NAFTA and the Dynamics of U.S.-Mexico Economic Integration

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Mexico has been since 1994 one of the largest laboratories of world change, forced by the globalization and regional integration processes. Mexico decided to form a free trade area in 1994 with the world's most powerful nation, the United States. This integration experience is marking the destiny and future of entire generations in Mexico and is of special importance to the development of other regions such as Latin America. In this sense, NAFTA's importance grows if we take into consideration that it is probably the model that the United States will favor in the implementation of the Free Trade Agreement for the Americas (FTAA).

The current economic integration is part of a long historical process of complex and difficult relations between Mexico and the United States. It is explained mainly by the combination of the great worldwide changes of the last three decades, as well as by the impacts that these had on the countries of the North American region. It is also explained by the dynamic policies generated mainly by the United States and Mexico that coincided on the objective of tightening of the economic relations between these two countries. The North American Free Trade Agreement of 1994 must be seen in fact, like an instrument that authenticated and institutionalized a relation that had been intensifying from long time. Especially the process of indebtedness of the Mexican economy from the 70's was a key factor that changed old nationalistic policies for more open and closer ties with the U.S.[1] By the end of the 80's the political challenge of a democratic front had forced a search for a lock to assure the evolution of the liberal reforms started in Mexico since 1982.

We should not only see the bilateral or trilateral aspect of the economic integration of North America, which is very important, specially in relation to the interests that each of the countries cared to satisfy according to the economic strategies that each of them assumed and to all the possible advantages that an integration of this nature would give them. We must also analyze the changes that modified the rules of the cold war in the international system after the fall of the Berlin Wall in 1989 and which have had a strong impact in the correlation of forces and the old alliances inherited from such system. In addition, we should analyze how the three countries, through different pathways, reached

* I am very grateful of Alicia Coindreau, my research assistant, for the help given to the fulfillment of this paper.
[1] The total external debt of Mexico at the end of the year 2000 was $149.32 billion according to data provided by the Mexican government through SHCP. http://www.shcp.gob.mx

the conclusion that increasing and fortifying their economic integration was an indispensable factor to increase their regional economic power and so be able to face the competition presented by the other regional economic blocks. Thus, the alliance of these North American countries, specially that of Mexico and the United States, must be placed in the horizon of these great changes that pressed the leading sectors in both countries to open the possibility of this alliance. Dominant groups in both countries, in the political and economic scope agreed, although for different reasons, to give form to this pact subscribed through NAFTA.

From the entrepreneurs' point of view, the reasons were different also. After a decade of low demand in the internal market, large Mexican companies saw in the U.S. market a great opportunity to leave their domestic problems behind. For large U.S. companies, in addition to the possibility of a greater market for their exports, through investments in Mexico they could reduce the production costs of their products and with it recover a great part of their competitiveness, eroded by the Asian imports. The goal was mainly to form a financial, commercial and manufacturing alliance in which, given the enormous economic and political asymmetries, the United States would set the working guidelines. The key factor then was the attitude of the United States to accept a free-trade agreement with Mexico, given that with Canada it had already signed one, years before.[2]

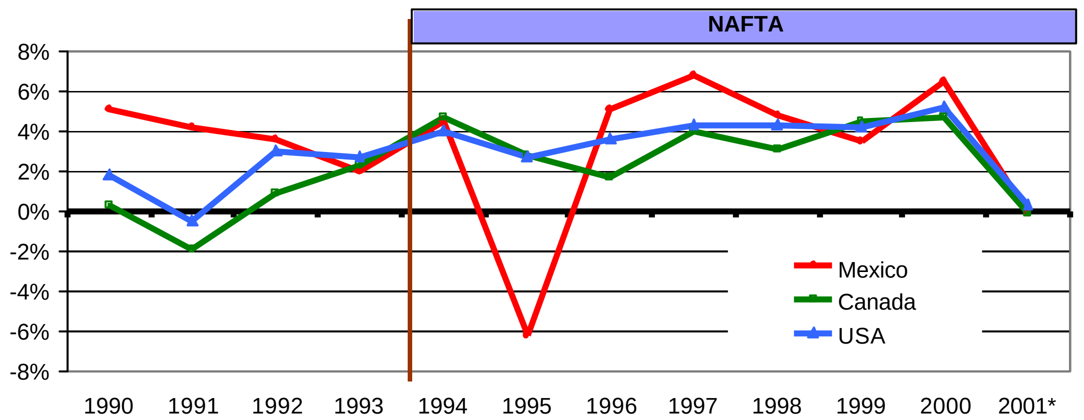
We must remember that the United States had been commercially integrated to the East Asian countries and later to the Southeast Asia countries by means of the great volumes of imports that it received from these countries. Recently China has become one of the most important markets for the commercial future of the United States. In fact, this whole area of the world, with Japan as its leader, has enjoyed a kind of a great Free Trade Association with the U.S. since the postwar period, association that constituted a key element for the success of the Asian exporting models. The cost for the United States' leadership was translated in ever increasing commercial deficits, which contributed to the debate, in the 80s, of their economic declining.

In the 1990s, especially from 1992 coincidentally with the arrival in power of President Clinton, the United States has enjoyed an economic recovery and huge expansion, which has been considered one of the longest growth cycles in the U.S. economic history. This recovery and expansion is explained by

[2] Korea and Taiwan were prospects, before Mexico, of a free-trade agreement with the United States, but were both rejected. See Stuart K. Tucker and Mariko F. Chambers. "U.S. Trade Policies Toward Developing Economies. ", in Ippei Yamazawa and Akira Hirata. Trade Policies Toward Developing Countries. Tokyo, Institute of Developing Economies, 1990.

the regained competitiveness in various manufacturing industries, as auto-industry, electronics, textiles and so forth combined with the explosion of the new business in the information and communications technologies. We assume that NAFTA and the Mexican market have performed a leading role in the U.S. recovery and its economic expansion in the 1990's. The Mexican economy, on the other hand, presented two faces during these same years, the first marked by a great financial crisis by the end of 1994 and beginning of 1995 caused the economic growth rate to collapse vertiginously, followed by a recovery cycle starting in 1996. In the same way as in the economic expansion period, the United State's economic crisis initiated in 2001 must pressure and force adjustments to the Mexican economy, highly dependant of the US economic cycle. This can be seen in the decline of the region's economic growth for the year 2001.

Figure 1
Nafta Countries GDP Growth



*** Estimate: USA, Bureau of Economic Analisis; Canada, Canadian Statistics; Mexico, Secretaría de Economía.**
Source: International Marketing Data and Statistics, Euromonitor 2001.

In order to understand Mexico's economic situation during these years it is necessary to analyze the transformations of the world economy as well as the great changes that the economy of the United States has undergone. The economic restructuring of the United States can be characterized in several points. First, a resurgence of its financial power, based on the dollar's world hegemony, with high gains. Second, a transformation towards the economic sectors in which the services maintain the leadership, emphasizing the financial and information services that generate new poles of investment attraction, but also those services based on cheap manual labor. Finally, a reconversion of its manufacturing industry with great productive transfers to outside markets in which the Mexican economy is playing a key role. Thus the United States' economy is being directed towards what has been called “a virtual economy”, based in the command and the hegemony of the new computer science revolution sofisticated services.[3]

Therefore, the North American economic geography is characterized by an endless number of changes and very significant tendencies marked obviously by the power of the United States. These changes and tendencies are related to: (a) the transformations in the productive realm; (b) the costs reduction in manufacturing production processes; and (c) the expansion of the services sector, which includes as much of those which represent the new economy as those of low wages which represent the traditional economy and which continue to explain the migratory flow of Mexican workers towards the United States. All of this expressed by the confluence of differentiated but complementary necessities. Mexico requires foreign investments to develop its manufacturing and exporting industries. Therefore Mexico started opening its economy to modernize it and increase the competitive capacity of national enterprises, to create a climate such that would enhance the internationalization of its industries.

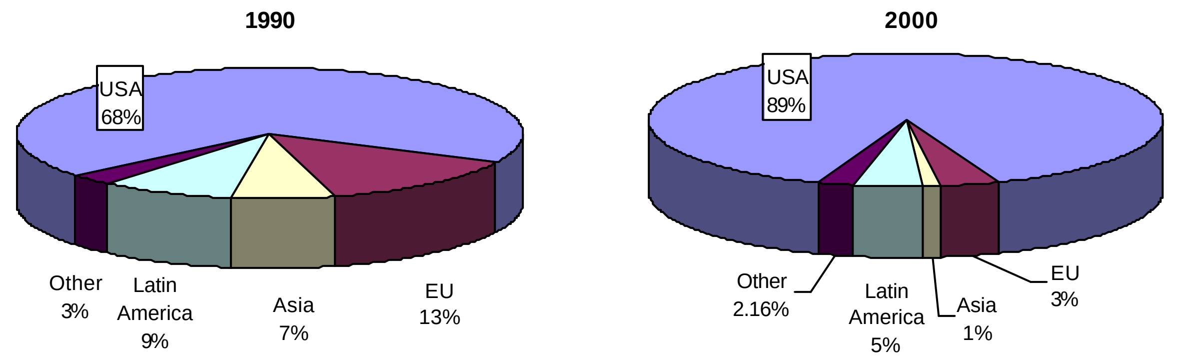
Even before the beginning of NAFTA in 1994, Mexico's economy had a strong association and integration to the economy of the United States. Since the start of NAFTA, Mexico accelerated this tendency, and so today the Mexican economy is a complex part of the gears that rotate the motors of the American economy. The tendencies and numbers that come forward when one wants to analyze and measure the impact of this integration, after almost two decades of opening and six years of operation of NAFTA, indicate the validity of the previous statement.

Trade in this region skyrocketed. Total trade between Mexico and U.S. in 2000 was $275 billion, more than three times the 1993 pre-NAFTA levels. Mexico's foreign trade has concentrated strongly in the United States' market. For example, in terms of exports, the United States' market represented 68 percent and 88 percent of the total Mexican exports in 1990 and 1999 respectively. On the same period, other markets of the world with which Mexico maintains trade relations maintained reductions in their imports from Mexico, especially Europe, Asia, and Latin America. The North American treaty helped strengthen certain Mexican exporting sectors directed towards the American market, such as the electronic, automotive and textile sectors, which represented the greater increases in the national

[3] See Richard Rosecrance. The Rise of the Virtual State. Wealth and Power in the Coming Century. New York, BASIC Books, 1999. pp 10, 11, 141 and 555. For this author, the modern world is witness of three great transformations that correspond to the transition of the territorial State to the commercial State, and finally to arrive to the virtual State.

exports.[4] In some cases like the *Ford Motor Company* in Mexico, 100 percent of their exports are directed towards the United States' market, that is to say, that Mexico's *Ford Motor Company* is a productive space totally integrated to the United States' businesses. With this level of integration of Mexico's foreign trade, in a few years the dependency to the United States' market could go up to 90 percent, which could even lead us to rethink our term of "*foreign trade*" for Mexico. In addition to this, more than half, 56% of the bilateral trade between Mexico and the United States is intra-industry or intra-firm type.[5] For that reason the Mexican Globalization is, in fact, exclusive to a closer relation with the United States' economy. The commercial dependency with the United States is today more intense than it was six or ten years ago. The paradox for the Mexican economy is that it is even more to the U.S. economy than that of the economy of the State of California or Texas, which are two of the most developed and which have a greater global commercial profile than Mexico.[6] The Mexican market is the one with the higher indices of growth in terms of foreign trade for the United States, and as consequence, it has become one of its main commercial partners on worldwide as it can be appreciated in the corresponding graphs. On average the United States and Mexico trade more than $720 million every day.

Figure 2
Mexican Exports by Region



Source: Secretary of Economy, INEGI.

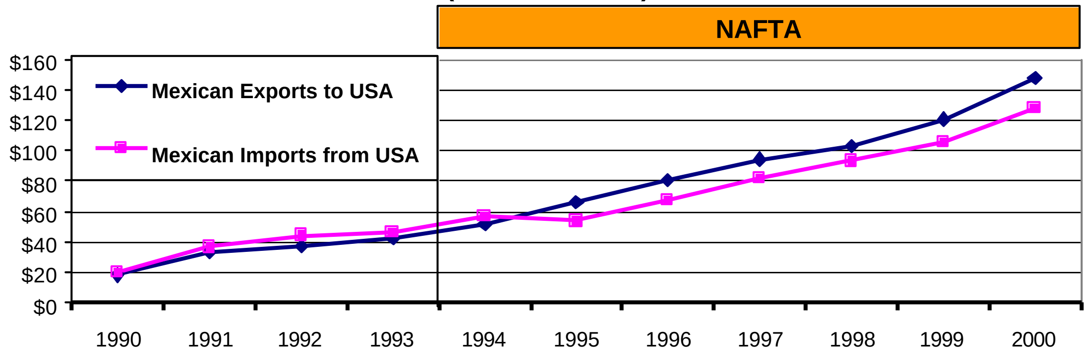
[4] See Enrique Dussel. “El Tratado de Libre Comercio de Norteamérica y el desempeño de la economía en México.” Naciones Unidas, CEPAL, 2000. The United States was the destiny market of 96 percent of all Mexican electronic exports and 94 percent of all exports of the automobile industry. The integration of these two sectors in this bilateral relation is so intense that it seems as if they were part of one same country.

[5] U.S. Department of Commerce News. June 26, 2001. From the total imports of Mexico from the United States 66 percent is of intra-industry origin, due to the large participation of Mexican maquiladoras in the border region.

[6] Mexico and Canada are now very highly dependent of U.S. trade. It is difficult to find, still in these days of regional commercial blocks, a country so dependent of a single market as Mexico is. More than bound to the evolution of the worldwide globalization processes, Mexico is united to the destiny of the economy of the United States. 90 percent of the total trade of these countries is with the U.S. economy.

The commerce that today takes place between both countries is referred to as intra-industry, which is the interchange of goods that correspond to the same economic sector. Machinery and transport equipment are the goods that have grown more in the bilateral trade, followed by manufactures and fuels. The total Mexican exports to the U.S. have grown from $60 billion in 1994 to almost the double in the year of the 2000. The imports have followed a growth similar but leaving favorable revenue for Mexico of $10 to $12 billion in the last five years as it can be appreciated in the corresponding graph.

Figure 3
Mex-USA Trade Balance.
(in US $ Billions)



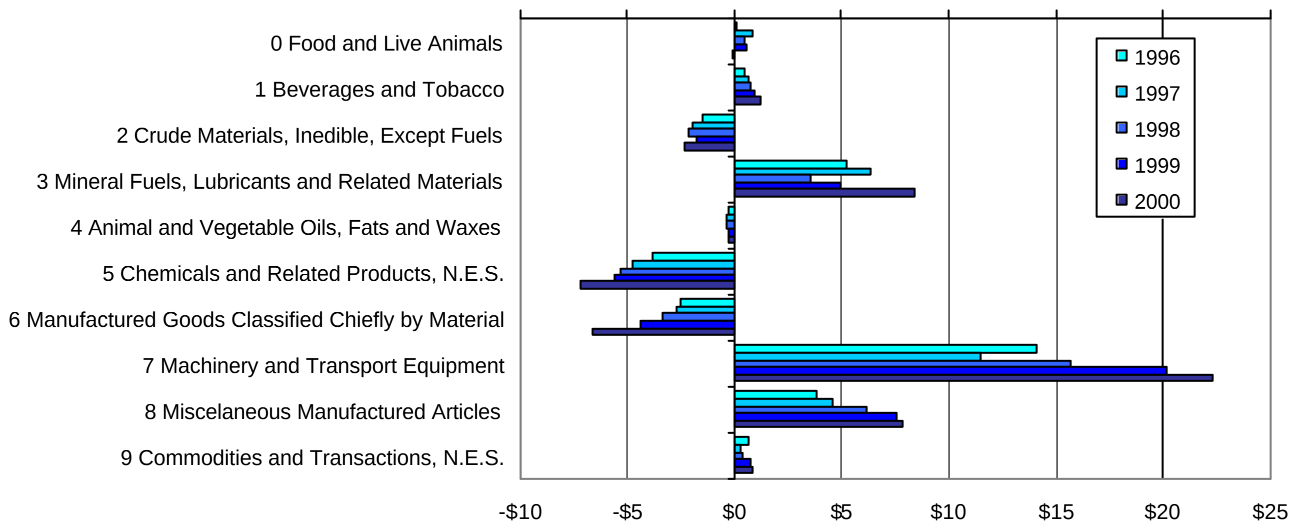
Source: INEGI.

Temporary imports of components that participate in the manufacturing industries' exports are a very important topic of commerce. Unfortunately it has had very little analysis when looking at balances of trade and which is frequently left a side - in the eagerness to magnify the gross balance of the Mexican exports - since the start of NAFTA. In 1999 these imports reached a value of $78 billion that represented 55 percent of the total value of imports. Of these approximately 65 percent ($50 billion) go to the Maquiladoras (assembly plants), mostly in the U.S.-Mexico border, and the rest to the national industry, mainly to the automotive and electronic sectors, among other manufacturing plants that like maquiladoras are strong exporters. In this process a geographic displacement occurs and for that reason they are called imports, but in fact it is practically an integrated external production, whose main benefits are spilled primarily in the United States and not in Mexico.[7] Therefore more than half of Mexican trade is components related trade. It means imports and exports of parts and components

[7] There are no actual currency transfers for the invoicing of these imports. The important element of this type of measurements is that they emphasize the net value of Mexican exports, bringing into light the existing weaknesses of the manufacturing model. Thus, true growth is no longer seen so accelerated and the divorce between the great numbers and the

crossing the Mexican border to be assembled in Mexico and brought back to U.S. market for their commercialization. If maquiladora trade is not accounted for, the total Mexico-U.S. trade falls from $275 billion to less than $135 billion.

Figure 4
Mex-US Balance of Trade by 1-digit SITC commodity
(in US$ Billions)



Source: Foreign Trade Division, US Census, Washington

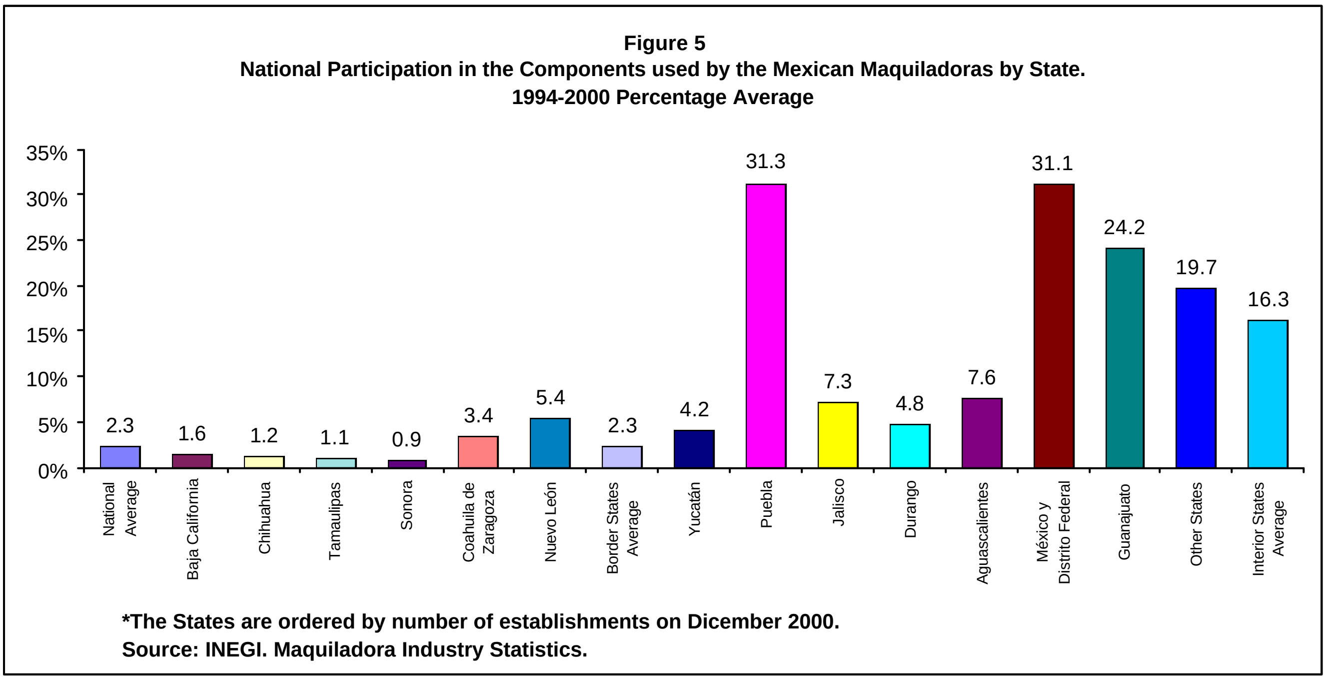
The main Mexican exporting states are Mexico City with 22.23 percent, Chihuahua with 9.77 percent, Baja California with 9.45 percent, Tamaulipas with 6.23 percent, and Nuevo Leon with the 4.87 percent. Twelve states, mainly Mexico City and the Northern states, were responsible for almost 70 percent of the total exports.[8] These regions were very important exporters even before NAFTA, but after it, their growth and expansion was even greater. These are also the regions with the greater coefficients of integration of their local companies[9] and where foreign investment is greater, as we are going to explain later. They are also the regions where maquiladoras use the lowest national inputs and

economic reality of the country is explained. For additional information see Héctor Vázquez Tercer. "Medición de la balanza comercial de México." El Financiero . May 22, 2000.

[8] El Norte, April 13, 1999.

[9] The national participation in the total of raw materials required by the maquiladoras has remained almost without movement in the last 20 years, going from 1 percent to 2.8 percent between 1980 and 2000. Information in El Norte, June 5, 2000.

where the small and medium Mexican companies contribute to only the 6.7 percent of the total exports.[10]

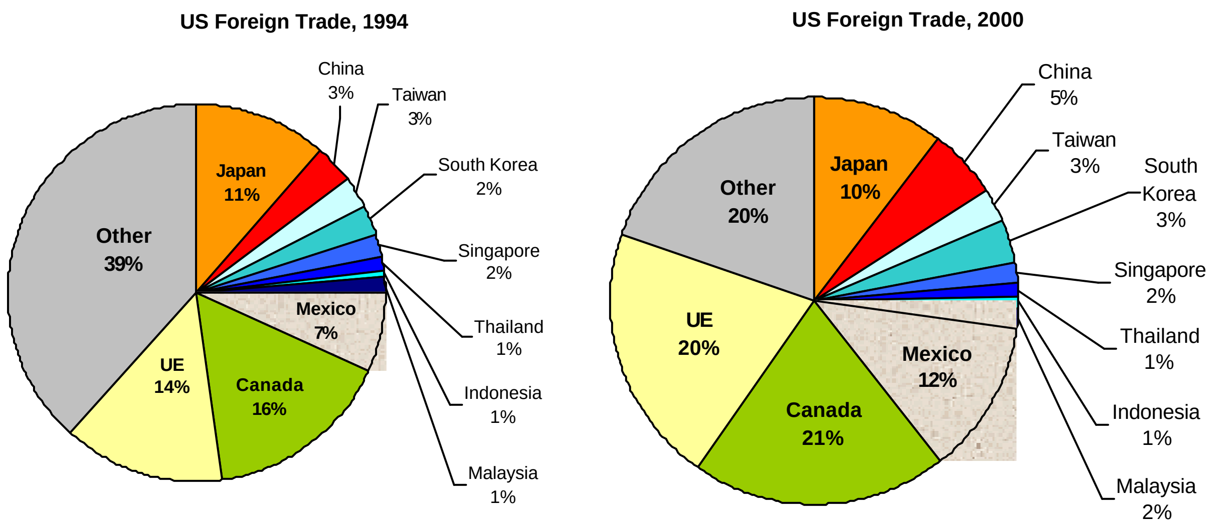


NAFTA economic integration has also reinforced in Mexico the existence of two types of businesses. On one side, the great companies oriented to the export market, with access to foreign financing, have been benefited by the industrial resurgence of Mexico. Fifty large companies, most of them maquiladoras and multinational corporations, make 50 percent of the Mexican exports and are the ones who push towards the development-through-exports of the country. As a consequence, the economic power has concentrated in the efficient producers that can count with foreign financing, leaving aside most small and medium size businesses that have to confront high financial costs in order to improve their technological capacity. Thus, the labor-intensive sectors of the national economy[11] - that were the foundation of the development in the East Asian economies for a long period of time and that would have also been the base of Mexico's fast economic growth – haven't been yet incorporated to the benefits of NAFTA.[12] Electronics, autos, and the fast growing maquiladoras are all examples of leading

[10] See J. Ernesto López Córdova. "NAFTA and the Mexican Economy: Analytical Issues and Lessons for the FTAA." Inter-American Development Bank. Integration and Regional Programs Department. Occasional Paper No. 9, 2001. In Argentina, Canada and Italy, these companies contribute to the nations exports in a 10 percent, 9.3 percent and 40 percent respectively.
[11] Agriculture, light industries, and small and medium size companies.
[12] See, "Mexico Transforming ", Pacific Council on International Policy, p.12. By the end of 1992 it was known that 250 companies generated 60 percent of all Mexican exports. Most of these companies were powerful national and transnational companies. For more information see the data presented by the National Association of Importers and Exporter of the

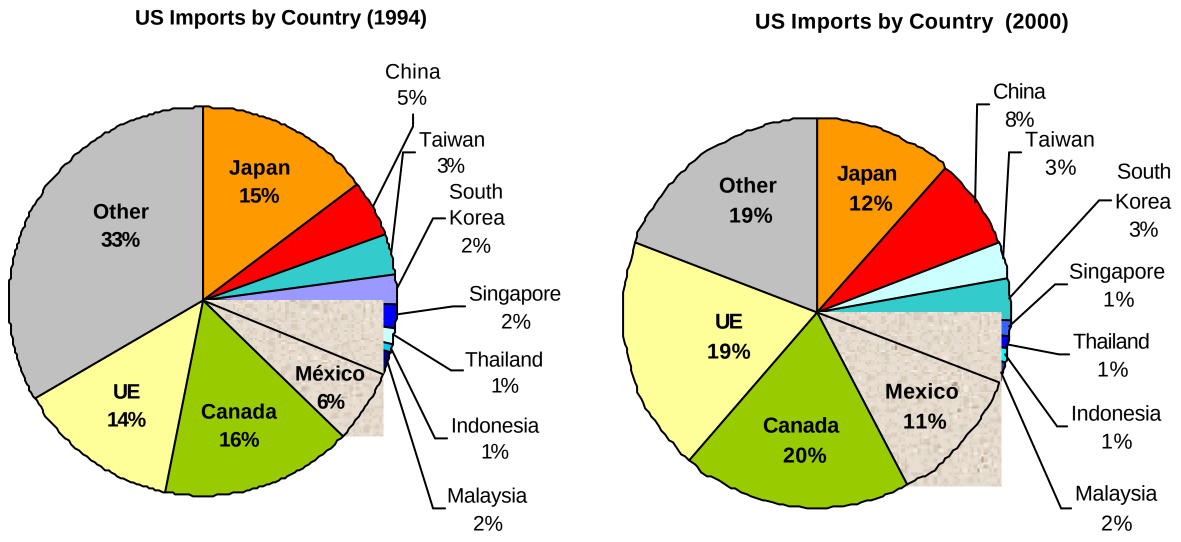
export sectors in which linkages to and spin-off effects for the domestic economy are minimal. They keep a high productivity level, but contrary to what would be expected, they have a very weak influence as job-builders.[13]

Figure 6



Mexican Republic and the National Council of Foreign Trade, in La Jornada, November 29, 1992. 312 foreign and national companies concentrated 51.86 percent of Mexico's exports. (78 foreign companies were responsible of almost 20 percent). 3,130 maquiladora (most of them of foreign origin) exported 41.49 percent of the total national exports. These are the real winners of NAFTA (data of 1998). David Zuñiga. "Exportadoras y maquila generan sólo 5.6% del empleo en México." La Jornada. January 2, 2001.

[13] See Enrique Dussel, *op.cit.* p. 47. From the employment generated between 1993 and 1998 in Mexico, 90.36 percent was in charge of enterprises lightly related to the foreign trade. See also Won-Ho Kim, "The effects of NAFTA on Mexico's Economy and Politics." Working Paper, 00-05, June 30, 2000. p. 14. Kim states that most of the enterprises where trying to raise their productivity by reducing their workforce.



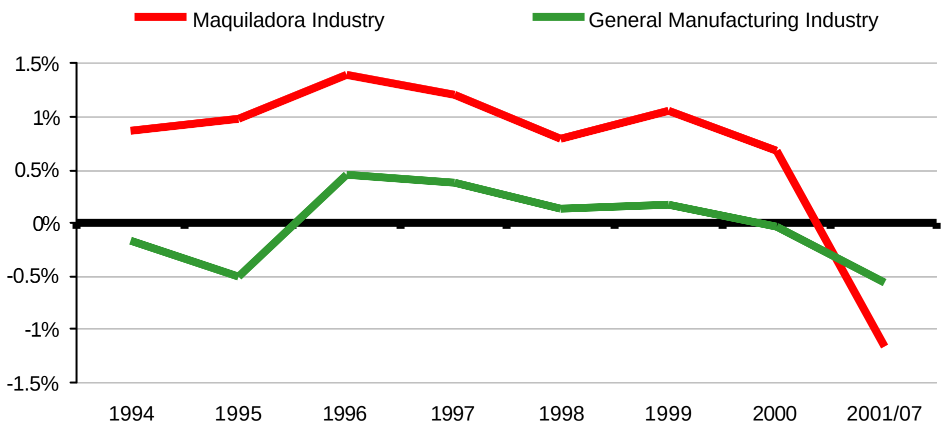
Source: Bureau of Economic Analisis.

It is said that the number of companies that has managed to export in a consistent form does not exceed 15,000 of a universe of more than 150,000 industrial companies. The companies that export, grow, compete and prosper are large and small, and they operate in innumerable sectors, frequently developing their own technologies. Something very important is that all of these companies enjoy access to foreign credits. The successful companies produce 80 percent of all Mexican industrial production, although they are a minority in absolute numbers. They are also concentrated in the North and West regions of Mexico, but their geographic impact in other regions is increasing, as shown in the Bajío region (Jalisco and surrounding states). Most of the companies that have not been as successful are concentrated mostly in the political center of the country, an ample zone around the Mexico City. These companies concentrate nearly 70 percent of Mexico's industrial workforce.

Most of the industrial companies that have been successful are deeply involved with NAFTA, have developed networks to distribute their products or have established long term agreements with American or Canadian producers and/or distributors. Their levels of productivity are very similar to those of their North American competitors or partners. The opposite thing is certain of the companies that have remained stagnant.

The Maquiladora industry has been one of the sectors with greater economic growth. In 1990 they were more than 1500 plants and by June of 2001 they doubled their number to more than 3700 assembly plants nationwide, which gives a growth of 100 percent in the years of the opening of the economy and the beginning of NAFTA. Since 1995 and probably as a result of several phenomena, maquiladoras have accentuated their presence in Mexico. One of the main reasons was the peso devaluation that resulted from the 1994-95 crisis. Another was that with the backup of NAFTA, countries outside this treaty saw Mexico's ground as a great opportunity to enter the American market. Another tendency that has changed with NAFTA has been the location of these assembly plants. At first they were primarily on the northern frontier region and very few were located elsewhere. Now the growth rate of maquiladoras down the frontier region is growing rapidly (where wages are even lower). In 1990 only 15 percent of the maquiladoras were in the interior regions of the country, but by the end of 2000 these establishments of the interior represented 27.5 percent of the national account of maquiladoras. They are scattered throughout the whole territory, including Maya zones in Yucatan, in the southeastern region of the country. In March of 1997 the total number of workers was 842 thousand. This number of workers in the maquiladora industry increased in 2000 to 1 million 220 thousand workers. The Maquiladora is the most dynamic sector in job creation since NAFTA.

Figure 7
Employment Growth, Annual Average (%)



Source: Banco de Información Económica. INEGI, 2001.

In addition and very important, the maquiladora became one of the most important sectors in terms of national exports. The exports of these assembly plants between 1985 and 1989 represented only 10 percent of the total exports of Mexico, but from1990 to 1996 they grew enough to represent 40 percent of total national exports. Electrical and electronic materials and accessories, transport equipment and accessories, clothing and textile products, and other manufacturing industries constitute 83 percent of the total maquiladoras' exports.[14] The success of the Maquiladora industry is diminished by the limited spill over of their success into the national economy. Maquiladora industries export very large amounts of goods, but they are also major importers of components for such goods, representing 28 percent of the total national imports. They are great contributors to the national foreign trade, but they have a limited incidence on employment, production, consumption, and the general well being of the working population, who receive lower salaries than those of the manufacturing industries of the country.

The commercial balance of the country differs a lot if it is taken into account or not the maquiladora sector. When the participation of the maquiladoras is included in the national accounts, the economic image of Mexico improves, especially for the national deficit, which tends to be less pronounced. The key resides in the accounts of the exporting sector not involved in the maquiladora activity, because when this sector has a surplus the total of the national deficit is reduced and when they don't, the national deficit increases.[15]

The pattern of change in Maquiladora industry is remarkable with NAFTA. The coincidence of the economic crisis of 1995 caused an increase of the textile establishments, from 19 percent to 27 percent of the total of the maquiladora establishments, while all the other sectors maintained the previous growth rates. In terms of the number of workers by activity, the maquiladoras that produced electrical equipment grew from 130 thousand workers to nearly 250 thousand between 1993 and 1998. The maquiladoras of transportation equipment grew from 125 thousand to 200 thousand workers in the same period, and the textile maquiladoras grew from 60 thousand to nearly 200 thousand workers. So the leader sector in terms of growth in its workers population was the textile sector. This leadership exerted by the textile industry, reveals that the cheap workforce has played a very important role in the redistribution of this industry in the country. After the devaluation of 1995 the ratio of Mexican to U.S. wages dropped from 1/7 to 1/11 overall and approximately 1/16 in manufacturing (maquiladora wage is about half the manufacturing wage). The six-year term in which NAFTA began has been called the "*sexenio maquilador*" for the great development that this sector has had. By the year 2000 it represented 45 percent of the total national exports.[16]

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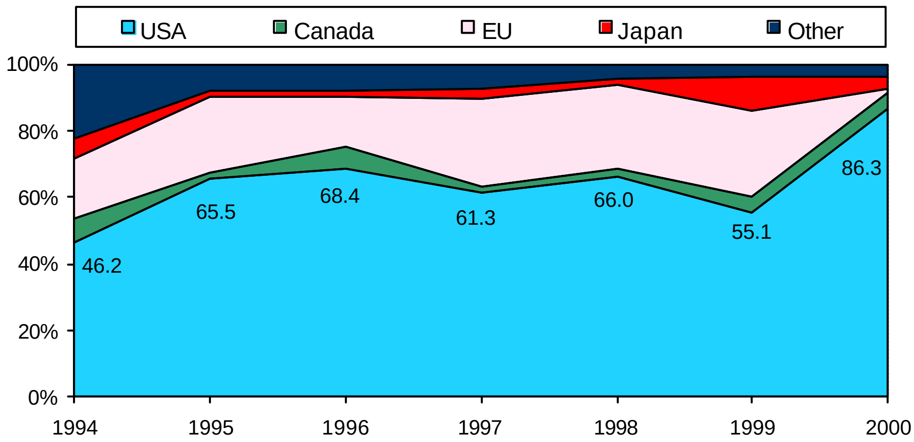
[14] Excélsior, April 29, 1999.

[15] El Norte, May 29, 2000. In the fourth year of the Salinas de Gortari presidential term, for example, the commercial deficit including maquiladoras was of $16 billion. This number increased to $20.7 billion if maquiladoras weren't included. The total accumulated deficit since the start of NAFTA to April 2000, not including the maquiladoras' trade, reached the $50 billion mark.

Regarding the foreign direct investment in Mexico, it has been growing considerably since 1982, having greater increases in 1992 and 1994, where the total amount grew from $4 to $10 billion per year. After the 1995 crisis, foreign investment grew again till 1997, keeping a high tendency for the beginning of the 21st century, estimated in a year average of $12 billion. So, in the first six years of NAFTA's operation, Mexico has received a total of $70 billion in foreign investment, of which 70.1 percent went to the manufacturing sector, 16.1 percent to commerce, and 13.8 percent to other sectors of the economy.[17] U.S. investment intensified its outstanding role in Mexico's foreign investment after NAFTA. In 1994 it represented 46 percent of the total direct foreign investment in Mexico and by 1998 U.S. capital represented the 70 percent, an increase of 24 percent in only four years, which indicates the enormous Mexican potential for North American multinational companies.

Figure 8
Foreign Direct Investment
(% by Country)



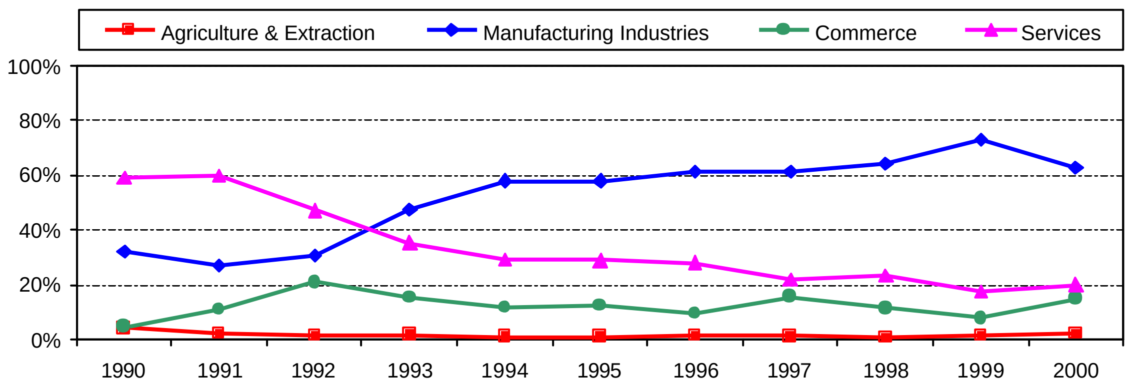
Source: Secretary of Economy. General Direction of Foreign Investment.

The sectors to where these foreign investments go have had very significant changes in the last decade. Foreign investment was predominant at the beginning of the decade in the services sector, whereas in the commercial sector there was practically no foreign investment. From 1992 very important changes in the pattern of foreign investment begin, emphasizing the vertiginous increases in the industrial sector between 1993 and 1994, to enter a downfall in the years following the 1994 crisis, and then again it began to climb by 1996. The industrial sector has been the leader, since 1993, in foreign investment

[16] El Norte, May 29, 2000. The six-year term refers to the period from 1994-2000.
[17] One of the positive aspects of NAFTA was that direct foreign investment was growing faster than short-term portfolio investment, although the addiction of the national economy to such capitals is not easy to surpass. Recent information of the Bank of Mexico indicates that since 1999 the portfolio investment has retaken the lead with a 70 percent margin above the foreign direct investments. You can find this information at El Financiero, May 11, 2000 and June 5, 2000.

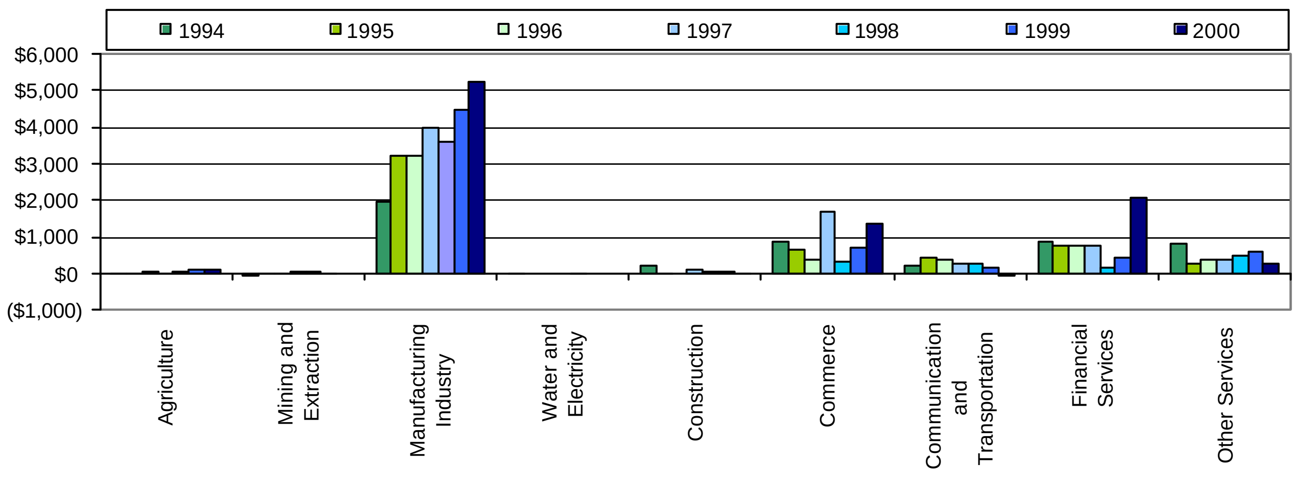
attraction. Some information on Asian investment in Mexico is that during the 1994-1999 period, Japanese FDI in Mexico reached $3.5 billion, considering the capital provided by U.S. and Canadian subsidiaries of Japanese companies. Korean investment in Mexico since 1988 is estimated at $1.200 billion, concentrated mainly in electronics, textile, footwear, telecommunications, petrochemical, and auto-parts.

Figure 9
Foreign Direct Investment by Main Economic Activity



Source: Secretary of Economy. General Direction of Foreign Investment.

Figure 10
US FDI in Mexico by Industry, 1994-2000



Source: Secretary of Economy, General Direction of Foreign Investment.

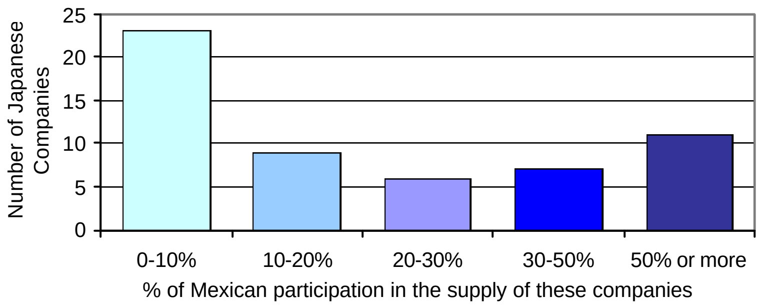
Not only for North American companies, but also for any other foreign company, NAFTA opened an excellent opportunity to invest in Mexico, for several reasons. The treaty operates like an insurance policy against the uncertainty that an economy and a country in the conditions of Mexico have. With

NAFTA they can also assume a privileged position inside Mexico to export to the U.S. market, a very important strategy, because they can prevent losing segments of such market gained in the past, or loose the opportunity of reaching those which will be generated by the American economy.

Innumerable are the cases of foreign companies that settled in Mexico after NAFTA, and who invited their subsidiaries or part and components suppliers to do the same thing. Among a few of these companies are those related with the transport industry. Mexico's Volkswagen supported the installation of 20 new German suppliers in Puebla to produce new models. Nissan in Aguascalientes also helped to the installation of 12 Japanese suppliers to increase the efficiency of its production and to improve its competitiveness. Others like Hyundai Mexico, without direct subsidiaries in the country, buys 80 percent of its materials from the United States, 10 percent from Korea and the other 10 percent from Mexico. Japanese companies in the United States have been increasingly buying more parts from Mexico and vice-versa, Japanese companies in Mexico have been increasingly buying more parts from the United States, integrating both sides of the border. The panel that the director of JETRO in Mexico presents is instructive: of a sample of 56 Japanese manufacturing companies in Mexico, 23 of them acquired less than 10 percent of their resources from Mexico; 9 of them acquired less of 20 percent; 6 of them less than 30 percent; 7, less than 50 percent; and 11 companies acquired more than 50 percent of their resources from Mexico. Another interesting data is that, as the components and parts needed became more sophisticated technologically speaking, smaller was the capacity of integration of the Mexican industry. The director of JETRO reaches the conclusion that the formation of an industry of materials and parts within Mexico, a support industry in other words, is one of the most important tasks for the success and development of Mexico's foreign trade.[18]

[18] Teppei Kuroda, "Relaciones Económicas Aguascalientes, México y Japón. Condición actual y perspectivas futuras," Aguascalientes, Ags., May 13, 1999.

Figure 11
% of Mexican participation in the supply of Japanese Companies in Mexico



Source: JETRO.

The growth of foreign direct investment has contributed much to this process of development, but not without discriminatory measures. In states like Aguascalientes, Chihuahua, Jalisco, Querétaro, Guanajuato, among others, foreign investment has contributed to the rise of employment rates. The greatest attraction poles of new industrial plants, mainly in the clothing industry, have been poor states like Yucatan, Oaxaca, Tlaxcala, and Puebla. The inherent adjustment to this process has been substantial, as shown by the imposing economic growth experienced by regions that had never been significantly successful in terms of their manufactures, whereas those that traditionally had been, have experienced an inevitable contraction. On the other hand, the great disparities in the economic performance around the country have created an exceptionally fertile land for political controversy and partisan activism.[19]

Thanks to NAFTA, Mexico has become one of the most attractive investment and manufacturing sites in the world. Hundreds of American, Canadian, European, and Asian companies have settled in Mexico to manufacture goods that soon are exported to other markets, from automobiles and auto-parts to an ample electronic products range, metal-mechanical, chemical, paper, steel, etc. For these foreign investors, the factor of preferential access that Mexico has to the market of the United States is very attractive to transfer production to our country, having the vision of exporting it preferably to the North American market. In addition they count on smaller costs of transportation, insurance, etc. The low cost of the Mexican labor is maybe one of the most important factors to consider; otherwise they would go

[19] Luis Rubio. "El TLC: Sin lágrimas ni risas." Nexos. September 1, 1999.

to settle directly to the United States or Canada. The package presented by Mexico after NAFTA's ratification is then very attractive for foreign investors of other commercial blocks.

As it can be inferred from the opening of Mexico, one of the most important elements has been the attraction of foreign investment reinforced by NAFTA, agreement that has given greater certainty to the foreign investor. A change has been felt also in the direction of the investment, from the overwhelming speculative investment of the past to the new productive investment. The United States has made the greatest productive investments in Mexico. They have invested $28.1 billion between 1994 and 1998. The main objectives of this foreign investment are in the automotive, electronic, and clothing sectors. A continued the flow of investments to these preferred sectors is expected for the year 2001. It is spoken of the possibility of investments by more than $8.6 billion in the automotive industry, $2.8 billion in the energy sector and $2.4 billion in electronics.[20]

What occurs now between Mexico and the United States can be characterized in what would be the new world-wide productive tendencies. Professor Richard Rosecrance indicates that the world is now divided in what he calls "*head nations*" and "*body nations*", in regard to their economic structures. The United States would be a typical economy that corresponds to a leader nation (or *head nation*) given that most of its inland activities correspond with the services sector, whereas their manufacturing activities are being transferred to the outside. On the other hand, Mexico can be classified as a *body nation*, for it is receiving a large amount of manufacturing industries from the United States, especially in the field of the automotive industry.[21]

The main objectives of U.S. enterprises pursuing in Mexico can be classified in three large groups:
In the first group are those that use their Mexican low-cost production of parts and components to provide their plants in North America. Examples of these can be found on the automotive, computer, textile, and clothing sectors. The second group is composed of those that are dedicated to provide some resources needed by the Mexican market, especially in those sectors like financial services, telecommunications, agricultural industries, and commerce and transport services. Last but not least

[20] Nevertheless, Canada has been an even more important receiver of foreign investments, because during this period it received nearly $40 billion of the United States, as well as the flow of shareholder's participation to that country has exceeded the one of Mexico by 50 percent. It is said that NAFTA caused a more flexible attitude of Canada with respect to the foreign investment in previously protected sectors like natural resources, telecommunications, and financial services.
[21] Richard Rosecrance, *op.cit.* p. 119. *General Motors* for example, operates more than 50 maquiladoras. Overall, the auto sector (including 500 auto-parts companies) employed over 611,000 workers in 2000 (a 50 percent increase since 1995)

important, in the third sector we may find industries related to those sectors of recent liberalization like natural gas, petrochemical, railroads, airports, harbors, and electricity. [22]

When the possibility of carrying forward the NAFTA negotiations was barely discussed Asian exporters reflected the greatest preoccupation for the impact that such instrument could have upon them. It was spoken then of the trade diversion that NAFTA could provoke. Truth is that not only were the Mexican exports, but also China's irruption in the U.S. market, those responsible for the destabilization of their exports to the North American region. Furthermore, not only commerce was diverted but investment too, especially by American enterprises that moved some of their productive plants to Mexico, like *IBM* for example, which brought to Guadalajara their component factory that was originally located in Singapore. In this Mexican State (Jalisco), there are 70 businesses of the electronic branch; they concentrate 6.5 percent of this sector's exports in the national level. Besides *IBM*, we can find businesses like *Kodak*, *Motorola*, *Lucent*, *Siemens*, and *Intel*. The same can be said about clothes industries like *Gap* or *Liz Claiborne*, which started buying greater quantities of their Mexican providers instead of from their Asian providers. In Mexico, the labor cost is $1.6 per hour; in Taiwan it is $6.11 per hour; and in China, $0.40 per hour.[23]

The automobile industry has been the one with the greatest development since the start of NAFTA. It is an integrated industry throughout all of North America. In Mexico it is considered an internationalized industry, given that the major automobile industries have production plants in this country. The development of the automotive world is changing the appearance of the manufacturing industry of Mexico and specially of the regions that even before NAFTA had working plants, and that are now experiencing an acceleration in incoming investments and increased production. In Puebla for example, 70 factories are producing parts and components preferably for *VW*. In Aguascalientes, 12 companies have settled to provide *NISSAN* with components and parts for their vehicles.[24] Mexico exports one

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with annual exports estimated at $33 billion. Mexico's export-led "miracle" is to a considerable degree explained by strategies of globalization created in Detroit.

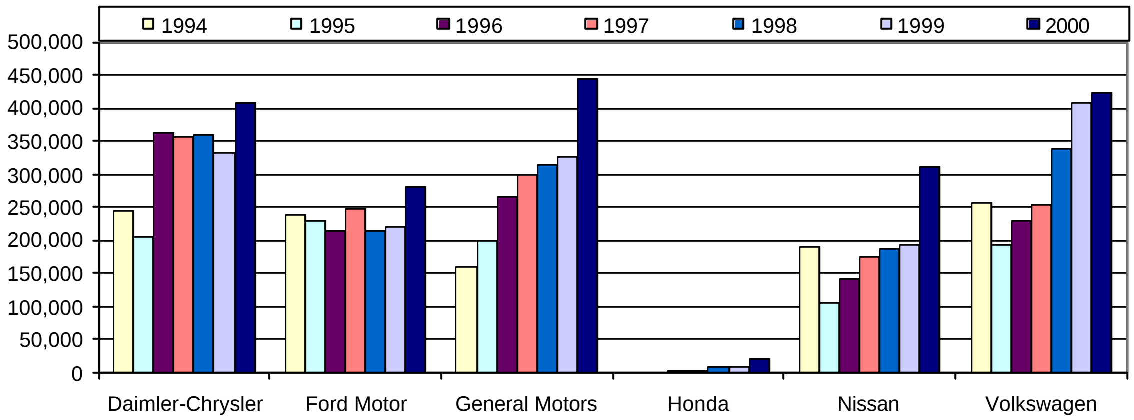
[22] See Alan M. Field. "Canada and Mexico." Plants, sites and Parks. New York, International Resource Guide 1999-2000 Edition, 1999. pp. 5-9.

[23] These changes are probably influenced also by factors related with the new international labor division. Singapore and other Asian economies are strongly moving towards a fast development of their sophisticated service and production sectors. Richard Rosecrance speaks of these economies as soon to be graduated as "virtual" economies. See also J. Ernesto López Córdova, *op.cit.* López Córdova states that Mexico's growth is probably centered in industries whose international importance is diminishing while the Asian economies are transforming their strategic industries and preparing for the new international economic challenges and competition.

[24] Teppei Kuroda of JETRO states that between 20 and 30 Japanese companies have settled in Mexico during the past 5 years in response to NAFTA. See Olaf Carrera, "Nafta at Five". Business Mexico. February 1, 1999.

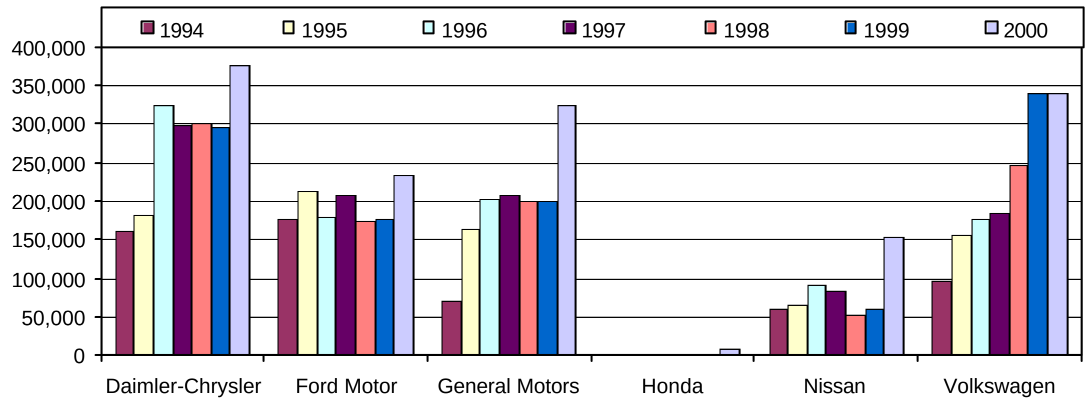
million units per year, most of them to the United States, providing jobs for more than 360 thousand Mexican workers. U.S.-Mexico trade in vehicles and parts has skyrocketed from $14.6 billion in 1994, to $37.6 in 1999. The United States is the target of more than 75 percent of Mexico's automobile exports. *Daimler-Chrysler* leads exports in Mexico with 375,000 vehicles. In the automotive sector, the U.S. trade deficit with Mexico expanded from about $3.6 billion in 1993 to about $15.8 billion in 1998. Production of vehicles was of 1,889,486 in 2000. It exported 1,200,087 vehicles to U.S. in this year and 234,110 to the rest of the world. Between 1994-2000 foreign direct investment in the auto sector was $8.45 billion or almost 20 percent of total investment in the manufacturing sector. U.S. invested 50.7 percent of this amount, Japan 30.3 percent, and Germany 9.7 percent.

Figure 12
TOTAL Mexican Production of Automobiles and Trucks by Company
(by units)



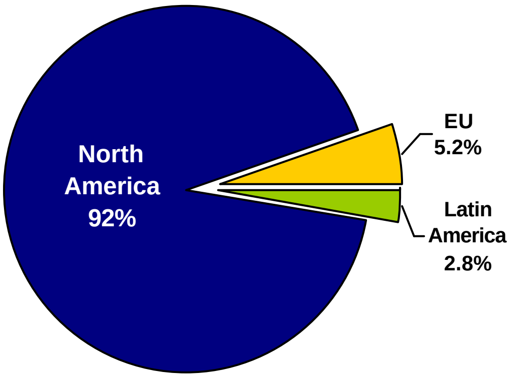
Source: Mexican Association of the Automobile Industry. Http://www.amia.com.mx

Figure 13
TOTAL Exports of Automobiles and Trucks by Company
(by units)



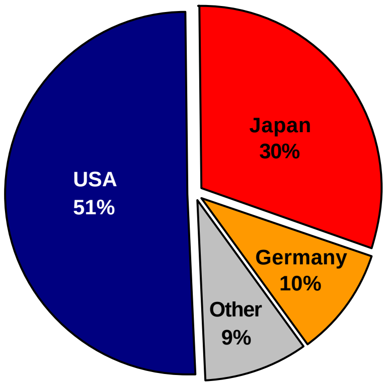
Source: Mexican Asociation of the Automobile Industry. Http://www.amia.com.mx

Figure 14
Destiny of Mexican Automobile Exports
(March 2001)



Source: Mexican Asociation of the Automobile Industries.

Figure 15
Origin of FDI in Mexico's Automobile Industry (1994-2000)



Source: Secretary of Economy. General Direction of Foreign Investment.

National auto-parts producers have been obliged to modernize their means of production in order to integrate themselves to the new productive chains. A few successful cases can be cited as *San Luis Rassini* and *Nemak*, and others that have made alliances with American companies to keep themselves afloat like Spicer, allied with *Dana Corp*. from Ohio. However, like in many other economic sectors, the national content of the supplies used by these companies is below 22 percent. By 2004 the regional content required to obtain NAFTA's benefits in this sector will be of 62.5 percent, forcing other foreign enterprises to maintain dynamic investments in the region. Mexico could be producing close to 2.2 million vehicles by 2001 – from the 1.5 million it produced in 1998. If this growth rate is maintained, by 2010 the number of vehicles produced would be 4.29 million.[25]

Another of the most striking results is the dramatic growth of textile, apparel and footwear imports from Mexico in the United States and Canada after NAFTA is formed. Mexico became a larger supplier of textiles than all of ASEAN in 1995 and 1996. Today Mexico is still widening its lead position in the U.S. garments imports with about 15.4 percent of the U.S. apparel market. This sourcing shift back to North America has been good news for U.S. textile companies. More than 80 percent of finished Mexican textile products are assembled with fabric made in the United States. Mexico is the largest apparel exporter to the United States, with $8.8 billion in 1999 shipments, seven times the $1.2

[25] It is a common practice of the automobile sector of the United States to make their providers maintain price reductions year after year. This has lead to the acceleration of the "outsourcing" policy, which consists on contracting with foreign providers who can make these price reductions. This practice was responsible for the automobile price reduction of 1998, first price reduction since the 1929 crisis. It is probable that these types of practices are behind the development of the auto-

billion in 1990. In this industry average wages in Mexico, including benefits, are about one-tenth of U.S. wages. It should be pointed out that textile trade still has a beneficial effect on the U.S. economy when compared with sourcing from Asia. The reason is that these Mexican plants pull in a host of goods and services from the United States including textile machinery, mill supplies, fashion design, management services, etc. Comparable goods purchased from Asia contain far less collateral benefit for U.S. firms.

Tougher competition from Asia is the main driver pushing U.S. companies south. And the environment will get even tougher in coming years, with the elimination by 2005 of the apparel import quota system that has protected U.S. manufacturers, and the expansion of the World Trade Organization to include China. Executives of U.S. companies say their choices are to move to Mexico or turn out the lights. U.S. firms are also coping with the news that several Asian companies have announced plans of their own to open fabric factories in Mexico. Asian investment is coming in quite rapidly to Mexico. Companies from China, Taiwan, Singapore, and Hong Kong are all wheeling and dealing in the various state governments of Mexico, negotiating for plant sites.[26]

Something similar has happened in other dynamic sectors. In the case of the electronic industry, which with the settlement of big enterprises like *IBM*, has attracted the presence of many foreign providers. Since 1995, 25 foreign providers have settled in Guadalajara, Jalisco to work with *IBM*. This enterprise has increased its exports from $350 million to more than $2 billion, during the first 5 years of NAFTA's operation. The maquiladoras of this sector produce 13 million televisions per year. Still the national contribution to the aggregated value of in this sector is 16 percent, lower than in the automobile sector.

During NAFTA's first six years, U.S.-Mexico trade in electronics reached almost $53 billion, an increase close to 220 percent since 1993. In 1999, U.S. exports to Mexico in this sector reached $26 billion, while Mexican exports to the U.S. amounted to $27 billion. Mexico's market accounted for 9.6 percent of U.S. electronics exports in 1993, by 1999 this share increased to 17 percent. In 1999, Mexico became the main trading partner of the U.S. in electronics, and the largest export market for U.S.

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parts industry in Mexico. Lester C. Thurow. Building Wealth. The New Rules For Individuals, Companies, and Nations in a Knowledge-based Economy. New York, Harper Collins, 1999. p. 77.

[26] Chris Kraul. "Mexico's Growing Textile Industry Challenges Asian Trade: As NAFTA incentives and low wages lure U.S. domestic plants across the border, manufacturers find they're better able to compete with Far East nations." The Los Angeles Times. March 19, 2000.

electronics. Mexico was also the number two source of U.S. electronics imports second only to Japan, which exported $33.9 billion of electronics to the U.S.

The United States has 68.3 percent of total electronic enterprises in Mexico and Asian companies, 10.3 percent. U.S. investment in this sector reached 74.4 percent of total from 1994 to 2000, meanwhile Asian investment was of more than 8.5 percent. In 1993, Mexican exports to the U.S. in this sector faced an average import-tariff of 1.6 percent. In 1999, this duty was close to zero. By comparison, non-NAFTA countries exporting electronics to Mexico and the United States faced import duties of 15.4 percent and 1.64 percent, respectively. This explains one of the key interest points for investment of Asian companies in Mexico. It is said that Mexico is on its way to supplanting China and other Asian countries as the main manufacturing center for electronics products sold in the United States.[27]

Changes in the labor market, in Mexico as in the United States, must be analyzed in detail when reviewing the effects of NAFTA, since it is an important factor of impulse and preoccupation of the economies of both countries. Besides, contrary to what has happened in other sectors, it has been left to the law of the market's supply and demand between these two countries, leaving the geographic frontier as a regulatory factor.[28] The Mexican labor market has traditionally been an important element for the United States' economy, especially in those regions and economic sectors that have benefited from the constant flow of illegal immigrants. NAFTA has not been a sufficient restriction to stop this flow of workers drawn by an existent demand.

The dynamic employment sectors in the United States have been – and are expected to continue being – those that correspond to cashiers, waiters, concierges, and clerks. The service sector is the greatest employer of part-time (74 percent) and temporary workers. The lowest wages in this sector are in the sector of commercial services, including restaurants, where wages are 62 percent of those in the manufacturing industries and where the 21 percent of all the new employment of the past 10 years has been produced.[29] Many high-waged manufacturing positions that are lost in the United States travel to Mexico, where they are converted in low-waged manufacturing positions. These positions in the United States are turned into displaced workers that have to search for a new job, which they usually find although with a lower wage than that of their previous position. Thus the Mexican labor, acting as a

[27] Naftaworks. "NAFTA Supports a Booming Trade in Electronics." May 22, 2001. http://www.naftaworks.com
[28] We must remember that NAFTA includes parallel treaties in labor and ecology, which haven't function as such in reality.
[29] Lester Thurow, *op.cit.* p. 218.

reserve, has contributed to the reduction of the wages in the United States. The greatest loss of work in the United States (70 percent) has occurred in the manufacturing sector.[30] In contrast, it is calculated that 400,000 Mexicans travel to the United States looking for jobs every year.[31]

The manufacturing wage in the United States is $18.74 per hour, whereas in the Mexican maquiladoras of high technology the workers receive $1.51 per hour. The disparity between the wages of both countries, instead of decreasing has become more unequal. The manufacture wages in Mexico now represent only 9.6 percent of the wage paid in the United States, whereas in 1980 it represented 22 percent. In addition, the maquiladora wages are 16 percent lower than those of the manufacturing industry in Mexico. The fall of the real wage in the United States has been a constant in the last decade, especially for 80 percent of the workers of the lowest layers of the labor market. These cyclical tendencies were relatively interrupted in the years of 1997 and 1998 in which nevertheless, the wage gains were unequally distributed. These grew very quickly in the superior layers of the labor force, less in the intermediate and lower layers. The savage streamlining of the corporations and the inner restructuring, and therefore the enormous challenge to be competitive again, fell on shoulders of the American labor force. Two thirds of the American labor force received cuts in their real wages of 20 percent.[32] In the 1990's the workers in the United States experienced stagnation followed by two years of anemic growth of their wages, in spite of the great expansion of the American economy. Many economists like William Kline think that the decrease of the wage rates in the United States is due to the global economic integration and NAFTA in particular.[33] On the other hand, in Mexico the real wage in 1997 had dropped a 60 percent from its value in 1994.

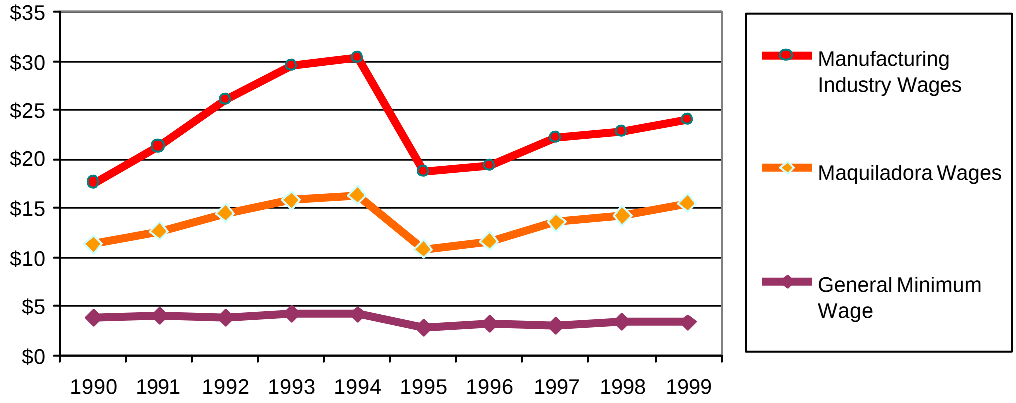
[30] Highlighting whose of the automobile and electric sectors.

[31] Javier Moctezuma (sub-Secretary of Labor in Mexico) La Jornada. August 27, 1999. See also "Nafta at Five: School of Real Life Results." http://www.citizen.org/pactrade/nafta/reports/5years.html.

[32] Lester Thurow, *op.cit.* pp. 42 and 53. "It's a spiral to drive our wages down, not their wages up," said UAW President Steve Yokich, quoted by Harry Stoffer in "Study: NAFTA helps U.S., Mexico." Automotive News. February 12, 2001.

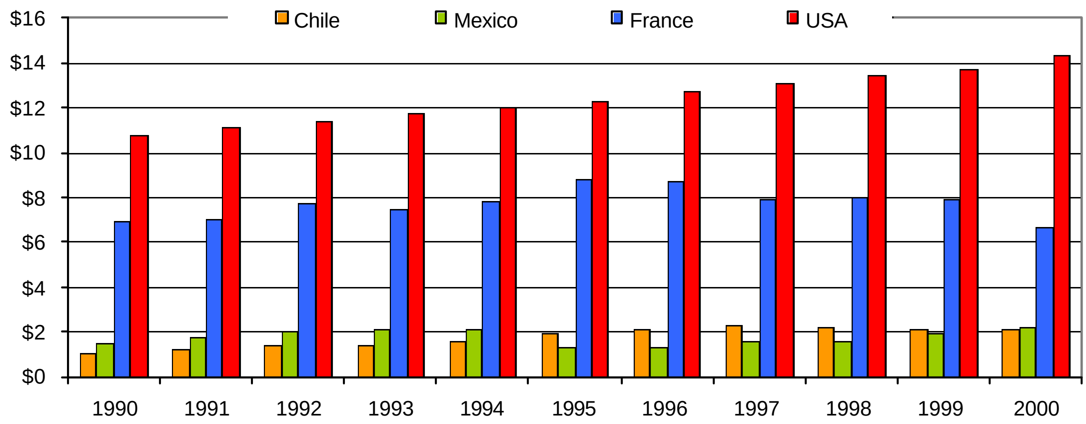
[33] It is considered to be responsible for the 39 percent growth of the disparity in the American wages. See "Nafta at Five…" *op.cit.* p. 10.

Figure 16
Minimum Daily Wages* in Mexico
(in $ per person)



Source: Minimum Wages National Commission. INEGI.
*** Wages adjusted to the Mexican-U.S. Exchange Rate averaged by year.**

Figure 17
Manufacturing Industry Salaries. International Comparison.
(US $ per hour)



Source: INEGI. Monthly Industrial Survey.

The United States has a great labor force reserve ready to be incorporated in the manufacturing, the mining and the construction sectors. This manpower is in the cheap services sector who is eager to climb to better-remunerated jobs. Therefore the American industry can maintain lower costs and prices, resting on cheap manual labor. Therefore, and in spite of formally maintaining low unemployment rates, there are no pressures to increase the wages. Here is where the reserve of Mexican labor force takes an important role, as well as that the Labor Department does not register in its unemployed statistics, but that in fact is just hoping to find job. Lester Thurow calls this reserve "a hidden army of unemployed" that helps keep the wages and the prices in their lowest rates in the United States.[34]

What occurred in this decade was a historical change in the labor tendencies in the United States. In the old times the workers went from the low waged sectors like agriculture to those that were in expansion and enjoyed high wages like the mining, construction, manufacturing, and public sectors. However, now the agricultural employment is stabilized; the public and the construction sectors are experiencing a light expansion; and an increasing number of workers have been forced to abandon their high waged jobs in the productive sectors like mining and manufactures to go and seek for low waged jobs in the service sectors. This slow productivity growth compensates the positive effects of the industrial restructuring and the technological change of the American companies. The workers who go to the maquiladoras or assembly plants, which it is the dynamic sector of the Mexican economy, lead the labor pattern in Mexico. They are also directed towards the most dynamic industries of NAFTA like the automobile, electronics, and textile sectors, as well as to the regions that have been favored by the new model of economic relations that this new geography of unequal development imposes upon the country. NAFTA has helped raise the inequality of wages in Mexico between qualified workers employed by foreign companies and the rest of the workforce that remains as a great labor reserve.

CONCLUSIONS

NAFTA has different realities. Mexico arrived at the integration after a long decade of stagnation and the end of the oil dream. The exit to this thread of economic problems was the possibility of access to the United States' market. The U.S. came to the integration under the pressure of the changing international economy of the 1980's and the change in the political signs in the global arena, both of which helped it reformulate its old alliances without compromising its world leadership.

Mexico has a great pressure to maintain low wages. Among other factors, this pressure comes from the integration with the United States. Therefore, the adjustment exchange policy and the debate on the dollarization of the Mexican economy, will continue to be factors of great influence on the development of the country, until regional and industrial development policies manage to revert these pressures. The possibility to overcome the downward tendency of the salaries, not only in Mexico but in the United States as well, will be available only until Mexico can fill the enormous needs in the

[34] Lester Thurow, *op.cit.* p. 78.

domestic labor market and reduce the wage breaches. With high rates of development, improvement of the qualification of its human resources, and an extended impact of integration, it might be possible. The Mexican suppliers, especially the small and medium companies, will also have to join their efforts with this dynamic, although it is difficult to manage this by themselves, as has been their experience so far. Entrepreneurial private and public policies will be required to encourage participation and to help bring together the great commerce and investment numbers with the thousands of business throughout the country.

Without doubt, NAFTA has fortified bilateral and regional economic dynamics, especially for the great actors of the private sector, whom have pushed Mexico towards a greater integration with the American economy. This is reflected mainly through the increase in the commercial exchange between both countries and in the investments that are made especially by the American companies. Nevertheless, an external logic exists among companies that do not belong to the North American region. These Asian and European companies, installed in Mexico, help push the Mexican economy towards a greater integration with the United States, since this market (the U.S. market) is the final goal of their economic strategies. Every negotiation and commercial deal they arrange with Mexico, especially those that come from the other great economic blocks, are aimed towards the use of the Mexican economy as a gate to the American market.[35]

The dependency of Mexico of the American market is much greater than before the start of NAFTA. Therefore, the Mexican economy could suffer a strong impact from an economic recession in the United States. A contradictory event would be that states like California or Texas, which are more diversified than Mexico in terms of their foreign trade, could be in better conditions to face a possible stagnation of the American economy. Under this new environment, it is not only important to insist on the diversification of commercial and economic policies in general, in the medium and long terms, but it is indispensable to construct a strategy of development within this reality. The asymmetries between both countries continue to be as enormous as at the beginning of the 1990's. Mexico needs an economic policy that can resist the pernicious effects and increase the positive impulses that the economic integration to the United States is creating in the Mexican economy. Mexico's main assets to carry this purpose in the near future are probably its organizational capacity and its originality in the adaptation and search of the most favorable alternatives within the evolution of this integration.

[35] Mexico has signed various Free Trade Agreements involving 25 nations around the globe. Now there are negotiations to sign FTA's with Japan and Singapore.

The Mexican economic integration to the United States, and therefore its dependency, is much greater now than it was in the past. It is mainly reflected in the extraordinary commercial dependency of that market and in the external financing needed for its development. In some sectors of the economy this integration is broad and dynamic; in others it is smaller and incipient, just like the Mexican regional development,[36] although the tendency is towards an even deeper economic integration to the U.S.

This integration has benefited both parties. Mexican maquiladoras have been important suppliers of US multinationals, especially in the automobile, electronic and textile industries, allowing them to maintain stable low prices to support their growth during the last decade. Cheap labor and a constant financial return - in terms of foreign debt service payment – have been Mexico's contribution and aid to the US economic development in the 90's.

Moreover, since the opening policies adopted by Mexico in the 80's - but especially after NAFTA was signed-, the Mexican economy has become highly transnational, driven by huge external forces. A ferocious global competition and the lack of industrial policies have weakened and minimized the role of Mexican enterprises, especially medium and small companies that con not be integrated fully to this new dynamic. Therefore, foreign capital and investment are essential for the Mexican development. The economic control exerted by Multinationals is acute and it is advancing very quickly so far. Take the example of the Mexican banking system, which before 1994 had an insignificant foreign presence. Today its foreign control is almost 80%. The Mexican model of integration is far away from that of East Asia, but it is a case to review, to draw lessons for the future of many developing economies around the Pacific Rim.

[36] It is now spoken of the existence of "five Mexico's": (1) the one of the South; (2) the one of the North; (3) the one of the Mexico City and its metropolitan area; (4) the one of the Mexico-U.S. border region; and the one of the Mexican emigrants who temporarily or permanently live in the United States. See "Mexico Transforming." *op.cit.* p. 18.