt would, in combination with other actions, lose the opportunity to be recognized as a hero of the War of Independence.

In 1824, due to the opposition of Antonio Lopez de Santana, Iturbide renounced his power and was shot. Immediately following, Guadalupe Victoria was proclaimed the first president of Mexico. In that same year, the public finances were already in bad shape so the recourse was to apply for credit with England, amounting to 16 million pesos (mp) of which Mexico receives only 5.7 mp, as were discounted in advance interest.

Shortly thereafter, another loan contracted by Mexico shows the inexperience of the government to negotiate the government abuse from England. The new loan was for 16 mp, of which only 6.1 mp was received to purchase weapons, rifles and ships from British army waste[1].

The loan was contracted because the government was scared by a reconquest and wanted to address any civil resistance, which led to the Mexican government to accept any conditions England made.

I.II. Independient Mexico

Years later, the debt has continued to grow because the government decided to suspend interest payments in 1827.The interest payments resumed in 1831 soon after the Mexican government declared moratorium which lasted until 1851. During this period, from 1831 to

[1] Jan Bazant, *Historia de la deuda exterior de mexico, 1823-1846,* El Colegio de México, 3ª Edición, 1995, pp. 33-35

1851, internal problems in the country increased to the point of losing more than half of the Mexican territory.

One of the achievements of Antonio Lopez de Santana's government was to sign an agreement. This makes much of the debt into a new bond issued under better conditions where the bond is placed at a lower rate and the interest payments are waived. Certainly the agreement is an achievement for the country (Bazant, 76)[2].

Mexico subsequently borrowed from the most powerful countries of the era (France, Spain, England and United States (US)) and in 1854 re-declared moratorium. Three years later, the creditors had reactions which after years of negotiation caused France to attack in 1864. France managed to invade Mexico City and appoint Maximiliano as emperor. He was dedicated to borrowing on behalf of the country which caused more debt. The debt was already at the level of 65 mp and the capitalization of interest was not paid. At the same time, Benito Juarez, who was a leader of the opposition, negotiated a loan with the US. When he finally managed to overthrow Maximiliano and kill him, Juarez did not know about the foreign debt and broke relations with the United Kingdom, France and Spain.

The presidents from 1872 to 1884 were Sebastian Lerdo de Tejada and Manuel Gonzalez. The former continued the policy of Juarez and the latter began the policy change, which started to show signs of openness to foreign capital. Note that in this period the gold

[2] Luis de la Rosa makes an excellent description of the chaos on page 5 of his report of finance July 8th, 1845: "I don't think so it can ever stablish a system of finance or possible bring revenues and and expenditures of treasury in the same level, in a country where every party leader, to proclaim a new revolution to seize the public treasure of dam and distribute it among their supporters, as if their heritage. In reaching its denouement every civil war, the nation has paid the flows lavished the rebels to attack the government, and those who lavished the government to sustain its power, the same war of independence, as fair and as glorius as it was left the nation to pay the tax debts contracted by the colonial government to sustain its rule, and they made the heads of the people to win independence. Every war has also left the country a new tax of jobs, prizes and rewards, which have increased over the cost of the treasury. In every civil war, the heads of it have imposed new taxes or have abolished that had already been established, have varied methods of administration, have waived the payment of some taxes, or have exorted from citizens of all liens and expropriation gender that have impoverished. In every civil war a number of employees who where in charge of public revenue, have taken part in revolutions, or perhaps have paid for the same flow rates of the nation, only to squander the funds of the treasury, or cover dilapidations that had already been made responsible. Often, the powerful smugglers have led a revolution and, have ravaged and bloodied the country with a new civil war, only to gain a few percent more on their goods. During the passionate arguments that always precede our country into a civil war, the prees has fought as ruined all contributions provided to discredit and thus deprive the government resources that cannot be sustained without them. This is how it is lost in our finance, resulting in civil war, every system, every administrative regularity; this is how it has made people forget the duty to contribute to public expenditure, and have infused the classes more numerous erroneous ideas as society, such as believing that one can live in society and enjoy all the benefits of civilization without contributing to the costs to any government, administration that makes it necessary."

standard was created around the world. Mexico authorized the Monte de Piedad as the issuing bank and established the Banco Nacional de Mexico. They made a railroad concession with the US and invested in infrastructure.

The country began to have an internal development through state intervention which distinguishes a socialism that focuses on the development of the country through protectionism against the powerful countries of the moment. However, the relationship with the US continued with the entrance of Manuel Gonzalez as a president. It is noteworthy that the US is the only country that is allowed access through infrastructure investment. The government was focused on accelerating growth. For this the government needed money and relied on external financing.

I.III. Porfiriato

In 1884 Porfirio Diaz comes to power for 30 years. In this period the railroad was the main source of transportation. Diaz recognized the debts that Juarez ignored to have a good relationship with the world powers and the growth of the railroad companies (Interoceanic Railroad and Ferrocarril Nacional), as well as the mining and textile companies. The level of external debt grew exponentially when Diaz decided to nationalize the railroads which had requested a loan for 100 mp.

The policy of Diaz which was totally focused on international trade liberalization is contradicted by nationalizing the industry. At that time the industry was growing strongly and creating Ferrocarilles Nacionales. At the same time, the country already had a very high level of debt, which was about 350 mp. It is worth mentioning that the rate of exchange between peso and dollar was equal.

I.IV. Revolution

By the early twentieth century, the debt amounted to 316.3 mp and by 1910 reached the level of 578 mp. In this period, thanks to private investment, the rail system amounted to

22,000 kilometers across the country. However, the oligarchic government of Diaz and his foreign policy caused a popular discontent and the Mexican Revolution began. The intention of this revolution was to fight for the Mexican sovereignty that was impaired by the dependence on other countries.

Victoriano Huerta led a coup and became the interim president. He declared moratorium on the Mexican debt service. This period of nonpayment has been one of the largest in Mexican history, lasting until 1942. During this period there were some debt negotiations to reduce the balance, and these negotiations were achieved.

The Covenant of De la Huerta-Lamont[3] was carried out to collect a tax on oil exports from foreign companies to pay the debt service. Only half of the covenant was upheld because only the collection of the tax was made but the debt service was not paid.

I.V. Contemporary Mexico

President Plutarco Elias Calles, through an agreement known as Amendment Pani, managed to reduce the balance of the debt from 998.2[4] mp to 452.8 mp. The next president, Pascual Ortiz Rubio, only continued negotiations with the bankers[5].

In 1935 President Lazaro Cárdenas mentioned in his government report on September 1st, "the attitude of Mexico, in regard to the problem of external debt, has not changed; the Government's wishes to meet all its obligations are subordinate to the need for most of the country's resources to its cultural and economic progress." This is an important mention because no other president before Cardenas discussed the external debt publicly.

President Manuel Avila Camacho made an agreement with the International Committe of Bankers on November 5th in 1942, where they established that Mexico would pay one peso for each dollar of its debt[6], and the dollarization of the debt was pacted.

[3] *1st Government report* of president Adolfo de la Huerta, September 1, 1920, pp. 71
[4] *1st Government report* of president Plutarco Elias Calles, September 1, 1925, pp. 40
[5] *1st Government report* of president Pascual Oríz Rubio, September 1, 1930, pp. 94

The period of 31 years without paying the debt was over, and the balance was reduce through negotiations. After this period, there began a new era in the history of the country, the presidents who governed the country would not be miltary, but civilians. Because the presidents were now citizens, they were more capable in managing the debt.

In the 40s World War II occurred. At the end of the war multilateral organizations were created with the aim to help developing countries and countries ravaged by war. These agencies were the World Bank (WB), the International Monetary Fund (IMF) and the Inter-American Development Bank (IADB).

The gold standard changed and the US dollar became an international currency. The change was agreed at the conference known as Bretton Woods. Two people were crucial in this conference, Harry Dexter White and John Mynard Keynes.

The US began an expansionary dynamic with dollar lending to the developing countries. Mexico was part of this dynamic proposed by the US, and Mexico focused its policy on external borrowing. Mexico´s intention was to support economic growth[7].

In subsequent years with presidents Miguel Aleman, Adolfo Ruiz Cortinez and Adolfo Lopez Mateos, the external debt rose from 346 million dollars (md) to 4,000 md. The International Reserves in gold, silver and countrie' currencies totaled 762 md. The increment in the debt was because "the government policy on external borrowing used to provide income because of the tax policy did not obtain from the profits of big business" (Giron, 52). This shows that Mexico needed to expand its policy concerning the debt.

In this regard President Gustavo Diaz Ordaz said in a translation of his second government report that:

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[6] *2nd Government report* of president Manuel Ávila Camacho, September 1, 1942, pp. 195

[7] Alicia Giron, *Cincuenta años de deuda externa*, Instituto de Investigaciones Económicas, UNAM,, 1ª Edición, 1991, pp. 11.

"In the general policy of foreign debt would bring attention to the following:
A) capacity of external debt has grown and probably it is continued;
B) the external debt is, as foreign direct investment, a complementary factor of national savings;
C) the frequent announcements that have been entered into a new credit should not be cause for corcern;
D) the debt is issuing in the long term and interest rates as low as it allows the market;
E) the proceeds are used to finance productive works, leaving a surplus of new wealth in the country. Never used to finance current expenditures;
F) the sole signature of the government operates as a sufficient guarantee of payment, without speficic collateralization;
G) All of this has been achieved despite the global market conditions, which have pushed interest rates upward, reaching levels for several decades had not been reached".[8]

This quote was very clear in describing the objective of the foreign debt policy, because there were neither good tax revenues nor domestic savings. The development of the country depended on external borrowing to cover these items.

Later, President Luis Echeverria achieved increasing tax revenues. However, a measure taken by the US to put a tax of 10% on manufacturing exports, would make an increased current account deficit which would require Mexico to resort to external borrowing. Thus, Echeverria's term ended with a debt of approximately 20,000 md.

Under President Jose Lopez Portillo, there was an oil boom and during the first years of his governing the oil price was very high. Lopez Portillo achieved development in the energy field through the debt because he trusted that the prices of Oil will remain for a long time, but the Oil prices began to fall precipitously. When oil prices are high, the government benefits, but when the prices fall, the government loses profits.

[8] *2nd Government report* of president Gustavo Díaz Ordaz, September 1, 1965, pp. 80.

The international financial environment causes historically high interest rates. In Mexico there was speculation by bankers and this cost the capital to go out. The Bank in Mexico is nationalized and there was a peso devaluation and all of this caused the current account of deficit increases[9].

In 1982, the president Miguel de la Madrid Hurtado started his govern with a level of external debt that led him to negotiate with the US government and IMF. Both US and IMF did not accept at first believing that the govenrment of Mexico sought concenssions from the international financial system.

The international reserves went down to 100 md and the payment of debt service amounted to 700 md "At that time was when it really raised the possibility that Mexico would declare moratorium" (Gurría, 29).

The Mexico's government started negotiations on debt restructuring and "the government is commited to a reform program to liberalize trade, reduce the state's role in the economy and mantain prudent macroeconomic policies"[10]. Such behavior was a condition for IMF loans granted.

In 1987 the government of Mexico had done what was commited but suffered a devaluation of peso with falling stock market. The government concluded that the cause was from the high inflation rate. Therefore establishing the Economic Solidarity Pact aimed to reduce inflation at level of 2% per month. Fortunately the deal was succesful and achieved a level of 1.2% per month.

President Carlos Salinas de Gortari focused on reducing the debt. In 1989 it was created the Brady Plan, which was achieved a saving of 1,000 md in the first 5 years (Lustig, 93). In this six year period was carried out the North America Free Trade Agreement (NAFTA)

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[9] José Ángel Gurría Treviño, *La Política de la deuda externa,* Fondo de Cultura Económica, México, 1ª Edición, 1993, pp. 17.
[10] Nora Lustig, *México, Hacia la reconstrucción de una economía,* Colegio de México y Fondo de Cultura Económica, México, 2ª Edición, 2002, pp. 75.

and there was a totally different behavior in the economy since 1993 which was signed the treaty.

Exports grow significantly, but in the last year of the Salinas administration began a capital flight that caused a severe economic crisis. The president Ernesto Zedillo Ponce de Leon had to deal with the crisis at the beginning of his term, it was the famous Dedember Mistake. IMF, IADB and the US helped the government of Mexico to pay Tesobonos that had guaranteed in dollars. The goverment of Mexico privatized the National Railways of Mexico and held a free trade agreement with the European Union.

In 2000 were the ballots to elect the president of Mexico. First in the history of Mexico there was an alternation in the federal government and wan the National Action Party (PAN). The story changes and debt levels continue to decline what motivates the implemantation of this work.

II. Sovereign Ratings

II.I. Rating Method

The history of Mexico’s foreign debt helps to have an outlook to know what the government has done in this respect. It is useful to compare the development of a country like Mexico that has implemented the economic policy based on the free market.

The country selected in this paper was South Korea, a member of the Organization for Economic Cooperation and Development (OECD). The members of this organization share a similar mindset commited to democracy, market orientation and human rights. Korea as well as Mexico, joined this organization in the mid 90s but the former is now considered by the WB and the IMF as a developed economy.

The comparison between Mexico and Korea first was made through the credit rating granted by rating agencies, such as Standard and Poor’s, to a government. Subsequently, economic data from both countries will be analyzed to make a full study.

S&P has established in recent years the notches of sovereign ratings, to impose some order on the evaluation process. In this sense, a notch is defined as a slope of scores or results, which for a given analysis, is divided into a number of categories that are discussed separately within a committee. They are a precursor for the allocation of a rating.

The scores range from 1 to 6, the first is defined as the strongest and the latter as the less strong as shown in Figure 1. The categories of each notch are defined in terms of certain key aspects considered, as well as some parameters. In the case of the numerical parameters, there are criteria for levels to ensure a uniform distribution within a range of ratings. The unweighted sum of individual ratings of the sovereign are compared with those who are their peers, to provide some sensitivity in testing scores.

Although comparisons of these scores do not dictate the final grade itself, there is a strong correlation between the aggregate ratings of the notches and the final grades of the countries. The diversion of an implicit qualification levels within the sequence belonging to an overall notch requires a reasoned argument in the committee[11].

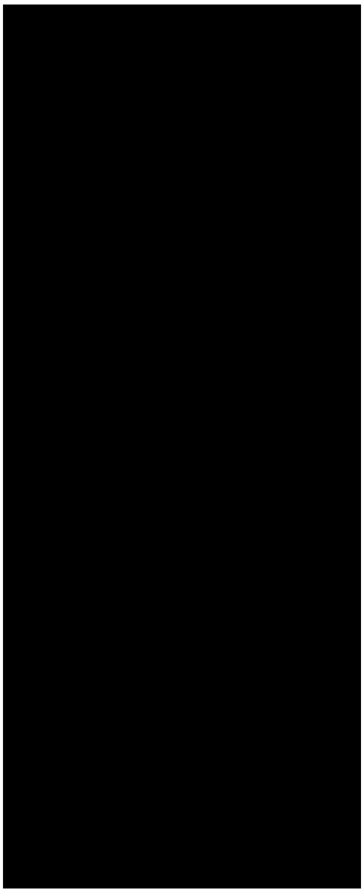


Figure 1
Source: S&P

The content of a notch in question is discussed at annual meetings involving the total sovereign ratings group. It pays special attention to the gradual evolution of the methodology. Every change requires a notch up to two years. All aspects rated sovereigns must first be discussed in the committee considering the modified analytical framework

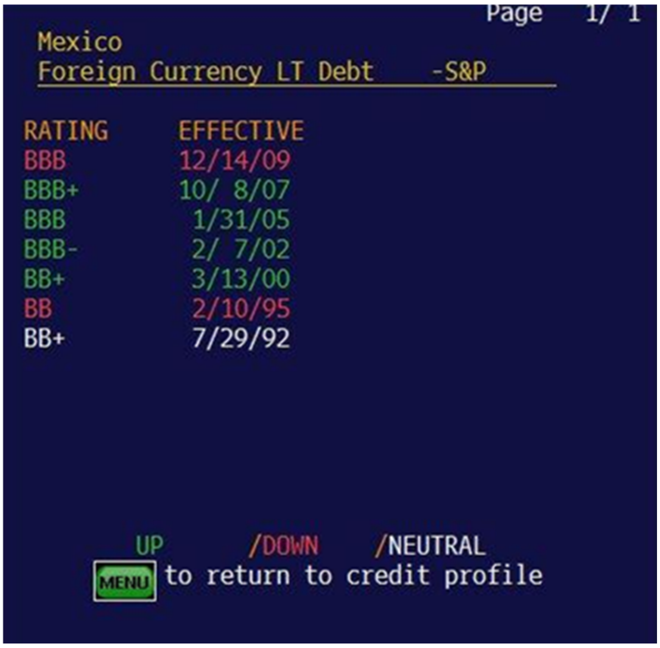
[11] Standard & Poor's Ratings Definitions

before the comparison between the notches can be considered internally consistent. The notches of the ratings for S&P consist of the following analytical categories[12].

a) Political Estability;
b) Economic Outlook: The structure and growth;
c) Fiscal Flexibility: Income, expenditure and performance of the budget balance, the burden of debt and debt service, contingent liabilities and Extra-budgetary;
d) Monetary Stability;
e) External Flexibility: Liquidity, Net External Debt of the Public and Private Sector and Banking;

II.II. Ratings of Mexico and South Korea

Rating agencies have often been criticized for failing to adequately prevent crises. Likewise, they have been criticized for raising the level of rating in the beginning of a crisis. Externalities are beyond the scope of this document. So, the following tables can be used to understand the level of the risk among countries.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Mexico
Foreign Currency LT Debt -S&P

RATING	EFFECTIVE
BBB	12/14/09
BBB+	10/ 8/07
BBB	1/31/05
BBB-	2/ 7/02
BB+	3/13/00
BB	2/10/95
BB+	7/29/92

UP /DOWN /NEUTRAL
MENU to return to credit profile

Figure 2
Source: Bloomberg

[12] www.standardandpoors.com

Figure 3
Source: Bloomberg

Mexico's score has changed very little as it shows in Figure 2, where it can be seen a small advance in the last 17 years. The change is derived from the proper administration of the Mexican debt and has achieved compliance with the 6 points that S&P consider to change the status of a country.

However, in the figure 3, shows that the behavior of Korea's rating has changed very significantly improve your level faster than Mexico. This allows inferring that Korean government is fulfilling these points more satisfactorily than Mexican goverment.

Nevertheless, this comparisson is not sufficient to conclude. Later it will be analized other items to help form a more complete conclusion. Because the ratings is a subjective perception of the countries but necesarily to understand some points of view.

III. Statistical data analysis

III.I. International Trade

The analysis begins with a table (Figure 4) which includes certain economic indicators that help get an idea of the similarity and difference between the economy of Mexico and Korea. Figure 4 shows, in a period of 15 years, how both economies have grown.

In the table it can be seen that there are similarities in the Gross Domestic Product (GDP) between Mexico and Korea. Mexico and Korea have been on the same levels during the last 15 years. It is important to mention that in the 90s both countries suffered big crises. They made a commitment with International Institutions for free trade as it was mentioned in chapter 2.

The numbers in the table show, there is a huge difference in the balance of payments between both countries. Mexico has a surplus in its *capital* and *financial account* and a deficit in the *current account*. This means that Mexico has more *foreign direct investment* and other investments than *net exports*. On the contrary, Korea has more *exports* than *imports* and less *foreign direct investment*.

The table highlights the level of Korea's debt rather than Mexico's debt. For example, in 2010 the debt of Korea was seven times larger than Mexico's debt. The table distinguishes that the level of Mexico's international reserves was approximately 2.5 times lower than Korea's reserves in the same year.

These differences between the debt of both countries led to speculation that the level of indebtedness of Korea is harmful. On the contrary, Mexico's debt is significantly lower than Korea's with a level of debt which is only half of its international reserves. This refers to the fact that Mexico has greater control over its debt policy.

Year	South Korea					Mexico				
	경상수지 Current account	자본수지 Capital and financial account	외환보유액2 International reserves	국내총생산 GDP at current prices	Gross External Debt	Current account	Capital and financial account	International reserves	GDP at current prices	Gross External Debt
	백 만 달 러 Million US $									
1996	-22.953	21.888	33.237	572.519	150.869	-1.735	2.606	6.313	421.900	75.637
1997	-8.183	13.288	20.405	530.961	167.281	-3.671	6.212	19.824	506.763	67.370
1998	42.644	-35.738	52.041	359.167	155.462	-4.606	9.103	23.480	491.215	70.116
1999	24.479	-20.307	74.055	461.873	144.765	-4.297	4.603	27.380	618.900	70.330
2000	14.803	-13.383	96.198	533.309	141.429	-6.245	5.559	35.585	694.119	62.822
2001	8.428	-11.086	102.821	504.586	121.346	-6.026	9.256	44.814	742.745	59.379
2002	7.542	-7.010	121.413	576.132	132.757	-4.296	8.829	50.674	685.024	57.879
2003	15.584	-16.347	155.352	643.633	141.650	-2.209	9.858	59.028	706.290	58.358
2004	32.312	-35.467	199.066	722.973	150.625	-3.964	10.284	64.198	812.792	60.084
2005	18.607	-19.529	210.391	844.855	161.413	-1.961	11.804	74.110	913.299	58.374
2006	14.083	-14.151	238.956	951.484	225.200	-1.960	2.169	76.330	996.809	41.936
2007	21.770	-23.877	262.224	1.049.349	333.428	-1.043	11.077	87.211	1.093.776	42.251
2008	3.198	-1.154	201.223	930.296	317.370	-6.154	12.272	95.302	884.309	41.734
2009	32.791	-34.651	269.995	834.439	345.677	-138	17.513	99.893	969.090	48.708
2010	29.394	-27.479	291.571	1.014.536	359.432	-3.227	15.925	120.587	1.115.897	57.187

Figure 4
Sources: Central Bank of Korea, Central Bank of Mexico, INEGI and SHCP

The table of above shows a picture of the last 15 years but it is necesary to see beyond of the past and compare some facts in the history.

As it shows in Figures 5 and 6 both countries began in the 60s with similarities in their exports and imports. It is essential because the fast growth of Korea was between 1960 and 1979 in the authoritary government of the major General Park Chung-Hee. However, the Korean population suffered restricted political freedoms. As a result of the restriction, the population led to strong protest against the authoritarian government until the assesination of the Park Chung-Hee[13].

In the other hand, in the 40s the government of Mexico changed from military government to citizen government as was mentioned in the chapter 1. It is important to mention that Mexico change its military government before than Korea and led international trade with different countries. In 1994 Mexico achieved the levels of Korea because of NAFTA. At the same time Korea's government began to change its government to democracy.

The international trade, with exports and imports of goods and services is an important issue to see how well the countries make their production. Macario Schetino, an economic researcher, states that "The basic difference between closed and open economy is the existence of markets outside the country. It can produce to sell in other countries, and can also buy goods produced outside the country"[14]. This shows that it is important that Mexico and Korea are using an open economy as a tool to trade with other countries.

Due to Mexico still doing so poorly, it can be speculated that Mexico is doing something wrong because its trade policy has behaved similarly to Korea by applying a closed economy and also a strong global opening.

[13] www.state.gov/r/pa/ei/bgn/2800.htm

[14] Macario Schetino, *Economía Internacional,* Colegio de México y Grupo Editorial Iberoamérica, México, 1ª Edición, 1995, pp. 158.

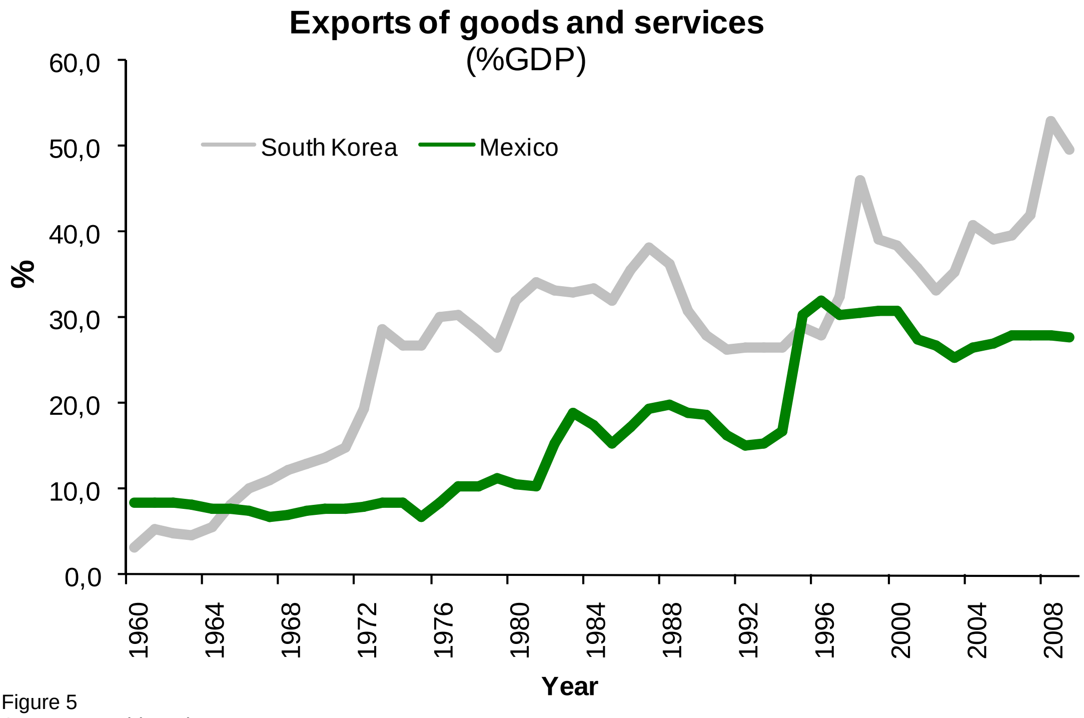

Figure 5
Sources: World Bank

Figure 6
Sources: World Bank

III.II. Comparative and Competitive Advantages

According to the definition of Comparative Advantage of Paul Krugman, a Nobel Prize-winning economist, "A country has a comparative advantage in producing a good if the opportunity cost of producing that good in terms of other goods is lower in that country than in other countries because the advantage is given in the difference in cost, capital and labor"[15].

As shown in Figure 7, one of the advantages that Mexico has is the availability of agricultural land; Compared to Korea, the difference in agricultural land is huge. This shows that Mexico does not use its advantage to the country's benefit.

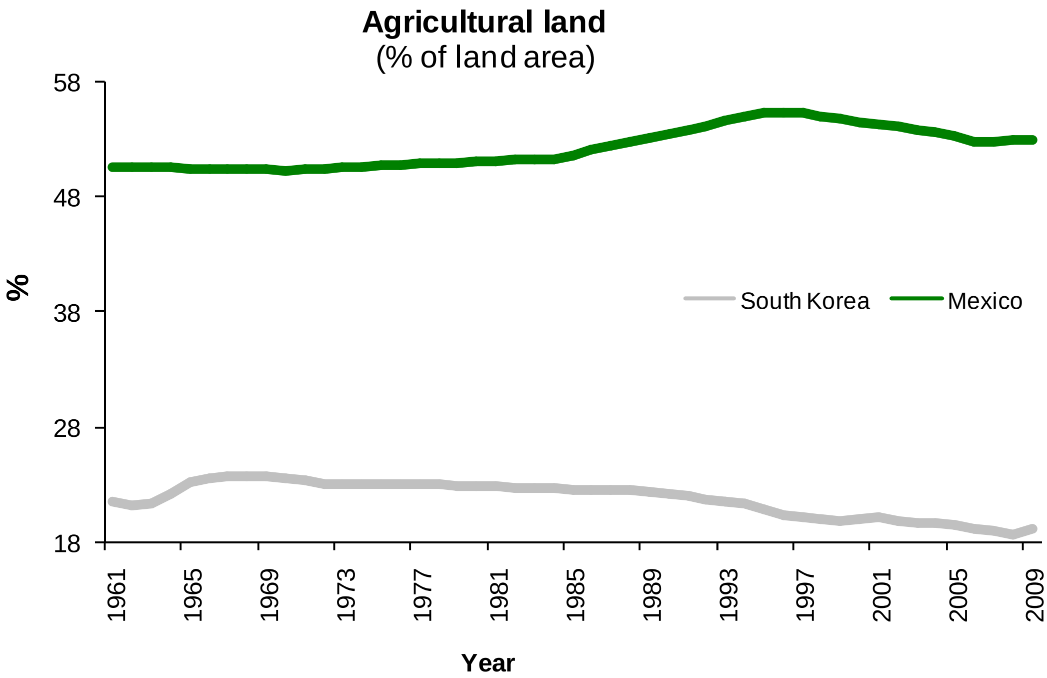

Figure 7
Sources: World Bank

It is assumed Mexico needs foreign direct investment to enable it to promote the development of its economy, but Figure 8 shows that this not the case because it has more

[15] David Romo Murillo y Guillermo Abdel Musik, Sobre el concepto de competitividad, Comercio Exterior, Vol. 55, México, Marzo 2005, pp. 201.

investment than Korea. This is a weakness for Mexico because they receive a lot of money, and the government of Mexico does not use this investment in a beneficial way.

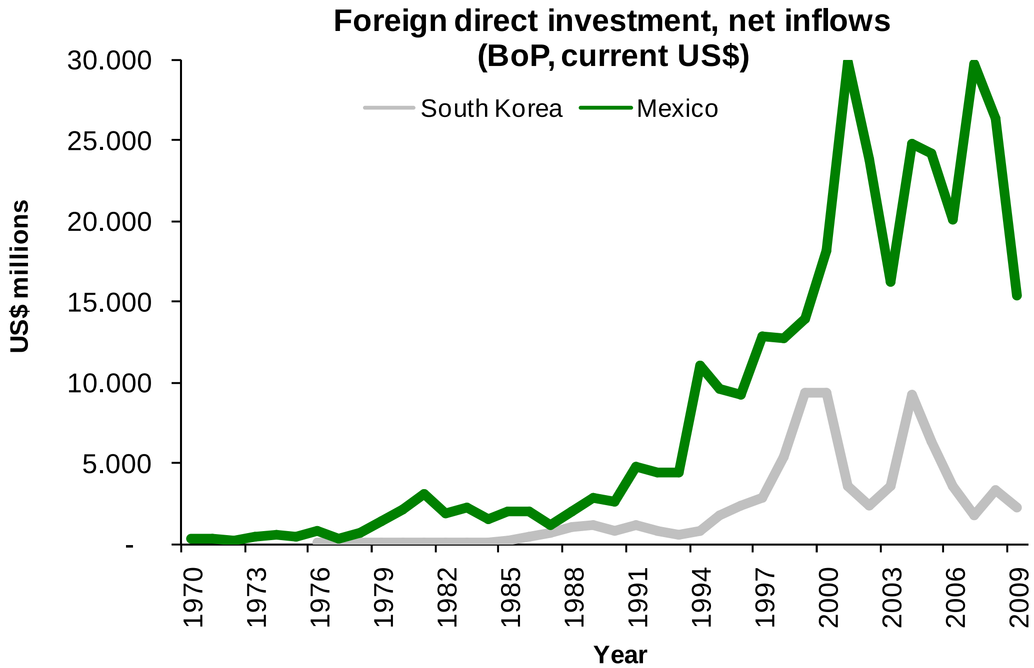

Figure 8
Sources: World Bank

According to David Romo and Guillermo Abdel, the authors of The concept of the competitiveness, the Competitive Advantage is driven by the ability to transform inputs, that each country has (Comparative Advantage), in goods and services to obtain the maximum utility. The concept also includes technology and administrative ability[16]. With this definition it can find the reason why in the following three figures Korea is ahead of Mexico, since it can deduce that Korea has a high level of technology and their production is more efficient because of the Competitive Advantage.

[16] David Romo y Guillermo Abdel, Op. Cit, p. 201.

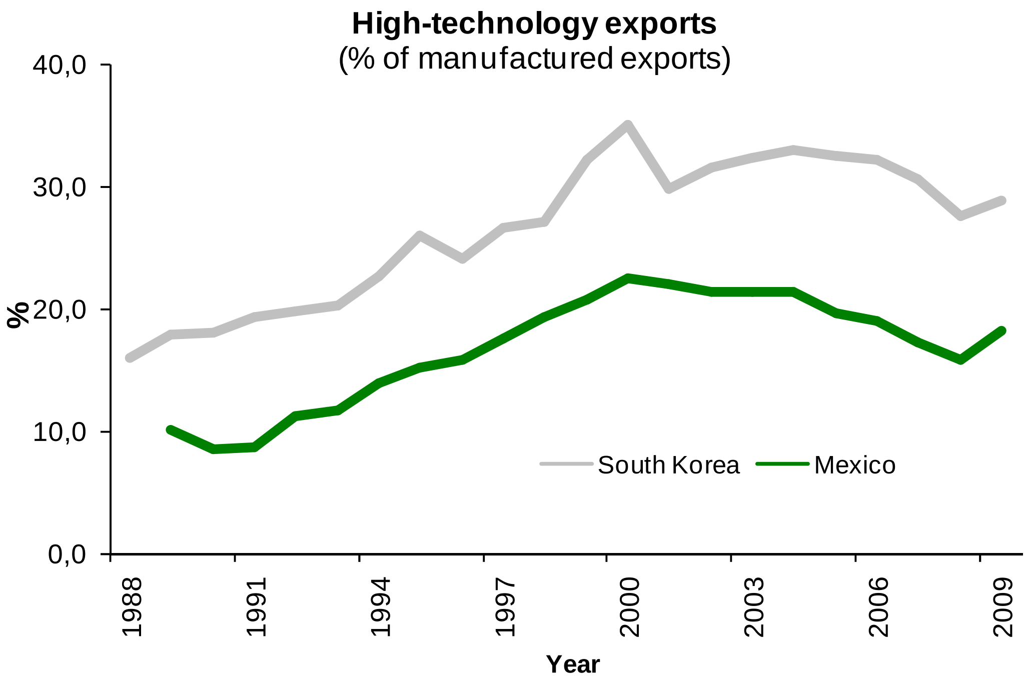

Figure 9
Sources: World Bank

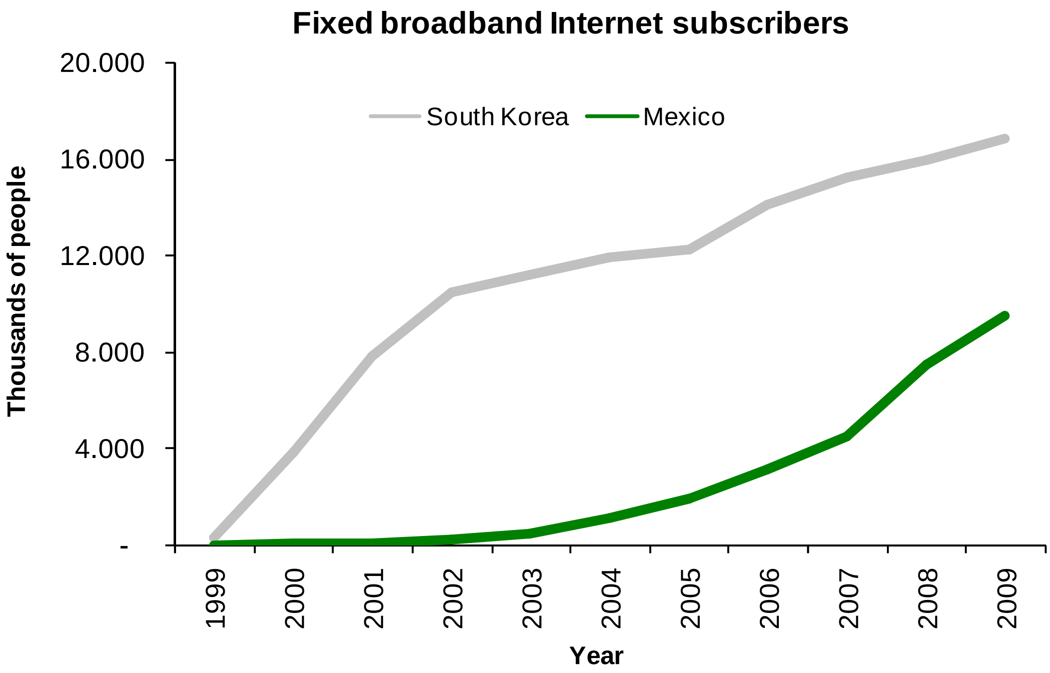

Figure 10
Sources: World Bank

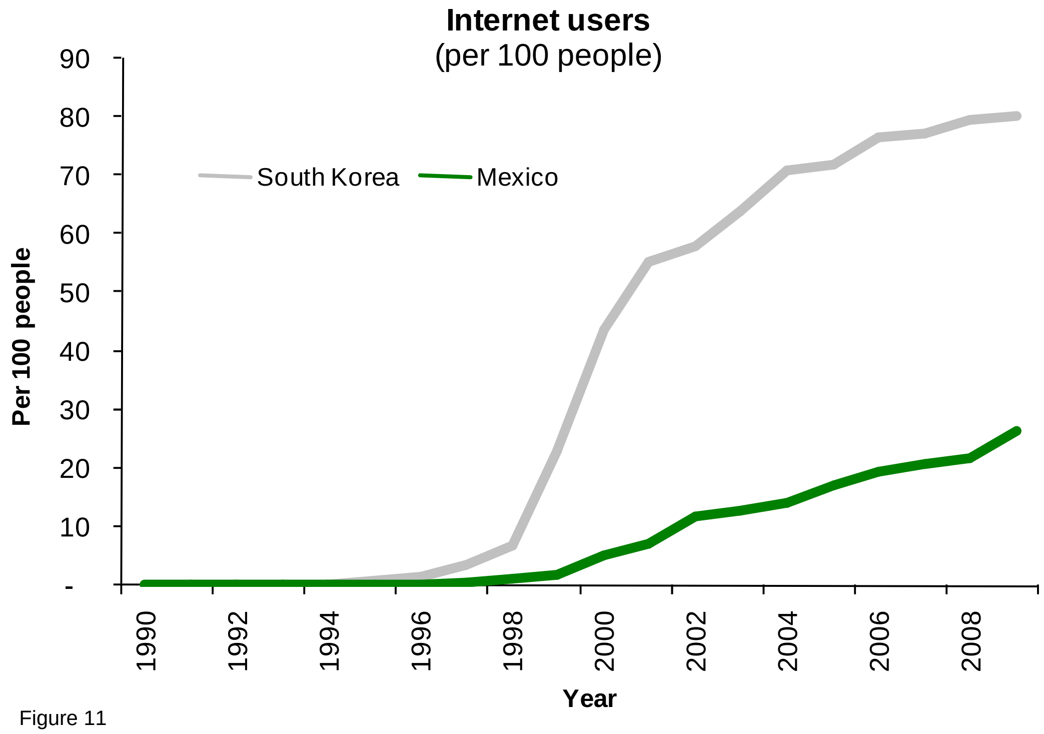

Figure 11
Sources: World Bank

Despite that Mexico has a higher level in foreign direct investment and started in the same level that Korea in the development of technology, Mexico has lagged and this is not specialist in technology.

It is known that there are somethings that the industry cannot pursue byself and the government has to do the investment. In fact, Mexico should have more progress in the energy power because one of the most important industries in Mexico is the production of oil. Nevertheless, Mexico has not had growth in these industries since 80s despite those industries are under Mexican government control. The Figures 12 and 13 show the lag compare with Korea.

The problem is that the government of Mexico wants to do both Invest and manage these industries, and the history shows that the governments cannot prform the job as a private enterprise at the same time that it is governing.

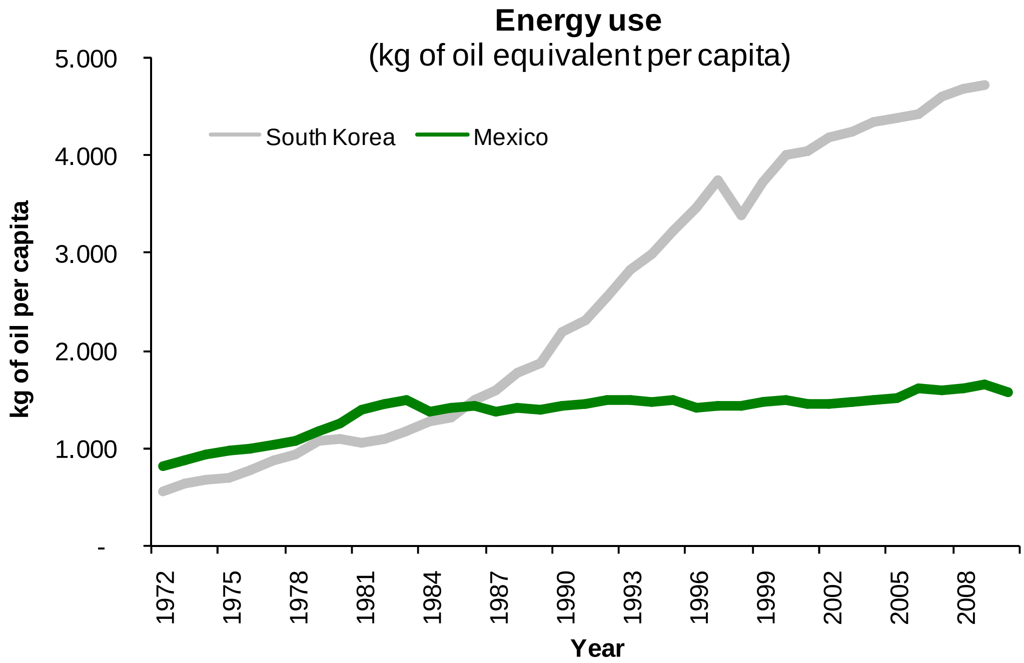

Figure 12
Sources: World Bank

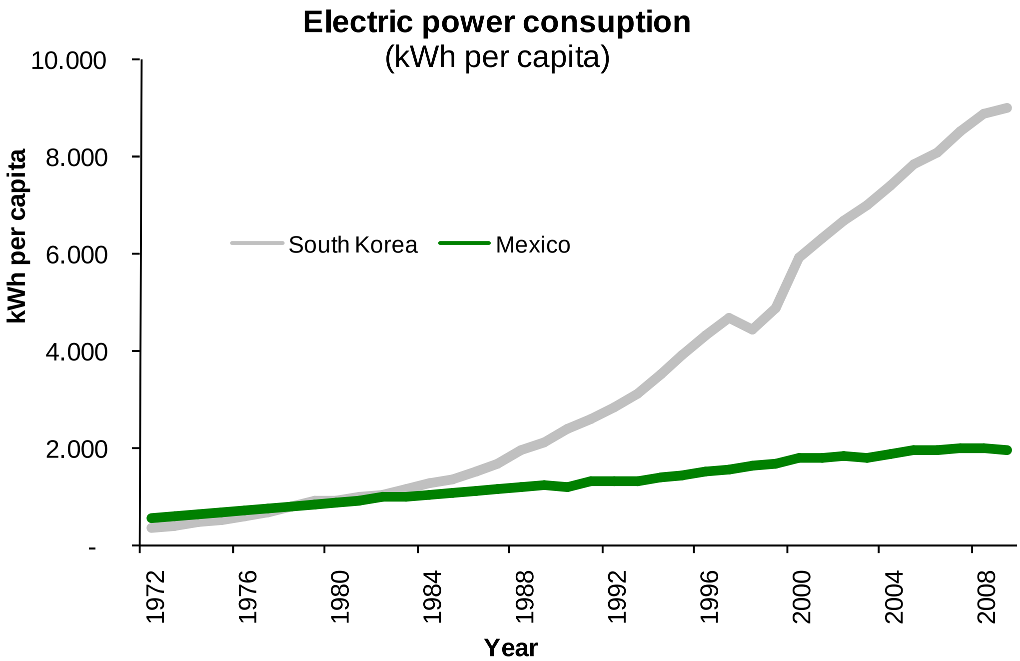

Figure 13
Sources: World Bank

Korea has advanced rapidly in the capital market which can also be associeted to technological advancedment, as well as transparency in the companies resulting from the requirements to go public. Despite the lag in technology the capital market in Mexico continues growing as it can see in figure 14.

Figure 14
Sources: World Bank

After analizing the above data is quite understanble that the Gross National Income (GNI) per capita of the Korean is above the 20,000 dollars and the Mexican is around 14,000 dollars.

The great thing about Koreans is that in spite of having a territory of 98,000 km^2 and around most of which are mountain ranges –the Mexican territory of 2,000,000 km^2 is about– have managed more achievements in many areas than Mexicans. This shows despite Mexico has a comparative advantage Korea is much more competitive.

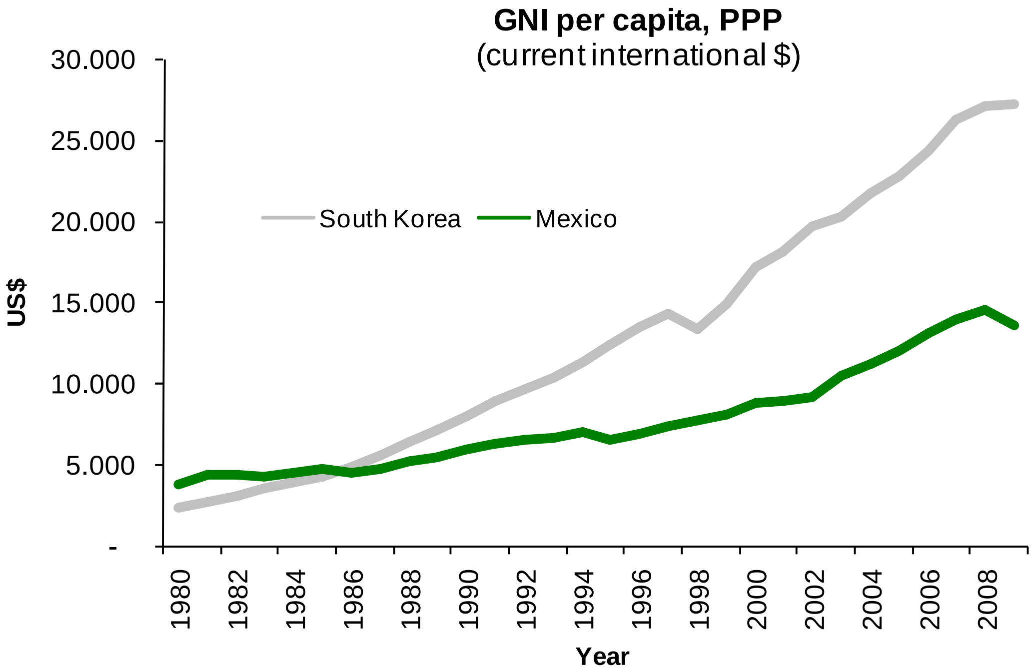

Figure 15
Sources: World Bank

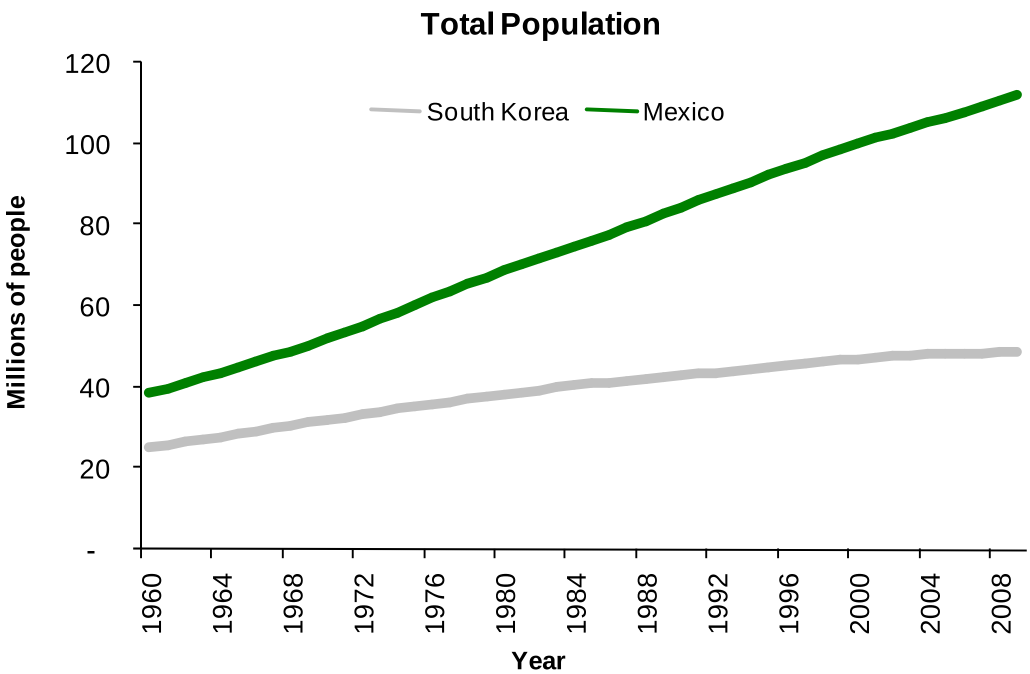

Figure 16
Sources: World Bank

It is noteworthy, that level of the Korean population, currently totals 48 million. The Mexican's population is close to 112 million. In Figure 16, it can see that the growth of the population of Mexico has been very fast compared to Korea. This has led to high levels of poverty in Mexico and small sector of the population with very high incomes.

Certainly, Korea is doing the job better than Mexico speaking on economic and technological power. Because both Korea and Mexico had experimented authoritary governments, massive protest, policital problems, etc.; nevertheless, the economy of Mexico didn't grow in the same rate than Korea. Also, both Korea and Mexico changed his international trade policies and the behavior of the governments almost at the same time (in the 90s). Indeed, Mexico began to change in the 80s when the government of Mexico made a commitment with the IMF to borrow money.

As it was showed in figure 4, both countries has a similarities in the GDP but in the case of their debt they have a huge difference. This lead to conclude that having a foreign debt at high levels is not necessarily bad. Controversely when the debt is used to growth of the country's economy becomes beneficial.

IV. Mexico Debt Management

Whether Mexico has practiced good debt management through the years is not a simple question to answer. As Reinaldo O. da Silva, a prominent economist, said a good administration is “a set of activities aimed to use resources efficiently and effectively in order to achieve one or more objectives or goals of the organization"[17].

Mexico’s history shows that Mexico has not taken any specific method to manage their foreign debt. The government of Mexico simply has focused on borrowing from abroad to begin development of an industry, such as railroads or oil.

Furthermore, the debt grew so high that sometimes Mexico could not pay their debt and the managers in international relations and public credit attempted to renegotiate the debt. However, by not having a clear objective, debt became a burden to the administrations of incoming governments.

Derived from the corruption that has always affected Mexico, the amounts that the country borrowed were not reflected in public investment. The fact that the oil and railroad industries only had booms, but never had a stable economy is proof that Mexico has never achieved a sustainable development.

Many other emerging countries had similar problems with their foreign debt and other problems, such as political issues, which meant these countries were not allowed to grow into developed countries. Thus the Washington Consensus[18] was created which raised ten public policies to promote economic development which are:

1. *Fiscal Discipline*
2. *Reordering of public expenditure priorities*
3. *Tax Reform*

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[17] Reinaldo de Oliveira da Silva, Teorías de la administración, International Thomson Editores, México, 2002, pp. 6
[18] Jhon Williamson, A short history of the Washington Consensus, Barcelona, 2004, pp. 3

4. Liberalization of interest rates
5. A competitive exchange rate
6. Liberalization of international trade
7. Liberalization of foreign direct investment inflows
8. Privatization
9. Deregulation
10. Property rights

These ten policies, driven by international financial organizations, led to emerging economies where proper administrations would stabilize their external debt.

As mentioned in the first chapter, one of the first steps to manage debt was the creation of the Brady Plan, which at the time was good for ten years. After these 10 years the plan was no longer ad-hoc. This was because at this time the market offered different instruments and lower rates, and the market allowed the Federal Government (FG) to diminish the cost of foreign debt.

In 2000 the purchase of Brady bonds reduced the debt stock as shown in Figure 4. Thus, the FG began a net debt reduction policy in order to reduce foreign debt by 500 md annually.

The government of Mexico used all instruments and tools that the international market allowed to diminish the cost of debt. From 2000 to 2003 to cover the repurchase of Brady bonds Mexico focused simply on issuing new bonds at a fixed rate medium and long term. The payment of debt service was becoming shorter and less expensive as the market allowed it.

Between 2003 and 2008 the FG exchanged its debt[19] removing from circulation the old bonds with high interest rates and creating benchmark bonds which are regularly high liquidity and have lower interest rate.

[19] *Press release Ministry of Finance and Public Credit*, April 21, 2004, p. 1.

In 2005 the FG used an instrument called a *warrant* to exchange external debt for domestic debt. The *warrants* are securities that give the holder the right, but not the obligation, to exchange certain dollar-denominated bonds at the end of their term which are issued by the FG in international markets. The certain dollar-denominated bonds are exchanged for the development bonds which are at a fixed rate in the domestic currency and issued in Mexico (M Bonos) [20].

These transactions were quite successful and allowed the FG to prepay some bonds and reduce the stock of external debt. This type of administration also saved a considerable present value which at the time was not taken into account by the national press. However, the markets took such measures as well as the FG to achieve an improvement in its international debt rating (see Figure 2).

The following graphs show the success of the management of debt because the curve of external and internal debt is in very low levels. It helps to follow the previous administrations improving the management to achieve better results.

In figure 18 it can be seen that the spread between the Mexican bonds curve and the US Treasury bonds curve narrowed. This shows the best time to issue debt in US dollars because the rates in the US are very low and it could maintain the same levels until 2014[21].

[20] *Press release Ministry of Finance and Public Credit*, November 18, 2005, p. 1.
[21] *Press release Federal Reserve*, March 13, 2012.

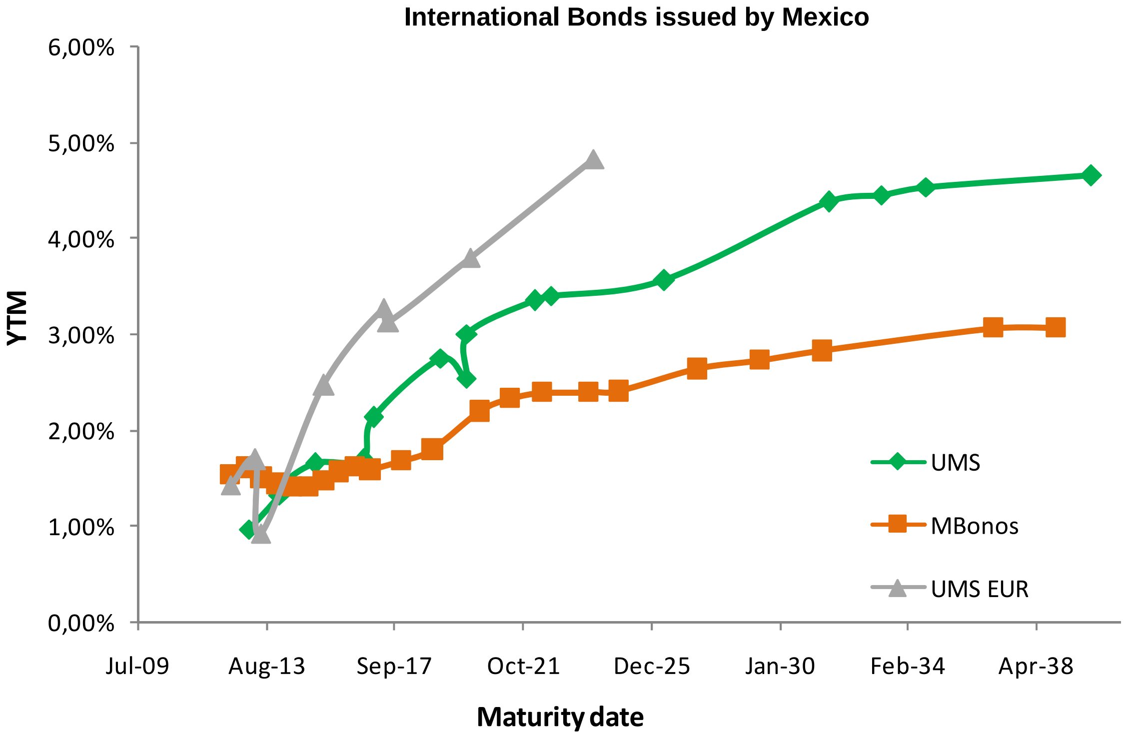

Figure 17
Sources: SHCP and Bloomberg as of (03/15/2012)

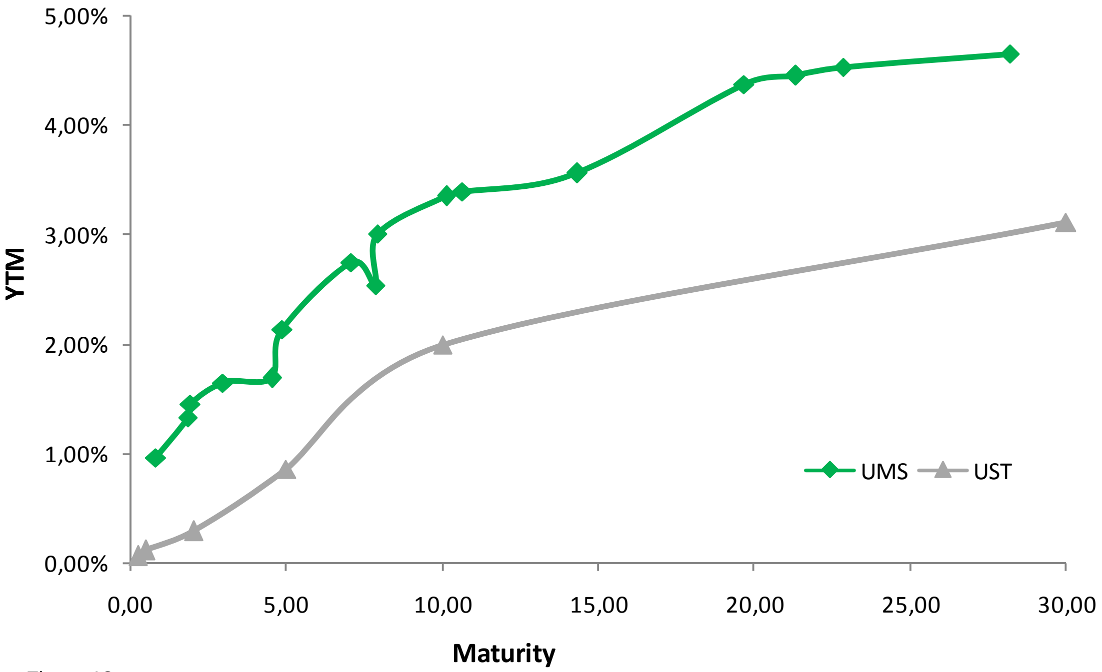

Figure 18
Sources: SHCP and Bloomberg as of (03/15/2012)

V. Mexican Foreign Debt Proposal

Once the Mexican foreign debt, its history and the economic factors are analyzed, it is possible to propose a scenario to take advantage of the benefits granted by the credit of international countries. Given the current macroeconomic circumstances of Mexico and the various financial instruments that the current market offers borrowers, it is feasible to consider the option to go to the market to raise money and issue debt in international markets.

Currently, the external financial program of Mexico's FG is the use of indebtedness as a strategy to provide greater flexibility in financing the needs on the FG. This has managed to maintain a level of moderate curves and smooth movements in the curve thanks to the right external debt management.

Today in international markets, it is possible to conduct various transactions that some investors may use to obtain additional benefits that result from traditional operations. It is noteworthy that the FG is allowed to perform some hegdes and use other instruments. But the bureaucracy makes it more difficult to lead a good risk management, causing a waste of the best moment of the market.

The FG should not borrow external debt from abroad, spend the money and then see where it gets the resources to pay for it. There must be reform of the fiscal law such as new arguments that commit to the FG to meet the objectives of foreign debt and use the resources acquired in this way and facilitate the debt management.

First, would be necessary to create 3 regulators, which are strongly related and are necessary for the proper debt management. One of them must be an agency that regulates the way in which resources are obtained and propose the limits of the debt, i.e. an agency that analyze the different sources of debt and determine which sources are more suitables for the country and which limts are correct. It is important to mention that in Mexico, the Congress is in charge of the limits of the debt.

The second agency should regulate whose projects in which the proceeds are invested via public debt, as well as monitoring the performance and viability of such projects. Finally, a third agency for authorize the projects that have been accepted and deemed necessary for the development of the country.

In parallel, with the creation of the regulatory agencys, it is also necessary to change the structure of the Public Credit Unit which functions are well defined and organized. The Public Credit Unit is in charge of the negotiatios with the banks to issue debt.

The structure recommended is already used in debt offices in some countries and following its implementation there have been positive outcomes related to improved organization, management activities and effectiveness in decision making.

The structure of the Public Credit Unit will have three main divisions, namely: Front, Middle and Back Office. These divisions would be related narrowly with the agencies.

The Front Office would be the party responsible for negotiations with the banks and investor relations, responsible for finding the best sources of funding. The Middle Office would then carry out risk models and those relating to transactions intended to be carried out, and the analysis and the results thereof. Finally, the Back Office, who would bring statistics and official information necessary to release the work of all the debt office. Having such a structure would help to have a more efficient debt management.

Once created agencies, made structural changes and modified the necessary fiscal laws, it could begin a real risk management. Then the debt management can be based in risk measures like Cost at Risk (CaR), Value at Risk (VaR), duration, convexity, etc. Thus the government could have a debt that is not excessive and could take the benefits to invest in all areas required to the development of Mexico.

The bond market is not the only way to borrow, there are also International Financial Agencies like WB, IMF and IADB that lend money to developing countries. The purpose which they were created has special features that allow borrowing countries at a very low rate. The reason why these organisms can obtain resources in better shape is because they have a better credit rating than countries that rely on them for financing.

The government can wait that investors decide to put their money in local industries or in their own business, but it takes them a long time. The time that takes a company to get in the market is very slow. Because of the problems faced with laws, bureaucracy and corruption. Additional, the current infrastructure of the country is not ideal to motivate companies to take the risk.

On the contrary, the capital market is more dynamic and there are many investors who are willing to put their money in bonds of Mexico. Also the investor's risk to invest in Mexico today is very low because of the stability of the country.

The purpose of having foreign currencies in public spending is because there are some projects where it is necesarly to buy machinery from abroad or contract international companies to make some jobs that the Mexican companies cannot do it.

Finally, when the external debt is under control because there is a good management, is the perfect moment to begin a restructure of the office to improve the job. Then, the government can borrow and invest in projects financially sustainable. As a result of the investment in feasible projects the sustained growth in the country will be achieved and there will be an increase in jobs and income.

Conclusions

Knowing the history of Mexico through debt it is understood that the current situation leads to understanding the behavior of economic variables, and the opportunity to compare these variables whith those of another country like Korea. It is helpful to conclude that even though Mexico has a stable level of reserves, a balance of payments at extremely low levels and controlled public finance; it has not made such technological progress that allows economic growth like that in Korea.

It is true that the government of Mexico has not done things quite right but the current situation permits to the government of Mexico begins with a reform of the law and a restructure of its public administration in the Ministry of Finance.

In conclusion, if the government will carry out a sustainable development for the country based on foreign debt, it is necessarily to have a good structure of the public administration and a correct debt management.

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