

Labor Market Implications of Globalization in Mexico

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Introduction

This paper summarizes several recent studies of the effects of North American economic integration on Mexican labor markets. In North America, labor-market integration occurs through trade, foreign capital flows, and migration. The basic premise of this paper is that North American economic integration (particularly Mexico's integration with the United States since NAFTA) has had potentially positive implications for Mexican workers. While some workers are worse off, the evidence suggests that rising trade has coincided with rising Mexican wages (relative to U.S. wages) and falling wage inequality within Mexico. Furthermore, recent research suggests that Mexican and U.S. workers are complements rather than substitutes. This means that, rather than being competitors, the fates of North American workers are closely tied together. In the face of rising competition from China, North American integration should increasingly benefit both countries (especially relative to the alternative of economic disintegration).

These results contrast somewhat with popular opposition to NAFTA and economic integration as well as a growing consensus of the effects of trade liberalization in developing countries. There are several reasons for this. First, gains from liberalization are not distributed evenly. In terms of geography, adjustment is generally more difficult in rural areas, and these differences have had political implications in Mexico (López Córdoba 2006). Second, the confounding effects of border enforcement may mask the positive benefits of NAFTA. Specifically, rising U.S. border enforcement depresses Mexican wages. Third, economic integration with the United States is a

double-edged sword. Integration may bring the positive benefits of technology, demand, and trade, but Mexico may be latching itself to a falling star. Mexican manufacturing employment fell sharply during the last U.S. recession, closely following the drop in U.S. manufacturing employment.

These results generate three main policy recommendations. First, Mexico should continue to facilitate and direct economic integration. Second, Mexico should increase pressure for easing migration into the United States. Third, the Mexican government should continue to direct adjustment assistance to rural and less-economically active areas. Recent research has shown that workers in these areas are especially susceptible to shocks, and that workers in more economically dynamic regions suffer much less from adjustment and job loss.

I. North American Economic Integration

Despite their differences in development status, the U.S. and Mexican economies are closely integrated. Robertson, Kumar, and Dutkowsky (2006) analyze matched product-level prices and find strong cointegrating relationships in these narrowly-defined goods markets. Factor markets are also closely integrated. Robertson (2000) demonstrated that Mexican and U.S. labor markets are closely integrated because wage shocks in the U.S. affect Mexican wages. Consistent with these results being the result of economic integration, these effects are strongest along Mexico's border region.

One of the goals of the North American Free Trade Agreement was to deepen existing integration by fostering trade and capital flows. How successful NAFTA has

been at these goals has been the subject of much debate. NAFTA studies are complicated by the December 1994 peso crisis. Nevertheless, there seems to be a distinct change in both the level and trend of imports, exports, and capital flows after NAFTA went into force on January 1, 1994.

Figures 1a and 1b are from Robertson (2004). Figure 1a shows that Mexico's share of U.S. goods exports (the fraction of all U.S. goods exports that go to Mexico) rises relatively steadily until the peso crisis. The sharp devaluation of the peso increased the Mexican price of U.S. exports, and, as a result, U.S. goods exports to Mexico fell sharply. The fall did not last long, however. During the recovery, the U.S. share of Mexican exports resumed its rise. The estimated rate of growth, however, was statistically higher in the post NAFTA period than before NAFTA.

Figure 1b presents the results for Mexico's share of U.S. imports (the fraction of all U.S. imports that come from Mexico). Like exports in Figure 1a, the Mexican share of U.S. imports is rising prior to NAFTA. The peso crisis significantly affected this trend. The December 1994 crisis made Mexican exports cheaper for U.S. consumers, and imports rose. During the recovery period, however, there is a clear increase in the level of Mexico's share of U.S. imports. Furthermore, the rate of increase of this share is higher after NAFTA than before NAFTA.

Another goal of NAFTA was to increase capital flows. Figure 2 illustrates the total change in capital flows into Mexico during the 1980-2005 period. The level and trend of flows into Mexico are higher after January 1, 1994. Of course, several other reforms, such as capital account liberalization starting in 1989, facilitated these flows.

The point is not that NAFTA per se explains this increase, only that flows into Mexico are higher in the NAFTA period.

Another measure of capital flows is maquiladora investment. The key feature of maquiladoras in this paper is their close relationship with U.S. manufacturing. By definition, maquilas are designed to be closely related to U.S. manufacturing. Figure 3 illustrates this close relationship. The growth in maquiladora value added and U.S. manufacturing output follow very closely together.

II. Labor Market Implications of Integration in Mexico

A. Absolute Wage Convergence

Reventa and Montenegro (1992) match industry-level data between Mexico and the United States and find that trade liberalization in Mexico lowered Mexican wages relative to their industrial U.S. counterparts between 1984 and 1990. Hanson (forthcoming) analyzes the Mexican population census in 1990 and 2000 and finds little, if any, evidence of wage convergence between the United States and Mexico. These results are not consistent with rising trade and foreign direct investment contributing to rising wages in Mexico.

Although the labor markets can be considered integrated, a substantial wage gap between Mexican and U.S. wages persists. To formally illustrate the gap and convergence, Robertson (2004) matches the Mexican National Survey of Urban Employment (Encuesta Nacional de Empleo Urbano, or ENEU) and the similar U.S.

Current Population Surveys (CPS). These data allow him to control for individual-specific characteristics and to track the time-path of relative wages.

Following Robertson (2000), the Mexican wages are converted to dollars using the nominal peso-dollar exchange rate. Then, to approximate a panel effect, Robertson (2004) implements Deaton's (1985) the pseudo panel approach. This approach generates wage averages for different groups in the population and tracks the wages of these groups over time. Workers in each city fall into one of 40 groups defined by five education levels and eight age groupings.¹ The quarterly data run from 1987 to 2002. Average wages of each cell in Mexico and the U.S. are matched to generate relative wage measures that control for changes in demographic patterns.

Figure 4, from Robertson (2004), illustrates the evolution of the average wage gap for similarly-defined age-education groups in the U.S. and Mexico (that is, comparing 25-30 year-old workers with 12 years of education in both countries). Contrary to the findings of Revenga and Montenegro (1992), the wage gap was closing prior to NAFTA. The effects of the peso crisis are clearly evident, but as Mexican wages begin to recover, the gap continues on its trend towards closing the gap. Figure 4 also illustrates Hanson's result of a lack of convergence. The 1999 level is very close, if not slightly below, the 1989 level.

One of Robertson's (2004) main findings is that the rate of convergence is not significantly (if at all) faster during the NAFTA period than before the NAFTA period. Given the rise in the trend and level of trade and foreign direct investment, this result is somewhat surprising. One possible explanation is that trade and FDI do not have a

¹ The education levels are divided into the following categories: 0 to 6 years, 7 to 9 years, 10 years, 11-12 years, and more than 12 years. The age groups are 5 years apart starting at 15, except for the last group. The last group includes workers between 50 and 65 in the first year.

significant effect on the U.S.-Mexican wage gap. Another possible explanation is that there is a third factor affecting wages in ways that mitigate the otherwise positive effects of trade and FDI.

Robertson (2004) presents evidence supporting the latter. Using data on U.S. border enforcement, he finds that U.S. border enforcement depresses Mexican wages. Furthermore, this effect is comparable to the estimated positive effect of trade. This result is illustrated in Figure 5. Figure 5 graphs the U.S.-Mexican wage ratio and U.S. border enforcement in Tijuana. The two series exhibit a strong inverse relationship, suggesting that U.S. border enforcement depresses Mexican wages or raises U.S. wages. Since Hanson, Spilimbergo, and Robertson (2002) find that changes in U.S. border enforcement does not affect U.S. wages, the more plausible explanation seems to be that U.S. border enforcement depresses Mexican wages.

B. Relative Wages

The effects of globalization on relative wages in developing countries have been the topic of much debate. In particular, Mexico was one of the first countries to have a documented rise in wage inequality following trade liberalization. Since then, several other papers have gone on to show that a similar phenomenon occurred in other developing countries as well (see Wood 1997 and the recent excellent survey by Goldberg and Pavcnik 2006).

The rise in wage inequality has been linked to changes in industry-specific wage premiums (Revena 1997; Cragg and Epelbaum 1996; Feliciano 2001), Foreign Direct

Investment (Feenstra and Hanson 1997), changes in tariffs that favored skilled workers (Hanson and Harrison 1999), changes in exchange rates that favored skill-biased investment (Verhoogen 2004), skill-biased technical change (Cañonero and Werner 2002), and changes in relative output prices (Robertson 2004). These explanations are not mutually exclusive, and all could have played a role in rising wage inequality after Mexico joined the General Agreement on Tariffs and Trade in 1986.

What has received much less attention is the fall in wage inequality that occurred after NAFTA, documented by Aiola and Juhn (2001), Robertson (2004), and López-Acevedo (2006). The fall in wage inequality emerges in consumption surveys, household surveys, the Industrial Census, and the monthly Industrial Survey (through 1999). The trend identified in these papers has continued through 2005.

To illustrate the recent evolution in the trend in wage inequality, we draw from the Monthly Industrial Survey. For the 1994-2005 period, aggregated data for 205 industries are available on the internet.² The survey is designed to cover 80% of Mexican manufacturing production. The survey design is based in the Mexican Industrial Census, which is taken every five years. For the period covered in this paper, the survey covers about 6000³ establishments. The survey excludes firms in the maquiladora industry, basic petrochemicals, petroleum refining, and firms with fifteen or fewer employees (*microindustria*). Variables include employment, hours, and wages for production (*obreros*) and nonproduction (*empleados*) workers, as well as the value of production and sales. Figure 6 shows the change in the employment-weighted average of the within-industry ratio of average nonproduction (empleados) to production (obreros) worker

² See *Banco de Información Económica* at <http://www.inegi.gob.mx>.

³ Over the sample period, the survey covers between 5,587 and 6,884 establishments.

wage. During the crisis, the relative wage of skilled workers continued to rise, which is consistent with Verhoogen (2004). Once the recovery began, however, the relative wage of skilled workers (as a measure of inequality) begins to fall.

While the extent of technological change in Mexico may be debatable, Cañonero and Werner (2002) argue that SBTC is relevant for Mexico in the first period. Haskel and Slaughter (1998) [HS] argue that SBTC is not sufficient to explain wage inequality: it is the *sector bias* of SBTC that explains changes in relative wages.⁴ Therefore, I first estimate skill-biased technological change with Mexican industrial census data the methodological approach described by [HS] for industries indexed by k :

$$\Delta S_k = a_0 + a_1 \Delta \log(w_s / w_u)_k + a_2 \Delta(K / Y)_k + \varepsilon_k, \quad (1)$$

in which ΔS_k is the change in the nonproduction employment share in the total wage bill, w_i represents the wage of each worker type, K is capital, and Y is real value-added output, and the final term is the error. [HS] suggest that skill biased technological change in sector k can be represented by positive values of $a_0 + \varepsilon_k$. Estimated values from the Mexican census data are all positive, suggesting that all industries in all periods experienced SBTC (consistent with Cañonero and Werner 2002). To evaluate the sector bias, [HS] regress their estimates of SBTC on the initial value of the nonproduction-production employment ratio. For this analysis I assume, like [HS], that technology does not affect prices.

The results suggest that the relationship between skill intensity and SBTC is weakly positive between 1986 and 1989, negative between 1989 and 1994, and strongly positive from 1994 to 1999. Like the supply of skill, the sector bias of SBTC is in the

⁴ Xu (2001) finds that the elasticity of substitution may affect these results.

opposite direction as would be expected if sector bias matters and SBTC were to explain the changes in wage inequality.

This creates something of a challenge for other explanations of changes in wage inequality following the GATT. In fact, only one of the other proposed explanations for changes in wage inequality is consistent with the rise and fall of wage inequality. Trade, foreign investment, technology, exchange rates all follow either the same pattern before and after NAFTA, or move in ways following NAFTA that are inconsistent with the fall in relative wages.

The only identified variable to move consistently with theory is relative prices, suggesting that Stolper-Samuelson forces play a potentially very significant role in explaining wage inequality in Mexico. The fall in the relative wage of skilled workers is consistent with neoclassical trade theory (Heckscher-Ohlin), which, under very restrictive assumptions, predicts that liberalization between a labor-abundant and a skill-abundant country will induce an increase in the relative wages of less-skilled workers in the skill-scarce country.

Even so, the literature has been slow to accept the Stolper-Samuelson explanation for several reasons. First, price data are generally difficult to find. Very few papers use relative prices. One notable exception is Bayer et al. (1999). Bayer et al. (1999) find a strong link between changes in relative prices and wage inequality in Chile. Second, the literature tends to find few examples of significant between-industry shifts. The intuition behind the theorem suggests, although the theorem itself does not strictly require, that trade liberalization in a labor abundant country will induce a shift towards less skill-

intensive industries. As resources move towards less skill-intensive industries, the demand for unskilled workers increases, raising the relative wage of skilled workers.

Robertson (2004) shows that about 42% of the increase in demand for skill over the 1987-1994 period is explained by between-industry shifts, and about 32% of the fall in the demand for skill over the 1994-1998 period was due to between-industry shifts.⁵ One potential reason that the between industry shifts are so small and the within industry shifts are potentially large is the shift towards the maquiladora sector. Figure 7 shows the rise in the ratio of maquila employment to the rest of Mexican manufacturing (using an index for both series). The data clearly show that maquiladora employment has been rising faster than employment in non-maquila manufacturing.

This move would be consistent with an increasing demand for skill if maquiladoras were, on average, more skill-intensive. Table 2, however, suggests that maquiladoras have a much lower nonproduction-production worker wage ratio than the same industries in the Mexican industrial census. The relative production-worker intensity of the maquiladora sector seems to suggest that its relative rise is consistent with a within-industry shift towards less-skilled production, which would be consistent with the change in relative prices in the NAFTA era.

C. Are Mexican and U.S. Workers Complements or Substitutes?

⁵ One problem with this simple calculation is that it abstracts from business cycle effects. Robertson and Dutkowsky (2002) confirm that nonproduction workers have higher adjustment costs than production workers in Mexico. This finding implies that the aggregate nonproduction-production worker ratio will have a business cycle component. The relative employment of skilled workers, however, rises over the sample period. This is consistent with a rising supply of skilled workers, and a fall in the relative price of skill-intensive goods.

Several studies have suggested that immigrants into the United States and U.S. workers are substitutes with similar workers (generally less-educated U.S. workers) and complements with higher-skilled U.S. natives (Grossman 1982, Orrenius and Zavodny 2003, Ottaviano and Peri 2005). The rise of trade and mobility of capital suggest that Mexicans may be either substitutes or complements with U.S. workers while they are still in Mexico.

The question of whether U.S. and Mexican workers are complements or substitutes has been, implicitly, at the core of a great deal of political debate. One of the major fears of Mexican integration with the United States was that firms would flock to Mexico in search of low wages. It is certainly true that over the last 25 years, U.S. manufacturing employment has been falling. Figure 8 shows the evolution of U.S. manufacturing employment from 1979 to 2005. The graph shows that employment falls steeply during recessions and tends not to recover, leading to the cumulative decline. The most recent decline (since 2000) has been especially dramatic, renewing concern over the loss of relatively-well-paying manufacturing jobs.

This debate hinges on the substitutability-complementarity question. If they are substitutes, then clearly there is cause for concern with past and future integration. Neoclassical trade theory, in particular, suggests that workers in the two countries would be substitutes in the sense that U.S. workers would be at risk of losing their jobs to Mexico. On the other hand, there are good reasons to believe that U.S. and Mexican workers would be complements. Feenstra and Hanson (1997), in particular, show how less-skilled workers in the U.S. would be substitutes for skilled workers in Mexico. Robertson (2006) formally tests this hypothesis.

Robertson (2006) matches Mexico's Monthly Industrial Survey (*Encuesta Industrial Mensual*, or *EIM*) with U.S. Current Employment Statistics surveys. The *EIM* was described earlier; the U.S. Current Employment Statistics program covers about 300,000 employer units (over 35% of total payroll employment). The survey is conducted by the U.S. Bureau of Labor Statistics with cooperation with individual states. The data include average hourly wages and employment for production workers, but do not include value of production or earnings of nonproduction workers. As a result, monthly production value is not available at the industry level.⁶ Hours and earnings data are available for about 850 industries.

The Mexican and the U.S. data are matched industry-by-industry at the most detailed level possible. Eighty (80) industries were successfully matched. The level of aggregation ranges from 3 to 6 digit NAICS, with 41 industries matched at the 4-digit level and 31 matched at the 5-digit level.

Robertson (2006) applies a labor-demand approach to estimate whether or not Mexican and U.S. production workers are complements or substitutes. This paper evaluates this hypothesis before and after the NAFTA period. The main results indicate that, during the NAFTA period, U.S. and Mexican production workers are complements, while U.S. production and Mexican nonproduction workers are substitutes. This has significant implications for North American labor market integration. The United States and Mexico seem to act more like a single production unit rather than competing units. One may conclude from this result that, while some job displacement is inevitable as economies adjust, North American economic interests are closely tied and that policy

⁶ The Board of Governors of the Federal Reserve Board releases monthly production indices at the industry level. These indices are not usually direct measures of output. Instead, for much of manufacturing, the output indices are constructed functions of the Current Employment Statistics employment data.

makers would do well to think of Mexico as an economic partner rather than a competitor.

III. Some Economic Concerns

A. U.S. Economic Outlook

The finding that U.S. and Mexican production workers are complements brings good and bad news (in the normative sense). First, the degree of integration with the U.S. ties Mexico's fate with U.S. manufacturing. To some degree, this may help Mexico as competition from China increases. On the other hand, the recent decline in U.S. manufacturing employment can be closely linked to the decline in Mexican *non-maquila* manufacturing employment. U.S. manufacturing employment has been falling for 25 years, and few economists predict the decline to reverse over the medium-run.

Furthermore, the U.S. is facing several potentially serious economic challenges. Since 1980, the U.S. trade deficit has been rising, and, as Figure 11 shows, the growth in the U.S. debt is closely related to the U.S. trade deficit. The U.S. now has debt-to-GDP ratios greater than Turkey, Argentina, Mexico, and Brazil, all countries that have experienced debt-related crises (see Figure 12).

Several prominent macroeconomists have suggested that the correction in the U.S. trade deficit, which they consider inevitable, could come in the next 5-10 years. There are several scenarios that apply. The U.S. could experience a gradual depreciation of the dollar and therefore a gradual fall in consumer imports. To the extent that Mexico is

integrated into the U.S. production chain, however, this depreciation could potentially help Mexico by increasing the demand for U.S. finished good exports. If so, this could increase the demand for Mexican exports to the United States, which would be helpful during a time of otherwise falling U.S. imports. The more integrated Mexico is in the U.S. production chain, the more positive (or less negative) will be the effects of a gradual or sudden depreciation of the dollar.

B. The Chinese Threat

Hanson and Robertson (2006) apply a decomposition technique based on the gravity model of trade (as described in Hanson and Robertson 2005) to decompose Mexico's export growth into components associated with export-supply capacity, import-demand conditions, and other factors. We apply the framework to Mexico.

Three main findings emerge from that study. First, since the mid 1990s Mexico's export-supply capacities have improved relative to the rest of the world. Second, Mexico is relatively exposed to export-supply shocks from China. Industries in which Mexico has strong export capabilities are also those in which China's capabilities are strong, and in most industries China's capabilities improve over time relative to Mexico. Had China's export-supply capacities remained constant from 1994 onward, Mexico's annual export growth rate would have been up to 1.5 percentage point higher during the late 1990s and up to 3 percentage points higher during the early 2000s. Third, while changes in Mexico's export-supply capacities have contributed positively to the country's export growth, changes in U.S. import demand in Mexico's key export industries have not.

Mexico's exports are concentrated in sectors in which the United States has shown relatively weak growth in trade. Had U.S. GDP grown at the same rate from 2000 to 2004 as it had in the late 1990s, Mexico's annual export growth rate would have been up to 1.4 percentage points higher.

Hanson and Robertson (2006) describe several important caveats to their results. First, the framework and analysis are confined to manufacturing industries. There may be important consequences of China or U.S. business cycles for Mexico's commodity trade, which they do not capture. The counterfactual decompositions of export growth that we report do not account for general-equilibrium effects. There could be feedbacks from a slowdown in China's export growth or an increase in U.S. GDP growth that would cause us to overstate the growth consequences of such shocks for Mexico. Finally, they do not explicitly account for zero trade between some countries.

The results have a number of important lessons for policy makers. There is little evidence that Mexico's ability to improve its export-supply capacities pales in comparison to other countries. While Mexico may have the potential to further enhance its export capabilities (through modernization of its infrastructure, education system, energy sector, etc.), growth in the country's capabilities compares favorably when one takes the rest of the world as the benchmark. Given the relatively high exposure of Mexico to export competition from China, however, the country's improving export-supply capacities may come as small consolation. Mexico is vulnerable to export-supply shocks in China, and, given slowly changing patterns of industrial specialization, is likely to remain so for the medium run. During the early 2000s, China's impact on Mexico is roughly twice that of the U.S. economic slowdown. If the U.S. economy continues to

expand, there is scope for Mexico to recover some of the export growth it enjoyed in the 1990s. Mexico, however, will likely remain exposed to competition from China in at least the medium run.

The regression results suggest that for Mexico to continue to expand its export supply capacity in the country's key export industries it would need to expand the supply of labor, increase electricity production, reduce borrowing costs, and/or expand the supply of telecommunications infrastructure. Among the sample of countries that also export goods in Mexico's primary export industries, growth in these factors is positively correlated with increases in export supply capacity.

IV. Conclusions and Policy Recommendations

The question of integration remains especially salient for Mexico. Engagement with the global economy even has political implications. For Mexico, engagement in the global economy means integration with the United States. Of course, the contraction of the U.S. economy has traditionally hurt the Mexican economy, and integration brings risks. These risks, however, must be weighted against alternative policies (less integration, in this case) that seem less promising than deepening integration with the United States.

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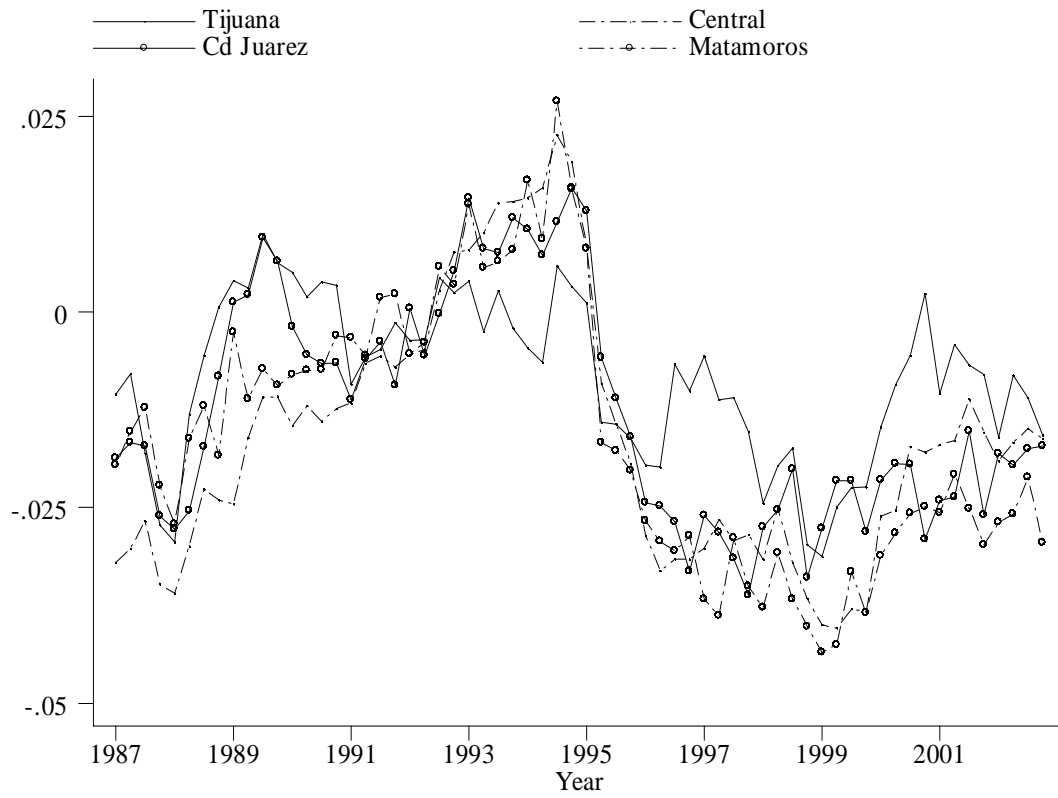
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Table 1: Maquiladora Employment 1998

State	Employment Share		N/P Employment Ratio	
	Maquila/Census	Census	Maquila	
Aguascalientes	0.286	0.261	0.041	
Baja California Norte	0.868	0.153	0.078	
Baja California Sur	0.226	0.319	0.031	
Campeche	0.000	0.357	.	
Coahuila	0.485	0.217	0.056	
Colima	0.000	0.423	.	
Chiapas	0.000	0.311	.	
Chihuahua	0.742	0.152	0.084	
Distrito Federal	0.004	0.506	0.108	
Durango	0.340	0.170	0.052	
Guanajuato	0.048	0.192	0.051	
Guerrero	0.060	0.282	0.022	
Hidalgo	0.008	0.186	0.069	
Jalisco	0.087	0.323	0.126	
Mexico State	0.020	0.352	0.121	
Michoacan	0.000	0.308	.	
Morelos	0.023	0.348	0.092	
Nayarit	0.000	0.316	.	
Nuevo Leon	0.142	0.285	0.090	
Oaxaca	0.000	0.311	.	
Puebla	0.101	0.198	0.047	
Queretaro	0.552	0.422	0.083	
Quintana Roo	0.000	0.299	.	
San Luis Potosi	0.073	0.308	0.027	
Sinaloa	0.022	0.401	0.148	
Sonora	0.644	0.212	0.065	
Tabasco	0.000	0.390	.	
Tamaulipas	0.769	0.239	0.086	
Tlaxcala	0.103	0.243	0.068	
Veracruz	0.000	0.310	.	
Yucatan	0.227	0.266	0.055	
Zacatecas	0.154	0.326	0.070	
Average	0.242	0.293	0.073	

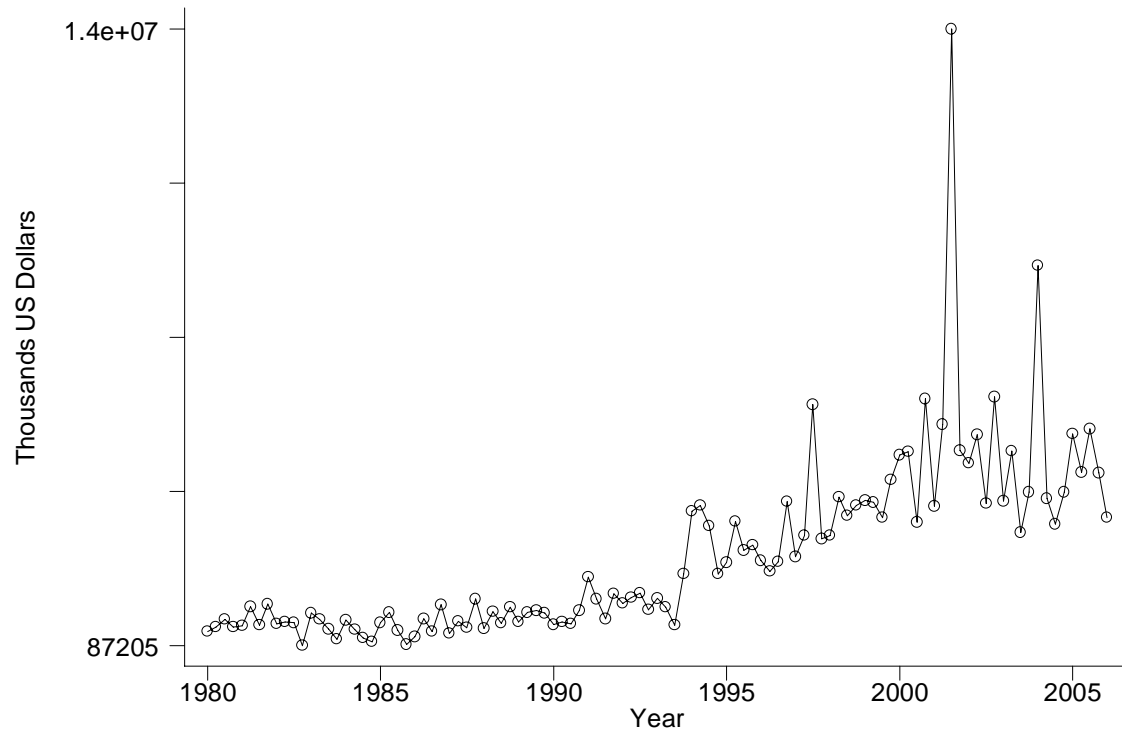
Notes: Maquilas include services as well as manufacturing. In 1998, and over the 1990-2003 period, services average 4% of total maquila employment. INEGI does not report data for all states, and we presume this reflects an insignificant number of maquiladoras and therefore enter "0" for these states. The employment ratio is the non-production/production worker ratio.

Figure 1: Absolute Wage Levels



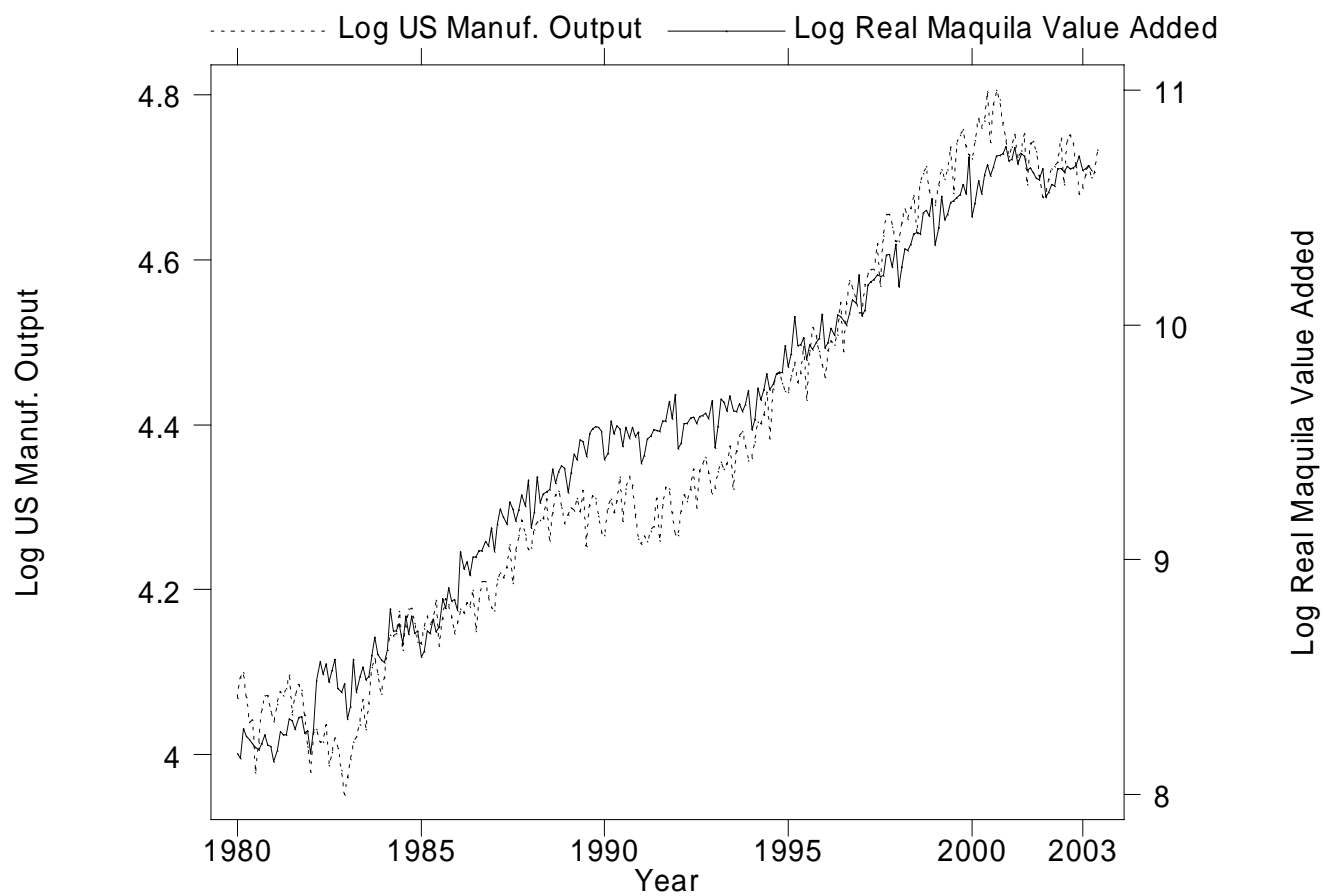
Notes: See Robertson (2005b).

Figure 2: Total FDI flows into Mexico



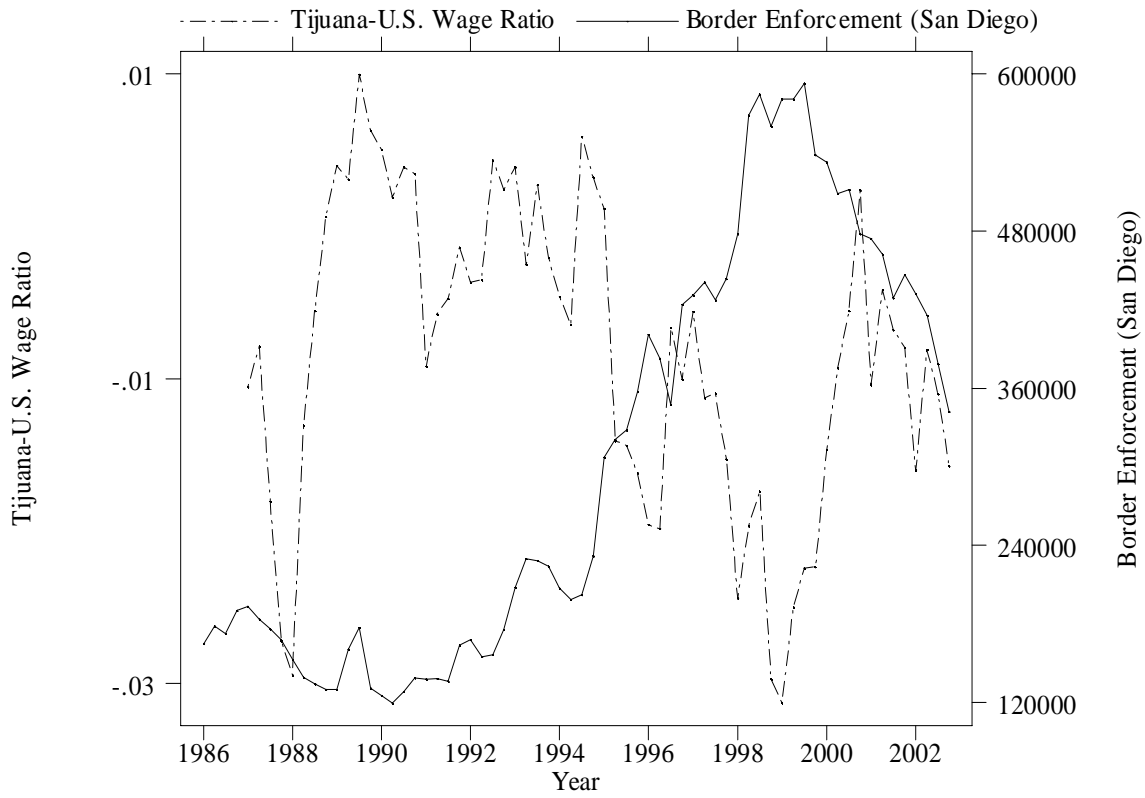
Source: Banco de Mexico, Series SE37 (“Pasivos Inversión extranjera Directa”).

Figure 3: Capital Market Integration



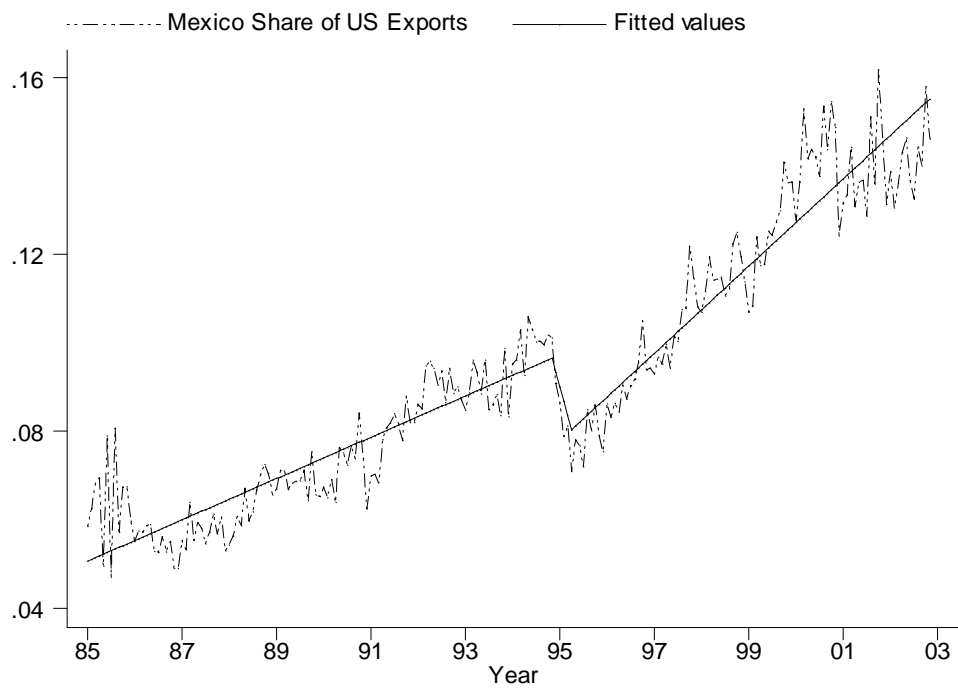
Notes: See Hanson and Robertson (2005).

Figure 5: Mexican Wages and U.S. Border Enforcement



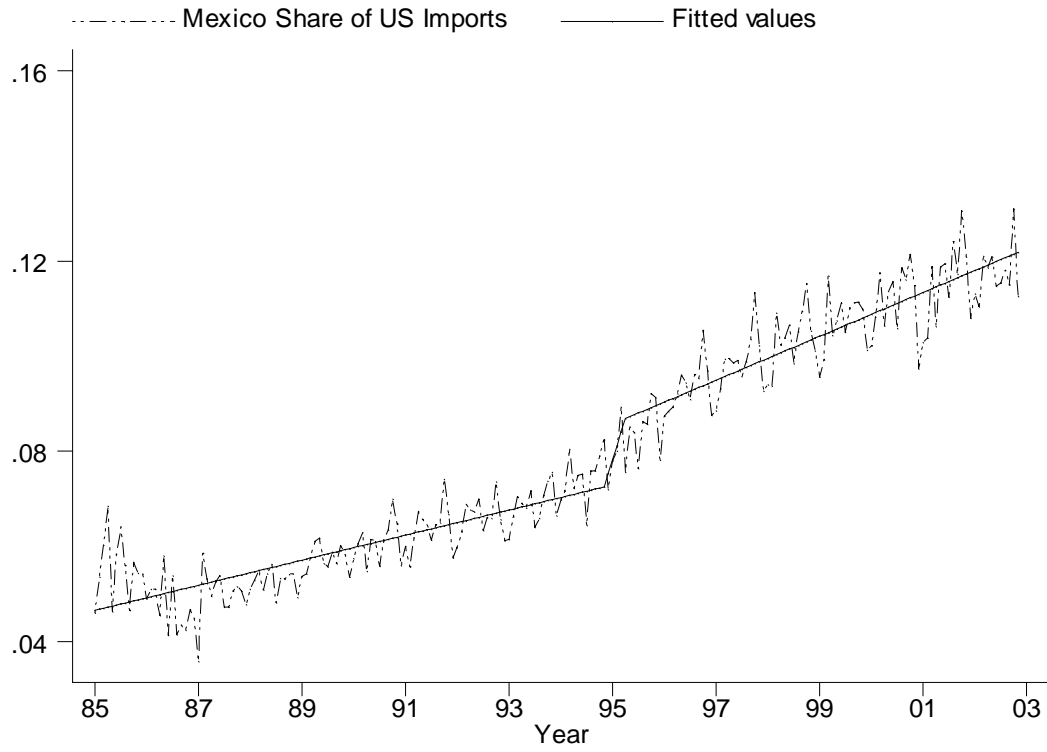
Notes: Source: Robertson (2005b)

Figure 1a: Mexico's Share of U.S. Goods Exports



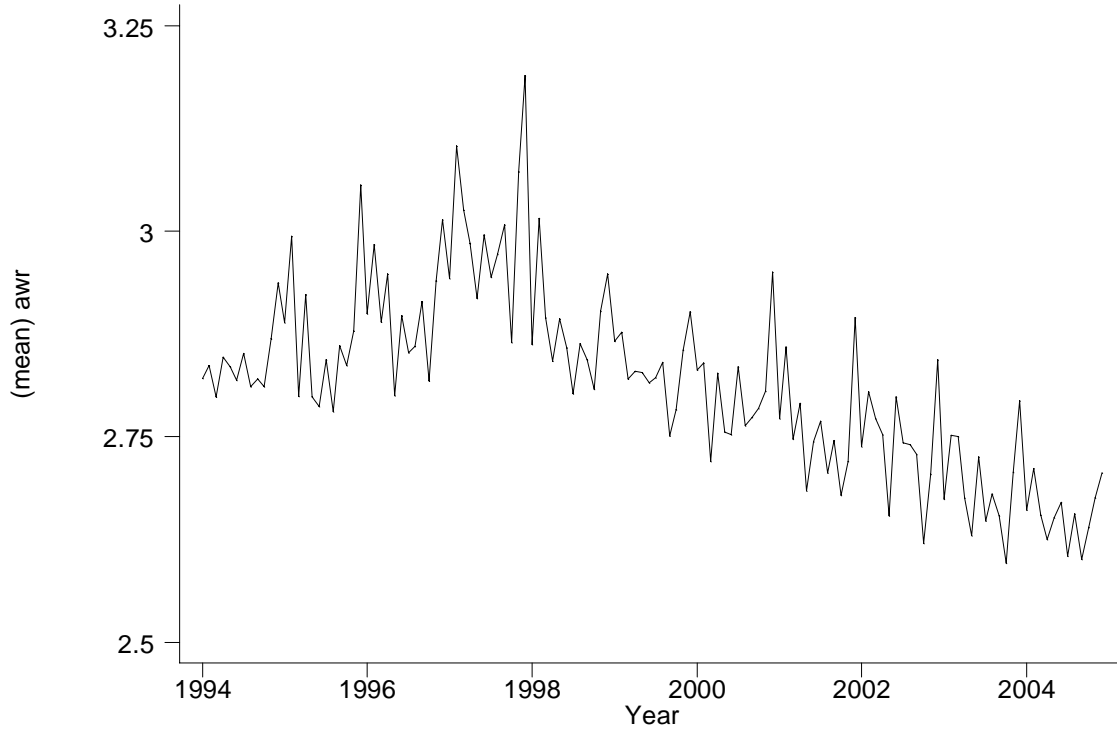
Notes: See Robertson (2005a)

Figure 1b: Mexico's Share of U.S. Goods Imports



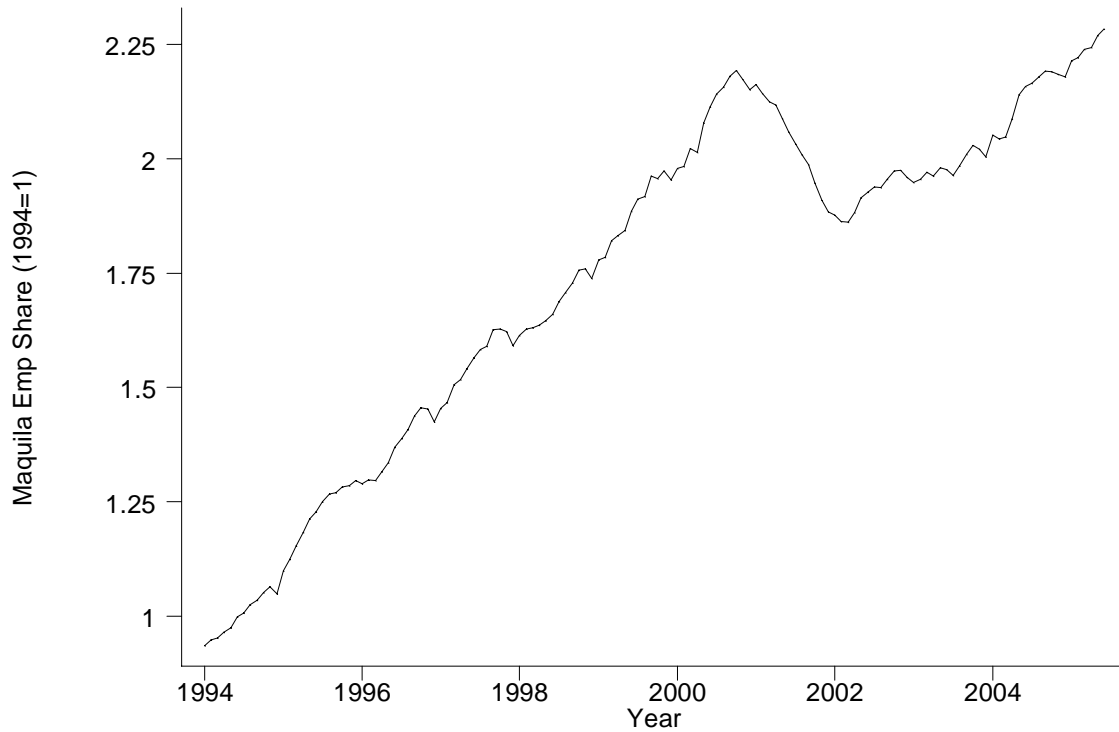
Notes: See Robertson (2005a)

Figure 6: Mexican Relative Wages Since NAFTA



Notes: Series is the industry-employment-weighted average relative wage of nonproduction workers (*empleados*) to production workers (*obreros*) in the Mexican Monthly Industrial Survey. The Industrial Survey excludes maquiladora employment and otherwise represents all of Mexican manufacturing.

**Figure 7: Maquila Employment Growth
Relative to Non-Maquila Manufacturing Employment**



Notes: The maquiladora employment series represents total maquiladora employment as measured by INEGI. The non-maquila employment series is total employment in the Mexican Monthly Industrial Survey. Both series are normalized to one in 1994. The line in this graph is the ratio of the two indexed series.

Figure 9: Skill Biased Technological Change Using Census Data

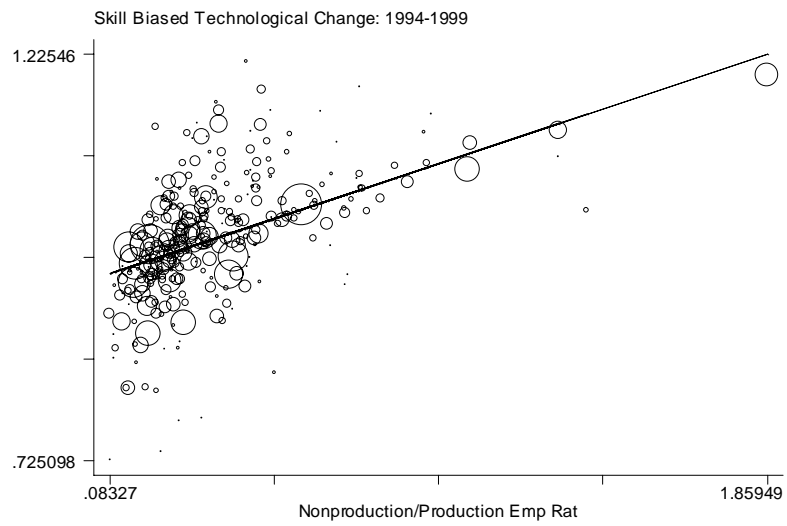
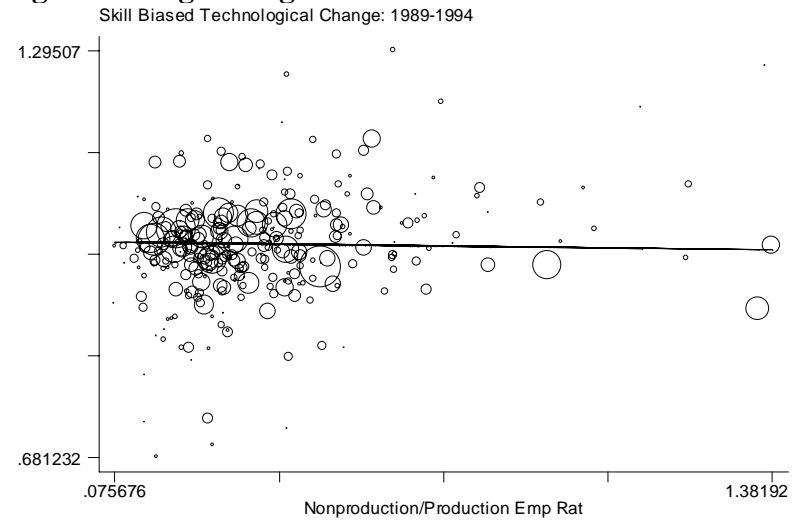
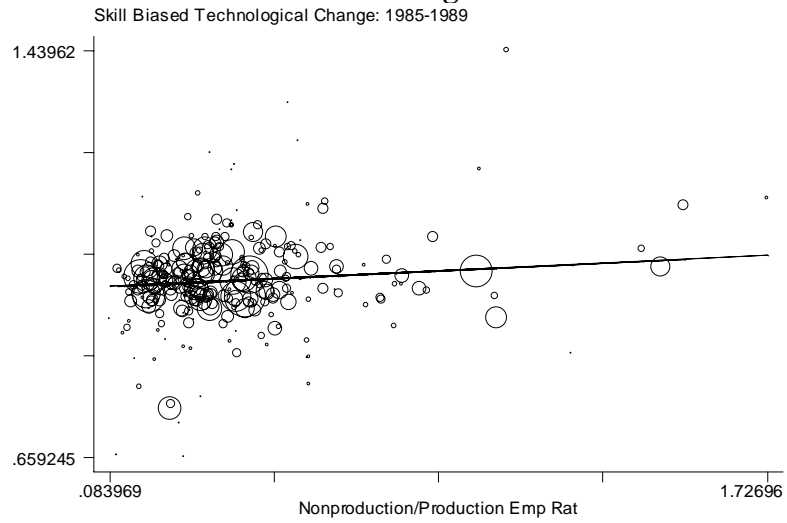
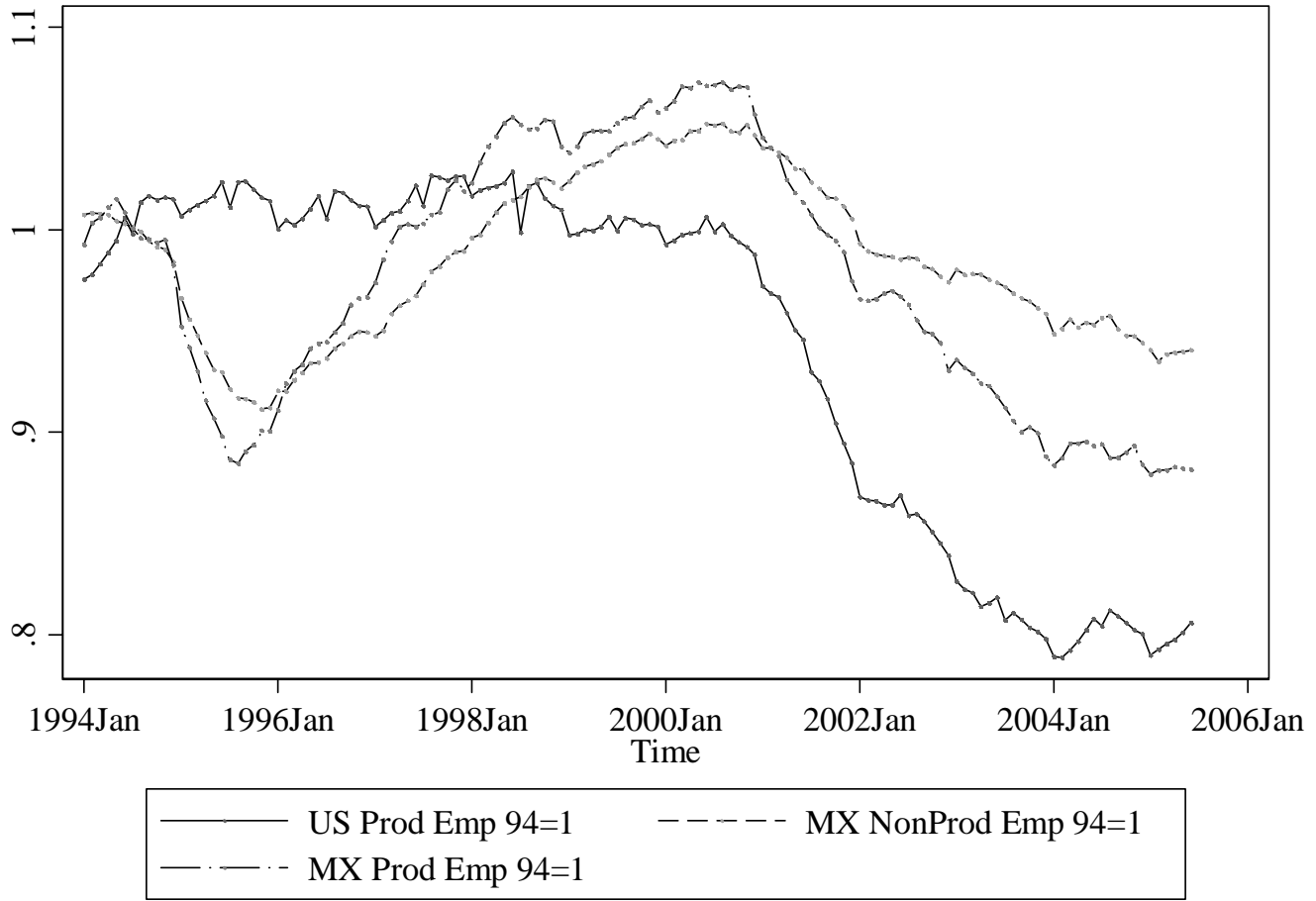


Figure 10: Evolution of Employment



Notes: See Robertson (2006).

Figure 11: U.S. Trade Balance and Public Debt

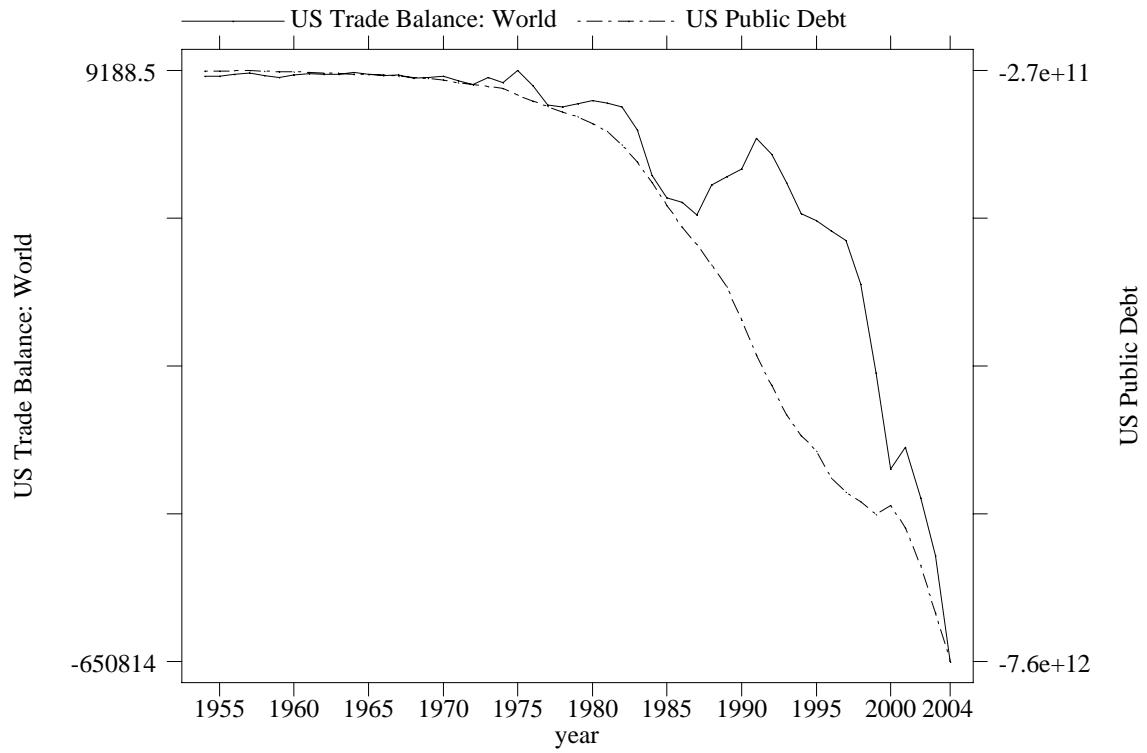


Figure 12: Debt to GDP Ratios Across Countries

