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Raúl Delgado Wise and James M. Cypher

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## SECTION TWO

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# *NAFTA, Labor, and the National State*

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# The Strategic Role of Mexican Labor under NAFTA: Critical Perspectives on Current Economic Integration

By  
RAÚL DELGADO WISE  
and  
JAMES M. CYPHER

This article aims to reveal the precise meaning of Mexico's export platform by focusing on maquiladoras and the disguised maquila industry. In both sectors, imported components account for 75 to 90 percent of export value. As a result, benefits for the Mexican economy are basically restricted to wages, that is, the value of the labor incorporated into the exports. The authors argue that what is actually taking place is the disembodied exportation of labor or, alternatively, that the workforce is being exported without requiring Mexican workers to leave the country. The authors thus demystify the purported orientation of Mexican exports toward high-value-added manufactured goods and reveal the regressive movement of the export platform.

*Keywords:* NAFTA; maquiladora industry; disguised maquila; export-led industrialization; transnational corporations; Mexican conglomerates

**I**n this article, we present a new theoretical formulation of the Mexican economy under the North American Free Trade Agreement (NAFTA)—the cheap-labor export-led model. We maintain that, in one guise or another, Mexico's new role consists of exporting its cheap labor, not in achieving new high-value-added forms of production through enhanced specialization.

This model stands in stark contrast to a vision projected by those who gave shape to NAFTA; advocates portrayed that treaty as a win-win proposition for Mexico and the United States and as an avenue for reducing asymmetries between those two countries and Canada. Furthermore, NAFTA was presented as an antidote to emigration. In spite of the widespread presumption that the NAFTA model is merely a trade-enhancing process, we maintain that its underlying objective—its inner rationality—is the export of cheap, largely poorly trained labor through three interrelated mechanisms: (1) the maquila industry (the processing of imported materials by low-skilled, low-paid Mexican workers, which are then reexported, overwhelmingly

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to the United States), (2) the *disguised* maquila sector, and (3) the emigration of Mexican labor to the United States. The first two processes constitute the disembodied export of cheap labor, with this labor actually embodied in the exported products. Emigration, on the other hand, is the direct export of labor, but in all three instances Mexico is not really exporting goods because, with minor exceptions, the only Mexican-made value/input in this complex transnational process is cheap labor. We use NAFTA to designate a series of agreements, informal accords, and economic policy changes largely initiated by the United States to confront the new structural forces arising from the present era of intense international economic rivalry among the Northern (first tier) nations. We further argue that the new labor-export model constitutes a fundamental element in the process of industrial restructuring of the U.S. economy that began in the 1980s and continues in the new millennium.

We present data that show the emergence of a disarticulated economy in Mexico, one where a significant division is to be found between the two maquila sectors and the remainder of the economy. The net result is a lack of economic continuity, autonomy, and dynamism where the productive apparatus has been dismantled and reassembled to fit the structural requirements of the United States, leaving Mexico in control of certain low-value-added resource-based activities, and a range of other rentier pursuits in tourism, finance, and real-estate. Instead of advancing its productive capacity, Mexico is falling farther behind in relative terms because, in essence, the labor export-led model is structurally designed to transfer Mexico's economic surplus away from its potential domestic usage. This process of subordinated integration fails to advance the productive apparatus of the economy through investments in expanded research, development, and technological applications and through public sector infrastructural investments designed to rapidly improve Mexico's quality of education, public health, and autonomous industrial base. Mexican elites coexist symbiotically with and facilitate the restructuring process as delimited by U.S. economic interests. In this process, certain benefits befall the elite, while its members carefully maintain their option of engaging in devastating capital flight—or deploying the threat of capital flight—to preserve their benefits.

Our analysis is divided into six sections. First, we examine NAFTA both in terms of how the Mexican government has portrayed its effects and in terms of its actual impact when using less selective data. Second, we focus on maquiladoras and the indirect export of cheap labor as embodied in products from that sector.

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Third, we analyze the disguised maquila sector and the ways in which it corresponds to and can be differentiated from the maquiladora industry. Fourth, we briefly review some of the more salient characteristics of the Mexican emigration process as they pertain to our model. Next, we explain processes pertaining to the cheap-labor export-led model that have served to facilitate a restructuring of the U.S. production system. In the sixth section, we turn to the impact that all of the above processes have imposed upon Mexico and the reasons why—despite those adverse affects—the Mexican political class and the business elite have been stalwart advocates of Mexico's neoliberal restructuring. We show why the positive effects anticipated by neoclassical economic theorists have failed to appear. Last, we offer conclusions derived from the research undertaken.

### Situating the Problem: The Apologetic Vision of NAFTA

Throughout the world there is a perception—carefully nurtured by the Mexican government—that Mexico's economic restructuring based on the growth of foreign transactions (exports + direct foreign investment) in accordance with the NAFTA accord has yielded tremendous results. Public officials point out that (1) between 1991 and 2000 exports grew at an annual average rate of 16.3 percent, forming the leading sector of the economy; (2) maquiladora exports were the most dynamic of all, growing at an annual average rate of 19.6 percent; (3) manufactured exports rose from less than 25 percent of total exports in 1982 to more than 90 percent in the late 1990s; and (4) Mexico has become Latin America's top exporter while rising to seventh place in terms of foreign trade (exports + imports) (Leon González and Dussel Peters 2001, 653). Overall, in this new model the export/GDP ratio rose from less than 10 percent in 1988 to more than 25 percent in the late 1990s, with more than 90 percent of these exports flowing into the United States.

We, on the other hand, find that NAFTA has exhibited the following effects: (1) it has been a losing proposition for workers, small and medium-sized businesses and, particularly, peasants; (2) in the United States, for the working class and portions of the middle class, and for some sectors of business, the impact of NAFTA has been negative (Cypher 2001; Delgado Wise 2006). At the same time, NAFTA has directly benefited a small set of interests on both sides of the border, especially U.S.-based transnational corporations (TNCs) and Mexico's largest conglomerates (or *grupos*). The sweeping changes in policy have correlated with massive waves of emigration. This injection of cheap labor has served to indirectly lower reproduction costs and, therefore, the wages of U.S. workers. Such results may be surprising to neoliberal policy makers but are consistent with the objectives of specific sectors—for separate but complementary reasons both Mexican conglomerates and some of the largest U.S. manufacturing interests converged on the idea of a subordinated integration of the two distinct national production systems in the late 1980s.

The widely disseminated vision portraying Mexico's restructuring as a resounding success stands in sharp contrast to the continued growth of emigration, to the degree that Mexico has now become the principal country of emigrants in the world. Ironically, neoliberal restructuring was conceived as the very antidote to emigration, with proponents asserting that the workings of the free trade arrangement would lead Mexico to specialize in labor-intensive activities. These, in turn would absorb most of the idle and underused labor force. Instead, few jobs in the formal sector, and even fewer decent jobs of a nonprecarious nature, have been created, forcing as many as 89 percent of the annual new entrants into a free-to-choose scenario where the options are (1) to work in the informal sector as house servants, street vendors or suchlike or (2) to migrate to the United States.<sup>1</sup> It is generally conceded that Mexico needs to create 1.2 million net new jobs per year to keep the unemployment rate constant and accommodate new entrants to the workforce. Yet under President Vicente Fox's administration, only 40,000 permanent jobs were created per year. That means an annual jobs deficit of more than 1.1 million that forces the new entrants into *temporary* formal jobs—640,000 such slots were created in six years—the informal sector or emigration for the roughly 6.5 million who remained (Cadena 2006a, 21). Of that total, nearly 3 million emigrated in the latest *sexenio* (six-year presidential term). Indeed, emigration has become such a powerful current that 31 percent of the municipalities in Mexico are now suffering from depopulation. Emigration is at the center of our interpretation of the complex economic processes unleashed by the neoliberal restructuring program.

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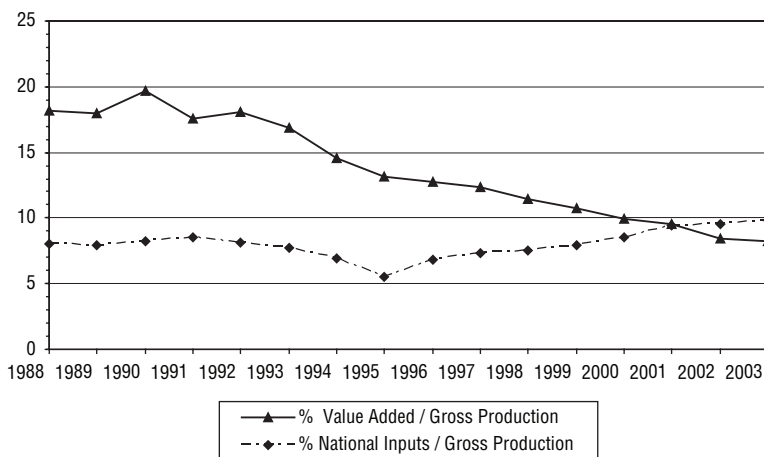
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Over the six years that Vicente Fox was president, Mexico's gross domestic product (GDP) grew at an estimated annual real rate of 2 percent. Taking the three *sexenios* during which Mexico embraced the free trade policies that culminated in NAFTA and beyond (1988-2006), the average annual real rate of GDP growth was 3 percent, roughly one-half that achieved in the import-substitution era between 1940 and 1982 (Gutiérrez 2006, 3A; Cypher 1990). Manufacturing growth for the 2000 to 2006 period was roughly 0.6 percent per year, with employment in that sector falling 15 percent between 2000 and 2005 (Dussel Peters

2006a, 74). Despite its image as Latin America's most successful case of transformation toward an export-led economy based in manufacturing, the constraints imposed on the internal market have been such—given the exploding importation of manufactured products and the limits set by weak aggregate demand, itself the result of low and falling wages—that Mexico is actually de-industrializing. The average level of manufacturing expressed as a percentage of the GDP under the administration of President Ernesto Zedillo was nearly 20 percent, whereas under Fox that figure fell to 18 percent, and the ratio dropped from 20 percent in 2000 to 17 percent in 2005 (Becerril 2006b, 18, Dussel Peters 2006a, 69). According to the World Economic Forum's method of calculating competitiveness for 104 nations, Mexico's manufacturing sector fell from 31st place in 2000 to 59th place in 2005 (Becerril 2006b, 18). Most commentators associate this spectacular drop to Mexico's determined stance in opposition to investments in research and development and the virtual absence of anything that could be termed a national innovation system.<sup>2</sup> Meanwhile, throughout the Fox administration (and before), overall manufacturing exports proved insufficient to pay for overall imports—Mexico encountered an estimated trade deficit of \$20.4 billion for 2005 (Zúñiga and Rodríguez 2005, 24). Thus, even while Mexico's economy enjoyed a modest two and a half year expansion (2003 to mid-2006), the manufacturing sector remained stagnant, and its failure to cover the cost of overall imports means that, in essence, manufacturing performance is serving to *reduce* Mexico's standard of living and GDP, not the opposite.

Consider, for example, the case of wages in the manufacturing sector: mid-2005 levels were on average 24 percent lower than real wages received in December 2000 (Bendensky 2005, 25) but real average wages overall in 2000 were only 73 percent of the 1982 level (Unger 2002, 3). *If* the maquila sector (or more broadly the export sector) had the effect that its proponents contend—positing manufacturing export-led development as a viable strategy for Mexico—one should anticipate that real wages would have some positive correlation with the rate of growth of exports and the rise in the export/GDP ratio over the 1982 to 2005 period. Yet that correlation has been negative, and it has persisted long enough to belie the perception that it is a temporary anomaly. Instead, the negative correlation in question is an expression of the cheap-labor export-led model—Mexico's static comparative advantage rests in the exportation of labor, either (1) embodied in the products of the maquiladoras; or (2) embedded in the disguised maquila sector involving large corporations that export through the use of inputs from the maquiladoras (often depending on products exported by them and then reimported), or directly importing untaxed inputs into their production system); or (3) via migration. Thus, this model cannot, and does not, offer development in the most basic sense *because it cannot*. All the benefits of economic growth are either being exported via transfer prices, repatriation of profits, lavish salaries and benefits paid to high-level transnational firm employees, payments of interest on foreign debts; *and/or* high incomes, ample profits, rents and interest transfers received by Mexico's technocrats, its political class, and the owners of the giant Mexican conglomerates.

FIGURE 1  
MEXICO: COEFFICIENT OF NATIONAL INTEGRATION  
(IN PERCENTAGE TERMS)



SOURCE: Instituto Nacional de Estadística (INEGI; 2004b).

## The Embodied Labor Export Process: Part I

The maquila sector constitutes the starting point in the examination in our analysis because it has by definition been associated with manufacturing exports, and in many formulations it has been linked to the concept of cheap, unprotected, and nonunionized labor.<sup>3</sup> In the three-thousand-plus maquiladora firms that cluster along the U.S.–Mexican border are employed more than 1.2 million workers who generated 55 percent of Mexico’s manufactured exports in 2004 (Banco Nacional de Comercio Exterior 2005).<sup>4</sup> For the most part, maquiladoras import inputs—components, parts, design, engineering, and so on overwhelmingly from the United States, combine those various inputs with cheap assembly (pay per day in 2005 ranged from \$4 to \$10) and a slight element of technical labor, assemble the finished products and reexport the finished products back to the United States.

Figure 1 shows that the value added in the maquila sector constitutes a declining share of the total value of gross production (sales) in that sector. Thus, notwithstanding the overall growth in maquila employment in the NAFTA era, and despite the rise in the total value of Mexico’s maquila exports, Mexico retains a smaller and smaller relative share of benefits derived from those activities even as the costs in terms of aggregate physical effort rise—the ratio dropped from 18 percent in 1988 to only 8 percent in 2003—a decline of 55 percent. In terms of



opportunity costs, Mexico also gives up more relatively every year—which is to say that if Mexico had a viable developmental strategy it could either extract a larger share of the benefits from the maquila industry or engage in a national upgrading process that would eventually lead to a viable development project based in other forms of manufacturing.

Also worth noting in Figure 1 is the essentially static level of integration of the maquila sector as indicated by the corresponding coefficient (national inputs/gross production). The data presented in Figure 1, however, exaggerate the degree of national linkage between the maquila industry and the national production system: roughly 60 percent of the national inputs in 2003, for example, derived from the service sector in terms of cleaning, accounting, packaging and shipping, and similar activities. Only 3 percent of total production value are component/manufacturing inputs.

Although the quantitative data repeatedly demonstrate the futility and negative impact of the maquila industry, a significant number of Mexican researchers continue to furnish qualitative studies of so-called second- and third-generation maquila firms that, according to that body of research, hold the potential for the many externalities posited by new growth theory (Cypher 2004; Dutrénit and Vera-Cruz 2005; Lara, Arellano, and García 2005; Villavicencio and Casalet 2005).<sup>5</sup> None of those studies, however, has ever presented convincing quantitative data suggesting that *in the aggregate* the maquila sector is anything more than a cheap-labor assembly operation with virtually no backward or forward linkages to Mexico's economy. Nor, in spite of many efforts to do so, have these studies ever established a significant dynamic trend sufficiently large to change the fundamental character (cheap dispensable labor) of the maquila industry.

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*[T]he maquila project was never a national  
development strategy, and is even less so today.*

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Once thought to be a serious generator of employment (as well as a source of skill-upgrading), the maquila sector has ceased to create new jobs, with employment, in August 2005, 16 percent below levels achieved in August 2000. When the maquila sector was growing, in employment terms, between 1994 and 2000, jobs created paid 52 percent less than nonmaquila manufacturing, while living costs for maquila workers clustered along the U.S.-Mexican border were considerably higher than in other states (Cypher 2004, 362). In short, and despite the rosy predictions of an indefatigable cadre of Mexican researchers, the maquila project was never a national development strategy and is even less so today. Above all, it should

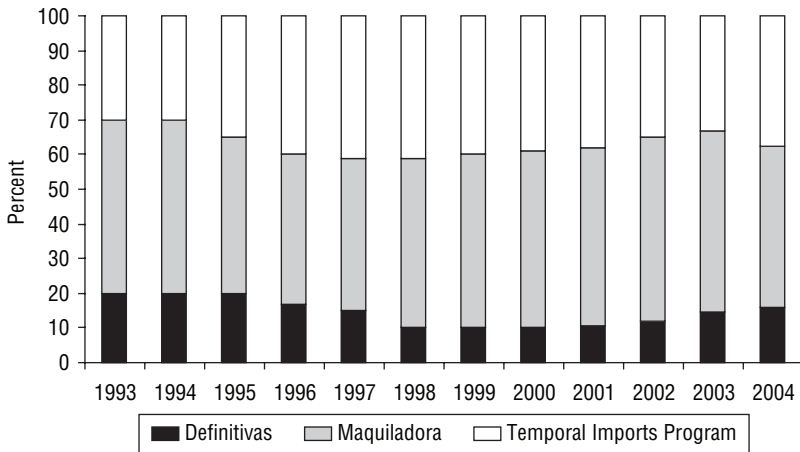
be emphasized that by its nature the maquila industry does not represent the exportation of Mexican manufactured products—instead it represents the export of Mexican labor power embodied in the final assembled and exported products.<sup>6</sup>

## The Embodied Labor Export Process: Part II

There is a twofold division of Mexico's manufacturing sector, which normally accounts for roughly 85 percent of all exports—maquila manufacturing and non-maquila manufacturing.<sup>7</sup> Yet within the second sector 38 percent of all export output in recent years was undertaken via temporary import incentive schemes (such as Pitex and Altex) that largely grant the same subsidies and fiscal exemptions to firms engaging in exports under “temporary import programs” as those that are designated as maquiladora plants (Capdevielle 2005, 564-65; Dussel Peters 2006a, 83-85).<sup>8</sup> Thus, a significant and rapidly growing volume of production is generated by the maquila firms or other supplier firms that are exempt from certain taxes if they produce inputs for the Pitex or Altex firms.<sup>9</sup> The disguised maquila—most of them large transnationals (TNCs), overwhelmingly U.S.-based—are located throughout the interior of Mexico. They incorporate maquila-made parts and components, or parts/components from the designated Mexican supplier web, and generated finished manufacturing products—often of a sophisticated nature, such as autos—which are then exported, primarily into the U.S. market (see Figure 2). In addition, a larger process consists of temporarily importing parts and components which are then reexported after they have been processed or assembled in the disguised maquila plants. A third aspect of this *triangulation* structure is to export maquila products and then, perhaps with further processing, to reimport products as inputs into the disguised maquila sector—wherein they are then processed and again exported. In 2006 a total of 3,339 firms were involved in the disguised maquila sector, excluding the supplier base—160 more than were operating in the well-known maquila sector. Together the disguised maquila and maquila firms accounted for 70 percent of all exports in 2005—in the entire NAFTA period the two maquila sectors accounted for an average of 78 percent of all exports (Becerril 2006a, 18, Dussel Peters 2006a, 75).

Frequently, this movement of inputs from the maquila firms to the larger TNCs constitutes intrafirm transactions since through joint-ventures or direct ownership the large TNCs control many maquila supplier firms. U.S. intrafirm transactions for imports in the auto and electronics sectors—the two largest export sectors for Mexico—stood at 76 percent and 68 percent, respectively, in 2002 (Dúran Lima and Ventura-Dias 2003, 59). Such disguised maquila activities employ at minimum 500,000 workers, representing approximately 37 percent of all nonmaquila manufacturing workers that are normally assumed to be working in the *national* manufacturing sector<sup>10</sup> (Capdevielle 2005, 568). Workers employed in the indirect labor export or disguised maquila sector have somewhat higher skill levels, better representation of their rights via their unions, and

FIGURE 2  
MEXICO: MANUFACTURED EXPORTS BY TYPE



SOURCE: Banco Nacional de Comercio Exterior (2005).

NOTE: Definite exports refer to those that are not reexport platforms. Here we can locate scarcely refined commodities such as glass, steel, cement, and beer where technological intensive products and processes are not a defining characteristic of the production process, and where ownership is largely controlled by the Mexican conglomerates (*grupos*).

are generally paid at least 50 percent more than direct maquila workers because their productivity levels are higher given their union representation, a legacy from the Import Substitution Industrialization Policies (ISI) era, and also given that the major TNCs tend to accept a policy of industrial relations in accordance to which payment of subsistence wages is not a priority (Cypher 2004, 363). Nonetheless, workers receive meager compensation although their productivity often approximates levels found in the (Northern) industrial nations—frequently the South/North wage differential (Mexico/United States) will be in the range of 1:7 in the indirect maquila sector, and nearly double that ratio in the maquila sector. Thus, the International Labor Organization (ILO) has found that for Mexican manufacturing workers *overall* (maquila + nonmaquila) in relation to U.S. manufacturing sector workers in 2003, the ratio was 1:11.39 (Howard 2005, 2). Throughout the NAFTA period, wages in the disguised maquila sector have fallen by more than 12 percent, while in the maquila sector, despite some rising productivity, they have increased only 3 percent or less—3 percent of the lowest paid maquila workers' daily wage was 12 U.S. cents in 2004 (Cypher 2004, 363).

In the disguised maquila sector, nationally produced inputs/components have fallen from 32 percent in 1993 to 22.6 percent in 2004 (Cadena 2005, 13). In

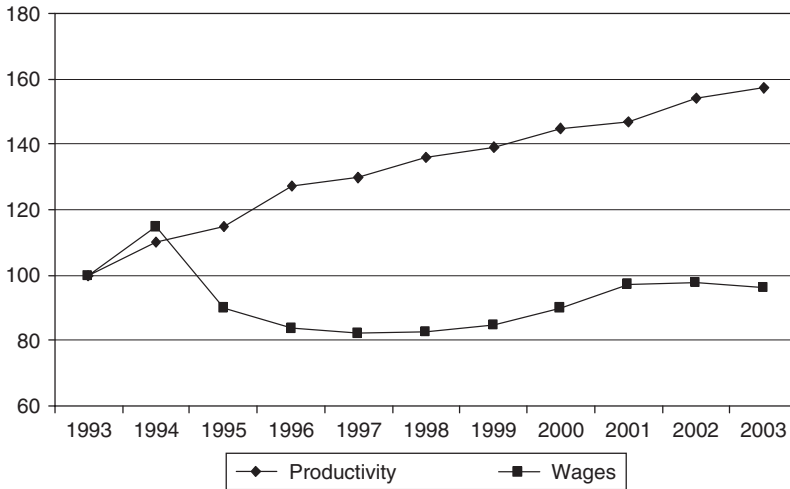
essence, export firms outside of the maquila sector are progressively *de-industrializing*, leaving only the value of Mexican labor as the determining component of value-added as 77 percent of the inputs into the production process are imported. Once again, we emphasize that in the final analysis for Mexico the net result in this sector is almost completely reducible to the disembodied export of the Mexican labor force as embodied in the exported products. Furthermore, when Mexican-made inputs are reduced the impact is not limited to destroying supplier firms and jobs, but also the complex set of socioeconomic relationships and skills that have accumulated over decades. Once this web of relationships has been swept away only long-term, systematic industrial policy can reverse the deindustrialization/deskilling effects. As the giant firms emphasize greater subcontracting, they also demand large levels of output with higher quality and performance standards and production processes that demand greater levels of capital-intensity, thereby eliminating thousands of Mexican firms while often turning to other TNCs as suppliers. One study estimates that of the six to eight hundred first-tier suppliers in the auto sector and the ten thousand second-tier suppliers in 2001, only twenty-five to one hundred first-tier suppliers and two to four thousand second-tier suppliers would remain in 2010 (Mortimore and Baron 2005, 10). Increasingly, it is U.S. first-tier suppliers—subsidiaries of U.S. transnationals—that are dominating the auto parts industry (Mortimore and Baron 2005, 19). Enhancing outsourcing has collateral benefits in that the U.S. transnational firms can sidestep or fragment unions by shifting significant portions of inputs production to captive suppliers—this has been well documented at the giant Volkswagen plant in Puebla that primarily exports finished autos to the United States (Juárez and Babson 1999).<sup>11</sup>

As these effects continue, the significance of the informal sector (workers without benefits or standard on-the-job forms of protection) increases. In 2000, according to government data, 24.9 percent of the labor force was relegated to the informal sector—in mid-2005 the percentage had risen to 28.3. That means that an additional 2.21 million workers had descended into informality (Fernández-Vega 2005, 28). Those underemployed, unemployed, and in the informal sector account for nearly 40 percent of all Mexicans of working age who would normally be counted as part of the labor force in an industrial nation. If anything, these estimates seem to be conservative—the OECD maintains that at least 40 percent of the workforce subsists in the informal sector (Cadena 2006a, 12).

## Direct Exportation of the Mexican Labor Force

Because inputs into the maquila and disguised maquila sectors (other than labor) are primarily imported or limited to small additions of value-added in the service sector, employment multiplier effects via forward and backward linkages have been minimal. Instead, the institutional policies that sustain the export-led

FIGURE 3  
MEXICO: MANUFACTURING PRODUCTIVITY AND REAL  
WAGES (INDEX 1993 = 100)



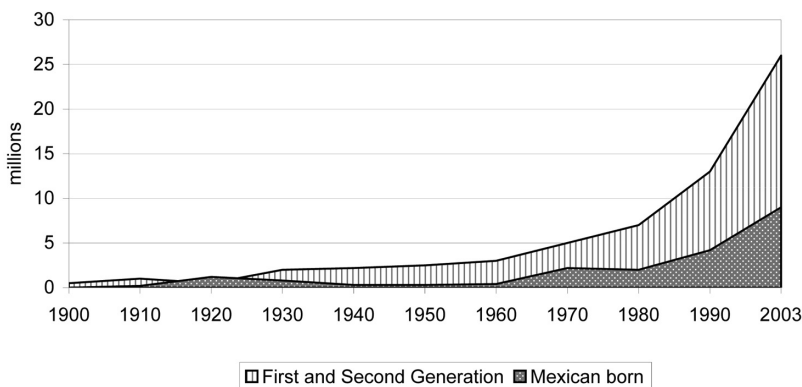
SOURCE: Instituto Nacional de Estadística (INEGI; 2004a).

NOTE: Productivity and wage data cover both production and nonproduction workers.

model—neoliberal market fundamentalism, a tax regime that favors the temporary importation of inputs, subsidies of various types—all tend to narrow the market demands for Mexican labor. This combination of policies has given rise to a near stagnant economy when viewed from the perspective of the rate of growth of per capita income: between 1980 and 2003, per capita income increased only 0.5 percent per year. Between 1988 and 2005, the level was an unimpressive 1.4 percent per year—far below the nearly 3 percent rate achieved from 1940 to 1980 under a policy of state-led development (Cypher 1990; Dussel Peters 2006b, 77). Further exacerbating the situation, the growth in productivity in the nonmaquila manufacturing area (which includes the disguised maquilas, the source of major dynamism in this area) has failed to lift wages, as Figure 3 shows.

This effect, in turn, has undermined whatever possibility might exist for growing wage payments to serve as a catalytic factor in terms of the growth of the internal market.<sup>12</sup> Furthermore, viewing the matter from the supply side, the wide range of growing imports in intermediate inputs and capital goods, which largely could have been produced within Mexico, also undermines the possibility of a growing internal market deriving from wage and other forms of income linked to domestic production. This vicious circle can be broken, but only when Mexico marshals the social forces to adopt vigorous industrial policies similar to those employed by the developing nations of Asia.

FIGURE 4  
POPULATION OF MEXICAN ORIGIN IN THE UNITED STATES



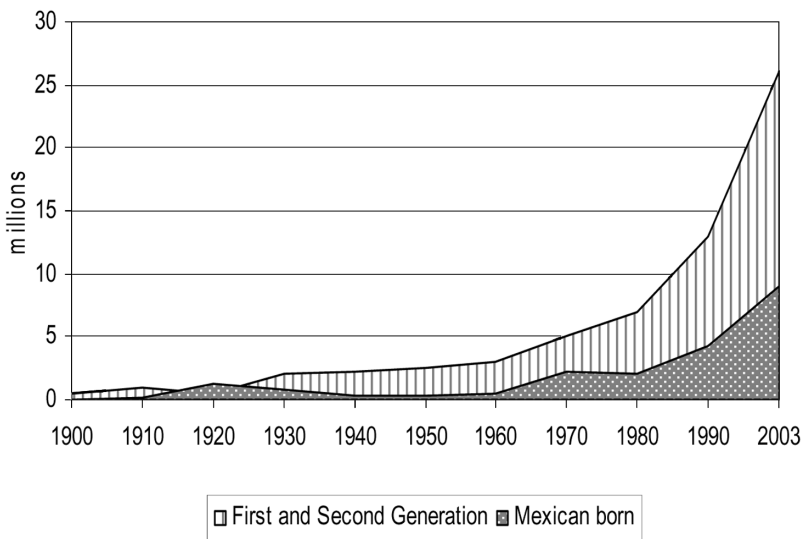
SOURCE: Consejo Nacional de Población (CONAPO; 2004).

The preceding analysis serves to show that the export-led model employed in Mexico is characterized through its low capacity to create national employment, the counterpart of which is the blooming of the informal sector, which has accounted for roughly 50 percent of the *growth* in employment in recent years.<sup>13</sup> As a direct result of the failure of the model, between 1984 and 2004, the number of households registering at either the poverty level or the extreme poverty level rose from 12,970,000 to 15,915,000 (Cypher 2005; Dussel Peters 2006b, 87). Furthermore, this situation has been the nurturing ground for the explosive international migration process that currently characterizes Mexico.

Under this model, as can be clearly seen in Figure 4, migration from Mexico to the United States has grown rapidly over the past two decades. This growth was accentuated with the implementation of NAFTA, whereby Mexico became the main source of immigrants for the United States.

In 2004 the population of Mexican origin residing in the United States was estimated at 26.6 million, including immigrants (both documented and undocumented) born in Mexico (10.2 million) and U.S. citizens of Mexican descent. This is the world's largest Diaspora to have settled in a single country. According to 2006 UN estimates, between 2000 and 2005 Mexico was the country with the highest number of people annually establishing their place of residence in a foreign country (400,000, compared to 390,000 for China and 280,000 for India). In line with this dynamic, the country experienced an escalating growth in its receipts of remittances, making it the third largest receiving country in the world (World Bank 2005). In 2005, total remittances accruing to Mexico amounted to US\$20 billion (Banco de México 2005). As Figure 5 shows, remittances now have parity with oil exports and value-added by the maquila firms.

FIGURE 5  
MEXICO: THE CONVERGENCE PROCESS



SOURCE: Banco de México (2005) and Instituto Nacional de Estadística (INEGI; 2004b).

Practically the entire Mexican territory reports international migration: in 2000, 96 percent of the country's municipalities reported some form of association with the phenomenon. This territorial expansion fueled the emergence of new migratory circuits (historic, indigenous-traditional, emerging, etc.) with contrasting dynamics and sets of problems (Zúñiga and Leite 2004). Parallel to this, the population of Mexican origin—although remaining concentrated in a handful of states—has expanded in recent years in most of the American territory. It should be noted, *inter alia*, that the migratory circuits are currently spilling over into the eastern and north-central states (Zúñiga and Hernández-León 2005) where some of the most dynamic industrial restructuring centers are located (Champlin and Hake 2006).

In terms of schooling, 39 percent of the population aged fifteen years and older born in Mexico and residing in the United States have attained a level higher than a high school diploma. This figure rises to 52 percent if the full spectrum of the population of Mexican origin in the United States is taken into consideration. By contrast, the average figure for Mexico is 28 percent, which means that in general, and in contrast to what is commonly believed, more qualified workers are leaving than remaining in the country. In other words, there is a clear selective trend, in line with the underlying rationale behind international migrations. It should also be noted, however, that in comparison to other immigrant



groups in the United States, the Mexican contingent is the one with the lowest average levels of schooling.

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*[I]n general, and in contrast to what is commonly believed, more qualified workers are leaving than remaining in [Mexico].*

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One high-profile form of migration that does not fall in with the stereotypes involves Mexican residents in the United States who have university degrees or postgraduate qualifications. This population includes slightly more than 385,000 individuals born in Mexico. Of those, 86,000 have postgraduate studies, and 10,000 have doctorates (Current Population Survey, <http://www.census.gov/cps>). This indicates that “brain drain” is beginning to emerge as a major problem.

All of these changes have paralleled a *transformation within migration patterns*: from a predominantly circular migration, it is evolving into one in which *established migrants* dominate, including variants such as greater participation by women and entire families (Delgado Wise, Márquez, and Rodríguez 2004). This trend, which is associated to the abandonment of productive activities in Mexico, is leading in some cases to a growing and worrisome *depopulation*: between 2000 and 2005, of the country’s 2,435 municipalities, 832 (one out of every three) reported a negative rate growth (Instituto Nacional de Estadística Geografía e Información [INEGI] 2006).

## The Cheap-Labor Export-Led Model and the U.S. Production System

NAFTA and the general neoliberal restructuring of the Mexican economy that began in the 1980s have had a profound impact on the U.S. production system. Notable in this process has been the shifting of U.S. investment into Mexico. Without the neoliberal restructuring process in Mexico, such investments would have been directed—in most instances—to the United States, creating jobs, raising the skill level, enhancing productivity, and producing spread effects via forward and backward linkages, along with stimulating aggregate demand through the consumer spending of workers.<sup>14</sup> Increasing capital mobility has undermined the rate of capital formation in the United States. A countertendency was created



through the increasing portion of the Mexican economic surplus that was displaced to the United States as profits rose from the Mexican operations of U.S. transnationals. This countertendency was reinforced as Mexican immigrants flowed into the United States and into industrial sectors, lowering production costs and raising profits. Thus, the impact of capital shifting to Mexico fell on the U.S. labor force, particularly organized labor, while the U.S. restructuring process created two significant avenues to increased profits, with these benefits flowing to a small percentage of owners and managers and stockholders located in manufacturing and finance.

At the same time, the U.S. economy receives a certain type of stimulus from Mexican emigration to the degree that new investments occur—derivative of substantially different consumption patterns arising from the 7 million Mexican emigrant workers and their dependents. This is to be noted in the so-called migration industry ([Guarnizo 2003](#)).

Shifting capital to Mexico destroyed jobs in the United States, as did the sizeable trade deficit the United States developed with Mexico once the NAFTA agreement had been consummated. Bringing more of Mexico's economic surplus back to the United States stimulated the economy, and the influx of millions of Mexican emigrants helped push down labor's share of national income. The net effect was to create a new social structure of accumulation; a leaner and meaner social environment for all workers, emigrant or not; and a corpulent, more contented, business elite in the United States now better positioned to meet foreign competitors either by locating production in the United States or in Mexico, as profit maximization strategies indicated.

The resulting macroeconomic relationships, however, did not determine the repositioning of U.S. capital in Mexico. Viewing the matter from the standpoint of the restructuring of the U.S. production system, a separate logic—driven by the desire to maximize profits and out-perform the competition—prevailed. Under this logic, shifting capital to Mexico could enable U.S. firms to purchase labor processes at as low as 9 percent of the cost in the United States while accepting that productivity per hour might not be as high as that in the United States.<sup>15</sup> At the microeconomic level of the firm—assuming the stability of final demand for products exported from Mexico to the United States—shifting capital to Mexico to achieve labor efficiencies was a logical step in many instances. In highly oligopolized industries, such as autos, the available research indicates that the cost-saving production processes adopted in Mexico were taken as profits ([Cypher 2001](#)). In less capital-intensive industries, such as apparel, where brand identity is strong, similar profit-enhancing results should be anticipated.

Shifting production to Mexico made credible the threat of further production transfers, thereby weakening all U.S. labor and particularly organized labor. The stagnation in U.S. production workers' pay is broadly consistent with the increasing tendency of U.S. corporations to move their production operations to Mexico. Thus, in the process of restructuring the U.S. production system—a perceived necessity during the course of the 1980s—a complex, mutually reinforcing, triple movement began: (1) significant elements of U.S. capital shifted to Mexico,

thereby lowering costs of production; (2) while capital often threatened to move to Mexico, thereby strengthening its bargaining power over labor, either reducing wage increases or lowering wages; and (3) growing numbers of workers were displaced by the production movement to Mexico thereby reducing the portion of the labor force in unions and thus reducing the impact of unionized labor that tends to push up wages for all (but near minimum-wage) workers.

By 2003, 1.2 million Mexican emigrants were working in the manufacturing sector (U.S. Census Bureau 2003). Since 1995, through October 2005, the U.S. labor force employed in manufacturing has declined by 17 percent—from 17.1 million to 14.2 million (Norris 2005; U.S. Bureau of Labor Statistics 2005). In the manufacturing sector, emigrants in great numbers are to be found in basic wage goods industries such as meatpacking, where paltry compensation serves to cut production costs, and that, in turn, serves to lower the reproduction costs of workers in general who are able to purchase basic wage goods at a lower cost. Emigrants are also well represented in the production of goods used as inputs of production processes in steel, aluminum, and heavy machinery and equipment, as well as in consumer durables such as autos and home appliances.

The role of Mexican labor in U.S. manufacturing, however, is actually much higher than the sketch above would suggest. If we include under the heading of U.S. manufacturing not only that which is physically based in the U.S., but also what is based in Mexico in either the disguised maquila or maquiladora sectors, we find a total of 1.2 million Mexican manufacturing workers in the United States, an estimated 0.5 million in disguised maquila production and 1.2 million in the maquiladoras as of August 2005—2.9 million in all. Adding the Mexican-based workers into the base number of manufacturing workers (14.2 + 1.7 million) generates a total of 15.9 million manufacturing workers in the amplified (or globally integrated) U.S.-Mexico production system, of which an estimated 18 percent are derived from Mexico's cheap-labor export-led model.

## Mexico: Subordinated Integration under NAFTA

The vast restructuring of the Mexican economy via NAFTA could not, and did not, occur without the consent and active participation of Mexico's political class and its industrial elite. The business class supported the indiscriminate opening of the economy not because they necessarily were convinced of David Ricardo's theory of comparative advantage or the applications of the new growth theory to international economics. Rather, the large conglomerates or *grupos*, particularly those based in Monterrey, had always held a neoliberal/antistate view. Economic stagnation in the 1980s had forced many of them to seek growing markets in the international economy and closest and cheapest was to export to the vast U.S. market. In the 1980s, many of the *grupos* faced legal difficulties as they were accused and convicted of dumping by U.S. trade authorities. In other instances they faced nontariff trade barriers or other hurdles that the U.S. adroitly placed in the way of

would-be foreign competitors. In their struggle to find ways to expand production, the largest conglomerates eventually became convinced that a new bilateral trade agreement (NAFTA) could circumvent the legal hurdles complicating access to the vast U.S. market. These conglomerates, however, were specialized in the production of one or a few key potential exports, all with a common denominator: low-value-added products such as cement, minerals, beverages, and undifferentiated intermediate-goods industrial products, such as steel or plastics, were their specialties. Expanding the output of these products has benefited the grupos, but not Mexico. The expected spin-offs of learning and technological deepening have never occurred. Instead, the grupos modernized as they expanded their sales by importing new, cutting-edge machinery and equipment. If there were any learning or technological spin-offs from this process, they occurred in Europe, the United States, and Japan, where the new technologies were created.

According to neoliberal and neoclassical economic theory, the spread effects of learning and technological know-how would penetrate to small and medium-sized suppliers as the giant firms were compelled to share their knowledge, while forcing supplier firms to adopt high-quality control standards, just-in-time delivery procedures, and so on. This, however, never occurred in Mexico, partly because producers there have relatively low levels of technical expertise and are not prone to diverting their profits into long-term (and often unfruitful) research. Primarily, however, it is the secretive vertically integrated nature of the conglomerates that has nullified the naïve scenarios of the neoliberal economists: the grupos do not spin off their know-how to suppliers. They tend to create their own tightly controlled suppliers. They also tend to import inputs of higher technology, or buy other inputs from other large national grupos. When they do resort to a supplier network, these small and medium-sized companies tend to be part of the web of international production at the lowest possible level—labor-intensive requiring low-quality control and assembly standards. No learning is transmitted, no modern forms of production are needed and no spread effects occur. In a study of one of the major conglomerates' supplier relationships, María de los Ángeles Pozas (2002, 226-27) found that 60 percent of the value of industrial inputs came from subsidiaries within the vast complex of the grupo itself, 35 percent of the inputs were either supplied by other grupos—or, in the case where inputs had a high degree of technological sophistication, by TNCs—leaving a mere 5 percent of inputs—the least complex and the lowest value added products—to be supplied by small and medium firms.

## Implications for Mexico

- In its essence, the labor export-led model gives rise to a process of disaccumulation as the economic surplus is transferred abroad, depriving Mexico of potential multiplier and spread effects through forward and backward linkages. Surplus transference has taken many forms, including net reallocation of profits, interest income, licensing fees, and disguised profits through transfer pricing and intrafirm transactions in the maquiladora and disguised maquila firms.

- Net transference also entails the derived benefits from education, health care, and the nurturance of children to maturity. An impressively large fund of social capital created in Mexico is then reassigned to the United States as emigrants produce there while the costs of their training are paid in Mexico. Substantial levels of spending by the Mexican State on education and health care are essentially subsidized inputs into the U.S. transnational production system.
- To the above transfers should be added the subsidies and lost tax revenues that the Mexican government has permitted to continue up to the present. Firms operating in the maquila and disguised maquila sector pay no tariff charges, are exempt from the value added tax, and pay no income tax. For the maquila sector in 2000, the value of subsidies received exceeded taxes paid to the degree that these firms had a net profit tax rate of -7.2 percent (Dussel Peters 2003, 334; Schatan 2002).
- Inside Mexico, the labor export-led model has involved collateral costs in terms of deindustrialization and rising unemployment, along with deskilling as industrial workers are forced to shift to the informal sector or to underemployment—in effect dismantling much of the productive apparatus of Mexico. Making matters worse, neoliberal policy makers have imposed very restrictive monetary policies in their single-minded effort to contain inflationary pressures. The result has been a long-term overvaluation of the peso—estimated to be 30 percent—which has undercut the export market for Mexican producers, particularly medium-sized producers who might otherwise be able to generate employment through the export of Mexican-made products. For these Mexican producers, a second impact is that imported inputs are essentially subsidized, making it extremely difficult for these firms to play the role of domestic suppliers to either the transnational or the Mexican conglomerates (Dussel Peters 2006a).<sup>16</sup> Furthermore, these firms, as well as numerous small firms, have every incentive to buy imported inputs, further strengthening the vicious circle.

All this points to a process of asymmetric and subordinated integration in Mexico—a process to a great degree accelerated by NAFTA and the neoliberal policies that created the framework for the NAFTA accord. At the same time, the process captures the passivity and emptiness of state policy making in Mexico—the adoption of a neoliberal horizontal stance where there will be no intervention to attempt to direct production by way of the creation of new forms of dynamic competitive advantage, or to forestall processes that are clearly undermining Mexico's production base. Instead, the Mexican state has adopted a posture wherein it is assumed that the dynamic external effects of new forms of production directed toward the foreign market will bring automatically—through the forces of the market—a positive restructuring of Mexico's economy. State policy has been limited to a series of opportunistic maneuvers: seeking more maquilas, pursuing more foreign direct investment, using the boom in oil prices to cover the public sectors' debt and boost the economy through government spending that generally will not build vital skills or infrastructure, and relying upon massive inflows of foreign remittances from emigrants to create an informal social welfare system.

## Conclusions

The theoretical and empirical analysis presented above comprises a complex set of elements. Among them, certain components stand out in terms of their sharp contrast with the widely-disseminated image of Mexico under NAFTA.

First, the actual model deployed by Mexico is not a triumphant example of outward-oriented industrialization; instead it represents a basic form of *primarization*. Many Latin American nations—most notably, Argentina—have taken a step backward into specializing in low-value-added exports of commodities or undifferentiated resource-based industrial products. Mexico has taken two steps backward, reverting even further, offering up as its absolute advantage cheap and unskilled labor in an institutional setting wherein such labor can be deployed with few constraints either in terms of unions, benefits, labor rights, legal recourse to adverse health effects, or severance protections.

Second, Mexico is undergoing a process of *precarization and disaccumulation*—the labor force employed is offered subsistence wages under working conditions that frequently lead to job-related injuries and overwhelming economic insecurity coupled with the failure of the model to create an economic surplus for Mexicans to use. Instead, the surplus is transferred to the United States, where it serves to expand the production base and assist in the restructuring of the economy. The imagined or anticipated external effects of the subordinated integration process—in the form of backward and forward linkages, process upgrading, technological learning, and so on, fail to arrive. In their place emerges a nefarious form of profit transfer centering on the disembodied export of cheap labor, giving rise to *the total export of revenues derived from the productive process other than wages that constitute an incidental cost*. This is a process that reaches far beyond the vitiating relationships described by the dependency writers of the 1960s and 1970s.

Third, we have demonstrated that the NAFTA process was not in any fundamental sense a trade-based policy, leading to a benign and mutually beneficial exchange of economic specializations through economic competition on both sides of the border, as portrayed in textbook models. Rather than trade, let alone “free” or competition-based trade, the neoliberal program was constructed to serve the end of oligopoly power—the control of markets—by displacing significant portions of the U.S. production system to Mexico. In short, NAFTA was not a trade accord; it was an investment/production and restructuring agreement enabling U.S. firms to shift production to Mexico and benefit from cheap migrant—mainly undocumented—labor. U.S. firms were allowed to expand their production without domestic content legislation, or export quotas or restrictions on the repatriation of profits, technology sharing agreements, or any other constraints on the use of capital. For the United States, the potential dynamic impacts of the labor export-led model are the following: lowering production costs in Mexico and/or the United States through the insertion of cheap labor into the production process which, on a transnational basis, will increase profits. Those gains can then

1. fund greater research and development spending, which, conceivably, leads to greater innovation levels—with these innovations potentially spreading across much of the U.S. industrial system; and
2. fund investment in the modernization of machinery and/or equipment and/or labor/managerial organizational restructuring programs and/or labor training programs.

Additionally, if the lowering of production costs in Mexico and/or the United States is partially passed on to U.S. consumers via lower prices, then the labor export-led model serves to cheapen the reproduction costs of U.S. labor, enabling U.S. corporations and businesses to operate with lower wages than otherwise would be necessary. This too enhances the competitiveness of the U.S. production system, while raising profit margins.

Fourth, economic integration under NAFTA, rather than promoting convergence in the development levels of Mexico and the United States, has deepened the asymmetries that exist between the two countries: whereas in 1994, per capita GDP in the United States was 2.6 times that of Mexico, by 2004 the ratio had increased to 2.9. Similarly, average manufacturing wages in dollars per man-hour in the United States were 5.7 times higher than those reported in Mexico in 1994, and 6.8 higher in 2004 (Delgado Wise and Márquez 2006, 32).

In Mexico, however, this new form of asymmetric integration has clearly not been associated with new possibilities for economic development. Stagnating or dropping wages, rising unemployment and informal activities have constituted the environment that has led to increasing emigration. The lack of linkage effects in the Mexican economy has negated the potential dynamic spillover effects that, according to the new growth theory, would spread across much of the production system due to enhance foreign investment under NAFTA. On one hand, this has meant that Mexico has become increasingly dependent upon remittances to stabilize the macro-economy and society at large—to the point where remittances, net export earnings from oil (even during a boom in prices), and the net export earnings of the maquila sector have all converged, for the first time. On the other hand, the uncontrolled leap in emigration has called into question the sustainability of the cheap-labor export-led model—particularly in terms of the depopulation effects in many parts of Mexico. With increasing marginalization and poverty, the pressures to emigrate escalate, and this could very well collide with U.S. policy given the desire of the U.S. citizenry to heighten security in the post-9/11 period.

Hence, given the labor export-led model's incapacity to make dynamic the Mexican economy, increase salaries, create employment positions, encourage advancements in technological know-how, and incorporate national supplier firms into the matrix of production relationships, we conclude that the model is ineffective as an instrument for development. Vast and fundamental changes will be needed to turn the tide. The implications here center on and arise from the way in which economic integration has thus far been conceived and orchestrated.

In the final analysis, socioeconomic development has never been achieved by a nation as a result of exogenous forces. The history of economic development shows that the responsibility for initiating and maintaining a process of economic development depends on endogenous social forces, particularly on the ability of the state to mount and sustain a national project of accumulation rather than searching out and adopting policies that are generators of asymmetric accumulation processes such as NAFTA.



## Notes

1. A moderate and declining percentage of the new labor force entrants find an outlet through incorporation into formal, family-owned businesses. The rapid shrinkage of the peasantry due to NAFTA, however, has closed off much of this option.

2. In 2005, the share of GDP devoted to all forms of research and development was a mere 0.44 percent—Japan's share was more than seven times greater. Furthermore, according to the OECD, nearly two-thirds of Japan's outlays were in development processes (where the private sector searches for innovations), whereas in Mexico 56.5 percent of research and development (R&D) outlays was basically theoretical science, largely undertaken at government sponsored universities (Guadarrama 2006, 16).

3. For details on many qualitative points regarding the maquilas, see Cypher (2004).

4. Maquila firms are also present, to a much lesser degree of concentration, in many of the interior states—78 percent of output occurs in the border region.

5. The new growth theory of the 1980s posited impressive dynamic effects from greater trade and foreign investment, particularly positive externalities due to learning effects, technological diffusion and the applications of new forms of production and administrative organization.

6. In 1996, Carlos Tello (1996) maintained that Mexico's manufacturing export boom consisted of no more than the export of cheap labor power, but subsequently the implications of his comment were not formally pursued.

7. Record prices for oil and minerals, along with a 26 percent increase in mining production in 2004 and 2005, have lowered this ratio to 80 percent in the 2006 period.

8. Pitex and Altex firms conform to specific income tax legislation that can vary somewhat from exemptions extended to maquila firms. Firms under these designations are exempt from the IVA (value-added tax) and import duties, they are allowed accelerated depreciation on investments, and the Altex firms have access to below market rate credits from Bancomext—the foreign trade development bank.

9. In 2000, according to the Secretariat of the Economy, there were thirty-six hundred firms that produced inputs exempt from the value-added tax when they provided inputs to either the maquilas or the *disguised* maquila firms.

10. We are referring to formally registered workers as defined by coverage under the social security system as tabulated by the secretary of labor. All maquila workers are included in the formal manufacturing labor force.

11. Fragmenting unions is also a transnational tactic employed by the U.S. auto producers who, in the face of an unprecedented crisis of overproduction in 2006, have decided to decimate the United Auto Workers—letting go 113,000 workers via buyouts at GM-Delphi and 75,000 workers at Ford. Most of these jobs will be going to Mexico, where wages are \$3.50 per hour versus \$27 per hour in the United States. GM recently announced a large “greenfield” plant to be located in San Luis Potosi, employing 1,800 workers, while Ford is planning to open a new plant in Mexico while expanding its two existing plants and its engine plant. DaimlerChrysler will inject \$1 billion into its operations in Mexico. Further U.S. investments will flow to the auto parts sector where already 430,000 are employed (Malkin 2006, C1, C4). The major portion of the new investments (\$4 billion from 2005 to mid-2006) will flow into the disguised maquila sector.

12. In actuality the situation is even more restrictive, given that 77 percent of maquila activity remains along the U.S. frontier, where a considerable portion of workers consumption is diverted into the U.S. economy, further undermining whatever potential multiplier effects might be anticipated through rising wage payments.

13. The “jobs deficit” in Mexico (jobs created – [jobs needed to employ school dropouts + high school graduates + university graduates]) stated on an annual basis has been estimated at –500,000 per year, on average, from 1988 to 2003 (Dussel Peters 2006b, 75).

14. We are aware of, but not convinced by, neoclassical economists' assertion that NAFTA created no special stimulus for capital to exit from the U.S. In their vision, had direct foreign investment not flown to Mexico, it would have gone in equal amounts elsewhere in the “developing” world.

15. Difference in productivity levels are much narrower than the variation in wages. In the auto sector, it is common to find statements that productivity levels are 60 to 80 percent of those in the United States, in some instances productivity is *higher* than in U.S. plants (Mortimore and Barron 2005, 18).

16. Since the transnationals often do the bulk of their transactions in dollars and/or work with their subsidiaries or their strategic partners or within their own globally integrated production system, they have generally found means to circumvent foreign exchange transactions. For the *grupos*/conglomerates, peso overvaluation is not an issue that their peak business organizations have addressed, perhaps because of the advantage it serves in terms of acquiring capital goods, technology, and other inputs at a subsidized rate, or because they have some price-setting power as oligopoly corporations. Financial considerations could play a role wherein heavily indebted firms borrow in dollars, make earnings in overvalued pesos, and service their debt in undervalued dollars. Most of the *grupos*/conglomerates are highly leveraged and well-schooled in the arts of foreign currency financing.

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