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### PARADOX OF MEXICAN FIRMS' MODERNIZATION DURING THE 1990s

Maria A. Pozas<sup>1</sup>

#### Mexico in the Context of Latin America.

During the 1990s, Mexico lived like most of Latin American countries, a process of transition that involved economic opening and the liberalization of their FDI regimes. The new policy was based on the assumption that under the global economy, this form of international capital could make important contributions to the country's development. The effect of direct foreign investments on a country's development, however, depends on the way in which FDI articulates to the local economic structure.

There are important differences in the behavior of FDI in Latin American countries. In Chile, for example, foreign investors favored the acquisition of state assets usually related to services and extractive industries while in Mexico, foreign investors preferred to acquire private companies more often related to manufacturing. The import substitution period created a stock of large domestic firms in Mexico that became attractive partners for foreign firms. For this reason FDI not only came to Mexico in the form of TNC's subsidiaries but in the form of joint ventures with local companies. As Evans (1995) states, acquiring a significant share of an established firm was during the last decade the quickest

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quickest and easiest way to enter an expanding market, even if this practice tends to reverse as a result of the current economic hardship. Companies that adopted this course not only eliminated some of the competition, but also inherited a market share, distribution channels and know-how with respect to the local consumer.

On the other hand, although in many cases the same transnational corporations were involved, the strategies they applied in each country were very different (see table 1). In Brazil, for example they took advantage of the large domestic market and of the potential of Mercosur. In Mexico, they tended to use the country as a production base for supplying the North American market. This still can be seen, for example, in the automobile industry.

The maquila (in-bond) industry, for example, grew in scale in many countries. Nevertheless, in the case of Mexico maquilas tended to move toward the production of computers and television sets while the clothing industry was preferred in most of the Central American and Caribbean countries with the exception of Costa Rica, whose in-bond industries also have moved toward more value-added products. In this sector, TNCs looked to take advantage of countries proximity to the United States market and of certain tax incentives, as well as cheap labor (ECLAC, 1998). In synthesis the foreign investors' strategies for each country combine with the national economic environment and local government's policies.

Mexico's economic performance during the 1990s reflects both the new economic model that emerged in the region, and the instability of the international financial environment. Thus, the country's main economic indicators

showed some periods of rapid growth followed by slowdown periods. Nevertheless FDI inflow contributed to the financing of the deficit in the country's balance of payments. This was the result of a shift in the composition of capital inflows, with FDI accounting for an increasing proportion (see tables 2, 3 and graphic 1). This reveals the main difference between the current economic hardship and that of the early 1980s, when external imbalances had to be paid at the expense of the country's export revenues. In other words, if during the 1970s the country's development pattern was a debt-led-growth model the current pattern could be considered as an FDI-led-growth model.

The country's macroeconomic performance during the 1990s reinforced the Mexican government's conviction that FDI carries a potential contribution to development in the form of capital, technology, management techniques, personnel training and access to foreign markets. The main weakness of this approach, however, is that it assumes that changes at the macroeconomic level will lead automatically to changes in microeconomic conditions. The complexity of Mexican society and sectorial and regional differences in the level of modernization are some of the elements not taken into account in the government's economic policy. Workers and the non export sector are still paying the high social costs this model carries –above all with regard to plant closures, deteriorating wages and deepening social inequality due to the extremely high concentration of capital that this development model fosters. As a result, we have an increasingly polarized country with a growing gap between industrialized and non-industrialized regions and an uneven growth of total investments which

have increased their share in GDP in industrialized regions and declined in the non-industrialized ones.

The main problem is that the Mexican government has stimulated foreign investments only through the liberalization of the country's FDI regime, ignoring the possibility of designing systems of incentives that could orient the foreign investors toward strategic developmental sectors. As a result, FDI tends to concentrate in a few industrialized regions. In other countries, the diversification of FDI in different sectors dilutes these negative effects. In other words, the Mexican government has opted for neutral FDI policies renouncing the possibility of conducting a more equilibrated growth, consequently resulting in deep inter-regional inequalities and social unrest in some states especially in the southeast of the country.

Although the Mexican integration into the global economy shows some differences compared with other countries in the region, they share many common characteristics that come from their similar levels of development and their comparable historical relationship with the United States. Mexico's process of change from import substitution industrialization (ISI) to export-oriented industrialization (EOI), on the other hand, showed deeper and more significant differences with respect to the East Asian countries. East Asian industrial corporations tended to invest in high-value-added products –principally cars, shipbuilding, and semiconductors. Mexican industrial groups still invest in traditional undifferentiated or slightly differentiated products –steel, petrochemical, glass, cement, food, tobacco, beer etc.-- taking advantage of an international niche where they maintain comparative advantages. This fact has positive and nega-

tive consequences for the country's development. On the positive side, this prevents the country from participating in the catastrophic overinvestment in certain products that in 1998 led the East Asia region into a deep economic crisis. Latin American markets for the type of products that the Mexican corporations produce are still growing, and many transnational corporations investing in Latin America demand these types of products as raw materials for their production processes.

On the negative side, the Mexican corporations' *conservative modernization* limits the country's participation in first order comparative advantages, such as technological innovation and proprietary technology, prolonging the country's technological dependency on the first world. The recent incursions of Mexican firms into more value-added productive sectors could be a sign that in the future, Mexico will be gradually moving toward a more competitive way of integration into the global economy. These risky investments could develop if protected by the Mexican companies' leadership in traditional products. The participation of foreign partners in many of the large economic groups' subsidiaries seems to be the channel for gradually incorporating new technology and new production processes. In the meanwhile, the country is paying a high cost for its technological dependency, importing lots of sophisticated components that are not manufactured in the country. This leads us to suggest that a new type of import substitution is required in Mexico, developed in the context of an open economy but supported by state programs that facilitate research and development and contribute to the modernization of potential suppliers of more value-added components.

Finally, it is important to emphasize that this conservative modernization also differs from the way in which Mexico was formerly linked to the world economy. Although large Mexican firms are oriented to the production of undifferentiated or slightly differentiated products, many of them have adopted the new production techniques and incorporated leading-edge-technology in their processes. This means that their foreign partners do not come looking for cheap labor but for efficiency and a skilled labor force (see graphic 2).

### **Mexico in Light of Development Theories.**

It is important to review the Mexican case in light of the world system theories and structural approaches about the negative effects of FDI in third-world countries. The most important critique is related to the structure of international production. According to this view, the oligopolistic structure of international competition tends to produce negative consequences on developing countries' national industry for several reasons. First, TNCs usually invest in new economic sectors inhibiting the creation of new local companies. Nevertheless this research shows that the way of articulation between transnational and local capital in Mexico seems to lessen this negative effect. The most recent investments of national industrial groups are in totally new areas and foreign investors are not inhibiting these incursions but stimulating them through joint ventures with local companies and technological transfers. Nevertheless, the oligopolistic structure that prevails among transnational corporations is replicated within the country among national corporations worsened by their verti-

cally integrated structure. As a matter of fact, if anyone is to blame for inhibiting the creation of smaller new local companies it is the major Mexican companies.

Second, these approaches consider that capital flows into the country are negative in the long run because TNCs tend to import more than they export and to send abroad more capital than they invest in the host country. We do not count on desegregated information for Mexico in this issue, but if we pay attention to the last row of table 4 we can see that the percentage of profit remittances on FDI in Latin America tended to diminish during the last decades. In 1970, the profit remittances were almost 200 percent of the FDI inflows that year (1.1 and 2.0 billions respectively), in 1990, the region received 8.1 billion dollars on foreign direct investments and sent out 6.4 billion in remittances. In 1996, this proportion fell to fifty percent of the FDI inflows when 25.9 billion dollars were received and 12.4 billion were sent abroad. It is evident that TNCs were investing more in the host country than they did in the past.

Third, these theories state that TNCs in developing countries introduce obsolete technology that is inadequate for the host country and that they do not invest in technological research in the local economy. In the past, transnational corporations did not have to make important investments in modernization or technological innovation to be competitive in the protected Mexican market. Nevertheless, the importance that the country acquired as an exporting platform in the region changed this situation to some extent. On the other hand, many of the Mexican industrial groups' strategic alliances were technological alliances with foreign partners following the explicit objective of acquiring leading-edge technology. This process modified the characteristics of the national industry



even if basic technological research is still a function primarily performed in central economies.

Fourth, FDI produces negative effects in local income distribution patterns. This statement seems to be true, but it is more a product of the government's lack of policies for attracting FDI toward non-industrialized regions in the country and to improving workers' wages proportionally to increases in productivity.

Fifth, the natural alliance between TNCs and the local economic *elite* distorts the local political environment because local capitalists become linked to TNCs' political interests. According to this view, transnational corporations, who are the main protagonists of FDI, usually show an oligopolistic structure that endows companies with a high negotiating capacity with local governments that allows them to exert a strong market control. In Mexico, however, the configuration of a strong nationalistic economic leadership exerted by large national industrial groups seems to work as a counterweight to TNCs' economic leadership, diminishing their power for political intervention. Nevertheless, more research is necessary in order to determine the relative weight of both types of leadership and the relationship between them and with the federal government.

In my view, if we want to analyze the negative consequences of FDI for host countries we may look at another direction. Some findings in this research, reveal a more global form of competition that develops within international production networks crossing the national territory. The greater a company's power the greater its capacity to absorb profits, resulting from increases in productivity along a productive chain. In this research, I found that the largest firm in a

global commodity chain not only organizes production as Gereffi (1994) points out, but also imposes price reductions to its suppliers, forcing them to improve productivity without keeping the resulting surplus. This limits the possibility of workers' wages improving even if they become more productive in absolute terms. The monopolistic structure of international production is therefore the main obstacle in taking advantage of FDI for the country's development. This structure tends to be reproduced within the country, increasing entrance barriers to newcomers and augmenting regional inequalities.

On the other hand, according to defenders of an EOI, there are three variables that measure the contribution of FDI to a country's economic growth, i.e. capital formation, expansion and diversification of exports as well as the technological innovation already discussed. With respect to capital formation, data from ECLAC reveals that the FDI coming to Mexico has in fact had a positive impact on the country's gross fixed capital formation (see table 5). The participation of this type of investment in gross capital formation in Mexico increased from 5.6 percent in 1990 to 15.7 in 1996. More recent information coming from INEGI (1999) shows that during 1997 and 1998, the country's gross fixed capital formation increased by 8.3 and 8.1 points respectively, based on the 1993 index.

During the first half of the 1990s, Mexico was the Latin America's main recipient of FDI, receiving more than half of the inflows into the region. Its membership in the North American Free Trade Agreement helped to strengthen its position once foreign investors began to take advantage of the opportunities for guaranteed access to the North American market and of the preferential tar-

iff treatment granted to Mexico in its trade with Canada and the United States. In recent years, despite greater openness in the service sectors, privatizations and the exchange-rate lag, the Mexican economy has remained the privileged target for investment by the big manufacturing transnationals, mainly those of the United States. The major devaluation of the Mexican peso in late 1994 improved its competitiveness in the tradable sector, which stimulated investment in export production, particularly in the automobile and maquila (in-bond) industries.

Secondly, with respect to the expansion of exports we saw that in Mexico, these grew steadily during the last decade, especially in the manufacturing sector. In 1998, for example, the country exported 117.5 billion dollars, with 105.9 billion pertaining to the manufacturing sector and only 7.14 billion coming from exports of oil. The structure of exports reflects the new way in which the country was linking to the global economy, not any more as an oil exporter but as a manufacturer of intermediate goods. In 1998, 46.6 percent of total exports were intermediate goods. Nevertheless, imports grew faster, reaching 125.24 billion dollars in 1998, and creating a deficit in the country's balance of payments close to 8 billion dollars. The import-export imbalances that affected the country during the decade were eased somewhat by the inflows of capital coming from foreign investment; although most of this investment was channeled through the Mexican stock exchange, the direct foreign investment also grew steadily, even during the period of economic crisis. In general the country showed an increase of exports of non-traditional products and manufactured goods.

Also new was an increase of trade conducted between Mexico and other countries in Latin America and the Caribbean.

Finally, it is important to emphasize a negative consequence of the current model of development in Mexico. Trends in unemployment have proven to be very sensitive to GDP fluctuations, reaching a climax during the years of crisis in 1995 and 1996 with 6.2 and 5.5 percent respectively, diminishing during 1997 and 1998 to 3.7 and 3.1 respectively and increasing again at the end of the decade. This introduces great instability in the Mexican population standards of living that take longer to recover than the macroeconomic indicators show. This reveals that the economic strength is not sufficient to prevent the negative repercussions of financial crises on a population, such as rising unemployment, deteriorating wages and shrinking consumption.

In summary, we may conclude that as the defenders of FDI foresee for developing countries, Mexico's economy seems in fact to show a chronicle deficit in its current account that, during the 1990s was covered by the substantial inflow of external capital. It is also evident that the region is better positioned to resist the crisis compared to 1982. For this reason, it is important to recognize that the new form of FDI coming to Mexico, is in fact contributing to the formation of capital, the expansion and diversification of exports, and that it is stimulating technological innovation.

On the negative side, it is also evident that dependency on transnational corporations is increasing as well. The adoption of neutral policies had proven to produce deeper inequalities between more and less industrialized regions within each country and between countries in the region. The Mexican gov-

ernment has opted for neutral FDI policies renouncing the possibility of conducting a more equilibrated growth.

A country's development depends in great part on the ability of the state to convert FDI and the country's external linkages to a national advantage. The regulation of external capital inflows and the strategic conduction of FDI could be a way of reaching this goal. However, the question is whether this kind of control may be implemented under the neoliberal pressures exercised over national governments by the world financial elite that may carry catastrophic consequences as the case of Argentina show. .

The current crisis and the threat of global economic recession should lead world organizations to rethink the neoliberal economic model and to widen the margin for nationalistic developmental policies in Mexico and Latin America.

### **The Monterrey groups and the New Form of International Competition.**

The country's integration into the global economy not only results from the establishment of transnational corporation in the Mexican territory, but also from the linkages with international markets built by its productive sector. The integration of the largest industrial groups into international production networks is the counterpart of the process analyzed in the first sections. Most studies of industrial restructuring in Mexico have focused on transnational corporations, mainly automotive companies, but studies about the role played by large domestic firms in this process are scarce, despite their prominence in the government's transition plans. This research, focused on a group of corporations

located in Monterrey has shows the active role that large industrial groups play in the country's globalization process.

The analysis of the Monterrey firms' international networks revealed the central role that the establishment of strategic alliances with foreign partners played in these companies' globalization process. This analysis also drop some light on how these companies have been able to break the international networks' entrance barriers showing some variations in the form of international competition.

The types of strategic alliances are multiple, and to various degrees involve changes in the composition of capital within the respective firm. Strategic alliances include partnerships, joint ventures, technological alliances and long-term client-supplier contracts. The specific form they take depends on the companies' industrial activity, the characteristics of their commodity chains and the peculiarities of their products' market.

The gradual construction of international networks through the establishment of strategic alliances with foreign partners allowed Monterrey firms to acquire control over supply-side elements such as each firm's capacity to mobilize factors of production –physical, human, and financial. By controlling supply side elements, these companies became less vulnerable to demand-side factors, increasing sales inside the country when the international environment is not favorable or increasing sales abroad when internal conditions become difficult. From the foreign companies' perspective, mergers and associations with local capital werea the easiest way to get access to Mexican markets. Large

national firms that went through a process of modernization were the natural potential partners for TNCs.

In theory, this modernization should have included the decentralization of production considered by industrial restructuring studies as a key element of the new international production. Theoretically, there is a tendency to externalize both production and transaction costs by subcontracting services and the manufacture of some components that were previously performed within the firm (Arrighi, 1994; Gereffi and Korzeniewicz, 1994; Sabel, 1988). Monterrey industrial groups, however, continue to maintain a high degree of vertical integration. This fact is very significant because it seems to contradict the theoretical arguments about the disadvantages of keeping vertical integration in the context of current international markets. As a matter of fact, vertical integration has worked as a comparative advantage for Mexican groups. Additionally, and despite their high diversification, the industrial groups' leading companies are mainly oriented to the production of traditional products such as steel, cement, glass, tobacco, beer etc.; productive activities that are declining or stagnant in developed countries replaced by high-value-added industries.

These characteristics of Monterrey corporations, which are shared by most large industrial groups in the country, show that the incorporation of Mexican firms into the global economy signifies the articulation of two different industrial structures: the traditionally protected Mexican industry characterized by a few monopolistic vertically integrated industrial groups had to become linked to a highly decentralized international production system. .

In first world-countries, traditional company' modernization involved the decentralization of the production process, simplifying their organizational structure and subcontracting many of the activities formerly performed by the same company. As a matter of fact, in order to be competitive, Mexican companies also had to simplify their processes of production and organizational structure, but instead of transferring the decentralized functions to external firms, as first-world companies did, Monterrey corporations created new specialized companies within the group. Monterrey industrial groups are vertically integrated, but comprised of modern and autonomous units of production. An interesting aspect of this process is that most of these new complementary companies were created in joint ventures with foreign partners. Besides, the companies' vertical integration proved to be a comparative advantage for these firms helping to protect their domestic markets because their greater scope in products and services allows for better service to local or regional terminal industries. On the other hand, foreign partners provided capital and technology for the companies' new plants.

However, it is important to note that under their modernization process, the Monterrey companies' vertical integration took a new dimension. This is not the old vertical integration, which sought to monopolize the market by controlling prices and all phases of production. Now it is a matter of achieving the greatest possible degree of dependability by building a solid network of suppliers. Domestic suppliers can be audited much more easily and can adapt more quickly to product modifications.



From the former discussion, some important elements emerge for understanding the ways in which large national companies in Mexico articulated to international production. First, large Mexican consortiums were able to compete with huge foreign companies because all of them have at least one leading company in traditional industrial activities, where they maintain comparative advantages. Second, these firms' main comparative advantages come from a different historical development that allowed these groups to combine modernization with a high degree of vertical integration. Third, the combination of these elements made these companies very attractive as partners for foreign companies interested in investing in Mexico and Latin America because their structure was more suitable to the characteristics of markets in this region. Another important element of this process was that once the dynamic of strategic alliances and partnerships started these companies began a process of expansion that extended beyond their leading traditional companies toward new industrial activities. This opens the possibility of a future shift to activities of greater value-added.

The Mexican case allows us to question some of the most spread arguments about global production system. According to Gereffi (1994) the governance structure, which is essential to the coordination of transnational production systems, is no longer synonymous with a corporate hierarchy. The most powerful company in a global commodity chain tends to play the central role in coordinating production networks, including backward and forward linkages. The two types of governance structures identified by Gereffi are: producer-driven commodity chains, characteristic of capital -and technology-intensive commodi-

ties, such as automobiles, aircraft, semiconductors, and electrical machinery; and buyer-driven commodity chains in which large retailers, brand-name merchandisers, and trading companies organize and control the production network. According to my research findings, however, this classification presents two problems: First, it only describes the two extremes of the world's production network spectrum. In my view, only the largest international companies have undisputed control over their production networks. In most cases, firms struggle for control to improve their position in the market and to protect themselves against uncontrolled price competition and uncontrolled production. This research shows that the Monterrey firms are using strategic alliances to diminish their dependence from and vulnerability to the most powerful firm in the production network and to improve their negotiating capabilities. Autonomy is possible to the extent that there are alternative market sources and destinations for a given producer, whereas constraint comes via the producer's lack of alternatives within the established network of markets (White, 1993:163). Each foreign partner opens new alternative sources and destinations.

Second, there are some products that are linked not to a single commodity chain, but to several, such as raw materials and other undifferentiated or slightly -differentiated products, resulting in difficulty placing them in Gereffi's classification. The latter is a problem, especially when using the methodology selected in this research, focused on single companies or segments of commodity chains. To overcome this problem, I proposed a complementary categorization that allows for classifying companies according to their links to different types of commodity chains. This categorization represents companies that may

be placed in a continuum formed by the correlation of two factors that vary along two axes: first, an axis related to the product's characteristics that goes from highly differentiated products to undifferentiated products; second, another axis related to the TNCs' location criteria, which goes from the pursuit of cheap labor to the quest for efficiency.

Foreign investment coming to Mexico, both in the form of TNCs' subsidiaries or as joint ventures with local companies may be placed in some point of these coordinates. For example, the maquiladora or in-bond industry may be placed both in the quadrant composed of highly differentiated goods' producers looking for cheap labor as in the case of TV sets or computer components, or in the quadrant comprised of slightly differentiated goods' producers also looking for cheap labor, as in the case of the footwear or the garment industries.

The automotive and auto-parts industries would be placed in the quadrant composed of high-differentiated goods' producers looking for efficiency. Finally, most joint ventures between foreign firms and the Monterrey companies would be placed in the quadrant composed of non-differentiated or slightly differentiated goods' producers looking for efficiency. Competition within segments of the commodity chains placed on the latter quadrant, exhibit a different type of competition and are not usually controlled by a large terminal industry, precisely because their products are slightly differentiated and destined not to a single, but to several terminal industries.

The former classification is only a point of departure for organizing the analysis given the variety and complexity of global production networks. An interesting point is that in all but the consumer-goods sector, foreign investors

believe that cheap unskilled labor becomes neither necessary nor sufficient to make a country attractive for investment. Minimum infrastructure standards, a disciplined and skilled labor force, quality control, political stability and certainty in delivery time become more important location considerations (Porter, 1986). This modifies, to some extent, the traditional role assigned in world system theory to peripheral countries. The former discussion lead us to the conclusion that Monterrey companies have been taking advantage of a global market niche related to the production of non-differentiated or slightly differentiated goods.

The Monterrey firms' globalization strategies may also be grouped according to the place where their transnational operations take place. At least three distinct strategies were identified in this respect: First, a nationally centered strategy that is when the firm uses its international relationships to invite foreign partners to do joint ventures in Mexico. In this case, the national territory is the stage in which the strategic alliances are carried out, whether they are technological alliances, long-term client-supplier contracts, or the joint creation of a new subsidiary, or any combination of the three simultaneously. In this research the Alfa case illustrates this strategy (see table 6) Interestingly, this group's joint venture activities not only have been carried out in Mexico but have led to the creation of new plants located in the vicinity of other Alfa facilities to produce complementary products. This confirms the way in which Monterrey companies have developed their new vertically integrated structure. Nevertheless, Alfa has recently taken advantage of its contacts abroad to invest in totally new areas in order to reduce the company's dependency on industrial

cycles through the increase in the number of companies oriented to the production of services and high-value-added products.

Second: a mixed investment strategy, in which the Mexican and the foreign partner become co-owners of some of their subsidiaries in each country (in a 49-51 percent exchange). Usually this type of arrangement includes producing and distributing the partner's brands in both countries. Vitro is the best example of this strategy (see table 7), nevertheless, this company experienced some problems in their operations abroad revealing the difficulties of building trust, especially when a first world country is the scenario where the marriage takes place.

Third: a transnational strategy, in which the firm precludes the incorporation of local or foreign partners and invests on its own abroad by constructing new subsidiaries in foreign territory or by acquiring 100 percent of them. This strategy is similar to traditional transnationalization of capital and Cemex is the best example (see table 8). This strategy seems related to the size of the commodity chain and the characteristics of the product. Cement is an industry with a very short commodity chain, in which the distance between the raw materials and the final products is small and oriented to a single class of final products. I found that in these kinds of industrial activities, global markets are generally oligopolistic. The commodity chain's control is highly centralized and has few suppliers. Excluding special situations, global firms of this type do not look for foreign allies to penetrate new markets, but for facilities for 100 percent acquisition of property. This is because this type of industry may hardly obtain any of the benefits derived from strategic alliances such as decentralizing parts of the

process in order to share the burden of design in a rapidly changing market. Cement firms must locate close to their raw material sources and, although high technology is important, their comparative advantages come from managerial and distribution techniques as well as from the ability to put its competitors out of the market. In other words, if a peripheral firm in this industrial sector wants to become global, it cannot resort to strategic alliances but must compete globally with powerful companies, as Cemex is doing. In summary, findings in this research show that competition within international production networks is determined by the characteristics of the product and the structure of the global commodity chains to which companies become integrated.

### **The Flexible Mode of Production and the Labor Issue.**

The new techniques of flexible organization of production require a new type of worker and contractual conditions that are much less rigid than the norm under Mexico's current labor legislation. Therefore, the consequences of industrial modernization extended beyond the individual firm and caused a profound modification of Mexico's system of labor relations.

In Mexico, the adoption of flexible methods of organizing work in the production line was an important element of companies' modernization. *Flexible*, as applied to labor relations, refers specifically to job descriptions, length of the workday, worker mobility between tasks, and forms of hiring and firing; all these elements enabled managers to adapt to changing demand and to handle workers so as to increase production efficiency and cut costs. Another important element of flexible organization of work that was observed in large industrial

firms was the introduction of collective work through the constitution of work teams in the production line replacing the traditional individual allocation of work, with a collective assignment of tasks. Workers are now more involved in organizing their own working environment and in decision-making. The team monitors the production process, changes specifications for the production of a different product, and performs basic maintenance activities, and to a certain extent, it also knows how to solve unexpected problems, calling for specialized help only in case of emergency. Members of the team train each other, sharing their individual expertise. Under the new organization of work, psychomotor skills lose importance; the new relevant skills are related to the ability of analyzing information and understanding the logic of computers. These changes have had important effects on internal labor relations and have modified the structure of workers' qualifications, training needs and collective bargaining.

Productivity increased steadily as a result of the reorganization of the production line, nevertheless, workers' wages did not improve and despite that the Mexican labor has not changed, unions have been gradually weakened, losing control over working conditions despite that the Mexican labor legislation has not been changed. Traditionally the pattern of union's bargaining in Mexico was based on a job structure where job security and promotions based on seniority played an important role. By making training and not seniority the driving force of vertical mobility, and by replacing the system of single-task jobs with the company's option of rotating workers from one task to another, the relationship established between employers and workers was modified de facto, undermining the union's credibility. Unions lost control over hiring, closed shop,

legal protection for labor leadership during its term in office and other benefits that their historical battles had conferred them.

Technological modernization, on the other hand, led to massive layoffs in several industries. These measures were undertaken to increase productivity, which would make Mexican firms more attractive to investors. As a matter of fact the modernization of the manufacturing sector produced a steady increase in the manufacturing industry's productivity increasing 35 percent between 1993 and 1998. The unitary labor force changed even faster than productivity registering a decrease of 44 percent between 1993 and 1998. This decrease was related, in part, to the personnel layoffs resulting from the reorganization of the production line, but it was also linked to the declining manufacturing wages.

In the process of modification of the country's labor relations system the definition of a mechanism to determine workers' wages was the central issue under debate. The centrality of the wage relationship in a production regime led certain authors (Leborgne and Lipietz, 1988; Boyer, 1990) to argue that the crisis of the Fordist mode of production was first and foremost, the crisis of the wage relationship.

Unlike other countries where wage agreements are reached within the firm, in Mexico, the state historically played the role of arbitrator and legislator of labor relations giving rise to a uniform wage system, enforced by law through *standard* sectorial contracts, a minimum wage and a wage ceiling. Nevertheless, as part of the economic reform, the Mexican government decided to modify this situation and transfer negotiations between workers and managers to the realm of the firm opening a national debate that continues today.



Entrepreneurs wanted to force a redefinition of workers' rights and labor conditions in accordance with the particular needs of each firm. The changes they asked for can be grouped into four types of demands<sup>2</sup>. First, they wanted to eliminate the state as labor's interlocutor. Second, legal restrictions on firing workers had to be eliminated to lead flexibility to the firm's management of the work force. Third, they sought to avoid efficiency and productivity problems by modifying the law's prescriptions with regard to wages, benefits, compensation, training and seniority rights. Finally, entrepreneurs wanted to modify both workers' rights to strike and the union's right to intervene in the hiring and firing of workers (Coparmex, 1989; Concamin, 1991). In short, the entrepreneurial sector pursued labor legislation that granted their unconstrained access to a more deregulated labor force.

Unions resisted the managers' demands to modify the labor legislation. Given the potential political consequences of these changes, the Mexican government did not alter Mexico's labor law. Instead, the new conditions for labor relations were gradually incorporated through a series of tripartite pacts and agreements initially centered on a new way of adjusting wages, based on fixed wage increases proportional to the expected inflation rate and a discretionary increase linked to productivity. The value of this bonus would be decided in each firm according to its own measure of worker productivity. The problem was that managers did not know how to measure workers' productivity and did

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<sup>2</sup> These demands were expressed in public documents of the main entrepreneurial sector organizations: COPARMEX (Mexican Federation of Employers), CONCAMIN (Industrial Chambers Federation) CAINTRA (Chamber of Manufacturers), CPNL (Nuevo Leon Employers' Center).

not accept the studies produced by unions. Not surprisingly, most Mexican firms took the fix percent increase as the norm upon which they based their contractual revisions and did not address the issue of productivity bonuses. More than five years later, the wage relationship has not been solved and the debate continues. Each year entrepreneurs' organizations demanded changes in the labor law, and unions and workers' organizations rejected their proposal, and negotiations were left to each company.

The real problems underlying the difficulties in modifying the Mexican labor may be summarized in the following questions: What new mechanism can compensate for the gradual withdrawal of worker's protection? How can these mechanisms be flexible enough to address the disparities between large and small firms, or between more or less developed regions in the country? How can a modern labor-capital relationship be developed when more than half of Mexico's industries have not been modernized and lack the resources for carrying on this modernization? If the labor legislation is modified to fit the needs of the modern industries, how will workers in traditional firms be protected?

## **9.6 Final Reflection.**

The overall conclusion of this research is that Mexico's economic reform, built upon the government's neoliberal approach, succeeded in attracting FDI into the country and launching large industrial corporations into a process of globalization but failed to take advantage of these achievements for the development of the country as a whole. The country's macroeconomic conditions during the last decade certainly improved, but more than half of the population

lacks the resources to catch up with the modernization required to enjoy these improvements. Large industrial groups demonstrated their ability to manage their dependency from the first world and to compete in international markets, but failed to become promoters of development.

It is important to learn from the economic history of the country; the import substitution industrialization also produced important economic growth during the first years of implementation, but most of the social and political problems that industrialization was supposed to address remained unsolved, leading to the lost decade of 1980s when all the achievements of this economic policy were reversed. Only a balanced growth may guarantee a gradual but more lasting development. This place on the agenda the issue of what kind of state intervention is necessary and possible under an export-oriented industrialization developmental model.

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**TABLE 1**  
**LATIN AMERICA AND THE CARIBBEAN: PRINCIPAL FOCAL POINTS OF FDI ATTRACTION.**

	PRIMARY		MANUFACTURING				SERVICES		
	Petroleum	Mining	Food	Autos	Electronic	In-bond	Telecom	Energy	Banks
Argentina	X	X	X	X			X	X	X
Brazil	X		X	X	X		X	X	X
Mexico			X	X	X	X			X
Chile		X					X		X
Colombia	X							X	X
Peru		X					X		X
Venezuela	X	X							X
C. America						X			
Caribbean						X			X

Source: ECLAC's Unit on Investment and Corporate Strategies. 1999

**TABLE 2**  
**MEXICO: SOME ECONOMIC INDICATORS 1993-1998**

	1993	1994	1995	1996	1997	1998
Index of GDP <sup>a</sup>	2.15	3.75	-4.35	3.2	6.17	5.95
Annual Inflation <sup>b</sup>	8.01	7.05	51.97	27.70	15.72	18.61
Manufacturing wages <sup>d</sup>	2.1	2.1	1.3	1.3	1.6	1.6
Unemployment rate <sup>c</sup>	3.4	3.6	6.2	5.5	3.7	3.1

Source a/ INEGI (System of National Accounts of Mexico)

b/: Banco de México

c/: INEGI (Monthly National Employment Survey)

d/: Dollars per man-hour

TABLE 3  
FOREIGN DIRECT INVESTMENT AND PORTFOLIO INVESTMENT IN MEXICO 1980-1998  
(Billions of Dollars)

YEAR	ANNUAL PORTFOLIO INVESTMENT	ANNUAL FDI	TOTAL FDI STOCK
1980	0.580	1.622	8.459
1982	0.646	0.626	10.786
1984	-0.435	1.430	12.899
1986	-0.518	2.424	17.053
1988	0.464	3.157	24.087
1990	1.376	3.722	30.309
1991	3.014	3.565	33.874
1992	5.111	3.600	37.474
1993	10.797	4.900	42.374
1994	8.190	9.963	52.337
1995	-14.110	6.738	59.075
1996	-13.410	9.180	68.255
1997	5.040	12.470	80.725
1998	-0.380	6.920	87.645

Note: Portfolio investments are those capitals invested in stock markets or money markets. The minus sign (-) means a debit.

Source: Banco de México figures.

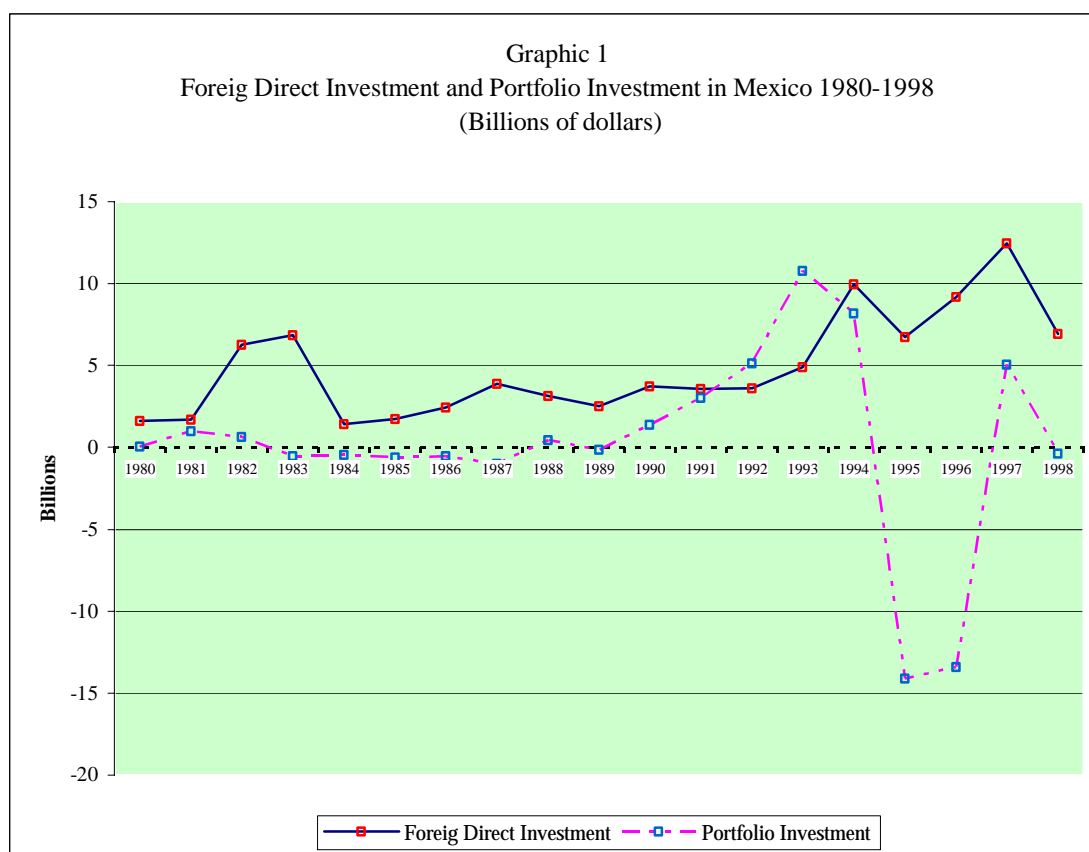


TABLE 4  
 AGGREGATE NET RESOURCE FLOWS TO LATIN AMERICA  
 AND THE CARIBBEAN  
*(Billions of dollars)*

	1970	1980	1990	1995	1997	1998
<b>NET RESOURCE FLOWS</b>	<b>4.2</b>	<b>29.9</b>	<b>21.8</b>	<b>66.9</b>	<b>116.0</b>	<b>83.2</b>
Net flow of long-term debt	2.9	23.2	10.2	33.5	41.8	21.4
Foreign Direct Investment	1.1	6.1	8.2	22.99	61.6	57.9
Portfolio Equity Flows	0.0	0.0	1.1	7.2	9.9	1.6
Grants	0.2	0.6	2.4	3.3	2.6	2.4
<b>NET TRANSFERS</b>	<b>.08</b>	<b>7.5</b>	<b>-3.3</b>	<b>26.8</b>	<b>68.6</b>	<b>30.7</b>
Interest on long-term debt	1.44	17.6	18.8	29.5	33.8	37.0
Profit remittances on FDI	2.0	4.9	6.4	10.6	13.6	15.5

Source: World Bank. *Global Development Finance 1999* p.166 .



TABLE 5  
BALANCE OF PAYMENTS IN SELECTED LATIN AMERICAN COUNTRIES  
(As percentages of gross domestic product) <sup>a</sup>

	Balance of goods		Balance of current account		Balance on capital and financial accounts <sup>b</sup>		Overall balance	
	1996	1997 <sup>c</sup>	1996	1997 <sup>c</sup>	1996	1997 <sup>c</sup>	1996	1997 <sup>c</sup>
<b>Latin America and The Caribbean</b>	<b>-0.5</b>	<b>-1.6</b>	<b>-2.0</b>	<b>-3.2</b>	<b>3.5</b>	<b>4.1</b>	<b>1.5</b>	<b>0.8</b>
Argentina	-0.3	-1.9	-1.3	-3.1	2.4	4.1	1.1	1.0
Brazil	-1.9	-2.5	-3.1	-4.3	4.3	3.3	1.1	-1.0
Chile	-2.0	-2.1	-5.2	-5.3	8.7	9.4	3.5	4.1
Colombia	-2.5	-3.0	-5.8	-6.0	7.5	6.0	1.7	0.0
Mexico	2.1	0.0	-0.6	-1.8	1.3	4.5	0.7	2.6
Peru	-4.4	-3.9	-5.9	-5.2	7.5	9.0	1.6	3.8
Venezuela	14.8	9.1	12.6	6.9	-2.6	-3.2	10.0	3.7

Source: ECLAC, on the basis of figures from IMF and national sources.

- a. Estimates based on figures expressed in dollars at current prices.
- b. Includes errors and omissions.
- c. Preliminary figures.

TABLE 6  
STRATEGIC ALLIANCES OF ALFA GROUP

DIVISION	SUBSIDIARY	PRODUCTS	STRATEGIC ALLIANCES*
ONEXA	Alestra	Telecommunications	AT&T (US) 49% Visa-Bancomer (Mexico) 25.4%
VERSAX	Nemak	Automobile Parts	Ford (US) 20% Alutek 20%
	Nemak-Comoalco	Automobile Parts	Nemak's Plant in Kentucky
	Tersa	Rugs	Shaw Industries 50%
	Shelther-Simmons	Box springs	
	Total Home	Retail Stores	Payless Cashways (US) 49% until 1994
ALPEK	Petrotemex: Petrocel y Tereftalatos Mexicanos.	Polyester Raw Materials (DMT-PTA)	Amoco 9% Pemex 10%
	Centek/Univex	Chemicals	DuPont (US) 50%
	Akra: Nylon de México y Fibras Químicas.	Nylon, polyester, likra	DuPont (US) 40% Akzo Nobel (Netherlands) 40%
	Polioles	Industrial Chemicals	BASF 50%
HYLSAMEX	Indelpro	Polypropylene	Montell (Italy) 49%
	Hylsa	Steel	MAN GHH, (Germany) Davy International (US) Kawasaky Heavy Industry (Japan)
	Acerex	Service Center	Worthington Industries 50% (US)
	Galvat y Galvamet	Steel	Metecno (Italia)
	Hylsa-Bekaert	Wire	N.V. Bekaert (Belgium) 50%

\* When no percentage is indicated it is a technological alliance. The arrow represents the movement of investment

Source: Alfa: *Annual Report 1998*

TABLE 7

STRATEGIC ALLIANCES OF VITRO GROUP

	FOREIG PARTNER	YEAR	TYPE OF STRATEGIC ALLIANCE*
Vitro	Owens Corning Fiberglass	1957	Creation of Vitro Fibras
Vitro		1964	Vitro buys Comegua in Guatemala & Costa Rica
Vitro	Philadelphia Quartz	1964	Joint venture to create PQ Química
Vitro	Pilkington PLC	1964	Technical advisory agreement
Vitro	Owens-Illinois	1969	Technical advisory agreement
Vitro	Owens-Illinois	1978	Both firms' products comercialization agreement
Vitro	Riekes Crisa	1980	Vitro buys this firm to commercialize its products in the USA
Vitro		1985	Creation of Vitro Packaging in a the EU to commercialize its products
Vitro	Whirlpool	1987	Joint venture to create Vitromatic
Vitro		1989	Vitro buys Achor Glass Container in the US
Vitro	Whirlpool	1991	Creation of Acros-Whirlpool, industrial complex
Vitro	World Tableware Int.	1991	Joint venture
Vitro	Vitro Corning	1992	Exchange of shares of both subsidiaries
Vitro	ACI America	1992	Vitro buys the firm in the EU (Today is VP America)
Vitro	Owens-Illinois	1993	Joint venture to produce plastic bottles
Vitro	Backus & Johnston	1994	Vitro buys Cía. Manufacturera de Vidrio del Perú
Vitro	Pechiney International	1994	Creation of Vitro American National Can
Vitro		1995	Vitro buys Vidrio Lux en Bolivia
Vitro	Monsanto	1995	Joint venture to produce polyvinil
Vitro	Vitemco	1996	Vitro acquires 51% of Vitecom en Colombia

Source: Vitro: *Annual Report, 1998*.

\* The arrows indicate the direction of the investment ( into México) ( abroad)

TABLE 8  
CEMEX'S COMPANIES IN THE UNITED STATES

COMPANIES	UTILITIES INCLUDED	LOCATION	YEAR
Sunbelt Cement Inc.	Cement Distributor.	Arizona	1989
Sunwards Materials Inc.	Cement Distributor.	Arizona	1989
National Portland Cement Inc.	1 Cement Mill . 1 Asphalt quarry and plant. 4 Distribution terminals	Florida	1989
Gulf Coast Portland Cement.	Concrete and raw materials.	Houston Tx. y Austin	1989
Houston Shell & Concrete Inc.	Concrete and raw materials.	Houston Tx. y Austin	1989
Southern Materials Inc.	Concrete and raw materials.	Houston Tx. y Austin	1989
Sunbelt Asphalt and Materials Inc.	Concrete and raw materials.	Houston Tx. y Austin	1989
Eagle Concrete Products, Inc.	Concrete and raw materials.	Houston Tx. y Austin	1989
Pacific Coast Cement Corp.	6 Distribution terminals..	California	1990
Sunwest Materials Inc.	7 Crushed stone and sand plants.. 6 Concrete plants	California	1992
Balcones	1 Cement Plant. 4 Distribution Terminals.	New Braunfels, Texas.	1994

SOURCE: "Cemex Hoy" Internet 1996.

GRAPHIC 2

