

The Political and Economic Influences on the Mexican  
Industrialization Program

by

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(ABSTRACT)

The Mexican Industrialization Program (MIP) began as a solution to unemployment in the Mexican border region and to the loss of competitiveness of US firms vis-à-vis import competition. US and Mexican tariff exemptions facilitated the relocation of labor-intensive assembly operations from the US to the Mexican border region. Critics have argued that arrangements of this type are quickly undermined by developments in both the developed and the developing country involved. In the developed country, protectionist measures intended to defend the jobs of workers who are in competition with lower wages in developing countries might threaten the viability of coproduction. Critics also predict that social unrest stimulated by exploitative work conditions endanger this arrangement in the developing country. However, this paper concludes that in the US the impulse to protect jobs from relocation has been blunted by the desire to permit US firms to enhance their competitiveness by relocating labor-intensive stages of production in low-wage labor

markets. Reinforcing the competitiveness rationale, that US opponents of the MIP lack a viable specific policy to oppose the participation of US firms has crippled their efforts. In Mexico the threat to the MIP posed by social unrest has been reduced by the low-wage level and lack of employment opportunities in the Mexican labor market. In that market maquiladoras offer the most economically vulnerable workers needed jobs and in some maquiladoras relatively attractive work conditions. Where their economic vulnerability does not ensure worker acquiescence, the desire to maximize employment has led the Mexican government to tolerate labor control tactics and on occasion to intervene to suppress labor unrest.

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## 1.0 CHAPTER ONE

### 1.1 INTRODUCTION: "WE'VE GOT THE WORK, THEY'VE GOT THE WORKERS"

The subtitle of this introduction was the headline of a story in the May 5, 1986 Washington Post National Weekly Edition. The story described plants owned and operated by US firms in Mexico, mostly in the northern border region. Typically, these plants assemble US-made components for reexport to the US; as the headline suggests, cheap labor is the chief attraction of Mexico for US firms. But why does the US government allow US firms to step across the border to utilize labor paid a small fraction of the US minimum wage, especially when 2 million jobs have been lost in US manufacturing since 1980?<sup>1</sup> And why do Mexican workers and the Mexican government find this arrangement worth participating in?

Critics have for some time contended that coproduction arrangements of this type can not persist because they arouse protectionist sentiment in developed countries and because the high level of exploitation is socially explosive in

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<sup>1</sup> The Mexican minimum wage is approximately \$3.10 per day as opposed to \$3.35 per hour in the US (Orme 1987b).

developing countries (Lipietz 1986, 32). It is true that evidence of protectionist sentiment in the US and labor unrest in Mexico stimulated by the Mexican assembly plants does exist. In the US as early as 1969, organized labor was calling for repeal of items 806.30 and 807.00 of the US Tariff Schedule, which exempt the value of the US-manufactured components in imports from duty, and for the imposition of countervailing duties (Van Waas 1981). Most recently, two congressional subcommittees held hearings in November and December 1986 to investigate the Commerce Department's cosponsorship of an exposition in Mexico to promote the participation of US firms in coproduction arrangements. In Mexico labor unrest led to the near total disruption of the assembly industry in Nuevo Laredo in 1973-74. As recently as March 1987, a strike shut down the newly-established Ford plant in Hermosillo ("Ford Stalls" 1987).

Yet, the demise of this arrangement is not imminent and even its eventual end is by no means a foregone conclusion. In contrast to the predictions of critics, the US has not erected tariff barriers or even repealed items 806.30 and 807.00. Furthermore, the Mexican government has continued to allow plants to operate and has progressively liberalized the regulations under which they operate. It now considers the assembly plants a key component of Mexico's export-diversification development strategy.

Notwithstanding these circumstances, the claims made by the Mexican government that the assembly industries contribute to the development of the Mexican economy also remain largely unfulfilled, despite the rapid growth of the program. Over a 1000 plants employ 250,000 Mexican workers and brought \$1.4 billion in foreign exchange to the Mexican economy in 1986. Nonetheless, these plants remain economically dependent on the US economy, and benefits like technology transfer and utilization of Mexican components that might stimulate the development of the Mexican economy have been frustratingly limited.

To understand why neither pessimistic nor optimistic predictions have been completely accurate it is necessary to appreciate that the assembly industry in Mexico is a complex, evolving phenomenon shaping and shaped by the social, political, and economic processes around it. Broadly speaking, protectionist sentiment in the US has been blunted by the desire to avoid trade war by responding instead to competition from imports for the US markets with strategies to enhance the efficiency of US firms. Utilization of low-wage labor in Mexico for labor-intensive aspects of manufacturing processes is seen as such a strategy. In Mexico, persistent under- and unemployment makes the Mexican government inclined to tolerate levels of exploitation that they might not if the Mexican economy could provide more

employment. This thesis will elaborate these broad conclusions and discuss other important factors.

This study focuses primarily on national level politics. Regional and local politics, though important, will be dealt with only to note their potential impact at the national level. With regard to economic issues, the focus is mostly on international and national developments. Here again, it should be noted that important local variations and important variations among economic sectors exist. Therefore, the focus of this thesis should not be taken to imply that areas that are less fully investigated here do not have important effects on the assembly industries of Mexico. Finally, though I have addressed the national debates in both countries, my original research focused on the policy debate at the federal level in the US.

Parenthetically, it would be useful to define a few terms before surveying the relevant literature. The assembly plants are often called maquiladoras, after a Mexican idiom, maquila, which is the portion of flour retained by a miller as his payment for milling the grain. The assembly industry as a whole is thus called the maquila industry or maquiladora industry. Maquiladoras are also called in-bond plants because of the legal requirement that assets be placed in bond as part of the arrangement which exempts machinery and inputs imported to Mexico for use in the assembly plants from tariffs. The official name of the program of the Mexican

government, initiated in 1965, regulating the establishment and operations of maquiladoras was originally the Border Industrialization Program. With the presidential decrees in 1971 and 1972, extending the program to all parts of Mexico, the official name was changed to the Mexican Industrialization Program (MIP)(Mitchell and Vargas 1987).

## 1.2 LITERATURE REVIEW

In order to resolve the debate in the US between business supporters and congressional and labor opponents of the BIP, President Nixon in 1969 ordered the predecessor to the US International Trade Commission (USITC), the US Tariff Commission (USTC), to evaluate the economic effects of trade under items 806.30 and 807.00. The resulting study is still the most comprehensive empirical work on 806/807 trade.<sup>2</sup> It discussed the legislative history of the tariff items, US and foreign customs practices with regard to trade under these items, and the composition of 806/807 imports by country. Also described were the incentives offered by host countries,

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<sup>2</sup> Economic Factors Affecting the Use of Items 807.00 and 806.30 of the Tariff Schedules of the United States, Report to the President on Investigation no.332-61 Under Section 332 of the Tariff Act of 1930, Tariff Commission Publication 339, Washington D.C.: United States Tariff Commission. The United States International Trade Commission is currently at work on an update of this study, which should be available in late 1987 or early 1988.

employment in the US and in the host countries that depended upon the coproduction arrangements, and the relative wage and productivity levels of US and foreign labor for selected industries. US investments in foreign plants engaged in the trade, the impact of the trade on the US balance of payments, and conditions of competition for products produced under 806.30 and 807.00 were reported as well (United States Tariff Commission 1970).

### 1.3 POINTS OF CONTROVERSY

#### 1.3.1 US JOB DISPLACEMENT AND COMPETITIVENESS

Storper and Scott (1986) have argued that as early as the mid-1960s the very success of the postwar economic boom of the developed industrial economies was creating conditions which were starting to undercut its further advance. Markets were becoming saturated and industrial overcapacity was pervasive. These factors undermined profitability.

Fröbel, Heinrichs and Kreye (1980) argued that the response of the West German textile and garment industries to slowed growth of productivity and demand constituted an example of an emerging phenomenon new international division

of labor.<sup>3</sup> Three conditions were isolated as influencing the reorganization of production:

- The development of a world wide reservoir of potential labor power characterized by low wages, long hours and generally vulnerable to exploitation
- Advances in the scientific management of production processes that allow the segmentation of production into low-skill operations
- The development of technology which renders the industrial location and management of production independent of geographical distance

Vuskovic argued that, while these developments were preconditions for the establishment of the new international division of labor, the primary driving force was the need of the global capitalist economy to gain access to cheap labor to be used in labor-intensive production for the world market. In analysis consistent with this view, Peña (1980) interpreted the relocation of production as a manifestation of the circulation of class struggle that results from firms' desire to escape labor markets characterized by high levels of worker organization and militancy.

US manufacturers, reacting to saturated markets in the US and to competition from imports, have also turned to coproduction arrangements that have allowed them to reduce

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<sup>3</sup> This work was published originally in German in 1977.

per unit cost of production by locating low-skill stages of production in low-wage labor markets in developing countries (Hansen 1981; Grunwald and Flamm 1985). Baerresen (1971) described the benefits for firms of locating operations in Mexico, citing low labor costs, productivity differentials and geographic proximity. In addition, he described the labor situation, infrastructure, customs procedures and the political system in Mexico and the relevant customs procedures in the US. This information and the least cost model that he presented were intended to serve as a basis for comparisons between various locations in Mexico and between the best Mexican location and sites outside Mexico.

The controversial aspect of this trend was that employment opportunities were lost to US workers. Within a short time of the establishment of the BIP, the perception that US jobs were being exported produced a demand from US organized labor for the repeal of items 806.30 and 807.00. Assessing the probable effects of repeal of the items 806.30 and 807.00, the US Tariff Commission report concluded that the duty savings under the tariff exemptions were seldom a major factor in the decision of firms to locate operations offshore. Repeal, therefore, would not significantly slow down relocation of production facilities in low-wage labor markets abroad. However, it would have an adverse effect on the US balance of trade because imports would be reduced by a much smaller amount than would exports of US manufactured

components. Moreover, a parallel effect would be that the number of jobs returned to the US would be outweighed by the number of jobs lost in the industries producing components to be processed abroad (United States Tariff Commission 1970). Grunwald found that the effectiveness of stronger protectionist measures in retaining jobs and returning jobs to the US remains uncertain due to the technical difficulty of estimating their impact (Grunwald and Flamm 1985). The result of the concern over competitiveness of US firms and the ineffectiveness and/or uncertain impact of protectionist attempts to ensure employment levels in the US has been, at a minimum, acquiescence in the status quo.

### 1.3.2 MEXICAN DEVELOPMENT

In the last decades of the nineteenth and first decades of the twentieth century, Latin American nations depended largely on the exchange of their raw materials for the manufactured goods of the more-developed countries, the traditional international division of labor, to drive modernization. The contraction of world trade that resulted from the Great Depression demonstrated the vulnerability to external shocks that is an intrinsic aspect of export-oriented economies.

Hansen (1971) described Mexico's response during the interwar period and especially after 1940.

Import-Substituting Industrialization (ISI) was a development strategy designed to develop an industrial economy insulated from external shocks. ISI was intended to develop internal markets and productive capacity behind tariff barriers; the ultimate aim was to establish a self-sufficient economy. In order to finance this development policy, foreign investment in the Mexican economy was increasingly encouraged to supplement domestic capital.<sup>4</sup> Another important facet of this development strategy was investment by the state to enhance the productivity of private investment.

Two chronic shortcomings of ISI eventually emerged. Because this development strategy remained structurally incomplete, Mexican industrialization remained dependent upon imports of high-cost, high-technology intermediate industrial inputs and capital goods (Skidmore and Smith 1984, 250). This resulted in a need for foreign-exchange earnings which could not be met within the inward-directed ISI sectors of the economy. The result was an external or foreign-exchange bottleneck. This problem eventually became a chronic constraint on growth, which Mexico has sought to overcome by a variety of tactics, including negotiating

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<sup>4</sup> It was in this era that foreign corporations established their first manufacturing subsidiaries in the developing nations in order to gain access to the protected markets (Lipietz 1986).

higher raw material prices, export diversification, increased direct foreign investment, and foreign borrowing (Mares 1985).

The second difficulty has been inadequate employment creation. The concentration of public investment on industrialization and commercial agriculture has resulted in the deterioration of traditional agriculture. This has contributed to rural-urban migration. Unfortunately, the capital-intensive character of ISI has exacerbated the inability of the Mexican economy to absorb the labor surplus that resulted in part from this migration.

Mares (1985) has claimed that the Mexican government demonstrated a clear preference for ISI over the forty years between 1940 and 1982. The Echeverría (1970-1976) and López Portillo (1976-1982) administrations preferred to overcome the ISI foreign-exchange bottleneck by deepened ISI to reduce the need for industrial imports and borrowing for remaining needs. This approach led to balance-of-payments crises in 1976 and 1982 that forced the country to attempt to adjust by means of trade liberalization and export diversification. Both the Echeverría and López Portillo administrations eventually were able to find alternative means of financing ISI and to avoid thorough restructuring of the Mexican economy.

However, circumstances have not given the de la Madrid administration (1982-1988) the option to abandon the economic

program based on government austerity, trade liberalization, and export diversification adopted in response to the 1982 financial crisis. Unlike the Echeverría and López Portillo administrations, Mexican policy makers under de la Madrid have found additional credit unavailable beyond that needed to meet debt-servicing needs. Therefore, the question of policy preferences is moot. Export diversification through trade liberalization and devaluation of the peso, combined with reliance on private investment, both domestic and foreign, have remained the de facto development policy. The entry of Mexico into the General Agreement on Tariffs and Trade (GATT) in 1986 suggests that the de la Madrid administration sees this strategy as Mexico's best option for the foreseeable future.

The MIP's place in Mexico's development strategy has evolved along with that policy. The MIP was initiated to deal with the border unemployment problem in the early 1960s created by rural-urban migration and end of the US agricultural guestworker program, the Mexican Labor Program, more commonly known as the Bracero Program. It was also consistent with the need to supplement foreign-exchange earnings. From this beginning, the MIP was expanded by the Mexican government because it continued to satisfy, at least partially, these two shortcomings of ISI. Lipietz (1986) has claimed that this resulted in the coexistence in Mexico of two distinct economic systems: the inward-oriented ISI

system in central Mexico and the outward-oriented MIP in the border region.

Mexico's Secretariat of Industry and Commerce (SIC) in The Northern Border: Diagnosis and Perspectives (1975) concluded that the MIP made a broader contribution to Mexican development. This report cited eight specific benefits, including the creation of new jobs, increased foreign-exchange earnings, improved training of workers, increased tax revenues, and other development gains (quoted in Bustamante 1983: 242-243).

Since the 1982 financial crisis, government officials have publicly stated that maquiladoras "are a major mechanism for the Mexican economy to become integrated into international commerce." (Stockton 1987). If this is and remains an accurate assessment, then maquiladoras have been transformed over the twenty years of their operations from a regional policy and necessary evil in Mexican development policy to a leading sector in a new national strategy. The presidential decree issued in August 1983 for the promotion of in-bond industries, which offers incentives for the expansion maquiladoras into targeted underdeveloped areas, suggests that, at a minimum, Mexican planners view maquiladoras as having the potential to contribute to development in regions other than the border.

### 1.3.3 DEPENDENCY CRITIQUES

The interpretation of capitalist development outside of the core industrial economies has been dominated by two opposed dogmas. Liberal economists have viewed developing nations as bearing the same relation to developed nations as children do to adults. Dependency theorists have contended that relations between the core and periphery obstructed any possibility of 'normal' development in the South (Lipietz 1986, 16).

Bustamante and Cockcroft have offered a critique of dependence on foreign capital in Mexican development (Bustamante and Cockcroft 1983). Foreign investors have taken more capital out of Mexico than they have reinvested. This, combined with other factors, has resulted in a relative decapitalization of the Mexican economy. Lack of capital has constrained development and job creation. As well, the capital-intensive character of foreign investment has elevated the capital required to create each additional job. The end result of these reinforcing developments has been Mexico's inability to absorb its labor surplus. Thus, Bustamante and Cockcroft argued that the basic condition underlying Mexico's willingness to participate in the new international division of labor, its labor surplus, has been exacerbated, if not created, by the actions of US private interests in the Mexican economy. Bustamante and Cockcroft

went on to argue that when the US economy utilizes this surplus, the effect is of a subsidy from Mexico to the US economy because Mexico bears the social costs of reproducing the labor.

This interpretation suggests links between development policy, economic dependency and exploitation of Mexican labor. Mexico has sought a development policy that would provide, among other benefits, permanent employment for its growing work force. Rejecting dependent development based largely on export of raw materials as unreliable, Mexico discovered that ISI had only changed the terms of dependency and had not succeeded in providing sufficient employment. The need to provide jobs has forced the Mexican government to tolerate the exploitation of its nationals as undocumented workers in the US and as maquiladora employees in Mexico.

#### 1.3.4 THE NEW INTERNATIONAL DIVISION OF LABOR AND DEVELOPMENT

Conditions in the US and Mexico have caused both governments to see benefits in coproduction arrangements known generically as the new international division of labor. The crucial calculation is how great are the benefits and what are the costs. Beyond the immediate benefits of foreign-exchange earnings and employment, can maquiladoras

make more substantial contributions to the Mexican economic development?

Cardoso and Faletto (1979) have suggested the possibility of dependent development. Wallerstein (1974) has distinguished between peripheral nations and semiperipheral nations. The latter, he argued, have sometimes experienced development by invitation. Jonghoe and Stone (1985) made a test of this theory and found that this phenomenon was a function of the preexisting level of development. They stressed, however, that their conclusion was preliminary and that the importance of other factors needed to be examined.

Vuskovic (1980) has argued that export-processing programs like the MIP produce industrial development that is a horizontally disarticulated, noncomplex process which produces uncoordinated products. Despite Vuskovic's belief that export-oriented industrialization in its various forms is a developmental dead end, the development of some third world nations has defied Marxist predictions as they have moved beyond their initial roles as cheap labor depots and begun to develop more complex patterns of industrialization (Storper and Scott 1986).

The specific contributions of the MIP to economic development have been limited, despite the hopes and claims of the Mexican government. Bustamante in "Maquiladoras: A New Face of International Capitalism on Mexico's Northern Frontier" made the argument that the government's claims that

maquiladoras contribute to development were unproven.<sup>5</sup> He examined point by point the claims made by the Secretariat of Industry and Commerce in The Northern Border: Diagnosis and Perspectives (1975). He either rebutted them or argued that they were unsubstantiated.

With regard to employment creation Bustamante pointed out that despite the jobs offered by maquiladoras, unemployment and underemployment had increased in border cities between 1960 and 1970 faster than the national average. He further suggested that maquiladoras attracted labor to the border at a greater rate than they were capable of absorbing. He concluded this from the fact that the service sector of the border economy grew faster than the manufacturing sector between 1960 and 1970. This fact also led him to doubt the government's claim that individuals uprooted from the agricultural sector were converted to industrial workers.

He argued that training received for assembly operations in maquiladoras was so job specific as to be of little use outside maquiladoras. Citing low foreign-exchange retention rates in the border region, he undercut the claim that maquiladoras contributed significantly to Mexico's foreign exchange reserves. In addition to casting aspersions on individual claims of purported benefits, Bustamante made the overall observation that the high mobility of maquiladoras

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<sup>5</sup> This essay was initially published in Mexico in 1976.

suggested that they could never form the basis of stable industrial development, which might ultimately rectify some of the shortcomings of the initial situation.

Grunwald (1987) (Grunwald and Flamm 1985) has avoided predictions about the development impact of the MIP. Instead, he has addressed specific problems, examining the evidence and suggesting ways that policy might enhance the development contribution of the MIP. Generally, he found little additional progress since Bustamante's survey. The most significant improvement had been that plants tended to be more permanent.

#### 1.3.5 EXPLOITATION AND SOCIAL DISLOCATION

Given his doubts concerning the benefits derived from the MIP, Bustamante (1983) suggested that greater attention should be paid to the disruptive effects on the socioeconomic conditions of the women who worked in maquiladoras.

Fernandez (1973) produced the first Marxian analysis of the MIP. He described exploitative labor practices of operators of maquiladoras, e.g. evasion of minimum wage laws.<sup>6</sup>

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<sup>6</sup> Fernandez (1973; 1977) also emphasized the dangers for Mexico of dependency on US corporations for employment in the border zone. He predicted that their role as major employers would eventually give them the political leverage to force the opening of Mexican markets. The presidential decree for the promotion of in-bond of August 1983 did offer access to Mexican markets as an

Following the negative impact on the in-bond industries of the the US recession of 1974-1975 and the labor unrest that erupted in Nuevo Laredo in 1973-1975, several works appeared which described and evaluated the impact of the MIP. The North American Congress on Latin America (NACLA) produced a report on the problem of labor unrest and runaway plants (1975). Urquidi and Méndez Villareal (1975) described the social consequences of border industrialization and urbanization.

Gender discrimination and the exploitation of women have been prominent concerns of critics of maquiladoras. Fernández-Kelly (1983a; 1983b), building on her work from the late 1970s, combined survey research and observer participation to detail female labor participation. She described how the needs of capital and the culture and socialization processes in Mexico interact in the context of maquiladora employment, resulting in exploitation of workers on the basis of gender discrimination. Van Waas (1981) described the tactics that transnational corporations have adopted to implement their overall strategy of securing low wage costs, a large supply of suitable labor and a politically quiescent labor force.

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incentive for the establishment of maquiladoras in economically depressed areas.

Valdes-Villalva (1985) followed up on the conclusions of Van Waas and Fernández-Kelly in a 1982-1983 Ciudad Juárez study. She described how social conditions and multinational employment practices had evolved since the 1982 financial crisis in Mexico. She noted the breakdown of traditional social norms manifested in the emergence of youth gangs. The tightening of the local labor market had caused operators of maquiladoras to seek other sources of suitable labor (including older women with dependent children, older teenage boys and young single women from outlying rural areas). She emphasized that these groups share with the locally available pool of young single women, that supplied the original work force of maquiladoras, the economic marginality that is a crucial element of their appeal as workers.

#### 1.3.6 AMBIGUOUS CONCLUSIONS

Even though all of these researchers view capitalism as an exploitative system, Fernández-Kelly and Van Waas acknowledged some unexpected and anomalous findings. For example, Fernández-Kelly found that employment conditions offered by multinational firms were viewed by Mexican workers as more attractive than those available to them elsewhere in the local economy. Van Waas noted, citing job creation, foreign-exchange earnings and training for some white collar

professionals, that there had been genuine benefits of the MIP.

Similarly, liberal economists and other non-Marxist observers have acknowledged that there are problems associated with maquiladoras. Hansen (1981) examined the maquiladoras in his analysis of the border economy, explicitly acknowledging the applicability of the "new international division of labor" paradigm. He conceded the negative aspects of the MIP, but still concluded that the net result has been positive from the Mexican perspective because of increased employment and foreign-exchange earnings. Thus, he would be inclined to agree with Stoddard (1987) that there would be little to gain by rejecting a mutually beneficial arrangement simply because it might not be an ideal arrangement.

#### 1.3.7 PROSPECTS FOR THE CONTINUATION OF THE MIP

Sayer (1986) criticized the initial formulation of the new international division of labor by Fröbel, Heinrichs, and Kreye for treating the pattern of uneven development as the unmediated outcome of the tendencies of capital accumulation in the abstract. Peña (1980) made a similar criticism of dependency theory. He argued that it is overly mechanistic because it has underestimated the role of human agency, particularly workers' struggles, in determining the

development of international capitalism. He interpreted the relocation of production as a manifestation of the circulation of class struggle. He argued that this dynamic has been driven by the desire of national industrialists to escape labor markets characterized by high levels of worker organization and militancy. Sayer (1986) argued that trends like the runaway shop are given epochal significance because not enough attention has been paid to the mediating social and technical variables. The result of this inattention is that it has become difficult to appreciate how the new international division of labor could be reversed by changes in the mediating processes.

It is Lipietz's expectation of changes in social and political variables that led him to characterize the new international division of labor as only a temporary solution to the contradictions of capitalism (Lipietz 1986, 23). Lipietz argued that this arrangement is fragile because of the changes that it brings in social and political factors. In developing countries exploitation of workers creates explosive social tensions; and in developed countries competition between unskilled labor in the core and periphery results in protectionism (Lipietz 1986, 32).

Peña (1980) offered some support to this contention. He found that the MIP work force has manifested some tendencies toward dual unionism. He documented attempts to organize parallel independent unions that threaten the monopoly of

corporatist mainstream Mexican unions. Sayer (1986) isolated technology as an important variable. He argued that technological advances could return assembly operations to the core economies as automated processes in the near future.

Although these threats to the continuation of the MIP exist and are probably growing greater over time, my research suggests that the evolution of other variables has enhanced the prospects of maquiladoras. The most important factors for the MIP as a whole are the deterioration of the Mexican economy and the growth and persistence of the trade deficit in the US.

In Mexico the national government has chosen to tolerate the working conditions in maquiladoras and to assist to a degree in containing the social tensions that are created by those conditions. The deterioration of the Mexican economy and the resulting scarcity of capital to finance further economic development has made the employment and foreign exchange provided by maquiladoras more important to the Mexican economy. The presidential decree of August 1983 which facilitates and offers incentives for the expansion of maquila industries is the most obvious evidence of the Mexican government's support. Another important factor has been de la Madrid's decision to allow real wages to drop in hopes of minimizing the unemployment associated with the economic downturn since 1982.

Though the reduction in living standards might seem to increase the plausibility of Lipietz's prediction of social unrest, the ability of the Mexican government to maintain control should not be underestimated. Hansen (1971) argued that the Partido Revolucionario Institucional (PRI), the dominant party in Mexican politics, continued to command a high level of diffuse support as inheritor and interpreter of the ideals of the revolution. Castañeda (1985), even as he analyzed threats to this legitimacy, acknowledged that this continues to be the case. In addition, the government has demonstrated considerable skill at containing dissidence through a variety of tactics ranging from cooptation to coercion to electoral fraud.

In the US opponents have been unable to achieve the repeal of tariff exemptions favoring reimportation of products assembled in Mexico. The federal policy is at a minimum one of implicit support for the MIP. Taking the branches of government separately, the support of the executive branch during the Reagan administration has been explicit, including concrete efforts to promote the participation of US firms in the MIP. In Congress, attitudes towards the maquiladoras range from hostility through indifference to enthusiastic support.

Support for the MIP both in the executive and in Congress is based largely on two related assumptions. First, the US has lost comparative advantage in low-skill low-wage labor

to developing countries. Second, US manufacturers are vulnerable to competition from imports; and, unless they take some steps to enhance their competitiveness, they will be priced out of the market for many goods. As the dollar value of Mexican wages has fallen, the validity of the first assumption has been strengthened. As the US trade deficit has risen, the validity of the second assumption has increased.

In addition to enhancing the debating position of supporters of the MIP, the decrease in the Mexican wage has left congressional opponents floundering for a policy to advocate. As noted above, by 1970 wages differences were such that the repeal of items 806.30 and 807.00 was judged by the USTC to be unlikely to return many jobs to the US. The decrease in the Mexican wage has only increased the futility of repeal. Even the congressional opponents of the MIP responding to my inquiry who were most vehement did not advocate repeal, or any other specific policy.

The remainder of this thesis will examine in some detail the factors that have resulted in supportive national policies and enhanced prospects for the MIP. Chapter Two discusses the institutionalization and development of assembly plants. Chapter Three examines the economic and political context within which coproduction in Mexico has developed. Chapters Four and Five analyze, respectively, the actors and issues involved in the debate over the assembly plants which potentially affect national policy in each

country. Chapter Six evaluates the prospects and broader implications of the maquila industries.

## 2.0 CHAPTER TWO: THE MAQUILADORA INDUSTRIES

### 2.1 THE INSTITUTIONAL FRAME

The Border Industrialization Program (1965-1971) combined features of two institutional antecedents: the old border Free Zone of the Porfirio Díaz era (1876-1911) and the Mexican Labor Program, commonly known as the Bracero Program. The border Free Zone established the precedent of remedying economic problems in the border by allowing it special status in Mexican customs law. The Bracero Program set the precedent of international institutionalization of access to Mexican labor for US capital.

The Bracero Program was initiated in 1942 to supply the wartime manpower needs of the US railroads and agriculture with Mexican guestworkers. The railroad component of the program ended in 1946, but the agricultural component of the international agreement lasted until 1954. At that point the Mexican government withdrew from the arrangement because of the poor performance of the US in ensuring the decent treatment of Mexican workers. The US government then instituted a system of recruitment of Mexican labor without the permission of the Mexican government. This unilateral version of the Bracero Program continued until 1964 when the Kennedy administration terminated it due to concerns about

displacement of US citizens and other negative effects on the US labor market (Hansen 1981, 82-84).

The Free Zone was first established in Tamaulipas in 1858 to halt the depopulation of that border state by reducing the tariffs on imports to enhance its commercial position vis-à-vis Texas merchants. The Free Zone was extended to include a 20-kilometer margin along the entire length of the border in 1885. The decline of the economy of Ciudad Juárez that followed the establishment of El Paso as a major railway hub was the immediate impetus for this extension. The very success of the Free Zone in improving the competitive position of the border in manufacturing and commerce resulted in domestic and US hostility. This pressure led to the restriction of trade privileges and ultimately to the abolition of the Free Zone in 1905 (Martínez 1975, 13-30).

The BIP, by providing tariff exemptions for importation of machinery and raw materials into the border region for use in maquiladoras, once again gave the border region special status in Mexican customs law. Once again, the intent of this special status was to counteract the deterioration of the local economy, specifically the serious unemployment exacerbated by the end of the Bracero Program. The BIP also once again institutionalized access to Mexican labor for US capital. However, two differences in the institutional arrangements should be noted. The access to Mexican labor takes place within Mexico giving the Mexican government

greater control over work conditions, whether or not it chooses to exercise that option. Second, the MIP and items 806.30 and 807.00 are complementary regulatory arrangements. The Bracero Program was, at least initially, an explicit international agreement.

### 2.1.1 US TARIFF TREATMENT

Under the US Tariff Schedule, imports that incorporate US-produced components and intermediate goods receive preferential treatment. Items 806.30 and 807.00 of the tariff schedule exempt the US-made components in imports from tariffs.<sup>1</sup> Item 806.30 regulates the importation of semiprocessed metal products to the US. The US International Trade Commission provides this explanation:

Pursuant to the provisions of item 806.30, articles of metal (except precious metal) that have been manufactured, or subjected to a process of manufacture, in the United States, exported for processing, and then returned to the United States for further processing are subject to duty only on the value of foreign

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<sup>1</sup> Assessing the value of US-made components is fraught with difficulties. A large share of 806/807 transactions are intrafirm or related-firm transfers. Components therefore have no observable market values. Due to the prevalence of special nonmarket supply arrangements for inputs and machinery between US firms and nonrelated border firms, valuation is a problem even where the transfer of inputs is not an intrafirm transfer. One customs post reported that later revisions placed a 8% to 12% higher dutiable value on 806/807 imports than the original appraisals on which duty was actually paid (Grunwald and Flamm 1985, 36-37).

processing. (United States International Trade Commission 1986, 1-2)

Item 807.00 provides the partial tariff exemption to goods assembled abroad.<sup>2</sup> Under item 807.00, some operations (welding, galvanizing, cutting of clothing parts from exported sheets), can not be performed abroad (Dillman 1983A, 40). However, no further processing of imports in the US is required (Grunwald and Flamm 1985, 35). Again, the USITC explains when item 807.00 applies:

articles assembled abroad in whole or part of fabricated components, the product of the United States, which (a) were exported in condition ready for assembly without further fabrication, (b) have not lost their identity in such articles by change of form, shape, or otherwise, and (c) have not been advanced in value or improved in condition abroad except by being assembled and except by operations incidental to the assembly process such as cleaning, lubricating, and painting. (United States International Trade Commission 1986, 1-2)

Item 807.00 is, as mentioned, broader in not requiring further processing of the imports. It covers, by far, the majority of imports from offshore assembly plants (Van Waas 1981, 93).<sup>3</sup>

Items 806.30 and 807.00 are selective trade liberalizations that affect protected industries in an ambiguous manner. Although allowing easier importation of

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<sup>2</sup> Customs courts' decisions have expanded the definition of assembly (Van Waas 1981, 94).

<sup>3</sup> 807.00 was created in 1963 in a revision of the US tariff schedules that embodied a customs court decision made in 1954.

finished products that compete with those products that are manufactured wholly in the US, they do so while encouraging the export of US-manufactured components by effectively lowering the cost of US components in imports (Grunwald and Flamm 1985, 14).<sup>4</sup>

### 2.1.2 THE MEXICAN FRAME: THE MEXICAN INDUSTRIALIZATION PROGRAM

The Border Industrialization Program was initiated by the Mexican government in 1965. The core of the original program was the establishment of a special zone, twenty-kilometers wide, on the Mexican side of the border. Into this zone, under article 321 of the Mexican Customs Code, components, machinery, and other inputs could be imported duty-free, provided the entire production of the plants established there was reexported (Grunwald and Flamm 1985, 138). To prevent conflicts between this exemption and other Mexican tariff laws, firms were required to guarantee payment of import duties by means of bonding arrangements.

Since the initiation of the program, the Mexican laws and regulations have evolved continuously, sometimes introducing

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<sup>4</sup> It should be noted that products imported under 806/807 rules are counted under Mexico's country quota for imports under negotiated agreements, the orderly marketing agreement on textiles, for example (Van Waas 1981, 176-77).

innovations and other times codifying existing administrative or business practices. The overall pattern has been of continuing liberalization and of elimination of obstacles to the establishment and functioning of in-bond plants.

The first major extensions of the program were presidential decrees in the early 1970s by the Echeverría administration that extended the program, in effect, to all of Mexico. The first, published in March 1971, extended the program's 20-kilometer zone to both coasts and the southern border. In October 1972 the second decree opened the interior to in-bond operations, with the exception of some highly urbanized areas, specifically Mexico City, Monterrey, and Guadalajara. Even these last restrictions have been circumvented by special permission (Van Waas 1981, 160).

In addition to these expansions of the program, Echeverría issued a presidential decree in April 1971 that explicitly legalized the existing arrangements whereby US firms purchased Mexican land through Mexican banks.<sup>5</sup> The Echeverría administration also explicitly permitted 100% foreign ownership of maquiladoras, as opposed to the 51% Mexican ownership required in other sectors. This was done by the

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<sup>5</sup> Foreign ownership of Mexican land within 100 kilometers of the borders or coasts is a violation of Article 27, section 1 of the Mexican constitution. Mexican banks hold the property in trust for 30 years, while allowing the US firms all the rights of ownership (Van Waas 1981, 161).

convoluted method of expressly forbidding sole foreign ownership by law in September 1972. The oversight body created to implement this law then exempted MIP industries from its provisions in its first regulatory proclamation, passed into law in June 1973 (Van Waas 1981, 162).<sup>6</sup>

Most recently, Miguel de la Madrid Hurtado issued the Presidential Decree for Promotion and Development of the In-Bond Industry of August 1983. That decree simplified and clarified the regulations concerning maquiladoras. An industry consultant concluded that currently, "there are no government-generated problems that can not be handled very handily within the current regulatory framework." ("Star Performer" 1986, 86).

Also within the framework of the 1983 decree, plants are allowed to sell a portion of their production in Mexico. The percentage allowed into the Mexican market varies, subject to plant location and use of Mexican inputs: border plants are permitted 10%; interior plants are permitted 20%. Plants that locate in underdeveloped areas, Oaxaca or Yucatán for example, and use 15% or better Mexican inputs may market as much as 40% of their production domestically. Finally, Mexican immigration laws have been revised to allow managers

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<sup>6</sup> The exceptions to this exemption for maquiladoras are in cases when their exports to the US are counted in Mexico's country quota under orderly marketing agreements between the US and Mexico. Textiles, for example, fall into this category.

of border plants who reside in the US to commute to work in Mexico and managers of interior plants to be temporary residents of Mexico (Van Waas 1981, 163; Grunwald and Flamm 1985, 138).

## 2.2 ORGANIC DEVELOPMENT AND GROWTH OF THE ASSEMBLY INDUSTRIES

Over the entire life of the Mexican Industrialization Program, the growth of the assembly industries in Mexico has been dramatic. From a standing start in 1965, the maquila operations had grown to 1100 plants by late 1986 with a work force of 250,000; for 1986 the value added in those operations was \$1.4 billion ("Star Performer" 1986, 82; Copeland 1987, 40; Clement 1987). However, there has been some variation in growth. Van Waas argued, writing in 1981, that there had been four stages in the development of the MIP: the slow start from 1965 to 1970, boom from 1971 to 1974, recession from 1974 to 1975, and recovery from 1975 to 1979 (1981, 143).

Van Waas attributed the slow start up to inefficiencies related to the uncertain Mexican bureaucratic jurisdictions and customs procedures with regard to the MIP. Initially, both the Secretariat of Industry and Commerce (SIC) and the Secretariat of the Treasury and Public Credit (HyCP) claimed jurisdiction over the MIP. An intersecretarial board was

established in 1967 to coordinate their regulatory functions, and its successor bodies continue this function. Mexican customs operations were hampered by the inexperience of officials and a lack of regulations to guide them. Surmounting these and other administrative problems facilitated the 1971-1974 expansion.

The 1974-1975 contraction was largely a function of the US recession (Van Waas 1981, 155-57; 170). After 1979 the recovery continued until the 1981-1982 period. In that period the in-bond industries experienced another recession, less severe than the 1974-1975 recession. This downturn was the result of the recession in the US and the economic disruption associated with the Mexican financial crisis. The recovery from that slump has evolved into a very strong growth period with good future prospects. The positive near-term prospect is indicated by the continuing interest in the establishment of new plants and the expansion of existing facilities.<sup>7</sup> A US Commerce Department spokesman claimed in a 1987 telephone interview that in the previous year interest among US business firms in establishing maquiladora operations had been so great that the department held a symposium, Expo-Maquila, to handle their inquiries.

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<sup>7</sup> At the end of 1985, the total new industrial space constructed or under construction in Mexicali, Ciudad Juárez, Chihuahua, and Casas Grandes exceeded 1.68 million square feet ("Star Performer" 1986, 94).

Also, industry executives have recently been optimistic about the future. Richard Michel, General Manager of General Electric's maquila operations, predicts, "The real growth rate will continue to average at least 10% a year and will be particularly good in the automotive sector and in production of television sets." ("Star Performer" 1986, 80).

### 2.2.1 PLANTS

With regard to plants in the assembly industries in Mexico, there have been three notable developments: the increase in number, the increase in average size, and the location of a significant fraction of plants in the interior. The number of maquiladoras has grown from 57 in 1967 to 1100 in 1986. The notable exceptions to this pattern occurred in 1974-1975 due to a recession in the US electronics industry and labor unrest and in 1982-1983 due to a much smaller contraction (Butler 1975). (The number of interior plants continued to increase through the 1974-1975 slump.) Even though plant size varies, the average has increased over time. In the early 1970s the average plant employed 120 workers. By the end of the decade the average was 200 workers (Dillman 1983A, 34). Business Mexico reported in February 1986 that the average work force per plant had risen to 276 and that there were over 30 operations employing 1000 or more. The third significant development has been the

location of a small but significant fraction of plants in the interior. While the vast majority of plants are still found at border sites (slightly less than 90%), interior plants have increased as a percentage of the total from 3.9% in 1973 to 11.5% in 1985 (see table 1). The growth of the interior fraction flattened out between 1979 and 1985 at between 11% and 12% because of the continued attraction of the border for new plants, but in absolute terms, they increased from 60 to 89 in that period.

### 2.2.2 PLANT LOCATION

As of September 1985, 88.5% of plants were located on the border (see table 1). The most important locations are Ciudad Juárez and Tijuana. Between them, they contain 48% of all plants and account for 49% of maquila employment (see table 2). Other important border locations are Mexicali, Nogales, Matamoros, and Reynosa. The most important of the interior locations are Chihuahua and Guadalajara.

The foremost advantage of the border location for firms is proximity to the US. This minimizes dependence on Mexican infrastructure, especially transportation, and allows speedier access to the US market and facilities for repair of equipment (Grunwald and Flamm 1985, 139). Location of assembly plants on the border also allows US managers to live in US twin communities across the border (Dillman 1983a, 33).

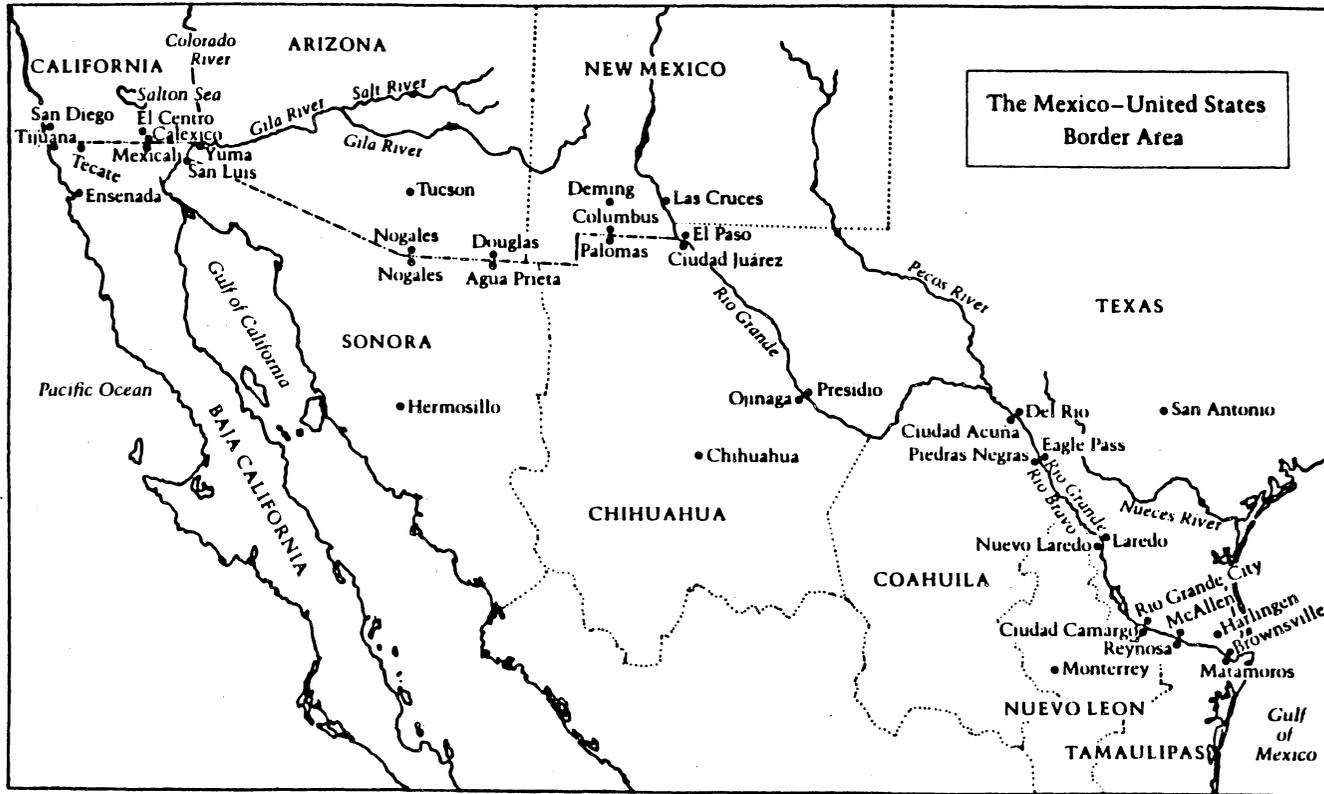


Figure 1. Mexico-US Border Area (Hansen 1981, 4)

Table 1. Total, Border and Interior Plants 1967-1985a

	1) total	2) border	3) interior	3 as % of 1
1967	57 <sup>b</sup>	na	na	na
1968	na	na	na	na
1969 <sup>c</sup>	108	na	na	na
1970	120	na	na	na
1971 <sup>d</sup>	251	na	na	na
1972 <sup>d</sup>	339	na	na	na
1973	257	247	10	3.9
1974	455	429	26	5.7
1975	454	418	36	7.9
1976	448	406	42	9.4
1977	443	398	45	10.1
1978	457	420	37	8.1
1979	540	480	60	11.1
1980	620	551	69	11.3
1981	605	533	72	11.9
1982	588	516	72	12.2
1983	629	562	67	10.6
1984	722	641	81	11.2
1985 <sup>e</sup>	772	683	89	11.5
1986	1100	na	na	na

- a) Except for 1970, figures for years earlier than 1974 may not be comparable to others in the series.  
 b) From Seligson and Williams (1981, 1).  
 c) Figures, as of July 31, 1969, may not be comparable to those for other years.  
 d) Figures, as of July 1971 and August 1972, may not be comparable to those for other years.  
 e) Figures as of 1 Sept 1985.  
 na) not available

Sources: Department of Industrial Statistics, Secretariat of Programming and Budget, Secretariat of Resources and Industrial Development, and Business International Corporation. Figures for years 1969 to 1981 inclusive are based on Table 4-1 (Grunwald and Flamm 1985, 140). Figures for 1982 to 1985 inclusive are from "Star Performer" (1986, 83). The figure for 1986 from Copeland (1987) may not be comparable.

Table 2. Plant Location by City September 1985

	Plants	Employment
Ciudad Juárez	169	77200
Tijuana	199	27100
Mexicali	77	10800
Nogales	50	14400
Matamoros	35	21100
Chihuahua	28	13400
Agua Prieta	23	5500
Reynosa/Río Bravo	27	13000
Tecate	31	1700
Ciudad Acuña	24	6300
Piedras Negras	19	4400
Nuevo Laredo	16	3700
Guadalajara	14	4700
Other Cities	60	9800

Sources: Secretariat of Programming and Budget, Secretariat of Commerce and Industrial Development, and Business International Corporation ("Star Performer" 1986, 78).

Problems at border locations include infrastructure that is approaching saturation, and a work force that has been utilized close to its limits and is subject to rapid turnover (Turner 1984, 3; Auerbach 1986, 18).<sup>8</sup> A final problem, related to and reinforcing the turnover problem, is that since the devaluations of the peso migration to the US for work has become an even more lucrative option than it has been traditionally.<sup>9</sup>

Interior sites offer solutions to some of these problems. Turnover is not a problem, and wages are lower than in the border area economic zones (Turner 1984, 3). Seligson and Williams found that maquiladora workers at interior locations have less experience with the US and are less interested in going there than border workers. If that finding is accurate, the work force may be more stable (Seligson and Williams 1981, 166). Unfortunately, interior cities have problems of inadequate infrastructure: telephone service, electric power, water, sewage lines, and transportation (Turner 1984, 3-4). In addition, problems arise with attracting US managers and technical personnel. Interior

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<sup>8</sup> Valdes-Villalva argues that this is due to the very narrow segment of the work force that maquiladoras hire, as will be discussed below (1985). Turner, writing in 1984, gave figures of 10% to 12% monthly turnover in Ciudad Juárez and 35% in Nogales (1984, 4).

<sup>9</sup> (Turner 1984, 4; Valdes-Villalva 1985, 196; Grunwald and Flamm 1985, 179)

locations also lack of easy access to repair and maintenance services. Finally, some industry managers fear shortages of skilled labor (Dillman 1983a, 47).<sup>10</sup>

Interior plants often function as feeder plants. Companies already operating border plants have established labor-intensive operations in the interior as they have converted the border plants to more capital-intensive production processes (Turner 1984, 3). This is an especially common arrangement in the expansion of operations in interior cities of the northern tier states ("Star Performer" 1986, 83). For example, Chihuahua, located 230 miles south of Ciudad Juárez, is the site of support maquiladoras for operations located in Ciudad Juárez (Turner 1984, 3).

A different aspect of the plant location is the importance of industrial parks as sites for maquiladoras. By locating in parks, assembly operations solve many of their problems of inadequate infrastructure. The only large concentration of maquiladoras outside of industrial parks is in Tijuana. Larger, more modern plants tend to be located in industrial parks (Grunwald and Flamm 1985, 149). The parks are largely owned and operated by Mexican nationals and often offer

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<sup>10</sup> Contrary to this feeling on the part of industry managers, Seligson and Williams found higher education levels among MIP workers employed at interior locations than at border locations (1981, 170).

shelter services.<sup>11</sup> As of February 1986, 22 parks in 13 cities operated for in-bond plants. At that time, planning was also underway for parks in four more cities. Among these, were three 100% maquiladora parks in the interior cities of Mérida, Torreón and Cuauhtémoc to be built by the Bermúdez Industrial Group, operator of the largest park in Ciudad Juárez, in conjunction with local investors ("Star Performer" 1986, 84).

### 2.2.3 WORK FORCE SIZE AND DEMOGRAPHICS

Over the course of the Mexican Industrialization Program, the number of workers has increased from 15,858 in 1969 to 207,817 in August 1985 (see table 3). As of the end of 1986, the figure had risen to 250,000 (Copeland 1987, 41). Two breaks occurred in this growth: the 1975 figure represents a 11.5% drop from 1974, and the 1982 figure shows a 3% drop from 1981.<sup>12</sup> Another aggregate development has been the marginal reduction of the labor intensiveness of work in the plants

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<sup>11</sup> Shelter services facilitate the establishment of maquiladoras by firms inexperienced in the Mexican environment and will be described below in the section on plant ownership.

<sup>12</sup> As with plants, the number employed in interior continued to grow through the 1974-75 recession. Peña observes that overall employment recovered more quickly than did numbers of plants following the 1974-75 recession concentrating the work force (Peña 1980, 172).

(see table 4). In 1975 production workers made up 86.1% of the total work force and technicians and management made up 13.9%. In 1985 the percentages were 82.1% and 17.9%.

The work force of maquiladoras is predominantly female, young, and single. Estimates of the female percentage vary according to different researchers. Gambrill found in her 1981 investigation, based on a sample of workers in Tijuana, 66.1% females. This low figure may be due to sampling bias; Gambrill acknowledged that industries employing exclusively males were heavily represented. Valdes-Villalva, referring to a 1982-83 survey in Ciudad Juárez, cited a figure of 93.8%, but again, Ciudad Juárez may be atypical (1985, 162). Seligson and Williams found in their broader survey of six cities an overall figure of 72.3%, though with significant variation among cities.<sup>13</sup> This figure is similar to the 78% cited in a Mexican government study and the 75.1% found by König in his 1975 study (Seligson and Williams 1981, 26). Aside from the noted variation among locales, there is fragmentary evidence that recently the overall pattern of female predominance has weakened (Seligson and Williams 1981, 25; Valdes-Villalva 1985, 170).<sup>14</sup> Also, as the percentage of total labor made up of technicians and managers increases,

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<sup>13</sup> In Nogales the percentage female was 55.9% and in Mexicali 95.7% (Seligson and Williams 1981, 26).

<sup>14</sup> Valdes-Villalva attributes this to depletion of the preferred recruitment pool.

Table 3. Employment in Mexican Assembly Plants 1969-1985a

	1) total	2) interior	3) % change total	4) % change interior
1969	15858	na		
1970	20327	na	28.2	na
1971	29214	na	43.7	na
1972	48060	na	64.5	na
1973	64330	4200b	33.9	na
1974	75977	4852	18.1	15.5
1975	67213	5069	-11.5	4.5
1976	74496	6964	10.8	37.4
1977	78433	7752	5.3	11.3
1978	90704	8317	15.6	7.3
1979	111365	10828	22.8	30.2
1980	119546	12970	7.3	9.8
1981	130973	14523	9.6	12.0
1982	127048	13821	-3.0	-4.8
1983	150867	15952	18.7	15.4
1984	199684	na	na	na
1985	217544	na	na	na
1986	246617	na	na	na

a) Except for 1970, figures for years earlier than 1974 may not be comparable to others in the series.

Figures are rounded.

b) Estimate, Bank of Mexico.

na) Not available

Sources: Department of Industrial Statistics, Secretariat of Programming and Budget, Secretariat of Resources and Industrial Development, Secretariat of Commerce and Industrial Development, and National Institute of of Statistics and Information.

Table 4. Distribution of Work Force 1975-1985

	% blue collar	% technicians	% management
1975	86.1	8.8	5.1
1976	86.8	8.3	4.9
1977	86.9	8.1	5.0
1978	86.6	8.3	5.1
1979	86.0	8.6	5.4
1980	85.3	9.1	5.6
1981	84.5	9.6	5.9
1982	82.9	10.5	6.5
1983	83.1	10.8	6.1
1984	82.9	11.2	5.9
1985a	82.1	11.7	6.2

a) January-August period only.

Sources: Secretariat of Programming and Budget and Secretariat of Commerce and Industrial Development ("Star Performer" 1986, 90).

the percent male increases because those categories of workers are almost exclusively male (Dillman 1983a, 46).

The majority of maquila workers have been found to be young. Gambrill reported two-thirds of assembly workers in her Tijuana study were 25 years or younger (1981).

Valdes-Villalva reported a mean age of 22 in Ciudad Juárez in 1982-83 (1985, 162). Seligson and Williams found 84.2% of their sample was under 30 and a mean age of 24.3 among all MIP workers (23.8 for females and 25.2 for males)(1981, 29; 32).

Seligson and Williams's findings on gender and age are worth examining in greater detail because of the broad scope of their study. Their results form a stronger base for generalization but also illustrate the variation among cities that limit the usefulness of generalizations based on overall figures. The percentage male and female diverges between the samples of maquiladoras employees and the city populations. However, the magnitude of this divergence varies among cities (see table 5).

Mexicali and Tijuana displayed strong skewing toward female employment compared to the percent female in their populations. Nogales's sample showed only slight skewing toward females, 50.3% of the population versus 55.9% in the employee sample. Age distribution is, as mentioned above, overwhelmingly concentrated in the 15 to 29 group. In five of the six cities, Seligson and Williams found that the 20

Table 5. Gender-General Populations and MIP Sample

Group	% Male	% Female
Mexicali	50.1	49.9
MIP sample	4.3	95.7
San Luis de Río Colorado	51.1	48.9
MIP sample	39.1	60.1
Nogales	49.7	50.3
MIP sample	44.1	55.9
Agua Prieta	48.8	51.2
MIP sample	20.3	79.7
Cuidad Juárez	49.3	50.7
MIP sample	28.2	77.8
Cuidad Acuña	50.2	49.8
MIP sample	32.7	67.3
Average for cities (a)	51.9	48.1
Entire MIP sample	27.7	72.3
Entire maquiladora (b) industry	22.0	78.0

Sources: a) 1971 Mexican National Census  
 b) Secretariat of Programming and Budget 1977  
 (Seligson and Williams 1981, 28).

to 24 cohort held the greatest percentage. Mexicali and Ciudad Juárez were at the extremes of concentration. In Mexicali 57.2% were in that group, and in Ciudad Juárez, 33%. Mexicali's MIP sample bunched around that group, and the sample from Ciudad Juárez was more evenly distributed. These, however, were variations in a clear pattern of youthfulness. When Seligson and Williams broke down their samples by age and gender, they discovered two different patterns (see table 6). In Mexicali and Ciudad Juárez the pattern was one of increasing feminization of the work force as age increases. In Agua Prieta, Nogales, and Ciudad Acuña, the opposite was the case.

Another attribute cited by some researchers has been the tendency for employees to be single. Fernández-Kelly found 57% single in Ciudad Juárez (1983, 51). Valdes-Villalva gave a figure of 84% single of the female employees of maquiladoras in Ciudad Juárez in 1982 (1985, 162).<sup>15</sup> Seligson and Williams found 39% married in their sample, as opposed to the 51.5% average in the cities where they surveyed. Breaking down their findings by gender, they found that male MIP employees had about the same marriage rate as the male population in the cities. Among female employees, the disparity was great. Married assembly workers made up only

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<sup>15</sup> Women made up 93.8% of the total work force, implying at least 80% of the total work force was single.

Table 6. Gender and Age Comparison

Group	Gender Percentage by Age					
	15-19		20-24		25-29	
	Male	Female	Male	Female	Male	Female
Mexicali	48.8	51.2	46.0	54.0	46.9	53.1
MIP sample	22.6	77.4	6.1	93.9	3.0	97.0
San Luis de RC	48.8	51.2	46.9	53.1	47.4	52.6
MIP sample	55.0	45.0	23.1	76.9	47.6	52.4
Nogales	48.1	51.9	47.4	52.6	48.1	51.9
MIP sample	23.1	76.9	47.1	52.9	51.6	48.4
Agua Prieta	50.0	50.0	45.9	54.1	49.2	50.8
MIP sample	9.8	90.2	21.6	78.4	25.9	74.1
Ciudad Juárez	48.5	51.5	46.1	53.9	46.1	53.9
MIP sample	45.5	54.5	32.4	67.6	20.8	79.2
Ciudad Acuña	46.5	53.5	46.9	53.1	47.9	52.1
MIP sample	20.7	79.3	32.5	67.5	57.1	42.9
Average for cities	48.5	51.6	47.1	53.5	47.6	52.4
Entire MIP sample	26.0	74.0	23.7	76.3	31.3	68.7

Sources: Seligson and Williams (1981, 33). City data drawn from 1971 Mexican national census.

28.8% of the females in the sample as compared with 51.9% of the females in the general population. Yet in Nogales and Ciudad Acuña, even within the female subset the marriage rates approximated that of the general populations.

In addition to the attributes of the maquiladora work force discussed above, assembly workers in the MIP have been found to be better educated than the general population of the cities. Valdes-Villalva found a mean of 8.8 years of education in Ciudad Juárez. Seligson and Williams reported a mean of 7.3 years. Additionally, they found that each age cohort of MIP employees was more highly educated than its counterpart in the general population. This finding held both overall and for each individual city (Seligson and Williams 1981, 45).

Seligson and Williams had two other notable findings: a consistent pattern of lower fertility among MIP workers than in the general population, both overall and in each city, and higher income than other employed Mexicans in the border region (1981, 36-37; 46-47). Related to the second point, maquiladora workers enjoyed better living conditions, as measured by access to potable water and electricity and possession of television and indoor plumbing, than the general population (Seligson and Williams 1981, 49-51).

#### 2.2.4 WAGES

Since the establishment of the Border Industrialization Program the low wages paid to assembly workers in the maquiladoras has been an important element of the appeal that Mexico holds for firms as the location for plants.<sup>16</sup> In 1971, to give a rough comparison, the daily minimum for Mexican assembly workers, including legally required fringe benefits, varied between \$3.36 and \$5.52. Two years earlier, the US average for factory workers was \$25.12 (Baerresen 1971, 23).<sup>17</sup> Though consistently below US wages, maquiladora wages have consistently been higher than the Mexican minimum wage (see table 7) (Grunwald and Flamm 1985, 159). Also, wages in border maquiladoras are higher than those in interior plants. Though the difference has declined over time, the gap averaged about 25% from 1980 to 1983.

Wages in the maquiladoras in the early years of the MIP moved with the 10% to 12% biannual increases of the Mexican

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<sup>16</sup> Physical proximity has been a more significant factor for most of the MIP. Until 1982 wages were lower in Pacific Rim countries (Grunwald and Flamm 1985, 137).

<sup>17</sup> In this period assembly wages were about ten percent above the minimum wage (Grunwald and Flamm 1985, 159). Critics have claimed that this overstates the earnings that workers receive because legally mandated minimums and fringe benefits can be legally evaded by temporary contracts and prolonged training periods, as well as by extralegal means (Van Waas 1981; Fernández-Kelly 1983; R. Fernandez 1973, 47).

minimum wage. That pace, being slower than the increases in US wages, led to an increasing gap between Mexican and US wages (Van Waas 1981, Chap 3; 238). In the mid-1970s, this situation was undermined by more frequent and larger increases of the minimum wage, with the result that wages in maquiladoras exceeded increases in the consumer price index up to 1977 (see table 8) (Grunwald and Flamm 1985, 155).<sup>18</sup> This was the result of the Echeverría administration's Shared Development policy, an aspect of which was improvement of the living standards of workers (Mares 1985, 678). This situation was mitigated temporarily by the 1976 devaluation of the peso, but up to 1982 the dollar value of wages continued to rise (see table 9), though the real value to workers began to decline slowly in 1978.

With the onset of the Mexican financial crisis in 1981 and the precipitous devaluations of the peso that followed, this situation reversed itself with a vengeance. By 1983 the purchasing power of maquiladora wages had fallen in Mexico to 13% below their 1973 value (Grunwald and Flamm 1985, 154). The daily minimum wage, excluding benefits, fell from \$8.54 to \$4.42 by January 1986, in spite of peso increases in the minimum wage (see table 9). With full fringe benefits, the basic wage was just over \$1.00 per hour at the end of 1986

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<sup>18</sup> Minimum wage increases are bureaucratically determined and loosely pegged to increases in the cost of living.

Table 7. Maquiladora Wages as % of the Minimum Wage

	Border	Interior
1975	109.9	114.3
1976	108.7	103.3
1977	106.8	113.8
1978	109.4	120.5
1979	108.8	118.8
1980	113.4	112.1
1981	117.5	109.4
1982	172.4	166.5
1983	138.5	129.5

Source: Grunwald and Flamm (1985, 160)

Table 8. Wage Indexes of Maquiladoras 1973-1983a

Index of payroll per employee in  
assembly plants (1975 = 100)

	all plants	border plants	Interior plants
1973	88.3	93.2	51.8
1974	102.1	101.4	112.0
1975	100.0	100.0	100.0
1976	106.5	108.7	85.3
1977	106.8	108.5	91.5
1978	104.1	105.3	92.2
1979	101.0	102.5	91.9
1980	92.7	94.0	82.3
1981	92.3	93.1	86.8
1982	100.3	101.3	92.5
1983	77.1	78.0	70.6

Sources: National Minimum Wage Commission, Secretariat of Programming and Budget, and International Monetary Fund (Grunwald and Flamm 1985, 157).

Table 9. Wage Conditions in Maquiladoras 1975-1987a

	Daily Minimum Average peso/dollar in pesos (a)	exchange rate	Average Daily in dollars
1975	84.90	12.50	6.79
1976	98.80	15.40	6.42
1977	133.90	22.60	5.92
1978	147.00	22.80	6.45
1979	162.00	22.80	7.11
1980	180.00	23.00	7.83
1981	210.00	24.60	8.54
1982	280.00	43.18	6.48
	364.00	70.00	5.20
1983	455.00	108.27	4.20
	523.00	132.00	3.96
1984	680.00	155.71	4.37
	816.00	179.37	4.55
1985	1060.00	209.47	5.06
	1250.00	305.69	4.09
1986b	1650.00	372.80	4.42
1987	5625.00	1471.00c	3.10d

a) Minimum wage for Mexico City and northern border cities like Tijuana, Mexicali, Ciudad Juárez, Reynosa and Matamoros.

b) Figures for January 1986.

c) Floating rate from 27 August 1987  
Wall Street Journal

d) Figure for August 1987 from Orme 1987b and may not be precisely comparable to other years.

Sources: National Minimum Wage Commission and Bank of Mexico ("Star Performer" 1986, 88).

("Star Performer" 1986, 90). As of August 1987, the daily minimum wage was approximately \$3.10 (Orme 1987b). This situation makes Mexico competitive with other low wage areas (see table 10 for a rough comparison). "Labor costs are 25% more in Hong Kong and Taiwan," according to Haskel Knight, director of operations for Fisher Price in Matamoros (Copeland 1987, 40).

#### 2.2.5 VALUE OF PRODUCTION

As with plant numbers and employment, the value added in assembly operations has grown substantially over the history of the MIP. It rose from \$3.42 million in 1966 to an estimated \$1.5 to \$1.6 billion for 1986 (see table 11).<sup>19</sup> The overall pattern has been one of high growth in value-added.

#### 2.2.6 TYPE OF PRODUCT

The types of goods produced by assembly plants has changed and diversified. Maquiladoras perform a wide variety of

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<sup>19</sup> Table 8 gives figures in current and constant US dollars and in constant pesos to compensate for distortions in each series due to its conceptual basis. For example, the period from 1977 to 1981 shows very high growth in value added expressed in US currency. This is due to the high inflation rate and overvalued peso in that period. Conversely, in the years 1982-1983 value added actually falls because of the steep devaluations of the peso which caused the wage bill in dollars to plummet.

Table 10. Wage Comparisons, US and Pacific Rim, 1986.

Average Hourly Wage in US dollars for  
Production Workers in Manufacturing

South Korea	1.55
Taiwan	1.71
Hong Kong	1.87
Singapore	2.47
Japan	9.50
US	13.09

Source: Data Resources (Cooper 1987).

Table 11. Total Value-Added 1966-1986

	Current US dollars (millions) a	Index of pesos (1975=100) e	Index of dollars (1970=100 million) f
1966	3.42b	na	na
1967	7.08b	na	na
1968	24.08b	na	na
1969	52.06b	na	na
1970	na	na	100.0
1971	na	na	122.9
1972	na	na	187.6
1973	197.0	87.2	287.8
1974	315.6	113.2	452.5
1975	321.2	100.0	400.9
1976	352.2	116.7	441.0
1977	314.9	118.6	415.7
1978	438.6	142.0	545.6
1979	637.9	174.7	769.1
1980	770.8	168.5	930.9
1981	977.8	178.0	1177.7
1982	847.0	217.9	1026.9
1983	828.7	222.1	987.2
1984	1150.0c	na	1393.6
1985	1310.0d,p	na	1580.2p
1986	1500.0d,p	na	na

- a) Total value-added here includes local materials and utilities.
- b) US Census Bureau figures (Baerresen 1971, 58-59). May not be comparable to the rest of the series.
- c) Bank of Mexico ("Star Performer" 1986, 82).
- d) Bank of Mexico, unofficial projections ("Star Performer" 1986, 82-83).
- e) From Grunwald and Flamm (1985, 143). Figures deflated by the Mexican consumer price index.
- f) "Star Performer" (1986, 82)
- na) not available
- p) projection or estimate

Sources: Secretariat of Programming and Budget, Secretariat of National Property and Industrial Promotion, Secretariat of Commerce and Industrial Development and Bank of Mexico

operations, ranging from sorting retail coupons to assembling toys, apparel, electronic components and automotive parts. Television receivers and parts have remained the largest category and have expanded from 17.1% in 1969 to 23.2% in 1981. Automotive parts have gone from negligible in 1969 to 4.3% of the total in 1981.<sup>20</sup> Semiconductors and parts, extremely wage sensitive, diminished from 16.3% in 1969 to 5.6% in 1981 (Van Waas 1981, 255; Dillman 1983a, 42). Textile products and similar light industry products have fallen from a fourth to a twelfth over the same period (Grunwald and Flamm 1985, 145-147).<sup>21</sup>

In addition to the changes in the make up of the product mix, diversification has also taken place. Grunwald and Flamm reported that the top ten products made up 81% of the total value of the 806/807 imports from Mexico to the US in 1969, but only 71.1% in 1981 (1985, 147). Dillman reports the same trend in the same period and notes that if television receivers and parts are excluded the trend toward diversification is stronger. The other nine of the top ten products fell from 60% in 1970 to 44% in 1978 (1983a, 40).

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<sup>20</sup> The growth of the assembly operations of automotive parts has been stimulated by the 1977 passage of a Mexican law requiring \$110 worth of exports of automotive parts for every \$100 in imports (Kronish and Mericle 1979, 19-20).

<sup>21</sup> Dillman finds the same shifts (1983a, 41).

### 2.2.7 TYPE OF PRODUCTION

Although the initial lure of Mexico as a plant location was its proximity and large pool of low-wage, unskilled labor, and its production highly labor intensive, there is fragmentary evidence that a trend toward relatively more capital intensive production processes is occurring. As noted above, technical and managerial personnel have increased as a percentage of the total labor force. Larger and more capital intensive operations have located in Mexico recently (Grunwald and Flamm 1985, 152). A maquila industry consultant claims that "more than 50% of the plants in Ciudad Juárez are now into...what I would call higher tech production processes. Everything these plants are planning to do is much more sophisticated." ("Star Performer" 1986, 94). The reason for this trend is uncertain. Perhaps technological advances are automating assembly to a degree. The growing presence of the automotive industries may also be a contributing factor.

Regardless, two observations should be made concerning this trend. First, the increase in capital intensiveness is embryonic and is occurring relative to extremely labor-intensive production. Second, it is a trend occurring mostly on the border and only in some sectors (Auerbach 1986). For example, electronics assembly operations have some potential to shift toward greater capital intensiveness,

but apparel and textiles assembly operations in Mexico have shown little immediate potential to make this shift (Van Waas 1981, 72-80).

#### 2.2.8 OWNERSHIP

As with shifts toward greater capital intensiveness, the evidence on ownership of maquiladoras is sketchy. The evidence is also somewhat contradictory, but some general impressions can be gleaned from it. According to Grunwald, the majority of output has come from maquiladoras operated by foreign-owned subsidiaries. Because 90% or more of the output is destined for the US market, he concluded that most are US owned (Grunwald and Flamm 1985, 149). Data produced by Mexico's Secretariat of the Treasury and Public Credit showed that only 48% of maquiladoras (259 of 540) in 1979 were foreign majority-owned. US controlled firms were 95% of those (Grunwald and Flamm 1985, 149-150). Business Mexico reported in February 1986 that 68% of in-bond plants were majority or 100% US owned. It was reported that these plants account for 80% of total employment and 85% of domestic value added ("Star Performer" 1986, 82). These are probably conservative estimates. Calderón reports that 90% of maquiladoras were controlled by US companies (1981, 92).

Mexican involvement in maquiladoras is, again, difficult to quantify. Calderón found that it was much greater in the

interior than at the border, with substantial Mexican capital in half of interior maquiladoras (1981). Mexican investment has been dominant in the industrial parks in which many maquiladoras operate. For example, the largest in Ciudad Juárez is Mexican-owned and operated (Dillman 1983a, 34).

Although midsize, US-owned transnational corporations have been the dominant group of maquila subsidiary operators, Van Waas found that 48 of the Fortune 500 companies had or had previously had assembly operations under the MIP. In addition, he found three major Japanese and four major European transnational corporations with operations in Mexico (1981, 34). The increase in non-US, foreign interest has been reported as a recent trend, supported by the desire for proximity to the US market and to evade protectionist legislation aimed countries other than Mexico ("Star Performer" 1986, 82). As of mid-1987, 15 Japanese-owned maquiladoras were in operation (Rohter 1987).

Fernández-Kelly found in her research into maquila industry in Ciudad Juárez a pattern of ownership arrangements that varied by sector. The majority of maquiladoras in electric or electronics operations were direct subsidiaries of large foreign corporations. The majority of textile and garment operations were Mexican-owned subcontractors (1983, 104). She argued that the choice of whether to establish a subsidiary or deal with a subcontractor is conditioned by the economic environment in which an industry functions. In

either case, the choice is determined by the economic priorities of non-Mexican firms.

A third ownership strategy for firms interested in offshore assembly is the use of shelter arrangements. The shelter arrangement is a hybrid of establishing a subsidiary and subcontracting with a Mexican firm. Under this arrangement, a shelter firm provides varying amounts of consulting and management services to facilitate the establishment of a maquiladora. This assistance can be as little as performing purely administrative functions, e.g. assuring compliance with regulations regarding customs and other paperwork. Alternately, shelter firms can totally run an operation, including hiring employees, providing plant space, managing production, and training the foreign firm's personnel to take over (Grunwald and Flamm 1985, 151). The shelter operator is paid on an hourly-cost-plus basis (Turner 1983, 3).

At \$2.00 to \$2.50 an hour per production worker as compared to \$1.00 per hour for self-run maquiladoras, this arrangement is too costly for long term use (Grunwald and Flamm 1985, 151; Dillman 1983a, 54). However, the advantage of shelter arrangements is that companies can start up assembly operations under a shelter operator within 90 days (Turner 1983, 3). During a short period of sheltered operation, firms can simultaneously test and acclimatize to Mexican assembly. Shelter arrangements are a growing trend

because they allow companies to operate in the MIP without overcommitting and without suffering the consequences of their inexperience with the Mexican environment. For example, familiarity with administrative procedures is crucial to successful operation ("Star Performer" 1986, 83; Turner 1983, 7).

### 2.3 SUMMARY

In summary, the assembly industries of the Border Industrialization Program make up a rapidly expanding sector of the Mexican economy that operates under special institutional arrangements of the US and Mexican governments. However, this expansion is subject to macroeconomic influences, as demonstrated by the dampening effect that the US recession had on maquiladoras in 1974-1975 and the stimulating effect of the devaluation of the peso since 1982. Most maquiladoras are located on the border, but interior plants form a significant and stable fraction of the total. The employment in maquiladoras has grown to approximately 250,000. The work force has been primarily made up of young, single women, though there have been significant variations in this pattern. Wages are low relative to those in the US and have in recent years fallen dramatically. This sector of the Mexican economy is dominated by foreign firms, but also involves Mexican capital, particularly in industrial parks

and interior plants. The debate regarding the in-bond industries of Mexico concerns itself with the ramifications and implications of these facts. Before addressing that debate, however, the economic and political context surrounding maquiladoras will be surveyed.

### 3.0 CHAPTER THREE: THE INTERNATIONAL AND DOMESTIC CONTEXTS OF THE MEXICAN INDUSTRIALIZATION PROGRAM

The Mexican Industrialization Program emerged in response to changing international and domestic environments. Its evolution and growth have continued to be shaped by shifting macroeconomic conditions and by the responses to those shifts from economic and political actors. This chapter will discuss the conditions that led to its establishment and the developments that affected its growth. The events in the 1970s and the 1980s, particularly since 1980, have continued to favor its expansion and seem likely to promote expansion for the foreseeable future.

#### 3.1 INITIAL CONDITIONS

In the early 1960s, economic conditions began to develop in the US and in Mexico that demanded some response. US firms in sectors confronted with increased competition for the US market sought to reduce their costs by whatever means were available. The Mexican government, faced with high unemployment and underemployment in the border region following the termination of the Bracero Program, sought to

address the employment problem. For both these parties, the MIP offered a plausible response.

### 3.1.1 US ECONOMIC CONDITIONS

While overall the US economy in the early 1960s was enjoying a period of prolonged growth, domestic overcapacity and imports from the resurgent European economies and, slightly later, from Japan began to saturate markets and drive down profits in some industries (Storper and Scott 1986, 4). Faced with this situation, affected firms had the choice of a variety of strategies to protect their market positions. They might invest in capital to increase the productivity of their operations. They might pursue protectionist strategies. Or they might transfer their production to low-wage labor markets. Over the past 20 years, all three strategies have been used to varying degrees in different industries.

Circumstances in two types of industries, electronics and apparel, particularly favored the relocation option. Traditional products of garment and textile industries are characterized by relatively well-known technologies. They have thus long sought out low-wage markets because lowering the wage bill is a chief means of protecting profits in the production of mature products. As early as the 1930s textile

production had relocated in the southern US (Storper and Scott 1986, 5).

The newly emerging electronics and television industries also suffered from strong competition from producers in low-wage markets as production technology rapidly diffused. As an indication of this, the price of silicon transistors dropped from \$4.39 to 27¢ from 1962 to 1972 (Vuskovic 1980, 35; see note 14). Television sets and components were also increasingly subject to competition from Pacific Rim producers (Grunwald and Flamm 1985, 18-19).

Production of both traditional and new, rapidly evolving products have characteristics which make them vulnerable to competition from imports from low-wage economies. First, the goods produced in these sectors have relatively short and/or unpredictable life cycles and therefore production runs. Garments and textiles have this characteristic due to the caprice of fashion and electronics because of rapidly evolving technology (Fernández-Kelly 1983b). Thus, automation has been of limited usefulness in reducing costs. Second, they have high value to weight ratios and thus transportation is relatively cheap. Because of these factors, these products were the most vulnerable to imports produced by cheaper labor than that available in the US.<sup>1</sup>

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<sup>1</sup> Peña claimed that a third crucial factor was the labor

This led them to be the first industries to go offshore, and they remain the most important sectors of coproduction (Grunwald and Flamm 1985, 217).

Given these conditions, technological advances contributed to the solution of the problem for US firms. Three advances were most important:

- More efficient transportation
- Segmentation of production processes
- Advances in communications

Improvements in transportation brought on by the containerization revolution, by air freight and by the construction of the US interstate system made US markets accessible to imports; yet, they also helped US firms combat that competition by increasing the accessibility of low-wage labor. Segmentation of production processes allowed individual stages of production to be done at locations distant from one another. Improved communication meant that stages located apart from one another and from management centers could be controlled and coordinated.

The combination of market conditions and these technological developments had led to the establishment of export-processing zones in Southeast Asia, where US and

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unrest that plagued these industries in the US (Peña 1980).

European firms established apparel and shoe assembly plants in the 1950s. During the 1960s this outflow of foreign direct investment increased rapidly (Storper and Stock 1986, 5).

### 3.1.2 MEXICAN ECONOMIC CONDITIONS

By the mid-1960s the increase in the number of underemployed and unemployed in the border region convinced Mexican policy makers to accept the establishment of an export-processing zone as a source of employment. Between 1940 and 1960, population in the northern border region grew from one third of a million to one and a half million (Stoddard 1987, 28). Unemployment ran as high as 50% in border cities during the early 1960s, a situation compounded by the restriction and subsequent termination of the US's Bracero Program in 1964 (Wiley and Gottlieb 1985, 255).

This situation created an environment of desperation. Displaced unemployed and their families became a common sight in the streets of the Mexican border cities (Martínez 1978, 132). The threat that this situation held for political stability was manifested in the emergence of a radical peasant organization, Central Campesina Independiente (CCI), that attempted to organize returning braceros (Wiley and Gottlieb 1985, 255).

Anticipating these difficulties, a Mexican government official, Antonio Bermúdez, commissioned a study on the problem of unemployment by A. D. Little, an international consulting firm.<sup>2</sup> The resulting proposals eventually formed the outline of the MIP. Though the López Mateos administration (1958-1964) was unresponsive, the conjunction of worsening conditions on the border and the inauguration of the probusiness, pro-American Díaz Ordaz administration (1964-1970) in late 1964 led to reconsideration of the MIP by Mexican policy makers. After Secretary of Industry and Commerce Octaviano Campos Salas toured successful assembly industries in the Far Eastern export-processing zones, the proposal was accepted by the Mexican government. In May 1965 the MIP was announced to a Ciudad Juárez meeting of border business leaders.<sup>3</sup>

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<sup>2</sup> Antonio Bermúdez was the head of PRONAF, the first major border region development program (see appendix 2). He was the former head of the Mexican national petroleum company (PEMEX) and later founded Grupo Bermúdez, the largest operator of maquila industrial parks in Mexico (Van Waas 1981, 144).

<sup>3</sup> Ugalde suggests that the MIP was not intended by the Mexican central government to solve the problem of unemployment but rather to draw the unemployed away from central Mexico where they might be more politically problematic (1978, 109).

### 3.2 CONTINUING CONDUCTIVE CONDITIONS

As described in Chapter Two, the program has been a success as measured by rapid, though not uniform, growth. While many criticisms can be and have been leveled at the maquiladoras and the benefits derived from them, conditions in Mexico and the US have continued to favor the expansion of the program. In Mexico, the two most important enduring circumstances that favor the continuation of the MIP are continued growth of the economically active population and continued need for foreign exchange earnings. Both of these have become only more pressing with the deterioration of the Mexican economy, most dramatically evident since the crisis of 1982. In the US, the persistence of relatively high wages and the vulnerability of US producers to import competition has continued to encourage the participation of US firms in the MIP. The vulnerability of US producers to imports has since 1980 been greatly exacerbated by the overvaluation of the dollar (Thurow and Tyson 1987, 6).

#### 3.2.1 MEXICAN ECONOMIC DEVELOPMENTS AND POLICY

In Mexico support for the maquiladoras from the federal government has continued despite shifts in development policy. This support has been ensured partly by steady

growth in Mexico's population and labor force. Continued population growth undercut even the high rates of economic growth enjoyed by the Mexican economy between 1940 and 1980. The population of Mexico grew from 19.8 million in 1940 to 78.8 million in 1985 (see table 12). There was an average annual growth rate of the labor force of 3.9% between 1965 and 1980 (World Bank 1987, 265).

Despite the high growth rate of the Mexican economy, unemployment remained steady or rose slightly over the 1966-1975 period. Only during the burst of even higher growth between 1976 and 1980, fueled by heavy public sector expenditure, did the official unemployment rate drop 6% per annum (Segarra 1987, 9). Unfortunately, the policies that were the basis of this growth were not sustainable in the long run. With the crisis of 1982, the situation reversed dramatically. Official unemployment was 7% in 1982 and increased to 10.9% in 1983 (Economist Intelligence Unit 1986, 10). Over the entire period from 1980 to 1985, the unemployment rate increased by 7.5% annually (Segarra 1987, 9). Mexico probably needs a real growth rate of 7% to 8% per annum merely to prevent a worsening of the employment situation. Unfortunately, between 1982 and 1985 growth averaged 0.7% (Economist Intelligence Unit 1986, 10).

Maquiladoras, despite whatever criticism can be made of the employment they offer, could not be easily dispensed with

Table 12. Total Mexican Population 1940-1985

1940	19,815,000
1950	26,640,000
1960	34,040,000
1970	50,718,000
1980	68,000,000
1984	78,800,000

Source: Mexican Census Data (Cardoso 1983, 229;

by the Mexican government. By 1975 they provided more than 30% of the employment in manufacturing in the border region (Urquidi and Méndez Villareal 1978, 160). By 1986 by some estimates, there were 250,000 employed in in-bond plants (Clement 1987, 13), a number that could potentially add a percentage point to Mexico's nationwide unemployment rate.<sup>4</sup> In the border region the loss of maquiladora employment would be devastating. The economically active population in the border region was approximately one million in 1980; the loss of in-bond employment would boost the regional unemployment rate by at least 20%.

Beyond the persistent problem of job creation, the Mexican government has faced the need to generate foreign-exchange earnings as part of its development strategy. Development strategies are capable of wide variation, but at either end of the spectrum of choices are two general approaches. National development strategies may be predominantly outward-oriented to take advantage of international economic conditions or predominantly inward-oriented to insulate the national economy from the international environment (Mares 1985, 667). Beginning in 1940 Mexico adopted a development strategy of Import-Substituting Industrialization approach (ISI) that was inward-directed.

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<sup>4</sup> According to figures reported in Economist Intelligence Unit's Country Profile Mexico 1986-87 (1986, 12).

As noted in Chapter One, the central feature of this strategy is protective tariffs to shelter domestic industries. With exclusive access to domestic markets, it is hoped that domestic industry will develop and that ultimately the national economy will be self-contained and capable of autonomous growth. Although the the export-oriented MIP is not itself an aspect of the ISI strategy, an inherent limitation of the ISI makes the MIP complementary to it.

Incomplete import-substituting industrialization requires imports of intermediate and capital goods that domestic industry is not yet capable of supplying. This creates a foreign-exchange bottleneck, constraining ISI growth, because the protected industries do not generate export earnings.<sup>5</sup> This foreign-exchange bottleneck can be overcome by a number of strategies, and the MIP is one.

By 1970 Mexico faced increasing difficulty in meeting this need. Agriculture exports which had been an important source of foreign exchange stagnated due to years of government emphasis on industry (Mares 1985, 677). The Echeverría administration responded to this situation with a program

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<sup>5</sup> The ISI strategy is also problematic because it typically favors capital intensive industrialization, and therefore job creation suffers.

called Shared Development, that deepened and spread import substitution.<sup>6</sup> This strategy consisted of four elements:<sup>7</sup>

- Public expenditure to stimulate and broaden domestic demand
- Fuller use of installed productive capacity
- Deepening of Import Substitution
- Expansion and diversification of exports to help confront the foreign-exchange bottleneck

Points three and four of this strategy by implication show the link between ISI and maquiladoras. This explains why Echeverría, strongly identified with demands from the developing countries for a new international economic order and often viewed as leftist and nationalist, supported the continuation and expansion of the MIP.<sup>8</sup>

This strategy spurred high rates of growth initially, but was not sustainable in the longer run. Heavy government expenditure created domestic inflation and pressure on the

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<sup>6</sup> The policy was also intended to address the unequal income distribution that continued to characterize the Mexican economy and was becoming politically problematic (Mares 1985, 678). Lipietz distinguishes this policy from ISI, calling it peripheral fordism because of its emphasis on developing internal markets (1986, 31).

<sup>7</sup> (Mares 1985, 678).

<sup>8</sup> Recall that it was the Echeverría administration that codified the MIP into law in 1971, confirming the legitimacy of majority foreign-ownership of maquiladoras and expanding the program to allow the establishment of plants in the interior.

peso. In order to protect the ability of domestic industry to import necessary inputs, the government maintained the 12.5 pesos to the dollar exchange rate, which meant increasing overvaluation. This policy made Mexican exports increasingly uncompetitive in terms of price and contributed to capital flight. Capital flight contributed to a scarcity of capital and thus resulted in increasing reliance on foreign borrowing by the government to supply the foreign-exchange needs. By the time this strategy collapsed, government debt amounted to \$27 billion (Grayson 1977, 109).<sup>9</sup>

The López Portillo administration came into office saddled with this debt and an International Monetary Fund (IMF) austerity plan. Pursuing a policy of economic stabilization and low-inflation growth, the government promoted the Alliance for Production program (Mares 1985, 683). The most important features of this policy were devaluation of the peso in 1976 and trade liberalization to integrate Mexico into the world economy. This development strategy emphasized export diversification and promotion. For example, a 1977 presidential decree mandated that for every \$100 in imports automotive transnationals must export \$110 worth of goods.

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<sup>9</sup> The public sector deficit rose from an annual average of 2.5% of GDP in the 1965-1970 period to 9.5% in 1976 (Mares 1985, 682).

This decree manipulated the desire of the companies for access to the Mexican market to force them to include Mexico in their global supply network, thus boosting Mexican exports (Kronish and Mericle 1979, 19-20).<sup>10</sup> The MIP was viewed as an integral part of this strategy, providing both foreign exchange and jobs (Van Waas 1981, 176).

Though this policy initially had a positive impact, economic dislocation also resulted. For example, an immediate impact of trade liberalization and devaluation of the peso was increased pressure on domestic producers from imports. Devaluation of the peso also made imports of consumer goods more expensive. Though adjustment to these conditions might have been forthcoming and desirable in the long run, two developments allowed the government to avoid forcing painful adjustments on its constituents.

The dramatic increase in estimates of oil reserves in Mexico to levels comparable in volume to those in the Middle East enhanced the situation of Mexico dramatically (Grayson 1977, 108). Reinforcing the effect of this reassessment of proven oil reserves, the overthrow of the Shah of Iran in 1979 ultimately resulted in the increase in the price of OPEC oil from \$14.56 to over \$35.00 a barrel. Because of these

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<sup>10</sup> This decree, among other factors, has spurred the growth of the automotive sector of the MIP (Grunwald and Flamm 1985)

events, López Portillo could avoid the painful adjustments that trade liberalization would require. One significant result was the rejection of membership in the General Agreement on Tariffs and Trade (GATT) after lengthy negotiations had been conducted for entry into that organization.<sup>11</sup> Not only did foreign-exchange earnings from petroleum exports support the continuation of ISI, but lending bodies were much more eager to extend loans against future earnings. Additionally, as other oil exporters recycled their increased earnings through the banking system, there would be a larger supply of credit available in the international economy (Mares 1985, 687-689).

In response the López Portillo administration returned to the policy of spurring growth through government expenditure and supporting the peso's value even as pressure increased for devaluation in order to minimize the cost of imported industrial inputs and consumer goods. By 1980 the total public sector deficit had reached 8% of GDP, approaching the 10% that brought on the devaluations of 1976 (Economist Intelligence Unit 1986, 27). The current account deficit had reached \$6.8 billion. Inflation hovered in the twenties

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<sup>11</sup> GATT is a multilateral treaty that provides for a uniform regime of minimal barriers to trade among the signatory nations.

(Mares 1985, 692-693). Total public sector debt had reached \$33.87 billion (Ortiz and Serra Puche 1986, 113).<sup>12</sup>

While later events made obvious the fragility of economic growth based on government borrowing and spending, the strategy might have continued to sustain growth if international macroeconomic conditions had remained what they were during the second half of the 1970s. However, two developments undermined the Mexican economy. The governments of the developed countries opted to respond harshly to the inflation that had persisted in their economies through the 1970s. More restrictive monetary policies in those economies resulted in higher real interest rates. Increased interest rates brought a deep worldwide recession, which reduced the demand for Mexican exports (Kahler 1985, 358).<sup>13</sup> Second, in 1981 the oil market softened, which reduced income from petroleum exports and undermined the confidence of lending entities in the Mexican economy (Pellicer 1985, 181). These events resulted in higher interest rates and shorter maturity periods on Mexico's new loans and eventually in restricted

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<sup>12</sup> In this environment, while the Mexican government remained sympathetic to in-bond industries, its policy of maintaining the peso/dollar exchange rate while raising the minimum wage put pressure on the wage level of maquiladoras.

<sup>13</sup> Interest rates went from 6% in 1978 to 20% in 1981 (Pellicer 1985, 181).

availability of additional credit (Bogdanowicz-Bindert 1985, 262).

In this situation, the López Portillo administration continued its policies, attempting to stave off what proved to be inevitable.<sup>14</sup> The government deficit increased by 135% from 1980 to 1981, reinforcing inflation and increased the overvaluation of the peso (Segarra 1987, 10). These conditions resulted in massive capital flight as had similar conditions during the mid-1970s: many Mexicans tried to convert their peso savings to dollars or foreign assets before the anticipated devaluation. At least \$5.5 billion left the country in 1981 alone (Mares 1985, 693 see table 2). The resulting scarcity of capital further increased government reliance on external borrowing to finance the federal deficit and to provide the foreign exchange needed to defend the overvalued peso (Economist Intelligence Unit 1986, 10). Total external debt increased by 44% between 1980 and 1981 from \$54 billion to \$78 billion and government debt by 334% (Segarra 1987, table 4; table A-5).<sup>15</sup>

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<sup>14</sup> Mares maintains that López Portillo was reluctant to take the ultimately inevitable step of devaluation because he wanted to manage the selection of de la Madrid as PRI candidate and his succession before taking painful measures (1985, 693).

<sup>15</sup> Figures are in 1970 constant dollars.

In mid-February 1982 in order to regain control of the foreign-exchange situation, López Portillo oversaw an 80% devaluation of the peso. After de la Madrid's election in June 1982, the government took stronger measures to stabilize the economy but by August was forced to admit that the burden of servicing the external debt had become intolerable. Two additional devaluations brought the exchange rate to over 100 pesos to the dollar. These measures were insufficient to stem the hemorrhage of the capital market and López Portillo resorted to imposition of currency controls and ultimately, just before leaving office, to nationalization of the banks (Mares 1985, 694).

Throughout the period from 1940 through 1982, the Mexican government showed a preference for ISI. However, the foreign-exchange bottleneck chronically constrained growth under that development strategy. This inherent limitation of ISI, along with the need to create jobs guaranteed that maquiladoras would at least be tolerated and would even be fostered to a degree by the Mexican government. However, the tendency to allow the overvaluation of the peso, in order to maintain the cheapness of imported industrial inputs, combined with minimum wage increases, implemented to keep pace with Mexican inflation, caused wages to rise in dollar value to a high of \$8.54 in 1981, a development which

lessened the attractiveness of Mexican assembly plants (see table 9).

President de la Madrid responded to the economic crisis with a program which both directly and indirectly enhanced the viability of maquiladoras. Most significantly, the devaluation of the peso and the reduction of real wages as compared with those in other countries has made Mexico one of the cheapest labor markets for relocation. Another attribute of the de la Madrid economic policy that favors the expansion of the MIP is the generally positive attitude of the current administration towards direct foreign investment.<sup>16</sup> Overall, the current administration's declared intention is to move in the direction of trade liberalization and export-diversification development. The Presidential Decree of August 1983 for the Promotion of In-Bond Industries is an indication of this intention. Most significantly, Mexico has joined the General Agreement on Trade and Tariff (1986).

The deterioration of the Mexican economy has benefitted the in-bond industries by making labor cheaper and by forcing the government to rely foreign direct investment to supply capital needs and job creation. The Mexico City earthquake of 1985 and furthering softening of oil prices in the first

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<sup>16</sup> Note that majority foreign ownership of in-bond plants increased from 48% in 1979 to 68% in 1985.

quarter of 1986 only reinforced these conditions. The government recently estimated unemployment to be only 3.9%. Mexican business organizations placed the figure at 11.7%, and the most important labor confederation claimed that 17.7% was more accurate (Orme 1987b). In addition to open unemployment, underemployment is also rampant. Total external debt remains high at \$101 billion (Orme 1987b). The potential drawback of this situation is that the continued deterioration of the economy may bring about political instability, due to working-class unrest and/or middle-class alienation (Castañeda 1985). However, this threat should not be overemphasized. Another potential constraint on the expansion of the in-bond industries may be the inability of the Mexican government to make infrastructure investments due to the austerity imposed upon the public sector by economic conditions.

### 3.2.2 US ECONOMIC CONDITIONS

In the US aside from the strains on specific industries, the postwar expansion was by the early 1970s slowing and stagnating due to several factors. The US physical plant was aging, and there was evidence that US industries had failed to keep abreast of production-process innovation (Storper and Scott 1986, 6-7). Job dissatisfaction in US manufacturing was

becoming increasingly prevalent, as indicated by high turnover and absenteeism (Braverman 1974, 32-34). Labor militancy was also peaking (Storper and Scott 1986, 8; Peña 1980). Wages in manufacturing rose more quickly than did consumer prices throughout the 1970s (International Monetary Fund 1986, 688-689). Growth of productivity became sluggish in the early 1970s and has remained so (Murray 1987). All these factors meant that US manufacturers were losing their competitiveness in saturated US markets. And thus relocation as a means of cutting costs through reduction of the wage bill became attractive to more firms and more sectors of the economy.<sup>17</sup>

Inflation, brought on by deficit spending to finance the Vietnam war effort and the long practice of expansionary Keynesian fiscal policy, became a persistent feature of the economy. Furthermore, this inflation was accompanied by historically high levels of unemployment. The oil shock of 1973 brought on the recession of 1974-1975, but this did not result in any permanent reduction of inflation. As mentioned above, the oil shock of 1979 brought additional inflationary pressure to bear on the developed economies. They responded to this pressure by taking harsh measures to choke off

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<sup>17</sup> The trend toward the diversification of the type of products produced by maquiladoras, indicates the broadening of the appeal of relocation.

inflation. In the US the Federal Reserve under Paul Volcker restricted growth of the money supply. The result was the worldwide recession of 1981-1982.

The 1979-1982 period was in some sense a watershed in the recent development of the maquila industry. Up to that point, the in-bond industry had grown in response to basic conditions in the US and Mexico and to government policies aimed specifically at allowing these basic conditions to interact in a mutually beneficial way. US firms were decreasingly competitive in US markets, and Mexico had a labor surplus. The tariff exemptions offered by the US and Mexico allowed these problems to be addressed. However, the interplay of US and Mexican government policies in the 1979-1982 period had the unintended effect of strongly reinforcing preexisting conditions, cheapening Mexican labor and making US manufacturers even more vulnerable to import competition.<sup>18</sup>

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<sup>18</sup> This was not the first time that unintended effects of government policy had had an impact. The ending of the Bracero Program by the US government in response to domestic political pressures had created the crisis in the border region that led to the establishment of the MIP. In the 1970s twice the Mexican government had maintained the peso at an overvalued exchange rate, undermining the low dollar cost of Mexican operations for US firms which had at least a marginal negative impact on the in-bond industries. Insofar as the US government allowed the 1974-1975 recession in the US to occur, this policy also had an unintended negative impact on maquiladoras, dampening demand for their output.

The stage was set during the 1970s when the US continued to pursue Keynesian policies though that meant tolerating increasing levels of persistent inflation. This had two important effects. First, along with other factors, this made borrowing an attractive way for Mexico to capitalize development: inflation reduces the real value of debt over time. The Mexican government's policy was based on the assumption that the US would continue to tolerate inflation (Bogdanowicz-Bindert 1986, 261; Kahler 1985, 358).

At the same time, the negative effects of almost a decade of high inflation by US standards caused growing concern over the seeming inability of US government to control it. The failure to reduce inflation convinced Paul Volcker, Chairman of the Federal Reserve system, that stronger monetarist policies must be applied (Lipietz 1986, 38). As noted above, the US Federal Reserve in 1979 and 1980 tightened the supply of US dollars to deal decisively with inflation.

The effects of this were many. Real interest rates shot up, directly increasing the cost of debt servicing for Mexico and setting in motion developments which further increased the cost of credit to Mexico. The recession brought on by increased interest rates in the US precipitated a worldwide economic downturn and this in turn resulted in decreased demand for all Mexican exports, but most significantly, for petroleum. This development undermined Mexico's credit

worthiness. As noted above, this resulted in higher interest rates and shorter maturities on additional credit. These factors made debt servicing intolerably expensive for Mexico, which was the immediate cause of the crisis of 1982.

High real interest rates have persisted (Lindley 1987), largely due to US policies, and have contributed to the continuing difficulties of the Mexican economy. Tax cuts and government-spending increases beginning in 1981 spurred a neo-Keynesian economic recovery in the US. The growing demand for capital in the US for private investment and for financing the federal government deficit ensured continuing high real interest rates. This demand was increasingly supplied by foreign investors.<sup>19</sup> Investors were attracted to US assets because of high interest rates and the rising risks of Third World lending (Thurow and Tyson 1987, 6). Limited availability of external credit became one of the most important constraints on Mexican economic development (Segarra 1987, 11).

As described above, the difficulties of the Mexican economy have contributed to the deterioration of the real wage and necessitated the repeated devaluations of the peso, both of which were extremely favorable to relocation in Mexico. At the same time, these circumstances were creating

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<sup>19</sup> The federal deficit grew from \$76 billion in 1980 to \$212 billion in 1985 (International Monetary Fund 1987).

a situation in the US favorable to relocation as well. The high demand for capital resulted in the overvaluation of the dollar. This situation had the same effect on US trade relations that it had had on Mexican trade relations. US exports became expensive on the world market and imports became cheap in the US market. All US manufacturers became more vulnerable to price competition from imports. The result has been a persistent and growing trade deficit.<sup>20</sup> This situation compounded the longer term trends of relatively low US productivity growth (Thurow and Tyson 1987, 7). Again, this circumstance favored relocation of production to Mexico.

In 1985 and 1986 the interplay of new developments continued to favor maquiladoras. Beginning in 1985 the US in collusion with its developed trading partners took steps to depreciate the dollar vis-à-vis other currencies, particularly the Deutschmark and the yen (Tyson and Thurow 1987). This might have caused a stabilization of the peso/dollar exchange rate, especially as the Mexican economy had begun to move tentatively in the direction of recovery. However, the 1985 earthquake and softening of the price of oil in early 1986, put more stress on the Mexican economy. The Mexican government instituted a sliding devaluation of

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<sup>20</sup> The trade deficit grew from \$25.5 billion in 1980 to \$124.4 billion in 1986 (International Monetary Fund 1987)

the peso and allowed reductions in real wages. This has had the effect of making Mexico ever cheaper and therefore more attractive as a location for US firms, especially since the trade deficit has been sluggish in responding to the devaluation of the dollar against the currencies of their major foreign competitors. Finally, as the peso drops against the dollar and the dollar against other major currencies, European and Asian firms are increasingly attracted to Mexico. The combination of factors has brought dramatic growth to the MIP: The number of plants increased by a third from 1985 to 1986 (see table 1).

Given this situation, economic conditions seem generally to favor the continued growth of the maquiladora phenomenon. The high aggregate demand in the US spurred by government deficit spending has stimulated markets for maquila output. Furthermore, the basic conditions remain in place. US manufacturers continue to face import competition. The labor surplus in Mexico is, if anything, greater than ever and cheaper than ever.<sup>21</sup> Even if devaluation of the dollar reduces import competition, US firms will continue to find Mexico attractive as a way of boosting profits. Reinflation

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<sup>21</sup> It should be noted that the average annual growth rate of the labor force has recently decreased. Between 1965 and 1980 the rate was 3.9%. Between 1980 and 1985 it had fallen to 3.2% (World Bank 1987, 265).

of the peso is unlikely, at least in the near-term and would have to be quite large to deter interest (Asman 1987).<sup>22</sup>

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<sup>22</sup> Some companies are paying as much as 50% above the minimum wage in order to hold employees (Stoddard 1987).

#### 4.0 CHAPTER FOUR: ECONOMIC AND POLITICAL ACTORS

Despite local variations that have a significant impact on the development of the in-bond industry in any given locale, different locations are politically homogeneous in the sense that they are subject to uniform federal regulations (Peña 1981). Tariffs and other barriers and incentives placed by nation-states have been important influences on geographical patterns of internationalization (Sayer 1986, 119). Therefore the issues and actors that determine national policy are a worthwhile focus of inquiry.

##### 4.1 MEXICO

Before discussing the actors influencing the Mexican debate regarding the MIP, it might be useful to the reader to have a brief orientation to the Mexican political system. The Mexican political system is officially democratic, but it is nonetheless highly centralized and authoritarian. The government is dominated by the Presidency and the Partido Revolucionario Institucional (PRI). Presidential elections are held every six years, but they are mass political mobilizations in support of the party and its candidate rather than effective democratic selection processes.

The PRI is not the only party in Mexico, but it is by far the most important. The most important opposition party is the Partido Acción Nacional. It is center-right in political orientation and enjoys limited support from business interests, particularly in the north. The PRI has demonstrated a great deal of ideological flexibility.<sup>1</sup> The PRI controls all major and most minor government and political posts, including all governorships, all Senate seats and the large majority of seats in the Chamber of Deputies. The PRI's main tools of direct control have been patronage, moderate electoral fraud, and, to a lesser degree, coercion. In addition, the PRI enjoys legitimacy based on its role as inheritor of the ideals of the Mexican revolution and on the extraordinary growth of the Mexican economy between 1940 and 1982.

The PRI is a corporatist political organization: broad sectors of Mexican society are represented and controlled through subgroups within the party. The Confederación Nacional de Campesinos (CNC) encompasses the Mexican peasantry. The Confederación Nacional de Organizaciones Populares (CNOP) organizes various popular organizations consisting primarily of urban petty bourgeoisie. The Mexican working class is represented predominantly by the

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<sup>1</sup> Hansen attributes part of the credit for its resilience to this flexibility (1971).

Confederación de Trabajadores de México (CTM). The CTM and its leader Fidel Velázquez dominate the umbrella group, the Congreso de Trabajo, and thus all organized Mexican labor.

Large business organizations stand outside of the PRI's official tripartite structure. The three most important of these are known by the Spanish acronyms CANACINTRA, CONCANACO, and CONCAMIN (see appendix 2 for an explanation of these acronyms). CANACINTRA, the Confederación Nacional de Industrias de Transformación, is the organization that includes the national organ of maquila interests. This is the Consejo Nacional de la Industria Maquiladora (CNIM).

Turning to the Mexican actors actually or potentially significant with regard to the MIP, they can be described in six categories:

- The Mexican government
- Leftist/nationalist critics
- Labor unions
- Border business/political elites
- Maquila interests
- Workers

#### 4.1.1 THE MEXICAN GOVERNMENT

The Mexican federal government is the most important actor due to the centralized authoritarian/bureaucratic political

system. With rampant unemployment and underemployment and heavy debt, the most immediate issues for the Mexican government are jobs and foreign-exchange earnings. The government supports the continuation and expansion of the MIP because it provides jobs and exchange. In addition, it hopes that ultimately the MIP can be a catalyst for export-diversification development.

President de la Madrid has acknowledged that there have been declines in the standard of living since 1982; still, he has contended that by allowing real wages to fall the government has minimized the unemployment that has resulted from the economic dislocations (Orme 1987b). The MIP fits in well with this strategy, which in turn favors the expansion of the MIP. The reduction of the real wage, the major cost factor of labor-intensive plants, attracts more foreign capital. This capital invested in labor-intensive plants, has a high job creation to investment ratio.

Therefore, charges of worker exploitation, while politically uncomfortable for the Mexican government, have a minimum impact because allowing a degree of exploitation is part of the government's strategy to distribute the suffering broadly and to restructure the economy for export competition. The current Mexican administration has apparently concluded that economic stabilization and recovery require a renegotiation of the social contract between the government and workers (Tamayo 1985, 89).

Beyond the minimum benefits of job creation and foreign exchange earnings, the Mexican government has consistently put forth the claim that maquiladoras can play a positive role in Mexican development. Even under the nationalist/leftist policies of Luis Echeverría, maquiladoras received encouragement and claims were made for the development effects of maquiladoras (Bustamante 1983, 242-243). Under López Portillo they were an integral part of the Alliance for Production. Expansion of the MIP was to increase jobs, exports and the use of Mexican materials (Van Waas 1981, 176). Under de la Madrid the in-bond industries continue to be promoted as engines of development.

While the government has persistently cited the development role of maquiladoras, there has been a change in the centrality of the MIP in the government's development strategy. Enrique Mier y Terán, a prominent figure in the in-bond industry in Tijuana and in CNIM, has emphasized the transformation of the Mexican environment since 1983. From an import substitution model country, Mexico was changed into an export promotion country, he claimed. Within this scheme, the maquiladora industry has been transformed from the necessary evil that it was viewed as under previous administrations. It is now one of the key elements in the development of the economy and in export training for the country (Mier y Terán 1987, 76).

Though Mier y Terán may have overstated the completeness of the transformation, the change of attitude he describes would be consistent with de la Madrid's inaugural address (Asman 1987; Walsh 1987). In that address, he announced an economic reordering plan that adopted conditions set by the IMF for renegotiation of Mexican debt as the government's own policy (Tamayo 1985, 87). The policy of capitalizing development through government debt has been ended. Instead, domestic and foreign private investment along with export diversification has been encouraged by devaluing the peso, reducing of the real wage, and trade liberalization. According to the vice-president in charge of the In-bond Industries Department of Banamex, Leon Opalín, "The maquiladoras are a major mechanism for the Mexican economy to become integrated into international commerce. They have trained workers, technicians, executives and entrepreneurs, all of whom have knowledge of and access to the international market." (Stockton 1987).<sup>2</sup>

The Mexican government seems for now committed to export diversification as part of its strategy for development. The Mexican government official most closely associated with this effort is Mauricio de María y Campos, Undersecretary for Industrial Development. He has been the architect of the policy of offering incentives for the location of in-bond

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<sup>2</sup> Banamex is the Mexican central bank.

plants in depressed areas of the interior and increased use of Mexican materials ("Star Performer" 1986).

In addition to the selective incentives to encourage constructive expansion of the MIP, effort is being made to promote the MIP. Mr. Opalín spoke in San Diego in August 1986 at a trade seminar on maquiladoras, describing the success of the MIP and the incentive program offered by the Mexican government. He emphasized the partial opening of the Mexican market and promised government action on problems related to infrastructure, public services and work-force housing ("Banamex VP"). In Mexico President de la Madrid has met with representatives of in-bond interests and declared the in-bond industries a high priority sector of the Mexican economy ("Star Performer" 1986, 86-87).

Yet, the Mexican government has not complacently assumed that development automatically coincides with the expansion of maquila industries. Article 16 of the Presidential Decree for the Promotion of In-Bond Industries seeks to ensure that any expansion of the MIP will have a positive impact on development. It specifies three guidelines for expansion of the MIP:

- Maquiladoras should stimulate technologically advanced production.
- They should maximize the use of domestic components.
- They should train workers.

Undersecretary de María y Campos obliquely acknowledged that maquiladoras have thus far fallen short of development hopes when he said that ties between Mexican suppliers and maquiladoras would be strengthened once foreign companies became aware that they could obtain low-cost and world-quality components from Mexican companies ("Star Performer" 1986, 92). Thus, the Mexican government is prepared to try to make dependency pay and to serve development but is also sensitized to the dangers of dependency.<sup>3</sup>

During a telephone interview Augustín Domínguez, Deputy Trade Commissioner of the Mexican Trade Commission, reinforced this impression. However, he expressed more ambivalence than public statements by Mexican officials. Though optimistic about the future expansion of in-bond industries, he said that the chief benefit was employment creation and that even the foreign-exchange earnings were limited by the exchange rate. Though the low value of the peso attracted more firms to the program, it also meant that the foreign exchange earned per job was much lower.

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<sup>3</sup> Dependent industrialization that developed into more complex and autonomous patterns in Brazil, and the Pacific Rim demonstrates that this is not impossible (Jonghoe and Stone 1985; Lipietz 1986). Given the difficulty of additional borrowing and the fact that scarcity of capital has become the greatest constraint on Mexican development, dependency or stagnation seem Mexico's short-term options (Segarra 1987).

According to Mr. Domínguez, Mexico places greater hopes for foreign exchange earnings on diversification and expansion of nonmaquila manufactured exports. Only as an afterthought, when asked specifically about other benefits of the MIP, did he mention a development issue, technology transfer.

#### 4.1.2 CRITICS

Mr. Domínguez acknowledged that within Mexico critics have alleged that maquiladoras are exploitative and dependent on the US economy. The work of these critics is varied and their principal interests do not exactly coincide, but their findings and arguments taken as a whole constitute a critique that is problematic for the Mexican government, despite the critics' lack of direct political power. It should be noted that Mexican academics have an applied focus, tending to be involved in areas defined as national priorities (Ganster 1987, 56). They are also important in the socialization of political elites (Camp 1984, 83). Their critique can be summed up as follows: maquiladoras do not support development, and they are vehicles that allow foreign capital to exploit Mexican workers. They are a manifestation of Mexico's economic dependency on foreign interests and of its compromised economic sovereignty.

These charges and the evidence that supports them are problematic for the Mexican government and the PRI because

the ideology that legitimizes the government and the PRI is based on nationalism and social justice (Van Waas 1981, 103). The nationalism of Mexico results from its long history of Spanish colonialism, repeated US interventions, and the loss of half the national territory following the Mexican-American War (Madrid Hurtado 1984, 63). The French military intervention (1863-67) and the power of French and British economic interests during the Porfirio Díaz era (1876-1911) were also influential in forming the strong Mexican nationalism (Skidmore and Smith 1984). The social justice aspect emerged in the revolution of 1910 and was embodied in the land-reform and labor-rights provisions of the Constitution of 1917. This element of the dominant ideology was rekindled under the Cárdenas administration (1934-1940) and again under Echeverría's Shared-Development populism (Mares 1985, 678).

Despite the limits of the success in realizing the goals of social justice and national self-determination, these ideals have remained powerful in Mexican society and legitimize the PRI. However, perhaps because of the limited success in achieving these goals, the government is vulnerable on those points. It must concern itself with suggestions that it is insincere in claiming to support them or incompetent in attaining them. For example, Bustamante's point by point rebuttal of the claims made by the Echeverría administration that maquiladoras had had positive impacts on

the development process undermined the credibility of those claims. Similarly, Fernández-Kelly's accusations, that the motives of the government in allowing transnational corporations to operate maquiladoras seem vague and without due regard for the needs of the people and that the policy suggests blind servility to foreign interests, use elements of the government's ideology to criticize the MIP (1983b, 184). Sensitivity to these criticisms can be seen in Mr. Domínguez's disclaimer and in Article 16 of the 1983 presidential decree promoting in-bond industries.

#### 4.1.3 MAQUILA FIRMS

Turning from critics to proponents of the MIP, firms engaged in in-bond operations tend at the local level to be poorly unified due to competition. Instead, the maquila interest in Mexico is most effectively organized vertically. Individual firms and industrial parks articulate their concerns through two national organizations the American Chamber of Commerce in Mexico (AMCHAM) and the Consejo Nacional de la Industria Maquiladora (CNIM) (Van Waas 1981, 135-137). As noted above, CNIM is affiliated with CANACINTRA, one of three national business organizations that together represent the Mexican private sector to the government.

CNIM has the advantage in lobbying of being a purely Mexican organization. To maximize this advantage, US firms

that operate maquiladoras often have Mexican nationals as their representatives to CNIM. AMCHAM has the lobbying advantage of excellent contacts both in Mexico City and Washington, D.C.<sup>4</sup> In addition AMCHAM has considered maquiladoras an important part of the US investment community in Mexico. For example, AMCHAM publishes a monthly newsletter devoted to in-bond operations. Managers of in-bond plants attribute greater behind the scenes effectiveness to AMCHAM. Individual and local problems tend to be addressed through AMCHAM, and national issues through both organizations (Van Waas 1981, 140-141).

For firms involved in maquiladora operations, the overriding issue is cost. Specific concerns flow from their efforts to minimize costs. This concern has led them to lobby at the national level for fewer and smaller increases in the minimum wage, to oppose the efforts by the CTM to get assembly work upgraded to a higher wage category, and, most recently, to get changes in Mexican law to allow US trucking to make deliveries and pickups at plants in Mexico ("Star Performer" 1987).

It might be argued that the consistent margin by which maquila wages have exceeded the minimum suggests that the concern with costs is not overriding, but it should be noted

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<sup>4</sup> AMCHAM maintains its contacts in Washington through the US Chamber of Commerce, according to John Christman, former president of the maquiladora committee of AMCHAM.

that when the minimum wage fell in US dollar value following the 1982 crisis maquila wages fell with them. This suggests that the margin between the minimum and maquila wages is not due to a lack of concern with costs. Van Waas argued that instead this strategy of maintaining a wage gap allows transnationals to offer relatively attractive jobs and thus buy a degree of labor peace (1981). This is, therefore, a strategy of minimizing costs associated with labor unrest. When they address other issues, for instance trying to balance gender ratios, it is an attempt to minimize their vulnerability to criticism which might increase the political costs of their operations in Mexico (Stoddard 1987, 59).

Though maquila interests support the MIP, their economic priorities make their satisfaction depend on the relative advantages of operations in Mexico vis-à-vis other locations. In lobbying with government officials and in confrontations with unions and individual workers, transnationals have the advantage of threatening to relocate their operations in other low-wage labor markets. Therefore, their support for the MIP is in some sense conditional.

#### 4.1.4 LABOR UNIONS

Labor unions in Mexico have had a varied response to maquiladoras. Because of the distance to the border from the dominant central region of Mexico and the relatively small

work force, the activity of the dominant CTM has been intermittent (Van Waas 1981). Van Waas cited an unnamed American acquaintance of Fidel Velázquez who was of the opinion that the CTM'S unofficial policy was not to press the maquilas to unionize if they met resistance. However, if maquiladoras were to be organized, it would be by the CTM. Bernardo Cobos, an official of the CTM, was considerably more vague, perhaps to avoid giving any impression of deference to owners of maquiladoras. He said only that foreign firms were are welcome as long as they complied with the Federal Labor Law.<sup>5</sup> The CTM has had few serious conflicts with operators of in-bond plants and generally views them as useful sources of jobs and wages (Van Waas 1981, 321-322).

The situations that have brought action from Velázquez and the CTM have been those that have threatened the union position. In Nuevo Laredo the national confederation intervened in 1974-1975 to settle a leadership struggle, enforcing a compromise that allowed maquiladoras to have unions independent of the local CTM boss but subservient to the national confederation. The False Freight controversy of the late 1970s involved the attempt by maquila firms to bring customs inspections in-house, which would result in a loss of income to the stevedores' union.

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<sup>5</sup> Workers have the right to organize and to strike under this law.

The only aggressive national move by the CTM has been the attempt in 1974-1975 to have electronics workers receive professional wages. This effort failed, but Van Waas claimed that this was a result not of inability, but rather unwillingness, to press the point on the part of the CTM. In addition, he pointed out that CTM has not pressed unionization of maquiladoras nor a requirement that they post bonds to guarantee severance payments, both of which he argued are within its power (1981, 234).

This situation should not be regarded as indicating frictionless cooperation of unions with maquiladoras or vice-versa. The national CTM has resisted pressure from maquiladoras to accommodate them in the False Freight controversy. Maquiladoras have resisted CTM organizing drives and allowed competing mainstream labor confederations CROC and CRT (see appendix 2) to organize plants because they were weaker than the CTM. Neither does this situation ensure labor peace. Worker discontent, both with maquiladoras and the CTM, has fueled attempts to establish independent unions and to promote more radical leadership in CTM locals.

Although the impact of unions has not been crucial, the potential impact of the CTM is great due to its position in the Mexican political system. That this is the case is suggested by the observation in Business Mexico that while labor-management relations have been positive for the most

part, the threat of plant by plant unionization drives should not be overlooked ("Star Performer" 1986, 90).

#### 4.1.5 WORKERS

Workers themselves have been a question mark. As discussed above, they have sporadically broken the general pattern of labor quiescence. Recent examples are the 1986 general strike at Reynosa, the first in the history of the MIP, and the March 1987 strike against the Ford Mercury Tracer plant in Hermosillo (Zack 1986c; "Ford Stalls" 1987). Their issues are exploitation, low wages, poor working conditions, and unfair labor practices, like forced resignations and evasion of severance benefits. Growing out of these issues is a concern with the right to organize effective unions. Thus far worker unrest has been contained by the combination of coercive and cooptive measures, and unionization has been undercut by the practice of hiring young single women with weak job attachment due to cultural expectations of quitting work after marriage. Nonetheless, the increased turnover that has recently characterized the in-bond industry shows that worker dissatisfaction may undermine the viability of maquiladoras even where workers are effectively prevented from collective action.

#### 4.1.6 MEXICAN BORDER ELITES

Border business-political elites in Mexico are, like their US counterparts, generally supportive of maquiladoras. Mexican business leaders value the economic stimulus that results from the wages of maquiladora employees. As well, important businessmen in several cities have had direct interests in maquiladoras, as owners of plants, industrial parks or banks. Political elites benefit from taxes paid by maquiladoras. Even more important, the jobs and income provided mitigate the unemployment and poverty in border cities. Manuel Quevedo, former mayor of Ciudad Juárez, said, "Let's not kid ourselves. The twin plant operations are the economic life line of Juárez." (Van Waas 1981, 118).

This has become more important since 1982. The northern region has borne the brunt of the economic crisis because of its extensive links to the US economy. The north is dependent on imports from the US for a large proportion of its consumer goods, especially since it is poorly supplied from the center of Mexico. Thus, the ongoing devaluations of the peso have caused sharp increases in the cost of living (Tamayo 1985, 89). That the devaluations also spurred the expansion of the MIP has partially offset the negative impact.

In some cases, business and political elites overlap. For example, Jaime Bermúdez is both the mayor of Ciudad Juárez and chief executive officer of Grupo Bermúdez, the largest

operator of in-bond industrial parks in Mexico (Conaway 1987). It is possible that this overlap in Mr. Bermúdez's case has national political significance. An additional benefit that the PRI may hope to gain by encouraging the expansion of the MIP is the support of a segment of the border business community.

There has been a growing split between the border north of Mexico, which is relatively modern, urban, and affluent, and the border south, which is more backward, rural and poor. While the PRI has maintained its ability to command 80%-90% of the southern vote, its support has eroded in the north, particularly among the prosperous, conservative middle class. In a brief, ill-fated flirtation with political liberalization, the PRI allowed the 1983 municipal elections in Chihuahua to take place undistorted by the moderate fraud that traditionally accompanies Mexican elections. The conservative, middle-class opposition party, PAN, won a majority in seven city councils and the mayor's offices in Chihuahua and Ciudad Juárez.

The government backed away from clean elections after that, but fraud would not suffice to paper over the political disaffection in the north. Protests resulted from electoral fraud in municipal elections the following year. President de la Madrid ordered the army in to quell the violence, a "solution...possibly more provocative than the problem". This situation faced the government with two untenable

options. Since fraud had become inadequate to maintain control, it seemed that the PRI must either give in to its opposition or call in the army (Castañeda 1985, 290-291).

A third option may be cooptation, another traditional tactic used by the PRI to maintain its political dominance. Though, as noted above, the peso devaluation and reduction in real wages that the government instituted after 1982 was particularly hard on the north, which enhanced the electoral appeal of the PAN, it was beneficial to maquila interests. Thus, it makes sense that the Mexican federal government might cultivate its support in this segment of the border community to offset its loss of popularity elsewhere. The government can pursue this end simply by doing what it can to facilitate the expansion of the MIP. Thus, the meeting between President de la Madrid and representatives of maquila industrial parks (like those run by Mr. Bermúdez's company) in 1985 might have served two ends: wooing border businessmen and discovering how best to encourage the expansion of the MIP ("Star Performer" 1986).

President de la Madrid is said to have personally recruited Mr. Bermúdez to run as the PRI candidate for mayor of Ciudad Juárez in 1986 (Conaway 1987). By nominating Mr. Bermúdez and ensuring his defeat of the PAN incumbent for the mayor's office of Juárez, the PRI has won an ally and placed him in a powerful position. He is doubly attractive because, as an important figure in local business, he would strengthen

the PRI where it most needs it, and, as a maquila industrial park operator, his self-interest would lead him to support the government's economic policy.

#### 4.2 THE US

In the US, there have been four main actors in the national debate over maquiladoras:

- The executive branch of federal government
- Organized labor
- Coproduction interests
- Congress

The US federal government's monopoly on the regulation of international commerce makes it a crucial actor with regard to the maquiladoras. The executive branch has consistently supported the MIP. Organized labor's political clout has made it the second most important actor in the debate, in a way that Mexican organized labor has not been, because US labor has used its power in opposition to US firms' participation in the MIP. The main thrust of this opposition has been the lobbying for the repeal of items 806.30 and 807.00. The third group of importance in the US is made up of firms that operate maquiladoras or provide support to them. This group forms an increasingly effective counterbalance to labor.

At the national level, the struggle between those supporting and those opposing maquiladoras takes place largely in the forum of the US Congress, where legislation to repeal items 806.30 and 807.00 would have to originate.

#### 4.2.1 EXECUTIVE BRANCH

Since the establishment of the BIP, the US executive has through successive administrations supported the participation of US firms. Lyndon Johnson, though a Democrat and generally allied with labor, attempted to personally intervene with the Texas branch of the AFL-CIO to dampen its opposition to the program's establishment (Van Waas 1981, 150). This attitude may well have resulted from concern over the potentially destabilizing levels of unemployment in the Mexican border region following the end of the Bracero Program and with economic depression in the US border region.<sup>6</sup> This support continued through the probusiness administrations of Nixon and Ford. During the Carter administration, the executive branch continued its support for the MIP, in part, because it was viewed as dampening undocumented immigration.

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<sup>6</sup> This approach would be consistent with the evolution of the Alliance for Progress under Johnson to a private investment driven development strategy, intended to address the threat of political instability arising from poverty.

Not since the Nixon administration lobbied with Congress to defeat an amendment to the Burke-Hartke bill calling for the repeal of items 806.30 and 807.00 has the executive given as strong public support to maquiladoras as during Reagan administration. That the current administration supports the continuation of the tariff exemptions for imports from maquiladoras is a predictable outgrowth of its free-trade ideology and probusiness orientation. Concern over the threat to political stability in Latin America also contributes to its support for the MIP. The increase in both the economic difficulties of Mexico and the threat to US firms from imports has spurred the Reagan administration to take active steps to encourage US firms to consider the benefits of relocation in Mexico. The political backlash that resulted is instructive because it defines the political limits of US government support for relocation of production.<sup>7</sup>

COMMERCE DEPARTMENT: The Commerce Department supported the MIP from early in the program. In 1969 it cosponsored a promotional seminar on the MIP in El Paso. However, in 1986 when the department was to have cosponsored another seminar,

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<sup>7</sup> The controversy is also instructive because it showed the limits of the backlash, as will be discussed below in the section on congressional opinion with regard to maquiladoras.

Expo-Maquila, a controversy erupted. In response to inquiries by US businesses, Commerce arranged the seminar, which eventually took place in December 1986 in Acapulco. However, the zeal with which the department executed its promotion of the seminar brought hostile publicity. It made three separate mailings of promotional brochures to 39,000 companies that it selected on the basis of the type of production (Mendelowitz 1986). The size and number of these mailings and the enthusiastic tone of the brochures suggest a greater degree of support for the relocation of US firms than the muted defense of Commerce's actions offered by a spokesman six months later in a phone interview.

Following labor lobbying, Representatives Ralph Regula (R-OH) and Bob Carr (D-MI) sponsored an amendment to the funding bill for fiscal year 1987 that forbade use of appropriated funds to support any activity to promote the relocation of US firms in foreign countries. Faced with this prohibition, Commerce argued that the letter of the law did not prohibit its sponsorship of Expo-Maquila because the money came from a departmental fund maintained by fees collected from participants in previous trade expositions. Nonetheless, in the face of continuing congressional hostility, Commerce turned over control of Expo-Maquila to the public relations firm that it had contracted to assist it in promoting the show.

This action did not defuse congressional hostility and two House subcommittees called hearings. Chairman John J. LaFalce (D-NY) of the Economic Stabilization subcommittee of the House Banking Committee held hearings to investigate the basic policy promoting job export. Chairman James J. Florio (D-NJ) of the Subcommittee on Commerce, Transportation and Tourism of the Energy and Commerce Committee directed his investigation to the use of taxpayers money in the staging of Expo-Maquila. Chairman Florio pronounced it highly inappropriate for a federal agency to promote moving any jobs out of the US. He asked the General Accounting Office (GAO) to investigate the funding of the investigation (Zack 1986b).<sup>8</sup>

Alexander Good, Director General of the US and Foreign Commercial Service of the Department of Commerce in testimony before Representative Florio's subcommittee made an unapologetic defense of Commerce's position. He made the argument that production sharing in Mexico has had four benefits:

- Improved US competitiveness in world markets

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<sup>8</sup> The GAO concluded that the Commerce Department had taken a very narrow interpretation of the statute prohibiting use of appropriating the use of federal funds and that the fees that supported the revolving fund that Commerce used to finance the set up of the seminar should be paid to the Treasury. They could not legally be retained by Commerce to disburse as it saw fit in the execution of its mission (Mendelowitz 1986)

- Maintenance of employment levels of the American work force
- Advancement of US policy interests by making a positive contribution to Mexico's economy and stability
- Competitively-priced alternatives to imports of wholly foreign origin for American consumers

Despite this defense, phone interviews with Commerce Department personnel suggested that the department would prefer to place some distance between itself and maquiladoras in the wake of the hostility evoked by the Expo-Maquila controversy. In a preliminary call to Commerce, the individual I spoke with told me that Commerce had nothing to do with the MIP and directed me to the Mexican Embassy. In a later phone interview, a spokesman for the US and Foreign Commercial Service emphasized that the Service was merely responding to the needs of US firms. So many inquiries into the MIP had been made at the Service's desk at the US embassy in Mexico City and at its headquarters in Washington, D.C. that the Service arranged Expo-Maquila. That approximately 300 US companies participated in the event suggests that the number of inquiries was somewhat less than the 39,000 companies that were sent promotional brochures advertizing Expo-Maquila (Zack 1986b).

The spokesman reiterated Director General Good's argument that the MIP helped maintain US jobs because firms relocating in Mexico used a high percentage of US-produced components.

To support this contention, he cited the 1970 US Tariff Commission study that concluded that the use of coproduction arrangements under items 806.30 and 807.00 would preserve jobs. During his testimony, Alexander Good proposed a more positive defense. If cost savings that are achieved by relocating a part of production allow firms to expand their sales, then it is conceivable that additional jobs might be created in the expanded production of components in the US (Good 1986). That Commerce continues to support the MIP strongly, even after the Expo-Maquila controversy, is suggested by the decision to exempt Japanese-owned maquiladoras from the punitive tariffs applied to Japanese semiconductors in the Spring of 1987 (Rohter 1987).

STATE DEPARTMENT: The State Department has supported the MIP since its inception. Fulton Freeman, US ambassador to Mexico from 1964 to 1969, explained that his embassy viewed the program positively at the time it was established. The most significant benefit hoped for was job creation to remedy the high unemployment in the border labor market, which it was feared threatened to lead to political instability and increased undocumented migration. Additionally, it was expected that the economies of the US border communities would benefit.

The single potential disadvantage that he foresaw was that the program might harm US industry and that substantiated

charges of runaway industries might produce a backlash from US labor unions. To combat this threat, he recommended to the Mexican government that it select companies that were marginal in the US economy due to import competition or that had already shifted operations to other offshore locations (Freeman 1971, xii-xiii). This recommendation received publicity as the Mexican policy but has not been implemented by the Mexican government (Van Waas 1981, 153).

Under the Reagan administration, State continues to view the MIP positively. The foremost benefit, according to a Mexico country desk officer James Landberg, is that maquiladoras are one of the bright spots in the Mexican economy and thus a source of political stability. He argued that though the MIP is valuable for that reason alone both countries also benefit economically. Benefits for the Mexican economy are complemented by jobs retained or created in the US. Because of the mutually beneficial character of the MIP, maquiladoras are also diplomatically valuable as a positive facet of bilateral relations.

Though Landberg said that this position did not constitute an official policy cleared with the Secretary of State, the department seems to give broad support to the MIP. Deputy Assistant Secretary of State for Inter-American affairs Paul D. Taylor told a group at an in-bond trade seminar held in San Diego in August 1986 that Washington viewed production sharing as promoting efficiency through freer trade and as

stimulating economic growth and political integration. He also stated that the maquiladora alternative provides profits for US business, cheaper goods to US consumers, and income, employment and capital to Mexico. Taylor summed up that the MIP was the most evident manifestation of the growing interdependence of the US and Mexico and "further energizes our relationship" ("Maquilas 'Energize'" 1986).

LABOR DEPARTMENT: A spokesman for the Office of Policy of the Labor Department said that under the Reagan administration Labor has no specific policy with regard to maquiladoras or items 806.30 and 807.00. He said that the overriding commitment of the department was to the free flow of capital across international borders. The attitude of the Labor Department at the outset of the MIP was favorable as well, foreseeing employment benefits for Mexico and cheaper goods for the US market (Van Waas 1981, 149-150). In light of this, it is notable that Seligson and Williams found plant managers distrustful in 1978 when they understood that the researchers were partially funded by the US Department of Labor (Seligson and Williams 1981, 16). Since the Carter administration generally supported the program, it begs the question of whether plant managers were cautious with or without cause.

US INTERNATIONAL TRADE COMMISSION: Among departments of the executive branch, the US International Trade Commission holds a pivotal position in the debate over maquiladoras. This is because its mission is to gather and analyze data; it has no policy-making role. Therefore, it plays the role of impartial arbiter. The 1970 report of its predecessor, the US Tariff Commission, concluding that the net impact of items 806.30 and 807.00 was positive provided powerful ammunition to the supporters of maquiladoras. The Commission is currently working on an update of that analysis, which should be available in late 1987 or in 1988. The conclusion reached in that report will undoubtedly have an important impact on the future course of the debate. Already, a preliminary report on the impact of US-Mexican trade in the border region has been made use of by both opponents and supporters of maquiladoras ("Mexican Connection" 1986; "USITC Commissioner" 1986, 1,8).

#### 4.2.2 US ORGANIZED LABOR

Organized labor has been the most active opponent of maquiladoras since 1965 when the industrialization program began. By 1969 the AFL-CIO Executive Council came out with condemnations of offshore production and of the BIP in particular. It called for the repeal of items 806.30 and 807.00 and the institution of countervailing duties on

imports from maquiladoras (Van Waas 1981, 152). In 1970 labor spokesmen made their arguments at hearings before the US Tariff Commission and in 1976 during hearings before the International Trade Subcommittee of the House Ways and Means Committee. In both cases the investigating body concluded that the job retention argument was sound and outweighed labor's complaints of job export (Van Waas 1981, 181-182). Aside from these two defeats, labor has been able to get bills for the repeal of items 806.30 and 807.00 sponsored but has seen them killed in committee. The exception was the Burke-Hartke Foreign Trade and Investment Act of 1972, but it did not contain the repeal provisions when it ultimately passed (Martínez 1975, 135).

Some of the unions most active in opposition to maquiladoras are the International Union of Electronics Workers (IUE), the Amalgamated Clothing and Textile Workers' Union (ACTWU), and the United Auto Workers (UAW). The AFL-CIO national and Texas organizations have been active and long-time opponents. It seems that the Texas unions are the most active of the state and local organizations, but further investigation would be required to verify that initial impression.

With the emergence of the US trade deficit in the early 1980s, protectionist sentiment and the concerns about deindustrialization and competitiveness may create a new opening for union arguments. One congressional supporter of

maquiladoras expressed concern that some of the provisions of the House trade bill passed in May 1987 may endanger maquiladoras. However, since production sharing is described by supporters of maquiladoras as a competitiveness-enhancing arrangement, the competitiveness debate might as easily undercut the position of labor. There is strong evidence that this has been the case.

Though labor and congressional opposition succeeded in forcing the end of Commerce's sponsorship for Expo-Maquila, the House trade bill does not contain provisions repealing tariff items 806.30 and 807.00. This seems particularly noteworthy since House bill is considered by one supporter of the MIP too protectionist for passage by the Senate. The legislative assistant to Senator Jeff Bingaman (D-NM) Ken Jarbo suggests that labor is taking a broader approach, supporting measures like 60-day warnings before plant closings and federal relief for industries threatened by imports rather than expending its political capital on narrower measures like repeal of items 806.30 and 807.00.

During a phone interview, Steve Beckman, a UAW economist, made clear the continued interest of labor in the repeal of the tariff provisions. Yet, in his testimony before the House subcommittees investigating Commerce's promotion of maquiladoras, Beckman, speaking for the UAW, made only a more modest proposal for a stricter application of the tariff items based on a narrower definition of assembly. This might

be the result of the relatively capital-intensive character of the automobile industry in the MIP. A narrow enough definition of assembly might be tantamount to repeal of the items as far as the UAW is concerned.

The core of the labor position is rejection of the basic assumption that competitiveness and comparative advantage dictate that some or all manufacturing for the US market will inevitably be done overseas in cheap labor markets. As Beckman said in his testimony during congressional hearings, "We at the UAW, and our fellow trade unionists see nothing 'natural' about the process. We see corporations taking advantage of a tariff system that subsidizes such investment."

Beckman went on to argue that US firms could reduce costs of US operations by increased investment. Though not arguing that costs could be reduced to levels obtainable in Mexican plants, he emphasized the negative impact on the US economy, particularly local economies. He called on US companies to adopt strategies that both address foreign competition and recognize and meet their social commitments.<sup>1</sup> He went on to discount the employment benefits in the US. Though some jobs

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<sup>1</sup> The General Manager of General Electric El Paso, Richard Michel, maintained that GE has a socially responsible policy. GE prefers to keep operations in the US, automating production only in order to maintain profitability and moving operations overseas only when even automation can not keep US plants in the black.

remain in the US, he said that UAW researchers had found that companies tend to eventually move their entire production overseas.

Labor representatives from the border region condemn the fraud of the twin plant. The phrase "twin plant" they feel is misleading because of the implication that these are equal facilities. Victor Muñoz, president of the El Paso AFL-CIO, pointed out that there are 80,000 employed in Ciudad Juárez maquiladoras, but only 5000, in the counterpart twin plants in El Paso (Zack 1987b, 1). Antonio Sanchez, manager of the Clothing and Textile Workers joint board, claims that the 26,600 people unemployed in El Paso are almost all jobless due to the maquiladoras ("El Paso Protest" 1987, 2).

The AFL-CIO organization is also strongly opposed to the MIP. Rejecting the inevitability of relocation, John Rogers, communications director of the Texas AFL-CIO, disdains the jobs created in the border region. He said that maquiladoras have wreaked havoc on Texas employment and that the few jobs created have been in banks and warehouses. He echoed the sentiments of Owen Bieber, President of the UAW, that the maquiladoras were beneficial only to special interests. Harry Hubbard, president of the Texas AFL-CIO, formed the Twin Plant Task Force in January 1987. The first action by this Task Force was to picket a trade show promoting maquiladoras in El Paso ("El Paso Protest" 1987, 2).

Another issue frequently addressed by labor spokespersons is that the economic advantage of Mexican operations is founded on the exploitation of Mexican workers. Bieber made this charge in statements to Newsweek (Copeland 1987). Beckman reiterated that point in his testimony before the congressional subcommittees. In articles on maquiladoras in the AFL-CIO News, exploitation has been routinely condemned. One article detailed the low pay, and bad working conditions of predominantly young, female work force and the antiunion collusion between maquila management and the Mexican authorities (Zack 1986c). The exploitation of Mexican labor seems not to be a concern of any other major US actor although it has been a regular feature of labor polemics: only one congressman Senator Jeff Bingaman (D-NM) mentioned exploitation of Mexican workers as a relevant issue with regard to maquiladoras.

#### 4.2.3 US BUSINESS

Businesses that operate in-bond plants have participated in hearings held by the executive and legislative branches, making the case for the positive impact of maquiladoras on the US economy and for their importance in maintaining the viability of US firms in the international economy. According to the spokesman for Senator Specter (R-PA), individual firms pursue their interests through individually retained

lobbyists and collectively through trade organizations. Since 1976 the interests of the industries involved in coproduction arrangements in Mexico and elsewhere in the Western Hemisphere have been represented at the national level by the Committee for Production Sharing.

The Committee for Production Sharing, a lobbying and promotional organization, represents companies involved in all major sectors of in-bond industry, including textiles, garments, automotive and electronics. It thus addresses broader issues relevant to the in-bond industry, especially the maintenance of items 806.30 and 807.00 and making the case for the positive effects of production sharing, according to its executive director. According to its current president, Ralph Biedermann, the Committee devotes itself "...to fostering and preserving the ability of US firms to form assembly and manufacturing partnerships with developing countries, where we add US content and technology and they add labor skills and factor costs--and we both benefit." ("CPS Chairman" 1987).

This organization was founded in 1976 as the Committee for 806.30 and 807.00 to fight the repeal of those tariff items. Its membership has increased (130 member firms) and broadened to include firms with an indirect, but vital, interest in coproduction. These include customs brokers, freight forwarders, customs-law firms, suppliers, banks, industrial-park owners and developers, and others.

The activities of this organization include publishing a periodical report on activities in Washington that may effect coproduction. Topics surveyed include current legislation, forthcoming government reports, and activities of legislators and others. For example, it reported the recent formation of the US Border Business Council, made up of border congressman and US and Mexican representatives of the private sector ("Senator DeConcini" 1987, 3-4). The Committee also publishes a biannual Production Sharing Report, which reports on Committee-sponsored events. These events include annual meetings in Washington, D.C. and trade symposiums that feature speakers describing the advantages, technical aspects and political threats to coproduction. Additionally, the Committee sponsors and publishes research on coproduction.<sup>2</sup> Another important source of research on coproduction and its benefits is the Flagstaff Institute. Although the Committee for Production Sharing is trying to make itself a focus of national lobbying, the decentralized character of the lobbying should emphasized, according to Richard Michel, member of the board of directors the Committee and General Manager of General Electric El Paso.

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<sup>2</sup> Production-Sharing: A Viable Option for Making US Products More Competitive.

#### 4.2.4 CONGRESS

Each of the groups described above is largely unified in its position with regard to maquiladoras. The executive branch and firms with an interest in in-bond operations support of maquiladoras. Organized labor opposes. The US Congress is divided over the question of the value of maquiladoras. In order to investigate current attitudes and policy preferences in Congress with regard to maquiladoras, an exploratory survey was conducted.

This survey was intended to investigate whether there was a pattern of support and opposition based on the shift in the location of US manufacturing over the twentieth century. Especially since the 1960s, there has been a clear shift of manufacturing activities from the traditional industrial heartland in the northeast and north-central Midwest US to the south and west. The emergence of the border industries under the MIP is a continuation of this process (Hansen 1981, 92-93).

The perceived economic impact of this shift was hypothesized to determine congressional attitudes. Thus, the expectation was that congresspersons from border states to express positive attitudes towards maquiladoras and favor supportive policies. Conversely, it was expected those from industrial states to oppose the MIP and to support repeal of items 806.30 and 807.00 and/or other hostile policies. This

is the pattern of congressional opinion depicted in articles on maquiladoras in the popular press (Auerbach 1986; Copeland 1986).

In order to do an exploratory test this hypothesis, the views of the Senators and Representatives of the US border states, and of four Midwestern and four northeastern industrial states were solicited.<sup>3</sup> Each was sent a letter requesting a phone interview with the legislator in question or with a representative qualified to speak for him on the issue of maquiladoras. In lieu of either of those, a written statement of the respondent's views was requested.

Specifically, the congresspersons were asked how significant they considered the local and national impact of maquiladoras and if the impact was positive or negative. In light of the respondents' views on the previous question, they were asked whether they supported the repeal or continuation of items 806.30 and 807.00.

In response, 32 replies from the total of 270 were received. Four findings were most striking:

- Response was much stronger from border congressmen.

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<sup>3</sup> The subset of industrial states, Indiana, Illinois, Ohio, Michigan, New York, New Jersey, Massachusetts, and Pennsylvania were selected based on their mention in press accounts of plant closings and congressional concern over deindustrialization and/or maquiladoras.

- Responding border congressmen were generally supportive of maquiladoras.
- There was a low level of specific concern with maquiladoras among responding industrial-state congressmen.
- Economic issues were the foremost concerns, especially the impact on the labor market and the competitiveness of US firms, and largely determined attitude towards maquiladoras.

Although it is speculative to interpret missing data too heavily, it seems noteworthy that border congressmen responded much more frequently both in absolute numbers and proportionally than did industrial-state congressmen (see table 13). Border respondents made up about 65% of the respondents, but legislators from those states are only 35% of the total delegations from the twelve states. Industrial-state respondents were only 35% of the respondents, but make up 65% of the legislators from all twelve states.

Breaking down the respondents by party and region reveals that Republicans from border states make up 44% of the respondents, while they account for only 15% of all congressmen from the twelve states. Democratic respondents from border states responded in about the same proportion that they are represented in the total, 22% and 19% respectively. Of the industrial-state respondents, Republicans were 13% of the respondents as opposed to 27% of

Table 13. Actual and Expected Frequencies, n=32

	Actual	Expected
Democrats	14	19
Republicans	18	13
Total	32	32
Border States	21	11
Industrial States	11	21
Total	32	32
Border Democrats	7	6
Border Republicans	14	5
Industrial Democrats	7	13
Industrial Republicans	4	9
Total	32	32a

a) Figures do not total to 32 due to rounding.

all congressmen from the twelve states. For Democrats the figures are 22% and 40%.

The skewing toward border respondents results largely from overrepresentation of Republicans and underrepresentation of both Democrats and Republicans from industrial states.

(Industrial-state congressmen from each party responded in proportion to their party's share of the total of the delegations from those eight states.) These findings suggest that among congressmen maquiladoras are a regional issue of concern foremost to border state delegations. The responses from border state legislators suggested that even within those states concern with maquiladoras is inversely proportional to the distance from the border.

This result is consistent with the greater interest in maquiladoras on the part of border legislators manifested by the creation of the extralegislative Congressional Border Caucus and its action in holding hearings in March 1987 to allow a rehearing of the arguments concerning maquiladoras. This public debate was held to allow maquiladoras to be discussed in a forum in which they would not be confounded with the Commerce Department's sponsorship of Expo-Maquila and could be addressed on their own merits ("Border Trade Alliance" 1987). Another example of this greater interest was the formation in March 1987 of the US-Mexico Border Business Council. This body has an 11 member Congressional Executive Committee made up of border-state members of Congress and

will concentrate on addressing issues important for US-Mexican trade in the border region.

The results of my survey show that a majority of border respondents viewed the impact of maquiladoras as positive at the local, state and national level. The impact was viewed as positive or strongly positive at the local and state levels by a clear majority. No respondents thought the net impact was negative at any level.

The first issue mentioned by slightly less than half of the border respondents was the labor-market impact.<sup>4</sup> Of the respondents, 17 of 21 mentioned this issue and all thought the net impact positive. The second most commonly first-mentioned issue was competitiveness, which was the chief concern for 4 of 21 and was mentioned by 13 as an important issue. Again, of those 13 that mentioned competitiveness, all thought the impact of maquiladoras on competitiveness was positive.

Other issues mentioned by border respondents as their chief concern were undocumented immigration, Mexican stability and development, and consumer benefits. The impact of maquiladoras on each of these issues was viewed by a majority of border respondents as positive and as negative

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<sup>4</sup> Border respondents addressed a larger number of issues than did industrial-state respondents, predictably more often expressing concern over undocumented immigration, US-Mexican relations, political and economic stability in Mexico and a variety of local issues.

by none.<sup>5</sup> In summary, of the 18 of border-state respondents who specifically mentioned any issue with regard to maquiladoras, 17 thought the impact on their chief concern is net positive, and the other was unsure but thought the impact negligible.

These views are reflected in the policy positions of border respondents. Of the total, 18 supported continuation of items 806.30 and 807.00, and 7 of those thought the tariff exemptions should be complemented with stronger encouragement of maquiladoras and/or of general economic integration with Mexico. None of the border-state congressmen said that they supported repeal of 806.30 and 807.00 or that they opposed the federal government's role in promoting relocation.

Within this pattern there was evidence of a tendency for border-state Republicans to be more positive than border Democrats. Among Democratic respondents there was greater evidence of an ambivalent attitude toward maquiladoras. For example, the spokesman for Ronald Coleman (D-TX), the Representative from El Paso, expressed concern about job losses in El Paso, particularly in the garment industry.<sup>6</sup>

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<sup>5</sup> In all cases, positive impact with regard to undocumented immigration meant reducing the flow.

<sup>6</sup> His spokesman repeatedly noted that the data available was insufficient to make an informed opinion on the impact of maquiladoras and, in lieu of conclusive negative evidence, the congressman continued to support maquiladoras.

Senator Jeff Bingaman (D-NM) expressed a similar attitude. He emphasized that relocation might not be the best way for firms to improve competitiveness, but merely easier than production-process innovation. This suggests the possibility that the underrepresentation of Democrats among border-state respondents may indicate that Democrats are less comfortable with this issue because of job losses and the opposition of organized labor in their states and districts.<sup>7</sup>

Republicans, perhaps because they are traditionally not beholden to labor, seemed more satisfied with claims for the net positive labor market impact of maquiladoras. This may be part of the explanation for their disproportionately strong response. However, another important factor may be the negative attention that maquiladoras have received in connection with the congressional hearings on Expo-Maquila and on the participation of Asian firms in the MIP.

Representative Jim Kolbe (R-AZ) explained in a telephone interview that supporters of maquiladoras were making more of an effort in the wake of the negative publicity to explain the benefits of coproduction arrangements with Mexico.

Another difference between Democratic and Republican

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<sup>7</sup> Democrats were 33% of the respondents as opposed to being 56% of the border state congressional delegations. The percentages for Republicans were 67% and 44% (see table 13).

respondents was the greater emphasis that Republicans placed on competitiveness as an issue.

It would be imprudent, however, to overstate this cleavage. Half of the Democratic respondents gave unqualified support to maquiladoras. As noted above, no Democrats or Republicans saw a net negative impact on the issue that was their chief concern. In addition approximately three-quarters of both Democrats and Republicans thought the impact of maquiladoras was positive. [The slight difference was insignificant, particularly considering the small sample size (21 respondents) and the margin of error inherent in coding results gathered in interviews and written statements rather than by survey questionnaire.]

Finally, this cleavage, insofar as it exists, had minimal policy ramifications. Of the 21 respondents from both parties, supported at least the continuation of items 806.30 and 807.00. Senator Bingaman, one of the Democrats who expressed the greatest awareness of the negative aspects of maquiladoras, advocated a policy of greater economic integration with Mexico, particularly the opening of Mexican markets to US firms. This was also the policy advocated by the most enthusiastic supporters of the MIP.

Among industrial-state respondents, the level of specific concern with maquiladoras was low. Of those industrial-state legislators responding, three-quarters thought that maquiladoras had no or negligible effect or said that they

were unaware of any impact at the local and state levels. (Even this high figure may understate the lack of concern because of the element of self-selection in my sample which may result in the overrepresentation of legislators with opinions on maquiladoras.) Of the remaining three respondents, two were explicitly hostile to maquiladoras and one explicitly supportive.

The two congressmen hostile to maquiladoras both had plant closings in their districts, closings in their view directly linked to relocation in Mexico. Yet neither argued for the repeal of items 806.30 and 807.00. Representative Frank McCloskey (D-In) took the position that the federal government should not promote the export of jobs (Expo-Maquila) and should instead encourage firms to invest in US plants to make operations more productive. The spokesman for Representative William Ford (D-MI) characterized the impact of maquiladoras as strongly negative at the local, state and national levels, but aside from opposing federal promotion of relocation, he proposed only that the issue needed to be reexamined. Among the industrial-state respondents only Representative Philip Crane (R-IL) thought the local and state impact was positive. He based his position on the fact that Illinois is second only to Texas in the number of firms that supply raw

materials and components to maquiladoras.<sup>8</sup> Several other industrial-state respondents, though not specifically concerned with maquiladoras, expressed concern about the general issue of job losses. In two cases this led to the compromise policy of opposing federal efforts to encourage relocation but stopping short of calling for the repeal of items 806.30 and 807.00 (Glenn D-OH, Pease D-OH).

The competing arguments made concerning the impact of maquiladoras on jobs and competitiveness reinforce the attractiveness of this position. As Congressman Pease pointed out, the repeal of 806.30 and 807.00 is a blanket policy toward a situation characterized by diversity. The effect of repeal is uncertain and therefore unattractive to risk-averse politicians.

In contrast to this, the executive branch's involvement in Expo-Maquila can be condemned with little political risk. A congressman can hardly go wrong condemning the executive branch's promotion of relocation, while doing nothing to prevent relocation: he wins populist points without substantially harming industrial interests. This seems consistent with the political outcome: the Democrat-controlled House holding two hearings on Commerce's

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<sup>8</sup> As of 1986 Illinois has become number one (Mitchell and Vargas 1987).

actions but not including provisions for the repeal of items 806.30 and 807.00 in its trade bill.<sup>9</sup>

Bearing in mind the small number of industrial-state respondents (11), their responses suggest some patterns. Three of the four Republican respondents were unaware of any impact of maquiladoras at any level, local, state, or national and had no policy with regard to them. Representative Crane's positive views were described above. Among the Democrats, the four respondents from the Midwest opposed federal promotion of relocation; whereas, the three eastern Democrats viewed maquiladoras as only indirectly significant.

Congressman Kennedy (D-MA) had no position and no policy on maquiladoras. Congressmen Garcia (D-NY) and Mrazek (D-NY) viewed them as only of tangential interest. The spokesman for Congressman Garcia said that the congressman viewed maquiladoras as a regional issue of the Southwest. He said that the MIP made a trade-not-aid contribution to Mexico's economy and, therefore, was in the US national interest. The spokesman for Congressman Mrazek said that the congressman accepted the necessity for the US to cede labor-intensive processes to countries whose abundance of low-wage labor

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<sup>9</sup> Chairman Florio insisted in the hearings before his subcommittee that the issues be divorced from one another and that only the question of federal encouragement of relocation be addressed.

gives them comparative advantage in that kind of manufacturing. Therefore, the congressman looks on coproduction as positive because it provides cheaper consumer goods for the US.

A possible explanation for the greater indifference of northeastern Democrats is the economic growth that the northeast has enjoyed since 1984 and the resulting low overall unemployment, notwithstanding individual plant closings. Congressman Mrazek's district depends on defense industries for a large proportion of its employment, for example. The military build up of the Reagan years has brought low unemployment and a degree of affluence. The result is that that maquiladoras were a consumer issue from the congressman's point of view. Another piece of indirect evidence for this hypothesis is that the spokesman for Representative Garcia, Chairman of the House Subcommittee on International Finance, Trade and Monetary Policy, said that the unions had not contacted the representative about maquiladoras. However, it should be noted that a Midwestern Democrat, Representative Donald Pease (D-OH), said that he had not heard from the unions on the issue either.

What is the aggregate effect of the patterns of perception and of the policy preferences described above? The discussion above suggests maquiladoras are primarily a local and regional issue of most salience to border legislators, and to legislators from industrial states where there have

been plant closings. The perception of the local and state impact seemed to strongly influence the perception of the national impact of the MIP. Among legislators who thought the local and/or state impact of maquiladoras positive, a clear majority thought the impact on the US as a whole was positive, and the remaining one-third made no mention of the national impact. The two legislators who thought the local and/or state impact negative both thought the national impact was negative. Among the respondents who thought the local and/or state impact was negligible, said that they were not aware of any impact, or made no mention of a state or local impact; two-thirds characterized the national impact in the same terms.

The specific issues that were mentioned in discussing the impact of maquiladoras were most often economic issues, and the economic issues most often mentioned were jobs and competitiveness. One or the other was mentioned first by 22 of the 27 respondents who discussed specific issues. These issues were not only the most often cited but were nearly always discussed in connection with one another. Other prominently discussed issues were Mexican stability and development, undocumented immigration, Mexican debt and consumer prices.

Every legislator who expressed foremost concern over jobs and viewed the impact of maquiladoras as positive based his opinion on the assumption that some products manufactured

wholly in the US can not compete with imports in price. Therefore, relocation of assembly plants in Mexico was viewed as positive because it maximizes the number of jobs retained in the US. The two legislators who were most concerned over jobs and thought the effect of maquiladoras on jobs was negative emphasized the human tragedy of plant closings and did not directly address the competitiveness issue.<sup>10</sup> Legislators who placed the greatest emphasis on competitiveness mentioned the job retention argument as a supporting rationale.

Although labor-market impact and competitiveness were the most frequently cited issues, the results of my survey showed that on all chief issues of concern a majority of respondents thought the impact of maquiladoras was positive. Only three thought the impact on their chief concern was negative. Further investigation would be required to verify these results. It is possible that by selecting a subset of industrial states, my findings understate the total amount of opposition to maquiladoras in the Congress. Bearing that caveat in mind, it seems that congressional opposition to maquiladoras is weak.

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<sup>10</sup> Representative McCloskey (D-IN) did address the issue indirectly, arguing that the workers in the Zenith plant closing in his district work for moderate wages by US standards.

This impression is reinforced when one looks at the total absence of anti-MIP policies advocated, that is, the lack of effective opposition as opposed to rhetorical hostility. The most striking finding is that not one of the respondents proposed repeal of items 806.30 and 807.00. Only four opposed Federal efforts to encourage relocation like Expo-Maquila. Even this marginal opposition was largely symbolic: though Federal promotion may encourage relocation, it is not crucial.

Of all respondents approximately two-thirds explicitly supported the continuation of 806.30 and 807.00 or stronger policies to support maquiladoras. If those advocating no policy are counted as at least acceding to the continuation of the status quo, then all of the respondents acquiesced to the continuation of the current situation, the rapid expansion of the MIP.

In addition, because the impact is strongest in border communities, representatives from border states and border districts are much more aware of maquiladoras than industrial-state congressmen. For industrial-state legislators job losses may be a concern but Mexico is only one of many locations where firms may relocate. The consensus in support of maquiladoras among border legislators and the habit of cooperation on other issues of common interest makes their ability to maintain the status quo seem certain in the short-term.

#### 4.2.5 STATE GOVERNMENTS

It was noted above that among congressional respondents perception of local impact seemed to influence perception of national impact. Therefore, it is worthwhile to briefly examine the views of representatives of state governments on the impact of maquiladoras. The pattern observed in Congress was repeated among state governments. Among representatives of industrial-state governments interviewed, there was concern over job losses and plant closings but low awareness of maquiladoras as a unique cause of job loss. The representatives of state governments that I spoke with said that the MIP had had negligible impact on their state economies that they were aware of but that they had no data on the question. Only New York had taken specific action with regard to a firm moving operations to Mexico. In that case the action was not the result of a policy on maquiladoras but rather an example of its policy of negotiating with firms to encourage them to keep production in place.<sup>11</sup>

Interviewed representatives of the border state governments were aware of maquiladoras and had a positive

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<sup>11</sup> The state's Industrial Cooperation Council sponsored a study by Cornell University into Trico Inc. operations to suggest how Trico might reduce costs at its Buffalo, NY plants through investment and offered state financial support for training and for research and development.

attitude toward them.<sup>12</sup> The governors of the border states participate in the Border Governors' Group. They periodically meet to consult on points of common interest. Maquiladoras were among the topics discussed in the April 1987 meeting. As well, a meeting of this group with the governors of the Mexican border states was held in October 1987 at which maquiladoras were discussed. California has commissioned a study of the impact of maquiladoras on that state to help guide policy formulation. The spokesmen for both California and Texas emphasized the positive impact of maquiladoras on their state economies but also stressed the political value of maquiladoras as a positive aspect of state-Mexico relations, which encompass more problematic issues, pollution, for example.

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<sup>12</sup> It should be noted parenthetically that the border states have had different experiences with maquiladoras. Texas has much larger plants, often owned by large transnational corporations, and has industries that unions claim have been harmed by maquiladoras. Its border region has also experienced a prolonged economic downturn since the early 1980s. California's adjacent maquiladoras have been mostly smaller plants associated with smaller transnationals located in Southern California. Recently, a sprinkling of large, Japanese-owned plants has been established. Its border region has experienced economic dislocation, but San Diego continues to thrive with its diverse economy (Clement 1985, 14-15). Arizona and New Mexico have had a more limited experience with in-bond plants. New Mexico has only one maquiladora, but hopes to encourage the establishment of more as a means of developing its economy.

#### 4.2.6 BORDER COMMUNITIES

Among business groups in the border region, the consensus supports the maquiladoras. Their supportive statements have been quoted in the popular media accounts of maquiladoras (Auerbach 1987). Congressional respondents from border districts verify this finding. In response to the negative publicity resulting from the Expo-Maquila fiasco and negative stories in the media, representatives from the business communities in the border cities organized the Border Trade Alliance in January 1987. The purpose of this organization is to lobby with national and local government. To support these efforts, the Alliance has already sponsored research in the border cities to document the economic benefits of maquiladoras ("New Coalition" 1987). The Alliance participated in the public discussions held by the Congressional Border Caucus, presenting its surveys of the local economies and preliminary findings in an ongoing comprehensive survey of the impact of maquiladoras on the US economy.

The hostility of local unions seems to provide only a partial counterbalance to this support. Congressional respondents were aware of union opposition to the MIP but only in a few cases did this seem to have a strong impact on a congressman's perceptions, let alone on his position. A partial explanation for this may be that opponents of the MIP

in the US lack a viable strategy. Though union spokesmen support the repeal of items 806.30 and 807.00, the effect of that would probably not be return of production to the US in many cases. As far back as 1970, the USTC found that items 806.30 and 807.00 were not often the crucial determinants of plant location. Since then, the importance of the items has, if anything, dwindled (American Embassy 1972; Van Waas 1981). Richard Michel of GE said that Mexico would still be the location of choice for his company in the event of repeal.

As noted, the USTC concluded that the main effect of repeal would be to make US components more expensive, possibly resulting in substitution of components from other sources and greater unemployment in the US. Only raising of prohibitive countervailing tariffs might effectively retain jobs in the US, a policy for which there has not been a national consensus. In this situation, even if a border congressman views the employment impact of maquiladoras as clearly negative in his district, the only potentially effective response would be politically quixotic. Since politically a congressman can not effectively address union grievances, he might as well ally himself with the interests that benefit from the MIP or at least avoid alienating them.

### 4.3 COOPERATION AMONG ACTORS

Various players interested in the future course of policy affecting the viability of coproduction in Mexico within the MIP ally with one another in support or opposition to maquiladoras. In Mexico the Mexican federal government, local authorities and maquila interests cooperate in support of the MIP. Critics and independent unionists are at least implicitly allied for the reform of working conditions.

In the US the executive branch, some border legislators, and coproduction interests are allied to defend the MIP on the national level. Border business communities and politicians and border state governments also support maquiladoras. They have an indirect impact on the national debate. US labor unions are united in opposition to maquiladoras and relocation of plants abroad. They have managed to elicit some support from legislators whose constituents have suffered direct impact.

Though supporters of maquiladoras seem highly sensitized to the power of opponents, it seems that supporters are more effectively organized on the issue in the US. The Border Trade Alliance, the Border State Caucus, and the Committee for Production Sharing engage in mutually reinforcing activities. The Border State Caucus, as described above, held hearings on maquiladoras giving supporters, including the Border Trade Alliance, an opportunity to testify in support

of the MIP. The Committee for Production Sharing reported on the hearings in its Washington Bulletin. The executive branch of the federal government has provided sympathetic speakers for the Committee for Production Sharing's annual meeting in Washington, D.C. and for a trade seminar in San Diego in August 1986 (Production-Sharing Report 1986; 1987).

Opponents of maquiladoras also cooperate. The AFL-CIO News publicized the hearings held by congressional subcommittees hostile to the Commerce department's sponsorship of Expo-Maquila. Union activities protesting Commerce's role and maquiladoras generally have been given steady coverage (Zack 1986e).

These alliances extend across the international boundary. Leon Opalín, Banamex vice-president, spoke at the Committee for Production Sharing trade seminar in San Diego in August 1986 ("Banamex VP"). William Mitchell, Grupo Bermúdez vice-president, sits on the executive committee of the Committee for Production Sharing. He also generates research that provides congressional supporters with evidence of the benefits of maquiladoras. John Christman, former head of Business International in Mexico, former chairman of AMCHAM's In-bond Committee, now a business consultant specializing in coproduction arrangements, also sits on the executive committee of the Committee for Production Sharing. Mr. Christman observed that in-bond interests coordinate their

international lobbying through AMCHAM and the US Chamber of Commerce.

Opponents to the MIP seem to cooperate internationally to a lesser degree. The AFL-CIO News gives coverage to worker unrest in maquiladoras and quotes criticisms of maquiladoras from Jorge Bustamante and Guillermina Valdes-Villalva. A documentary produced by María Patricia Fernández-Kelly on women workers "The Global Assembly Line" received postproduction underwriting from the Clothing and Textile Workers Union and the Labor Institute of Public Affairs.

#### 4.4 SUMMARY AND CONCLUSION

The aggregate result of the debate in both Mexico and the US has been a national policy that supports the continuation and expansion of the MIP. This policy is more explicit in Mexico and more implicit in the US. Together the national policies constitute a powerful alliance in support of coproduction.

In Mexico the foremost attraction of this arrangement is increased employment opportunities, followed by foreign-exchange earnings. Expansion of labor-intensive industrialization maximizes the employment gains from the government's policy of allowing real wages to drop. As noted above, President de la Madrid has argued that the policy of letting real wages fall to minimize unemployment is the

fairest means for Mexico to endure the current period of economic dislocation. Presumably, the government also views this strategy as the most likely to preserve social peace and the PRI's political power.

Beyond these immediate benefits, Mexican officials have claimed in published statements that the government hopes that the maquiladoras, with their experience in international trade, can form a leading element in the Mexican economy's increased integration into the global economy. What degree of consensus exists in the government and the PRI behind this development strategy is made difficult to determine by the Mexican tradition of public unity in support of the current government policy.

Whether this strategy will continue to be implemented in the next administration is obscured by this same tradition, which does not exclude, however unlikely, a reversal of policy once the new president is inaugurated. If history is a reliable guide, the Mexican government will continue to pursue export diversification as long as the scarcity of additional capital excludes a return to ISI.

Regardless, public support for the MIP as part of an overall policy of export diversification serves a short-term purpose of stroking the free-trade sensibility of the IME, World Bank and foreign creditors. As discussed above, this line of rhetoric also may be of use to the PRI in wooing elements of the northern Mexico business establishment away

from the PAN. Similarly, the guidelines for the expansion of the MIP enumerated in the Presidential Decree on the Promotion of the In-Bond Industries of 1983 may actually have the effect of making maquiladoras contribute to the long-term development of the Mexican economy.<sup>13</sup> Short of that, development rhetoric can serve as a smoke screen that makes the government's encouragement of maquiladoras more defensible against critics of dependency and exploitation.

The maquiladoras have occupied this position in Mexico since 1965, providing immediate benefits of employment and foreign-exchange earnings and holding out the hope of contributing to development. The circumscribed advantages for Mexico of hosting the assembly plants make the exploitative aspects of the employment offered and the dependence of the plants on the US economy more offensive to Mexican sensibilities than they might have been otherwise.

Ironically, it is when the dependence of the MIP becomes most stark, and therefore most offensive, that the government is least able to reject the MIP. For example, the US recession in 1974-1975 resulted in plant closings in Mexico and this spurred criticism of the MIP. Yet, the Mexican government could hardly be expected to compound the very unemployment that inspired the criticism by ending the MIP. Ultimately,

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<sup>13</sup> Article 16 of that decree required that maquiladoras train workers, transfer technology and use Mexican produced components.

the Mexican government is unlikely to forego the limited and unreliable benefits of the MIP, if only because they are available at very little immediate cost.

The executive branch of US government supports the MIP because utilization of Mexican labor reduces the per unit cost of production for US manufacturers and thus enhances their competitiveness in US and global markets. The current arrangement has the advantage that the manufacture of components and therefore the maximum number of jobs remain in the US. A second benefit cited by representatives of the executive branch is that the MIP contributes to the economic welfare of Mexico and therefore enhances its stability, which is in the national interest of the US. This support has been manifested by the Commerce Department's sponsorship of Expo-Maquila and by its action in exempting Japanese-owned maquiladoras from the punitive tariffs placed on other Japanese semiconductor manufacturers. As noted above, this active support has been limited by the hostile reaction in the House of Representatives. However, the important aspect of US government policy is not active support but the de facto policy of tolerance of the MIP.

Opponents to the MIP in the US labor movement and their allies in Congress have been unable to find a successful strategy to oppose the participation of US firms in the MIP. Their demand for the repeal of items 806.30 and 807.00 has been undermined by the finding of the US Tariff Commission

in 1970 that repeal of the items would result in a net loss of jobs in the US. This conclusion was based on the fact that cost savings from the tariff exemptions were not, in a majority of cases, crucial to the decision of firms to relocate. The importance of these items has, if anything, decreased over time. Some plants operate under the tariff exemptions contained in the Generalized System of Preferences (GSP). In some sectors labor cost differences are so great between Mexico and the US that maquiladoras have been established without any US tariff exemptions. Only countervailing duties could sufficiently raise the cost of offshore operations in Mexico to possibly return jobs to the US.

The results of my congressional survey suggest that the negative labor market impact is most concentrated in the border region. This undermines the possibility of a strong anti-MIP national policy for several reasons. Because the number of constituencies strongly and continuously affected specifically by maquiladoras is small, there is little chance of sufficient support developing in Congress, as a specific response to maquiladoras, for the broad protectionist measures that might have the effect of returning jobs to the US.

As well, no border politician can be oblivious to the potential impact on his district and state of the economic and social dislocation in the Mexican border region that

would result from the sudden termination of the MIP. Finally, border politicians have constituents in the business community that benefit from the current status quo. Thus, though their constituencies experience a strong and ongoing impact from the maquiladoras, the aggregate effect is ambiguous. This situation may also be exacerbated by the weakness of organized labor in the southwest. Given this situation, there is little incentive for border state politicians to expend political capital supporting policies inadequate to address the problem (repeal of items 806.30 and 807.00) or politically unattainable, if potentially effective, broad protectionist policies. This situation inclines border congressmen to accept some job losses as inevitable and to accept the argument that relocation in Mexico minimizes that displacement.

## 5.0 CHAPTER FIVE: ISSUES AND POLITICS

The issues that interested parties view as associated with maquiladoras are varied and numerous. There are labor issues in both the US and Mexico. In the US there is said to be displacement as a result of relocation of plants in Mexico. In Mexico the employment provided by maquiladoras is argued to be unsatisfactory for an array of reasons. Chief among these are charges of worker exploitation. This debate mirrors the debate over undocumented immigration from Mexico to the US, and, indeed, a facet of the debate concerning labor issues is the impact that maquiladoras have on the migration of Mexican labor both within Mexico and between Mexico and the US.

Though the increasing integration of the global labor market makes it conceptually useful to discuss US and Mexican labor issues together, the continued importance of the nation-state in regulating the conditions under which maquiladoras operate make it important to situate labor issues in the national policy debates that subsume them. In Mexico labor issues are a facet of the controversy over the impact that maquiladoras have on the economic development of Mexico. Two questions stimulate this controversy: Do maquiladoras contribute to national economic development? Do

maquiladoras enhance or undermine the economic sovereignty of Mexico?

In the US the labor issue is closely bound to the competitiveness issue. The pursuit of competitiveness by US firms is thought to make structural change, and therefore structural unemployment, inevitable. What amount of unemployment is inevitable and what policies will minimize that amount are the subjects of debate. That there is at least a smoldering debate is suggested by the recent controversy over the Reagan administration's promotion of US firms' participation in the MIP. This seems unlikely to persist, simply because the administration seems to have forsworn its promotional activities. Another issue, also linked to the competitiveness question, that has greater potential to endanger support for maquiladoras in the US in the longer term is the participation in the MIP of Japanese and other Asian firms. Another significant issue is the effect that the MIP has on US national security.

## 5.1 THE US PERSPECTIVE

### 5.1.1 COMPETITIVENESS AND DISPLACEMENT IN THE US LABOR MARKET

The essential disagreement between opponents and supporters of the MIP is over the extent of the structural

unemployment in the US that is the inevitable result of the shift in comparative advantage in low-wage labor from developed to developing nations. The charge of job losses has been the main thrust of US labor opposition to maquiladoras since the late 1960s (Baerresen 1971, 5; Van Waas 1981, 152). Their accompanying demands for the repeal of items 806.30 and 807.00 have been opposed by supporters of maquiladoras.

The supporters of the MIP claim that the repeal of those items would not result in the return of jobs to the US but in further job losses in the US. This would occur, they claim, because Mexican assembly operations use a large percentage of US-made components; whereas, imports from other low-wage countries in the Far East do not. Repeal of the preferential tariff items would increase the cost of US components. This would reduce the exports of those components for assembly in Mexico. Also, other developing countries would become more attractive as locations for US firms. The result might be that jobs in the US border region that support the MIP would be lost. Finally, repeal would make imports from Pacific Rim countries produced by their indigenous firms more competitive in the US market. All of these factors would contribute to the loss of jobs in the US.

These two competing approaches result in different findings on the employment impact of maquiladoras in the US. Beginning from the assumptions that in the event of repeal

US firms that operate in Mexico under the MIP would find other sources of components, relocate in the Far East, or be driven out of the US market; all jobs in industries producing components used in maquiladoras are counted as jobs retained that would otherwise be lost. Added to those are the jobs in the support operations located in US border cities.

Taking this approach, Michie calculated that 141 maquiladoras he had surveyed supported 800,000 jobs throughout the US, the largest proportion of them in "rust belt" states ("Border Trade Alliance" 1987). William Mitchell, a in-bond industry analyst, estimated that approximately 2.5 jobs are created or maintained for every job in a maquiladora ("Star Performer" 1986, 90). To support his argument, Mitchell has also compiled a list of firms that supply components, raw materials, and services to in-bond plants in Ciudad Juárez. He found a total of 14,159 in 49 US states in 1986. These firms employed a total of 218,675 workers in 1986. Of the firms, 70% were located in states not adjacent to the border (Mitchell and Vargas 1987, 4).

In opposition to this approach, labor analysts reject the inevitability of overseas relocation of manufacturing operations. Therefore, they count jobs in closed factories that produced goods now produced in maquiladoras as lost. The AFL-CIO News reported that UAW analysts estimated that for every 2.5 jobs in maquiladoras, there is a net loss of one US job. This implies the loss of 90,000 jobs

("Administration" 1987). Adding other jobs lost due to downturns in local economies following plant closings, the job losses are even greater. Owen Bieber, UAW president, charges that 300,000 US jobs have been lost to maquiladoras (Copeland 1987, 41).

Though the amount of job displacement directly attributable to maquiladoras is uncertain, 170,000 workers in apparel and textiles and 75,000 in electrical and electronics were certified by the US Department of Labor as eligible for trade-adjustment assistance between 1976 and 1981, implying that they had been displaced by foreign assembly (Grunwald and Flamm 1985, 222). This provides a rough comparison with the labor figures and seems to suggest that 90,000 is a plausible estimate.

These different conclusions result partially from different basic assumptions, but other factors undermine attempts to estimate displacement. The varying economic positions of firms and industries and the shifting economic conditions in which they operate make any generalization on the key question of whether they could be viable in the US difficult. For example, the arguments of supporters of the MIP are based on the assumption that US manufacturers are highly vulnerable to import competition. Yet, this vulnerability has been badly exacerbated by the overvaluation of the dollar between 1980 and 1986. As the dollar falls against the yen and the Deutschmark, imports become less of

a threat to the US firms. They might also be able to maintain operations in the US because labor has displayed a more conciliatory mood in recent years (Ruben 1987). Zenith Electronics, a long-time operator of maquiladoras, agreed to return 200 jobs to the US from Mexico and cancelled plans to ship another 600 abroad in return for a concessionary five-year contract with the Electronics Workers local ("IBEW-Zenith" 1987). Still, there is no guarantee that these favorable developments will not be reversed.

Even on the level of individual firms and industries, the methodological difficulty of addressing the question of viability of US operations is daunting. Calculations require precise information on parameters for which such information is neither readily available, nor precise. In lieu of data on the price elasticity of demand for products, the technology that determines the demand for labor, and the price elasticity of supply for assembly services abroad, among other factors, rough approximations are made in job-counting studies (Grunwald and Flamm 1985, 22). The results are inherently inconclusive and often contradictory. This difficulty in definitively resolving the question of the labor impact of maquiladoras on the US labor market leaves the debate open but favors the status quo because items 806.30 and 807.00 have significant beneficiaries and because the effects of repealing those items are uncertain and potentially disastrous.

### 5.1.2 MAQUILADORAS OWNED BY ASIAN AND EUROPEAN FIRMS

In relation to job displacement in the US, the competitiveness issue undercuts hostility toward the MIP because relocation is viewed as one means for US firms to regain competitiveness. An additional issue that has only recently emerged in the US is the potential for maquiladoras to enhance the competitiveness of Asian and European firms in the US market. Newsweek, The New York Times, and local papers in the border region have published stories reporting their presence. Sanyo, Sony, Matsushita, and Hitachi have plants operating in Tijuana and near the new Mesa de Otay crossing (Contreras 1987; Rohter 1987). TDK and Toshiba have plants in Ciudad Juárez (Peterson and Yoshihara 1987). There is a total of fifteen Japanese maquiladoras in Mexico (Rohter 1987). Though their presence is small thus far, the protectionist sentiment aroused by the success of imports in US markets may fasten on them with uncertain effects.

From the point of view of the Mexican government, the interest of any investor is positive, promising the same benefits as US-owned plants, but it may endanger US support for the in-bond industries. The House Subcommittee on Commerce, Consumer, and Monetary Affairs held a one-day hearing in San Diego in June 1987 to investigate the Japanese presence. Though the subcommittee ended by reaffirming support for the maquiladora concept, Daniel O. Pegg,

president of the San Diego Economic Development Commission, worried that maquiladoras might get caught in Japan bashing in Congress (Contreras 1987, 46).

Further interest on the part of other Asian firms only exacerbates this threat (e.g. South Korea's Samsung and Gold Star have been investigating Tijuana). Also, since the MIP requires that maquila firms must incorporate in Mexico, they are Mexican firms as far as the Generalized System of Preferences is concerned, and some of their output may qualify for duty-free importation under that program. The potential would appear to exist to attract more hostility, if countries that are already competing effectively for the US market increase their involvement. As noted in Chapter Three, exchange-rate movements favor this possibility.

The manner in which the debate over the MIP will interact with the competitiveness debate is difficult to predict. The competitiveness critique has two main channels in US politics. Flowing from a single source, the perception that US firms have become less competitive, these two channels reach two opposite conclusions: foreign firms are taking unfair advantages, or US firms have become soft. The first is self-pitying, and the second is self-critical. The first calls for retaliatory action, and the second demands self-sacrifice. Thus far, the debate over maquiladoras and competitiveness has been dominated by the willingness to make the unavoidable sacrifice of some jobs to make US firms

competitive. This interpretation, in addition to other factors discussed above, has made it unlikely that protectionist legislation would be passed specifically to protect the jobs of assembly workers in the US.

Mr. Pegg's concern that Japanese participation would cause the maquiladoras to be swept up in congressional Japan bashing may be justified because of the self-pity that is an aspect of the competitiveness debate. If Japanese participation in the MIP expands rapidly, and US manufacturers continue to suffer from import competition, then it is possible that maquiladoras will be viewed as an unfair advantage for Japanese firms. The result could be protectionist legislation aimed specifically at closing down the MIP. More likely, that development would reinforce the perception that US manufacturers suffer from unfair trading practices and contribute to a broad consensus for protectionism.

Another point with regard to Japanese and other non-US maquiladoras is that the concern over them demonstrates the conceptual fuzziness that is a prominent feature of the competitiveness debate (Skrzycki 1987). The merchandise trade balance is the crucial statistic driving the competitiveness debate and specifically the debate on the trade bill (Jaroslavsky 1987). That balance is calculated on the basis of firms' country of incorporation: for example, US-owned subsidiaries incorporated in Mexico contribute to Mexico's

export figure. Most Japanese-owned maquiladoras are subsidiaries of Japanese-owned subsidiaries in southern California (Contreras 1987). Therefore, their impact on the US trade deficit is the same as that of US firms and their subsidiary maquiladoras. The exports of components to Mexico by both US- and Japanese-owned firms incorporated in the US contribute to the US export figure. The imports of maquila products contribute to the Mexican export figure, and the US import figure, regardless of the nationality of the stockholders.

### 5.1.3 THE MIP AND POLITICAL STABILITY

Another issue that has recurrently been connected with the MIP is its impact on US national security via its impact on the Mexican economy. The Alliance for Progress, begun under the Kennedy administration, was based on the assumption that poverty in Latin America created fertile ground for Marxist revolution. The Alliance sought to combat this threat by fostering development of the Latin American economies. Johnson's support for the BIP was based in part on a similar line of reasoning (Van Waas 1981). The maquiladoras would absorb unemployment in the border region and defuse the threat of political instability. The reliance on private US investment to finance the BIP was consistent with the

evolution of the Alliance for Progress towards a similar reliance on private financing under Johnson (LaFeber 1984).

It is difficult to say how great a role a concern over Mexican stability plays in the Reagan administration's support of the MIP. The current administration has expressed a high level of concern over Marxist destabilization in Central America, and it pursues neo-Alliance for Progress strategies in Central America and the Caribbean (e.g., the Caribbean Basin Initiative). In addition, as mentioned above, this was first the rationale that the State Department spokesman gave for supporting the MIP.

Yet, the underlying assumptions of this position may not be accurate. LaFeber has argued that economic development in Central America in the 1960s spurred by the Alliance for Progress actually contributed to political turmoil (1984). Hansen, noting that social changes caused by economic development have in many countries led to political instability, argued that the real Mexican miracle had not been the extraordinary growth of the economy but rather the PRI's success in maintaining stability (1971).

The recurrence of the political-stability rationale for supporting the MIP may result from the exaggerated perception on the part of US politicians of the fragility of the Mexican political system. The Mexican government may encourage the expansion of the MIP for precisely the reasons that its representatives give (to create jobs, earn foreign-exchange,

and stimulate development) and be confident of its ability to contain the symptoms of social stress that result from development.

## 5.2 THE MEXICAN PERSPECTIVE

As suggested in Chapter One, maquiladoras are subsumed within the linked debates over development and dependency. These areas have been viewed as linked because, in the dominant ideology, economic autonomy has been considered a prominent and integral aspect of development (Mares 1985). As well, the dominant school of dependency theorists have argued that dependency and development are mutually exclusive. Claims that maquiladoras contribute to development have been made by the Mexican government from the outset of the BIP and reiterated periodically (Van Waas 1981, 176; Stockton 1986). The hoped for development benefits include three areas:

- Increased employment/decreased unemployment
- Improved incomes
- Transfer of technology and skills

The prevalence of the belief that development and dependency are mutually exclusive is suggested by the fact that in restating these goals in 1974 the Mexican government asserted

that the maquiladoras should not be considered a sign of dependency (Bustamante 1983, 242).

### 5.2.1 DEVELOPMENT

Critics and proponents diverge in their assessment of the employment-creation performance of maquiladoras because they focus on different aspects of the question. The government emphasizes the jobs created; critics point to the unemployment that remains. Bustamante (1983) pointed out that despite the employment created by maquiladoras unemployment actually increased in the border region. This can be attributed to a number of factors: natural increase in population, the continued migration from the interior to the border, and the entrance of women workers into the economically active population.

Bustamante has argued that maquiladoras stimulate more migration to the border than they can absorb and thus contribute to unemployment (1983). The strength of this effect is difficult to determine, as will be discussed below. However, it should be noted for now that this charge focuses exclusively on the MIP as a pull factor in migration and ignores the inability of traditional agricultural communities to absorb increasing population as a push factor in the countryside.

Another criticism is that though the BIP was justified as a means of absorbing the unemployment caused by the end of the Bracero Program, returning braceros were not hired by maquiladoras (Bustamante 1983). Instead, women have been drawn into the economically active population. Though this is the case, Valdes-Villalva has pointed out that due to Mexican accounting conventions women are only counted as part of the economically active population when employed (1985). When unemployed, they are categorized as housewives; therefore, their unemployment is statistically invisible. It should be acknowledged that their employment does draw down real unemployment. Nonetheless, Bustamante is correct that the MIP has not been an effective solution to unemployment. Furthermore, the ability of maquiladoras to absorb unemployment may be inherently limited. As unemployment falls, pressure for wages to rise increases; this in turn undermines the attractiveness of the local labor market to firms drawn chiefly to cheap and plentiful labor. This is especially the case due to the proximity of Central-American and Caribbean low-wage labor markets.

With regard to the goal of improving incomes, a similar conclusion must be reached. The MIP makes a positive but limited contribution. As noted above, Grunwald and Flamm found that maquiladora wages have been consistently above the minimum. Seligson and Williams found evidence that maquiladora workers were relatively well off compared to

other Mexicans working in border cities in terms of creature comforts. Thus, the higher incomes of MIP workers contribute to the goal of increasing regional incomes.

This effect is limited, however. The highest estimate of employment in maquiladoras is 250,000 in 1986. As of 1980 there were 3.5 million residents in the border counties. Though incomes derived from maquiladoras make a positive contribution, they are diluted by the volume of individuals. If it is true that the number of jobs can only expand approximately in tandem with the number of unemployed, then this should continue to be the case.

It should be pointed out that this discussion assumes a degree of macroeconomic stability. Though maquiladoras contribute to the wealth of the border region in nominal terms, the devaluation of the peso has swamped those gains in real terms. Due to rapid Mexican inflation, maquiladora wages fell by 1983 to 13% below their 1973 purchasing power and fell 25% in real terms between 1979 and 1986 (Grunwald and Flamm 1985, 155; Rivera-Batiz 1986). Furthermore, the successive devaluations have made goods bought in or imported from the US dramatically more expensive; this has contributed to the decrease in the standard of living for maquiladora workers, as well as for the border population as a whole (Tamayo 1985, 89; Corona Rentería 1985, 100). This is particularly the case because the border is poorly supplied from central Mexico.

The goal which is most genuinely developmental in the sense of contributing to self-sustained industrial growth is the transfer of technology and skills. The hoped for transfer has remained largely unfulfilled. Though legitimate reasons can be offered why this has been the case, it remains that maquiladoras must await future developments to graduate from being a minor factor contributing to development to an engine of development.

Although in Stoddard's view training is relatively prolonged, others argue that it is nonexistent or so specific to unskilled assembly operations as to be nontransferable (Bustamante 1983). Raul Fernandez pointed out that the utility of whatever technical training might take place in Mexican operations would be limited by the obsolescence of the machinery, which has been replaced in US plants with newer equipment (1977).

These findings are not necessarily contradictory. Stoddard did his research a decade later than Bustamante and Fernandez and concentrated on transnational electronics firms. Those operations have become more capital intensive over time, and this would explain his finding of a relatively long training period. As well, Stoddard was disposed to view maquiladoras more positively than either Bustamante or Fernandez. What in his view is a prolonged training period might seem negligible in theirs. Nor does he address the question of the usefulness of that training beyond those operations. It should be

granted in regard to this point, however, that the training can be transferable only insofar as there exist Mexican operations of comparable technical sophistication.

Another problem in skill transfers comes from the lack of prerequisite basic skills required for training (Grunwald 1987, 40). In an experimental plant a US firm transferred an entire plant from Indiana to Ciudad Juárez and hired graduates of a local technical college. The managers of the plant found the Mexican workers insufficiently prepared for high tolerance precision production (Stoddard 1987, 36). It is uncertain what portion of the responsibility for the limited transfer of skills should be assigned to the insufficient preparation of Mexican workers to receive training and what portion to the unwillingness of US firms. That this goal continues to concern the Mexican government and continues to be unfulfilled is suggested by Article 16 of the 1983 Presidential Decree that makes training of workers a condition for expansion of in-bond operations (Mexican Foreign Trade Institute 1984, 23).

Transfer of technology has also been limited (Grunwald and Flamm 1985, 164). The factors contributing to this include the low level of Mexican capital in maquiladoras, reinforced by the perception by Mexican firms that maquiladoras are unstable, highly mobile operations. Also Mexican capital investment in MIP tends to be involved in the relatively low-technology garment sector and in industrial parks.

Transfers of technology through the sale of the sophisticated subassemblies produced in maquiladoras to Mexican firms has been strictly limited by protectionist laws in Mexico (Grunwald and Flamm 1985, 165). However, there is some anecdotal evidence that such transfers are beginning to be allowed (Stockton 1987). The Mexican government is aware of the problem of technology transfer: Article 16 of the 1983 Presidential Decree for Promotion of In-Bond Industries makes investment in advanced technology by in-bond operations a guideline for allowing their expansion (Mexican Foreign Trade Institute 1984, 22).

### 5.2.2 DEPENDENCY

Given the circumscribed development effects of maquiladoras, the question of dependency has greater salience than it might in a case where development had clearly resulted from dependency. It has been argued that maquiladoras are inherently dependent enclaves with negligible integration into the Mexican national economy (Grunwald and Flamm 1985, 163; Vuskovic 1980). Indeed, promoters of the in-bond industries openly acknowledge the dependency on the US economy ("Star Performer" 1986, 80). This is largely inevitable because maquiladoras have until recently been required by Mexican law to reexport their

Table 14. Mexican Materials as % of all Materials

	All Plants	Border	Interior
1975	1.4	0.8	9.9
1976	3.0	2.1	15.4
1977	1.5	1.6	6.1
1978	1.5	1.0	6.9
1979	1.4	0.9	7.9
1980	1.7	0.8	10.0
1981	1.3	0.8	7.1
1982	1.3	0.8	6.9
1983	1.3	1.0	4.4

Source: Secretariat of Programming and Budget  
(Grunwald and Flamm 1985, 162)

entire production. Even now, they can sell only a fraction of their output under restricted conditions.

Backward linkages, however, are encouraged: Article 16 of the 1983 in-bond decree calls for increased incorporation of Mexican components as a prerequisite for expansion of in-bond operations (Mexican Foreign Trade Institute 1984, 22). Historically, the use of Mexican materials has been negligible (see table 14). Reasons for this pattern include deficiencies of the quality of supplies and most importantly high prices (Grunwald and Flamm 1985, 164). These problems are partially attributable to immature protected industries.

However, the problem of noncompetitive pricing is partially a function of the proximity to the US. Because items 806.30 and 807.00 allow US components to reenter the US duty-free and Mexican components are part of the dutiable value, Mexican components must not only be of comparable quality but sufficiently cheaper to offset the tariff charged. At interior locations, use of Mexican materials has been greater due to the Mexican government's incentives and the higher transportation costs of bringing US components to those sites, which offset the tariff (see table 14). This lends credibility to the government's hopes to stimulate development by increasing maquiladoras in the interior (Grunwald and Flamm 1985, 230-231).

Another benefit of the MIP is the foreign exchange that Mexico reaps from the maquiladoras, which must buy pesos for

their payrolls. As of 1982 maquiladoras surpassed tourism as a source of foreign exchange and are second only in earnings to petroleum. In 1986 these earnings amounted to \$1.4 billion (Copeland 1987, 40). Critics minimize this benefit by pointing out that maquiladora employees have traditionally spent a significant percentage (40% to 50%) of their earnings in the US (Raul Fernandez 1977, 144). With the devaluation of the peso, retail businesses in US have experienced sharp decreases in business (Hansen 1985, 14; Tamayo 1985, 85-86). This would seem to imply greater retention of foreign-exchange earnings.

However, the need for foreign exchange is symptomatic of Mexico's economic dependency and especially its debt. During the period when Mexico pursued ISI as a development strategy, the exchange earnings from maquiladoras helped pay for needed imports of capital and intermediate goods and thus could at least be rationalized as contributing to development. With the deterioration of the Mexican economy and the explosion of the Mexican debt, the foreign exchange earned is crucial for debt servicing, but this is different from driving development.

The most important evidence of the dependence of maquiladoras on the US economy is seen in the plant closings and job losses that resulted from the 1974-1975 and 1981-1982 recessions in the US economy. During the first of these recessions, 35,000 jobs were lost (40% of the 1974 work

force) and 30 plants closed. However, other factors should be taken into consideration. In addition to the effect of the US recession, marginal maquiladoras were also under pressure from rising Mexican wages (Butler 1975, 1). In Nuevo Laredo these two factors were exacerbated by labor unrest caused by the intraunion struggles. Deducting the Nuevo Laredo job losses, employment had recovered to 1974 levels by the end of 1975 (Grunwald and Flamm 1985, 172).

Grunwald observes that the effects of the 1974-75 (allowing for the extenuating circumstances) and 1981-82 recessions were less severe for the maquiladoras than for either the rest of the Mexican manufacturing export sector or the US economy (Grunwald and Flamm 1985, 173). This is not to argue a lack of dependency but rather to note the ambivalent effect of dependency on export enclaves like the MIP. During recessions some plants have closed due to reduced demand; nevertheless, others have been established as firms accelerate the relocation of production to low-wage areas (Fröbel, Heinrichs and Kreye 1980).

Two additional points should be made with regard to dependency. The economy of the Mexican border region has not been integrated into the Mexican national economy. Traditionally, the regional economy been integrated with the US border region and to a lesser degree with the US economy as a whole (Stoddard 1987). Second, given the current situation of the Mexican economy, the dependency of jobs on

the US economy is probably at least in the short-term beneficial.

Despite this conclusion, the abhorrence with which dependence and its implication of compromised sovereignty has been viewed by Mexicans makes it a potential threat to the maquiladoras. A recent development which may exacerbate this distaste is the emergence of debt-equity swaps as a way of defraying Mexico's \$105 billion debt. Debt-equity swaps involve the sale of Mexican debt at a discounted rate (63 cents on the dollar) by creditors to third parties. Those debts are then redeemable from the Mexican government for pesos equal to as much as 90% of the original value of the loan on the condition that the pesos are invested in Mexican businesses (Orme 1987a, 21).

Though only initiated in April 1986, \$850 million worth of these transactions have been approved. According to Representative Jim Kolbe (R-AZ), maquiladoras are prime candidates for the local investment. This arrangement could potentially arouse Mexican economic nationalists who could plausibly argue that this is a sleight of hand maneuver allowing North-American capitalism to trade one form of economic leverage for an even more direct form of control.

### 5.2.3 EXPLOITATION OF MEXICAN WORKERS

Because maquiladoras are clearly dependent and their contributions to development have been limited, evidence of exploitation of workers completes the case against the MIP in the eyes of critics. However, the debate over worker exploitation will not likely be resolved in the foreseeable future. The difficulty with regard to exploitation is partly conceptual. By what standard is a situation exploitative? Deplorable working conditions are a necessary but not sufficient condition for exploitation. There must be a degree of culpability and self-interest for those conditions to constitute overt exploitation. An examination of wages in maquiladoras helps demonstrate the difficulty in establishing an across-the-board charge of exploitation.

#### 5.2.3.1 WAGES

The wage issue is obscured by the low wages that characterize the Mexican labor market and by shifts in macroeconomic factors, most importantly, the devaluation of the peso. Wages in maquiladoras are very low relative to US wages: the Mexican daily wage roughly approximates the US hourly minimum wage. An official of the Mexican government, Augustín Domínguez, when questioned on this point during a telephone interview, made the point that the lower cost of

living in Mexico must be taken into consideration to avoid receiving an exaggerated impression of the poverty that such a wage implies.

Contrary to that contention, critics have charged that even the use of the official minimum wage in comparisons overstates the earnings in maquiladoras. Raul Fernandez claimed that even the low minimum wage has been circumvented by the use of prolonged classification of workers as trainees which requires employers to pay only half the minimum (1973, 47). Van Waas found the practice of repeatedly renewing temporary contracts under which employers had reduced obligations for fringe benefits. He also found that maquiladoras successfully lobbied local labor boards to avoid liability for severance pay (Van Waas 1981).

Though there is no reason to doubt these findings, neither researcher offered comprehensive data that would make it possible to assess how pervasive these practices are. Other researchers' findings suggest that they are, though deplorable, exceptional. Grunwald found that maquiladora wages have remained consistently above the minimum (see table 7) (Grunwald and Flamm 1985, 159). Consistent with that finding, Seligson and Williams concluded tentatively that maquiladora employees earned more than other employed Mexicans in the border region. They concluded more confidently that maquiladora employees enjoyed a higher standard of living than the general population of the cities

in which they lived, as measured by access to potable drinking water, electricity, television and indoor plumbing (Seligson and Williams 1981, 46-51).

In this situation, the question of exploitation is obscured by depressed conditions in the local labor level. Piore described how, in response to labor militancy in the US in the late 1930s, management adopted the strategy of minimizing the unionized primary labor sector by subcontracting as much production as possible. This created a secondary sector with lower pay and less job security (Berger and Piore 1980). This process can be interpreted rather easily as a strategy of exploitation utilizing the more vulnerable workers of the secondary sector to improve the position of management vis-à-vis the primary labor sector. This strategy minimized the size of the unionized work force and therefore its power. Although the maquiladora serves the same function as the nonunion subcontractor, at the level of the local labor market characterized by low pay and insecure employment, it offers relatively attractive employment alternatives (Fernández-Kelly 1983b, 105; Stoddard 1987, 43-45).

Fernández-Kelly sums up the result, "The consensus [among workers] is that maquiladora work offers the best employment alternative in Ciudad Juárez. This is a striking revelation when noting that assembly operators earn an average of fifty-eight cents per hour and work forty-eight hours a

week." (1983a, 217). This situation does not seem a clear cut case of exploitation insofar as workers view themselves as benefitting from the opportunity to work in maquiladoras. This would seem to be the case because job satisfaction is, in the border labor market, not an alienation issue but a survival issue (Stoddard 1987, 42). Thus conditions in the Mexican labor market have allowed the economic power of maquiladoras to be manifested in part as the carrot rather than the stick.

Van Waas concluded that the labor practices of transnational corporations in the in-bond industries maximized the advantages of an environment already heavily weighted in their favor (1981, 363). Insofar as the suffering of workers is attributable to the depressed Mexican economy, these firms may evade condemnation for it and in the eyes of some should be given credit for ameliorating the situation (Stoddard 1987). Stoddard argued that it is the Mexican government which must bear responsibility for these conditions because of its mismanagement of the economy and because it sets minimum wages. He also noted that the transnational corporations were under pressure from Mexican owners of maquiladoras not to exceed the minimum wage by more than a small margin (Stoddard 1987, 14). However, there is evidence that in-bond firms have used their influence at both the national and local level to reinforce the weakness of workers' position.

Up to 1973 minimum wage increases were regular and moderate and transnationals had neither the need nor the ability to intervene to hold them down. After 1973 under pressure from the 1974-1975 US recession and larger and more frequent increases in the Mexican minimum wage, maquiladora operators lobbied the Mexican government through the AMCHAM and CNIM to hold down the minimum wage increases, though unsuccessfully.

More successful were the efforts of some firms to manipulate local labor boards to win judgements that allowed them to avoid severance pay (Van Waas 1981, 228). Under López Portillo the government reduced the size of border minimum wage increases relative to increases elsewhere in Mexico, as part of the policy of equalizing wages. This policy benefitted maquiladoras and may have been intended to do so (Grunwald and Flamm 1985, 158). The informal nature of politicking by maquila interests makes it impossible to evaluate to what degree this was the result of in-bond industry pressure (Van Waas 1981, 141).

Following the 1982 crisis, wages plummeted in dollar terms and thus again US firms could easily afford to be relatively benevolent employers, offering attractive wage and fringe benefits, including some not mandated by law. In this environment, there is much greater opportunity for cost savings on the wage bill but with much less culpability, since the reduced wage level resulted from macroeconomic

shifts. Economic conditions thus obscure the question of exploitation by maquiladoras.

#### 5.2.3.2 GENDER BIAS

Like the wage issue, the debate over gender bias in maquila employment practices is garbled by the preexisting conditions in Mexico. There has traditionally been gender discrimination in job assignment in Mexico (Stoddard 1987). In addition, the percentage female of the work force in the sectors of industry that predominate in the in-bond program is as high in nonmaquila plants in Mexico, in other developing countries and in the US (Stoddard 1987, 60; Grunwald and Flamm 1985, 168). As noted in Chapter Two, findings on the percentage female in the maquila work force varied from locale to locale. Nonetheless, a clear pattern of feminine predomination in the MIP work force has existed. The overall figure was about 80% in the early years of the MIP and seems to have declined since to between 70% and 75% (Grunwald 1987; Stoddard 1987, 60).<sup>1</sup>

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<sup>1</sup> Stoddard reported that due to the criticism, some transnational electronics firms have achieved a 60/40 female/male ratio (1987). Seligson and Williams cited a Mexican labor institute report that claimed the shift has been the result of a conscious policy of increasing the male component of the work force out of concern on the part of plant operators with the problem of male parasitism in the border region (1981, 25). Valdes-Villalva claimed that this and other changes in

Asked to explain this pattern, managers of maquiladoras have offered their perception that women are more dexterous, more able to do tedious work, and more docile. Yet, where men have been used in assembly operations, they have been found to be at least as productive as women (Van Waas 1981, 200-201; Grunwald and Flamm 1985, 128). Another claim, that assembly-line work is not considered suitable employment by male heads of households in Mexico may have some truth to it, but even if that cultural norm has influence, it is not insurmountable (Turner 1984, 5): Seligson and Williams found that 52.7% of male maquiladora employees were married (Seligson and Williams 1985, 36).

Critics argue that the use of a predominantly female work force allows the maquiladoras to more effectively exploit the local supply of labor. Thus, they focus on plant managers' perception of women as more docile and less likely to organize or join unions. This docility is based upon the traditional marginality of women in the Mexican wage economy (Van Waas 1981, 202). Because their alternatives are less attractive than those of men, they are more satisfied to work for low wages. Additionally, young Mexican women tend to

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hiring practices have been due to the depletion of the prime recruitment pool of single young women (1985, 162) Dillman pointed out that part of the change is due to the shift towards more capital-intensive production in maquiladoras which implies a greater percentage of technical and managerial jobs, positions traditionally held by males (1983a, 46).

have expectations of not working after marriage and thus often quit voluntarily after a relatively short period (Fernández-Kelly 1983b, 67).

This has two advantages from the viewpoint of the plant managers. Productivity in assembly work tends to drop after the second year of employment, but voluntary quits relieve them of liability for severance benefits that would be due if workers were fired when their productivity dropped (Fernández-Kelly 1983a, 220). Second, short tenure among workers undermines the motivation and ability to organize. In addition, there are other, less direct, advantages to a feminine work force. By hiring women, maquiladoras expand the labor force almost twice over without increasing the strain on infrastructure since these workers are already in place (Van Waas 1981, 201). Probably more important from the perspective of plant operators, by drawing women into the wage economy they can hire large numbers of workers with minimal tightening of the local labor market, thus minimizing the upward pressure on wages.

The element of exploitation in this seems clear, but again it seems to be a case of taking advantage of a preexisting situation, rather than creating an exploitative situation. And again the argument can be made that maquila employment is beneficial, providing a needed opportunity for women. Mexico has undergone rapid industrialization and modernization of its agricultural sector. Boserup found that

these processes displace women from traditional economic roles in agriculture and crafts (Tiano 1983, 206). That they are not counted among the unemployed is the result of Mexican accounting conventions which count women as part of the economically active population only when they are employed (Valdes-Villalva 1985). Fernández-Kelly, though critical of the work conditions in maquiladoras, balanced these two arguments. She recognized the potential benefits of industrial work and of participation in the wage economy for women, and thus focuses her criticism on the discriminatory and exploitative elements (1983b, 67).

Accepting the premise that maquiladoras exploit the economic marginality of women, how should the increase in males as a proportion of the assembly work force be interpreted? If there is no corresponding increase in the proportion of women in the higher paid, male-dominated job categories, then that development can not be construed as progress for them. As noted above, some transnationals have increased the proportion of men in their operations in response to criticism. But if the low wages and inferior working conditions exploit women's economic vulnerability then they also exploit men's vulnerability.

### 5.2.3.3 TURNOVER

Work force turnover is another example of how shifting economic conditions can muddle the debate on exploitation. Critics have charged that high turnover is a corporate strategy to control labor and ensure high productivity (Valdes-Villalva 1985, 161-162; Dillman 1983a, 46; Fernández-Kelly 1983a, 220). Stoddard has argued that, on the contrary, maquiladora operators see turnover as a costly problem (1987). Prior to 1982 turnover ran about 2% to 3% monthly. In this environment, induced job leavings and voluntary quits by employees hired specifically with the expectation that they would have weak job attachment may have accounted for a significant portion of that turnover. There is anecdotal evidence of these practices (Van Waas 1981, 218-220; Bustamante 1983, 252-254; Fernández-Kelly 1983a, 220).

However, in the post-1982 period turnover jumped to 10% to 12% monthly in Tijuana and Ciudad Juárez and to as high as 35% in Nogales (Turner 1984, 4). The trend has continued with rates of 120 to 150% annually (Stoddard 1987, 46). At this level, turnover does not serve corporate purposes, but Stoddard's blanket assertion that turnover is seen as a problem does not refute claims that in the earlier period of lower turnover it formed part of a labor control strategy.

#### 5.2.3.4 UNIONIZATION

Another labor issue concerns the relative weakness of unions and lack of union representation for workers. Unionization varies from location to location. Tijuana, Mexicali and Nogales are not unionized. Matamoros, Reynosa and Nuevo Laredo are. Ciudad Juárez is about a third unionized (Turner 1984, 4). Because of the corporatist character of mainstream labor unions in Mexico and wide variation in the caliber of representation that unions provide to workers from location to location, unionization or lack thereof is not a straightforward measure of quality worker representation.

The Mexican Constitution of 1917 guarantees workers the right to organize and strike and provides for generous benefits. Nonetheless, these provisions remain more an ideal than a realistic description of the labor conditions in Mexico. Grunwald concludes that labor unions in maquiladoras do not, with significant exceptions, represent the interests of their members very well (Grunwald and Flamm 1985, 160). Stoddard claims that unlike US labor unions, which represent their members' economic interests, unions in Mexico are instruments of the PRI by which ideologies are spread and loyalty induced (1987, 52).

Van Waas rejects this sweeping distinction, noting that the CTM and its national leader Fidel Velázquez are often

likened to the AFL-CIO and George Meany. This comparison, however, compromises Meany and the AFL-CIO more than it redeems the CTM. Workers in Mexico are typically cynical about the value of union membership, which is most advantageous to union officials (Van Waas 1981, 110).

Unions in Mexico are typically characterized by autocratic control. Union leaders can and will take over such traditional management functions as hiring, firing, and plant discipline (Van Waas 1981, 110). Some managers of maquiladoras have criticized this system for its abuse of the rank and file. Yet all the managers that Van Waas interviewed acknowledged the system's value in simplifying negotiation and guaranteeing rank and file acceptance of contracts (1981, 110). Management criticism and acceptance of Mexican unions are both illustrated by events in Nuevo Laredo in 1974-1975. Maquiladoras supported a challenge to the autocratic local CTM boss and the establishment of new independent unions affiliated with the national CTM. Unfortunately, the new union leaders had inadequate experience with the technical aspects of their new positions and could not guarantee the acquiescence of their radicalized rank and file to contracts. Many plants shut down, and the management of those that remained supported the reestablishment of the former CTM local boss (Van Waas 1981).

All of the above noted, it would be wrong to conclude that mainstream unions in Mexico are in the pocket of maquiladora

interests. Rather, unions can reach mutually beneficial arrangements with maquiladoras, offering labor peace for the right to organize the labor force and collect dues. Because unions are autonomous vis-à-vis management, cooperating when they see fit, transnational corporations have practiced a policy of cooperating when necessary and resisting when possible (Van Waas 1981, 317). That this struggle is largely irrelevant to the work conditions of maquiladora employees is suggested by the finding that turnover is about the same in unionized and ununionized plants (Stoddard 1987, 53).

Given this situation, it is difficult to separate maquiladoras' resistance to the inroads of mainstream unions (which may justifiably be interpreted as competing power structures rather than workers' organizations) from their resistance to legitimate attempts by workers to organize themselves. Nonetheless, in some cases maquiladoras have opposed the authentic grassroots attempts of workers to organize. As mentioned above, in Nuevo Laredo when newly established independent unions proved unruly, maquiladoras supported the reestablishment of control by the autocratic CTM boss whose ouster they had earlier supported. In Guadalajara a maquiladora arranged with the local CTM for it to call off its organizing drive on the condition that it would fire workers attempting to organize an independent union.

In addition, maquila owners use selective hiring and firing to maintain labor quiescence (Van Waas 1981). As noted above, these tactics have included hiring of young single women because of their docility and weak job attachment, and inducing quits, all to minimize the work force's interest and ability in organizing. Aside from these general practices, potential union organizers are fired on a case by case basis. Additionally, it has been charged that maquiladoras have solicited the sporadic antiunion interventions by Mexican police and troops. (Van Waas 1981; Zack 1986). This charge, however, is difficult to substantiate.

Defenders of maquiladoras contended that these charges are false and that labor-management relations have been generally cordial. Where they have not, the problems have been the result of the agitation of ideologically motivated organizers or cynical individuals maneuvering for political advantage. These arguments can not be wholly dismissed: in Nuevo Laredo, for example, the central leader for the independent unions Cantu Rosas used the organizing efforts as a vehicle to advance his political career. He abandoned the independent movement when it had served his purpose (Van Waas 1981).

### 5.3 MIGRATION AND MAQUILADORAS

Concerning the effect of the MIP on migration both internal to Mexico and between the U.S. and Mexico, three arguments have commonly been made:

- The maquiladoras have stimulated significant internal migration to the border (Bustamante 1983, 244).
- The maquiladoras serve as a jumping off places for migration to the United States for those the MIP has brought to the border from the interior (Cafferty 1983, 192).
- The creation of jobs at the border causes migration to the U.S. to diminish (Freeman 1971, xii).

For lack of rigorous quantitative examination, the debate over these contentions has tended towards unsubstantiated assertions, but recently a few researchers have begun a more scholarly approach to these questions. Wolfgang König conducted his research by interviewing 502 assembly-line workers employed in maquiladoras in the cities of Chihuahua, Ciudad Juárez, Compostela, Guadalajara, Matamoros, Mexicali, Nogales, and Puebla. Monica-Claire Gambrill collected 224 self-administered questionnaires from workers in 17 plants in Tijuana, between November 1977 and February 1978. Seligson and Williams conducted surveys in late spring 1979 in which 839 workers were interviewed in six border cities: Mexicali, San Luis de Río Colorado, Nogales, Agua Prieta, Ciudad

Juárez, and Ciudad Acuña; and in two interior cities, Hermosillo and Chihuahua.

### 5.3.1 MIGRATION WITHIN MEXICO

The argument that the MIP is responsible for significant internal migration to the border assumes that migrants are attracted to the border by jobs. In addressing this hypothesis, Seligson and Williams recognize the potential applicability of the Harris and Todaro model of rural-urban migration in less-developed countries. The model proposes a calculation on the part of the potential migrant of the form:  $W_r < p \cdot W_u$ .  $W_r$  represents the rural wage.  $W_u$  signifies the urban wage, and  $p$  is the probability of obtaining urban employment.

Where this inequality exists, that is, where the urban wage discounted by the probability of finding urban employment is greater than the rural wage, migration will occur. A second implication of the model is that attempts to remedy unemployment in urban areas by job creation might actually increase unemployment by exerting a stronger attraction on potential rural-urban migrants (Seligson and Williams 1981, 59). Thus, it might seem plausible that the MIP might be responsible, at least in part, for rural-urban migration and increased urban unemployment in the border region.

Having recognized the potential applicability of this hypothesis, Seligson and Williams took a narrow approach to testing it. In their survey, respondents who were interstate migrants and migrated after they were 12 years of age were defined as conscious migrants (33.1% of their sample). These migrants were asked, "Why did you come to live here?". Work search, broadly interpreted, accounted for 42.2% of the total. Another 45.2% migrated out of familial considerations: to accompany family 23.1%; to join family 12.5%; because of family problems 5.8% and to educate their families 3.8% (Seligson and Williams 1981, 70). König also found that only a small percentage of his respondents (15%) listed work search as the primary incentive for migration. Gambrill also found in her questionnaire that family-related motives were the most frequently cited for her respondents' migration, followed by work search.

This evidence largely contradicts the predictions of the Harris and Todaro model. Most significantly, Seligson and Williams found that only 4% of their sample of MIP workers migrated in search of work with knowledge of the program. However, it should be noted that a basic limitation of these studies in testing the Harris-Todaro model was the sampling population. The target population in each study was made up of MIP employees. Therefore, their findings do not reveal the significance of maquiladoras as a pull factor for migrants in the general population of the border.

Furthermore, Seligson and Williams noted that more recent migrants in their sample were more likely to have heard about maquiladoras before migration. This finding is consistent with Rivera-Batiz's adaptation of the Harris-Todaro model specifically to the question of MIP-induced migration. His analysis predicts that the continuing expansion of border industrialization will increasingly color potential migrants expectations of the probability of employment and increasingly stimulate interregional migration (1986, 268). This scenario is more likely in light of the trend for maquiladoras to be larger, more stable establishments, partly as a result of industry self-policing.<sup>2</sup>

### 5.3.2 TWO-STEP MIGRATION

Examining for evidence that the MIP serves as an intermediate step towards documented or undocumented migration to the US, Seligson and Williams found little evidence that this process is a prevalent phenomena. Of those MIP workers who were interstate migrants within Mexico, only 12.6% believed that working in a maquiladora would help them eventually get work in the US. Furthermore, of the interstate

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<sup>2</sup> Runaway were common in earlier years and attracted criticism (Grunwald 1987; North American Congress on Latin America 1975). Currently, all principal industrial parks screen applicants to ensure stability and continuity (Grunwald and Flamm 1985, 173).

migrants, only 12.8% intended to migrate to the US (Seligson and Williams 1981, 104-105). On the basis of their surveys, it would seem that such a two-step process is not the dominant pattern. Rivera-Batiz has suggested that it is those who fail to find work that are the likely international migrants (1986). Fernández-Kelly cited examples of male members of families of maquiladora employees who migrate to the US due to their inability to find work (1983a). Seligson and Williams's sample could not address these points.

### 5.3.3 MIP ABSORPTION OF POTENTIAL UNDOCUMENTED MIGRANTS

The undocumented migration to the US from Mexico has constituted between 50% and 60% of the total undocumented immigration into the US (Passel and Woodrow 1984, 651). The literature on this flow has suggested that there has been some evolution from the predominantly male, agricultural, and temporarily employed labor force in the 1960s and before. The undocumented work force has been increasingly low-level industrial, long-term employed, and partially female since the middle 1970s (Violet 1985, 2). Regardless of gender and the nature of their employment, undocumented immigrants work primarily in low-status, low-wage jobs. They have come not only from the border states but also from the poor states in the interior (Johnson 1978, 219).

Fulton Freeman, ambassador to Mexico from 1964 to 1969, based his support of the BIP on the hope that the effect of the BIP on undocumented immigration would be to diminish the volume by absorbing job seekers at the border (1971). Several arguments can be made that this effect has been weak. First, the number of maquiladora jobs is at most 20% of the number of undocumented immigrants in the US. The total employment in maquiladoras in 1986 was 250,000 workers about 80% or 200,000 of whom were blue-collar workers. Passel and Woodrow, using data from the 1980 census suggested that a low estimate of undocumented aliens in the US from Mexico is 1,138,806 (1984, 645). Second, those maquiladora jobs are held principally by women. Most undocumented immigrants have been young men. As well, it is worth noting that many undocumented workers do not merely drift northward until they find work but rather come from the interior, recruited directly into US by occupational-kinship networks (Martin 1986). These factors suggest the impact of the MIP can have been at most marginal.

Additionally, the deterioration of the peso vis-à-vis the dollar has widened the gap between US and Mexican wages. Mexican workers could increase their earnings between 800% and 1300% by finding work in the US (Rivera-Batiz 1986, 263). By 1984 this widening gap had led to the situation where maquiladoras began for the first time to have difficulty

holding their workers as the lure of high US wages across the border became stronger (Grunwald and Flamm 1985, 179).

Finally, the ability of the MIP to absorb unemployment is inherently limited by the very nature of their appeal to US firms. As unemployment falls, maquiladoras must bid up wages or offer fringe benefits to attract labor; and this necessity lessens the attractiveness of the local labor market. On the border the labor surplus that spurred the expansion of the MIP has been reduced enough to exert upward pressure on wages. Labor-intensive production is being increasingly funneled to the interior, where large labor surpluses and lower wages still prevail (Auerbach 1985, 18). Thus, even where maquiladoras exist, wages will still remain lower than those in the US; and the attraction of the US labor market for migrants will remain.

In conclusion, the effect of maquiladoras on both internal migration in Mexico and migration between the Mexico and the US is unclear, though likely not crucial in either case. The effect of the migration issue on the debate over the MIP in both countries is limited not only by this uncertainty but also by the disagreement over whether the net economic impact of migration is positive or negative. Briggs (1985) has argued that undocumented immigrants displace US workers, but Cornelius (1978) and Piore (1979) maintained that there is no competition between undocumented immigrants and US workers because they participate in different segments of the labor

market. Bustamante and Cockcroft (1983) argued that Mexico subsidizes the development of the US economy by absorbing the social costs of reproducing labor utilized by US capital. Reynolds (1983) argued that Mexican immigration to the US is economically useful for both the US and Mexico, supplementing the declining numbers of the US labor force and reducing the labor surplus in Mexico, thus avoiding the social costs of massive unemployment and underemployment.

Though as recently as the Carter administration the argument that the MIP diminished undocumented immigration to the US had some currency, interviews with representatives of the executive and legislative branches suggested that the unresolved debate and incomplete and contradictory evidence had reduced the impact of the migration issue on the debate regarding the MIP. None of the spokesmen for the executive branch mentioned undocumented immigration as a relevant issue with regard to the MIP. Among congressional respondents, only Representative DeLay (R-TX) thought that the MIP had a strong dampening effect on undocumented immigration. An additional 11 said that they assumed that the MIP might reduce the migration marginally, but that was not the most relevant issue for any of them.

#### 5.4 THE IMPACT OF ISSUES ON NATIONAL POLICY

In the US the jobs and competitiveness issue seems to have been the dominant issue in determining policy since shortly after the establishment of the BIP. Up to 1987 the arguments of supporters of the MIP and items 806.30 and 807.00 have triumphed. Their arguments have been buttressed by concerns over the threat that political instability in Mexico posed to US national security. As noted above, initially the maquiladoras were also thought to potentially reduce the volume of undocumented immigration from Mexico to the US.

While it is probably true that alone repeal of items 806.30 and 807.00 would result in even greater job losses in the US, it is unproven that protectionist laws could not retain assembly jobs in the US. It is an indication of the political impotency of assembly workers that the US government is unwilling to take risks entailed in the attempt to protect their jobs. In addition to their obvious political weakness, the workers most affected by displacement are some of the most economically marginal, particularly women (Grunwald and Flamm 1985, 222-223). In contrast to this situation, the Reagan administration has been willing to risk protectionism to protect the US auto industry by imposing "voluntary" import quotas on Japan.

In Mexico development has been the dominant issue in determining government policy. The Mexican government has

ultimately been willing to foster the MIP even if the development that resulted only provided jobs and foreign exchange. While critics have made much of dependency, the government has accepted that intrinsic aspect of maquiladoras from the establishment of the BIP. The government's strategy has been to manage this dependency to try to maximize the benefits. As noted above, this can be seen in Article 16 of the Presidential Decree for the Promotion of In-Bond Industries.

A controversial aspect of this management of dependency has been the decision to maximize the quantity of jobs at the expense of their quality. This policy has been implicit through most of the course of the MIP, but it is now the government's explicit policy for the entire Mexican economy (Orme 1987b). The pros and cons of this policy can be debated, but it means that charges of exploitation have had minimal impact on national policy because allowing exploitation is the policy. Similarly, charges of gender discrimination also have had minimal impact because gender discrimination is a vehicle of the privileged exploitation. As in the US the economic and political weakness of those who bear the brunt of this policy facilitates its implementation.

## 6.0 CHAPTER SIX: PROSPECTS AND IMPLICATIONS

### 6.1 CONCLUSION

Lipietz has written that the contradictions of capitalism find temporary solution in certain types of differences in the regimes of accumulation of different national social formations (1986, 23). The MIP, he argued, is such a solution. The question that this paper has addressed is how temporary a solution and why? Lipietz predicted that it can not last long because of social unrest in Mexico caused by exploitative working conditions and protectionist sentiment in the US caused by displacement of US workers. As described above, the cause and effect he assumes does exist.

Exploitative working conditions have caused incidents of labor unrest in Mexico, and competition between US and Mexican labor has resulted in protectionist sentiment in the US.

However, the research for this paper leads me to conclude that in the US the impulse to protect jobs from relocation has been blunted by the desire to permit US firms to enhance their competitiveness by reducing the per unit cost of production by relocating labor-intensive stages of production in low-wage labor markets. Reinforcing the competitiveness rationale, that US opponents of the MIP lack a viable

specific policy to oppose the participation of US firms has crippled their efforts. In Mexico the threat to the MIP posed by social unrest has been reduced by the low-wage level and lack of employment opportunities in the Mexican labor market. In that market maquiladoras offer the most economically vulnerable workers needed jobs and in some maquiladoras relatively attractive work conditions. Where their economic vulnerability does not ensure worker acquiescence, the desire to maximize employment has led the Mexican government to tolerate labor control tactics and on occasion to intervene to suppress labor unrest.

It has been noted how development in Mexico under the ISI model failed to absorb the labor surplus despite high rates of growth. This labor surplus supplied the manpower needs of US agriculture under the Bracero Program. The end of the Bracero Program compounded the effects of rapid labor force and population growth in the border region. These factors together ultimately resulted in a regional problem of high unemployment. This problem was the precondition for the Mexican government's openness to the MIP. The counterpart of this situation in the US was that the postwar economic boom by its very success resulted in saturation of US markets and a wage level not competitive with those in developing-world labor markets that technological breakthroughs were making increasingly accessible.

Though by 1969 US labor was demanding protectionist measures and there was labor strife in MIP plants in Mexico as early as 1973, the MIP continued to flourish. The 1970 USTC report defused the movement in Congress for protectionist legislation. The continuing growth of the labor force in Mexico caused persistent unemployment. Unemployment combined with the chronic shortage of foreign exchange in the ISI economy to ensure that the Mexican government would tolerate and, to a degree, encourage the MIP. The traditional economic marginality of women, the corporatist nature of Mexican unions, and the government's policy of using or tolerating the use of coercion against workers maintained labor-market conditions that undercut labor's ability to organize.

In addition to the basic conditions in each economy that made the MIP acceptable to both governments, since 1980 unexpected macroeconomic shifts have created conditions even more favorable to the MIP. The interplay of events described in Chapter Three ended in the current situation of extremely cheap Mexican labor and high vulnerability of US markets to imports. The result has been a burst of high growth for the MIP. As described in Chapter Four, the deterioration of the Mexican economy has resulted in a decision by the Mexican government to allow real wages to fall and to encourage the MIP as part of a shift to a greater emphasis on export diversification in its development policy. Protectionist

sentiment in the US is currently undercut by concern over maintaining the competitiveness of US firms which has become more urgent with the increase and persistence of the trade deficit.

## 6.2 PROSPECTS

How long favorable conditions will continue is uncertain. It seems likely that the factors discussed above will ensure a continuation of expansion in the immediate future. John Christman, a long time observer of the in-bond industry, views the situation as promising into the 1990s. Beyond that two opposite scenarios suggest themselves.

In the optimistic scenario, maquiladoras lead the way to Mexico's export-diversification development. The border plants move increasingly into higher value-added production and labor-intensive operations are funneled to depressed areas of the interior, where they absorb unemployment. The beating that Mexican workers have taken on real wages will have been ultimately positive because their low wages will have made export-diversification development possible by underpricing labor in other export-oriented economies. Real wages eventually rise again, defusing worker unrest.

This is not an impossible scenario, but it would very probably require an equally rosy scenario for the US because of its importance to Mexico as an export market. If the US

trade deficit comes down and the expansion of the US economy continues, then the protectionist sentiment in Congress will be reduced. Contrary to Lipietz's prediction, my research suggests that the MIP seems unlikely for now to be the target of specific protectionist legislation. Therefore, if the sentiment for sweeping protectionism wanes, the MIP is probably safe.

The pessimistic scenario flows from the US trade deficit. If the US trade deficit does not come down, then the result is likely to be some degree of protectionism (Jaroslovsky 1987). Not only must it come down, but it must come down through increased US exports rather than decreased imports. If the US reduces the trade deficit largely by reducing imports, it is likely to bring on recessions in Japan and West Germany. These would have feedback effects on the US economy because the demand for US exports would be reduced, offsetting the reductions in imports, and very possibly leading to a recession in the US (Thurow and Tyson 1987). A US recession might very well result in protectionist legislation as the Depression resulted in the Smoot-Hawley Act, which raised trade-stifling tariffs.

Recent polls have shown growing public support for protectionist measures to protect US jobs, even if that means higher prices to consumers. An April 1987 Washington Post-ABC News Poll found a 64% to 33% majority taking that position (John 1987). Furthermore, both House and Senate trade bills

contain broad protectionist measures. The Gephardt Amendment to the House bill calls for retaliation against countries that have a persistent trade surplus with the US. [Mexico has succeeded in running a trade surplus since 1982 (International Monetary Fund 1987, 350).] A revision of Section 201 of the current trade law in the Senate bill would subsidize products threatened by imports (Rowan 1987). If protectionist measures are taken by the US, that will undermine Mexico's export-oriented sector, including the MIP, since about 60% of its exports go to the US (Economist Intelligence Unit 1986, 33). The participation of Japanese and other non-US firms in maquiladoras reduces the possibility that the MIP might be exempted from trade barriers.

Barring such dramatic developments, the MIP seems safe from any threat from its opponents in the US. In Mexico the MIP also seems secure. It seems unlikely that even a nationalistic, leftist PRI administration would be overtly hostile towards the MIP because of the employment it provides. Policies like those of the Echeverría administration, overvaluation of the peso and increases in the real wage, might unintentionally undermine the attractiveness of the MIP. However, such policies would be difficult to maintain, given the difficulty that Mexico would face in obtaining the capital to support such a policy. Aside from the question of the government's explicit policy,

its ability to maintain order is crucial to the MIP. Though there are challenges to the PRI's control, its ability to maintain stability seems to continue (Castañeda 1985; Orme 1987b).

### 6.3 SOME BROADER IMPLICATIONS

Leaving aside from the question of how the national political debate in both Mexico and the US has developed in such a way as to facilitate rather than inhibit the expansion of the MIP, there are several other significant political and economic aspects of the maquiladoras. One of these is the impact of an integrated global labor market on the ability of labor to defend its position through collective action. Increased integration of the global economy also has the effect of diffusing guilt for the negative consequences of the MIP because individual actors are constrained by conditions in the global economy. Finally, the increasing integration of global labor markets allows transnational corporations to exploit labor using incentives as well as coercive tactics.

#### 6.3.1 THE GLOBAL ECONOMY AND LABOR STRATEGY

As noted above, labor issues concerning maquiladoras can be placed in two categories, those effecting US labor and

those effecting Mexican labor. However, this categorical neatness is undermined by the increased and increasing integration of the global labor market. Increased mobility of labor across national boundaries and the trend towards location of industrial operations in developing countries have both contributed to this integration process. Though the movement of goods and, even more so, of labor across boundaries remains limited, the actual and potential competition between labor in high-wage and low-wage economies is such that organized labor must take it into account in order to move beyond increasingly obsolete traditional strategies (Godfrey 1986, 27-28). In a global environment where unemployment and underutilization of labor are increasing, this can only become a more pressing concern (Godfrey 1986, 23).

Awareness of this situation can be seen in the pressure by the US labor movement for increased protectionism against imports and in campaigns to organize undocumented workers (Wiley and Gottlieb 1982, 268-269; Solis 1986, 1). Though higher US wages may persist if productivity differences and transportation costs offset wage differences, US workers' bargaining position will nonetheless continue to be influenced by international factors. By the same token, Mexican employment opportunities and remuneration are influenced by availability of low-wage labor in other countries. For example, transnational corporations faced with

increases in the US dollar value of wages in the 1970s considered relocation to other countries. They used this threat in lobbying with the Mexican government to hold down minimum wage increases (Van Waas 1981, 242).

To counteract the effects of this trend, Valdes-Villalva has suggested the organization of international industrywide unions to keep management from playing workers in one country against those in another. Though that solution is theoretically attractive, many obstacles exist to its implementation. Even a US-Mexico international union would be very difficult to achieve. The CTM has thus far acceded to conditions in maquiladoras. Therefore, it seems unlikely to ally with US labor in opposition to the MIP. Alternatively, neither the CTM nor the Mexican government, which depends on its support, could be expected to allow the establishment of a union that would supersede the CTM.

However, the greatest obstacle to the cooperation of US and Mexican labor is the sheer prevalence of worldwide unemployment and underemployment. One result of this fact is that the interests of US and Mexican opponents of the MIP do not necessarily coincide and any cooperation between them is therefore fragile. Mexican critics of the MIP would like to see the work conditions improved and discriminatory elements of maquila employment eliminated. US labor would like to see the assembly jobs remain in the US. These are largely mutually exclusive agendas.

What will be the ultimate impact of the dramatic expansion of accessible labor is uncertain. In the US there could be a number of outcomes. One might be the lengthening of the socio-economic ladder as wages for unskilled workers stagnate or fall in real terms because of the availability of alternative sources of labor. How politically acceptable such a development would be depends on the number and political organization of workers who perceive themselves as excluded from the fruits of economic growth. Alternatively, unskilled industrial labor may simply be squeezed out of the US economy by low-wage labor elsewhere and automation in the US. Displaced unskilled workers might be absorbed at the bottom of the service sector. Or the government might simply carry the labor reserve on welfare. A combination of these two possibilities would be the partial appropriation of the unskilled, low-wage labor market by the government under workfare programs.

The situation is similar in Mexico. Wages for low-wage labor seem likely to remain subject to an effective ceiling created by the availability of low-wage labor elsewhere. Improvement in the standard of living would seem to depend on the resumption of not only higher rates of growth but also of development. Development offers the possibility of expanding the number of more highly skilled, therefore more highly paid jobs.

### 6.3.2 THE GLOBAL ECONOMY AND EXPLOITATION

Besides facilitating exploitation by undermining labor's bargaining position, the evolution towards a more integrated global economy also obscures the question of exploitation because it diffuses blame throughout the economic system. The diffusion of guilt occurs because individual actors are constrained by competition from other actors. Transnational operators of maquiladoras have a ready response to critics who argue that those firms are responsible for job losses in the US or exploitative conditions in Mexico. Firms can claim that they must respond to the global economic environment, where their products are in competition with those produced by firms in low-wage countries. As economic entities responsible to their stockholders, they live and die by the bottom line. They can not disdain cost-saving strategies, including relocating to labor markets characterized by low wages and poor working conditions. Fernández-Kelly, though a critic of the working conditions in maquiladoras, acknowledges their consistency in this, describing their motives as "pristine" (1983a, 94).

Similarly, the Mexican authorities may be partially excused by the argument that they view the maintenance of low wages as necessary to maintain the attractiveness of Mexico as a site for foreign investment, including maquiladoras. A former mayor of Ciudad Juárez justified the use of soldiers

and police to disrupt a union hunger strike in Reynosa's main plaza, saying, "Workers suffer through the unrest they are creating as a consequence of the union activity. [In-bond firms]...are thinking of going elsewhere." (Zack 1986c). In some sense, the action of the Mexican authorities can thus be justified because in some other countries with which Mexico competes as an offshore-production location, wages are held down by repressive antiunion policies (e.g., South Korea) (Harrison 1987, 161).

Supporters of the MIP in the US make a similar argument that the policy choices are constrained by the reality of the international economy. Comparative advantage in unskilled labor has shifted to developing countries. Attempts to circumvent this basic fact of economic life will only result in greater economic suffering. Repeal of items 806.30 and 807.00 will only reduce employment in production of components. Broader protectionism would bring on a new depression (Mitchell and Vargas 1987).

In this situation each of these actors claims that they have not created this economic environment, but they must obey its rules if they are to function within it. Thus, though each actor accepts some degree of culpability for negative aspects of the MIP, their acts are implicitly excused as necessary evils.

### 6.3.3 SEDUCTIVE EXPLOITATION

In low-wage markets transnational corporations are especially able to combine coercion and incentives in exploiting workers. In Chapter Five the theory of labor-market segmentation was applied to the MIP. In that framework, the labor-intensive operations in Mexico may be seen as a secondary sector vis-à-vis the US labor market, receiving lower remuneration and enjoying less job security. This situation lends credibility to charges of exploitation. However, the situation is obscured because, as Piore has observed, "Separate a group of insecure jobs from others and that group is often subdivided again into two groups, one of which is relatively more secure (Berger and Piore 1980, 27). Though maquiladoras represent the creation of a secondary sector relative to the US labor market, given the high unemployment and underemployment that persist in the Mexican labor market, maquiladoras constitute a primary sector there.

As noted above, maquila wages have remained consistently above the minimum wage. In addition, among maquiladoras, those run by large transnationals offer better employment conditions than those run by smaller US firms and Mexican nationals. Fernández-Kelly found that large transnational firms offer improvement of the skills of some production workers, relatively stable employment and certain fringe benefits (1983b, 105). As noted above, the Fernández-Kelly

discovered that the result of this situation was a consensus among workers was that maquiladora work offered the best employment alternative in Ciudad Juárez.

This situation calls for a more flexible understanding of the concept of exploitation. Where coercion figures heavily in exploitation, we are close to the traditional concept, the blatant abuse of workers for profit. Where incentives play a larger role in securing labor quiescence, exploitation takes on a more neutral connotation, meaning to utilize. Where labor-market conditions are sufficiently depressed, exploitation might seem the wrong term. Instead, transnational corporations offer much-needed opportunities to workers and countries with whom they have a community of interest.

However, the manner in which coercive and beguiling techniques of labor control are combined in the MIP shows the essential amorality, as opposed to immorality or morality, of transnational capital: coercion and incentives are simply alternative approaches to labor relations, and are often complementary rather than mutually exclusive. For example, industrial relations in the MIP have not been merely a matter of firms utilizing a cheap source of labor by offering attractive jobs. Maquiladoras have also attempted to maintain labor-market conditions that allow them to appear as attractive employers. Besides direct actions (e.g., firing union organizers), they have used the threat of

relocation to quell labor activism and to influence the Mexican government to quell labor activism.

The difficulty, of course, is in determining whether this threat is a bluff in the absence of detailed knowledge of how firms calculate the costs of operating in any given location. (The decrease in the dollar-value of wages since 1982 suggests that the threat of relocation is quite possibly a bluff.) Baerresen suggests a model for such a calculation (1971). All of the terms can conceivably be determined with some precision by analysts outside the firm except the political cost, which includes the labor environment as distinct from the actual wage costs. Other models (e.g., the University of Delaware Business Risk Index) might be used to calculate the firm's relocation threshold. Nonetheless, each firm's estimate of the risk posed by unions remains ultimately inaccessible to the outside observer. Thus, it is impossible to prove conclusively that a firm is bluffing about relocation to exploit the fears of workers and the Mexican government. This ambiguity encourages the Mexican government to minimize low wages and to suppress or tolerate the suppression of labor unrest. Thus, firms may contribute to the labor environment which allows maquila plants to be attractive employment options.

#### 6.3.4 AREAS FOR FURTHER RESEARCH

Like any research project, this one might end its conclusions more appropriately with question marks. It would be fruitful to reexamine not only my conclusions but the descriptive aspects of this work in light of further research, most especially with Mexican sources. I have portrayed the national policy debates in both countries largely as driven and constrained by macroeconomic and demographic variables. Foremost, additional research should be directed to investigating the importance of local and regional factors in shaping the national policy. For example, how important is the interest and influence of local actors (e.g., the Bermúdez family in Ciudad Juárez)? Is the fact that Lyndon Johnson, Nixon, and Reagan were all border-state politicians significant in explaining their desire to facilitate access of US capital to Mexican labor? Questions like these need to be answered in order to make a more accurate assessment of the relation between local politics and national politics with regard to the MIP. Is Tip O'Neill's axiom that all politics are local accurate in this case? It seems likely that it forms at least a necessary supplement to the explanation that I discovered in my research.

I see a suggestion of that possibility in a number of anomalous facts. I found that the explanation uniformly given

for the establishment of the BIP was the high unemployment in the border region following the end of the Bracero Program. However, the returning braceros were not hired by the maquiladoras. Despite that, the threat that they supposedly constituted posed to political stability did not materialize. Does this suggest that the threat to stability was cynically overstated in order justify the BIP by individuals who expected the program to serve their own interests? Or is the explanation more complex, with local interests coinciding with the larger national concerns? Questions like these may be difficult or impossible to answer, but they should be investigated.

Several other specific points would bear more research. What is the extent of the political clout of the groups in the US that support and oppose the MIP? What are the sources and amount of their funding? Does the US national security issue figure more prominently in the debate than has been implied by the emphasis of this study on economic issues?

Is the increase in the percentage of males in the MIP work force largely the result of the increase in skilled jobs in more capital-intensive production operations? Does occupational discrimination persist with women continuing to be relegated to low-skill assembly jobs while men are hired for the higher-skill jobs that are available in capital-intensive processes? How successful have the incentives offered by the Mexican government been in

increasing the transfer of technology and skills and in increasing utilization of Mexican components? How successful have the incentives been in attracting more maquiladoras to the interior?

These questions and many others should be answered to provide a full understanding of maquiladoras. The MIP regulates a group of complex, varied, and evolving phenomena which have many political, social, and economic effects and implications. It is important that the assembly industries be understood in all their richness rather than papered over with simplistic labels in order that we appreciate both the costs and benefits of growing global economic integration and how they are distributed.

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## APPENDIX B. ACRONYMS

ACTWU (The Amalgamated Clothing and Textile Workers' Union).

AFL-CIO (The American Federation of Labor and Congress of Industrial Organizations). The most powerful political organization representing the interests of organized US labor.

AMCHAM (The American Chamber of Commerce of Mexico). A private organization representing the interests of US capital and its Mexican affiliates in Mexico.

CANACINTRA (Confederación Nacional de Industrias de Transformación - National Confederation of Industries of Transformation). A semi-private business confederation in Mexico. Part of the Mexican corporatist structure, with two other major business organizations CONCAMIN and CONCANACO (confederations of chambers of industry and commerce, respectively), CANACINTRA organizes and represents business interests to the Mexican government.

CCI (Central Campesina Independiente - Independent Farm Workers' Union). A relatively radical farm workers' organization that directed organizing efforts toward farm workers returning from participation in the Bracero Program in the US terminated in 1964.

CNC (Confederación Nacional de Campesinos - National Confederation of Farm Workers). The sector within the PRI that encompasses the Mexican peasantry.

CNIM (Consejo Nacional de la Industria Maquiladora - National Counsel of Maquiladora Industry). This body represents the maquila interests within CANACINTRA.

CNOP (Confederación Nacional de Organizaciones Populares - National Confederation of Popular Organizations). This body organizes various popular organizations consisting primarily of urban petty bourgeoisie within the PRI.

CROC (Confederación Revolucionaria de Obreros y Campesinos - Revolutionary Confederation of Workers and Farm Workers). A major union confederation in Mexico, more decentralized and less important than the CTM.

CRT (Confederación Revolucionaria de Trabajadores - Revolutionary Confederation of Workers). One of the smaller labor confederations in Mexico.

CTM (Confederación de Trabajadores de México - Confederation of Workers of Mexico). Mexico's major labor confederation, comparable to the AFL-CIO in the US, and a crucial part of the PRI organization.

GAO (General Accounting Office). An independent agency of the US legislative branch responsible for assisting Congress in carrying out its duties.

GATT (General Agreement on Tariffs and Trade) A multilateral agreement that provides for minimization of barriers to trade among member nations.

GSP (Generalized System of Preferences) A program that allows some imports to the US from less developed economies exemptions from the duties that would otherwise be levied.

HyCP (Secretaría de Hacienda y Crédito Público - Secretariat of the Treasury and Public Credit)

IBEW (International Brotherhood of Electrical Workers).

IMF (International Monetary Fund).

ISI (Import-Substituting Industrialization).

IUE (International Union of Electronics Workers).

MIP (Mexican Industrialization Program).

PAN (Partido Acción Nacional - National Action Party). The most important opposition party in Mexico. Center-right in political orientation.

PRI (Partido Revolucionario Institucional - Institutional Revolutionary Party). The dominant political party in Mexico.

PRONAF (Programa Nacional Fronterizo - National Border Program). The first major effort by the Mexican government to improve the border region as a whole.

SIC (Secretaría de Industria y Comercio - Secretariat of Industry and Commerce).

UAW (United Auto Workers).

USITC (United States International Trade Commission).

USTC (United States Tariff Commission).

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