The Recent Evolution of Mexico's Manufacturing Exports

Gordon H. Hanson, UCSD and NBER

Raymond Robertson, Macalester College

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Abstract. In this paper, we use the gravity model of trade to decompose Mexico's export growth into components associated with export-supply capacity, import-demand conditions, and other factors. Some have argued that Mexico's recent sluggish export performance is due to China's expansion in global markets. Others have cited Mexico's inability to make needed economic reforms, which have hurt the country's competitiveness in manufacturing. Our results suggest that negative import-demand shocks associated with both China and the U.S. recession have contributed to the slowdown in Mexico's export growth. Had U.S. GDP growth not decelerated after 2000, Mexico's annual manufacturing export growth would have been 1.4 percentage points higher. Had China's growth in export capabilities remained unchanged after 1995, Mexico's annual export growth rate would have been 1.5 percentage points higher in the late 1990s and 3.0 percentage points higher in the early 2000s. We also examine factors that contribute to growth in Mexico's export supply capacity.

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1. Introduction

In the 1980s and 1990s, international trade became the engine of growth for Mexico's economy. The implementation of the North American Free Trade Agreement (NAFTA), a devaluation of the peso, and a sustained economic expansion in the United States all contributed to a surge in Mexico's manufacturing exports. Since 2000, however, Mexico's export growth has been less impressive. Some attribute Mexico's changing trade fortunes to slow growth in the United States; others identify China's emergence as having diminished Mexico's export prospects.[1]

In this paper, we decompose Mexico's export performance into components associated with export-supply capabilities and import-demand conditions. One component of export growth is changes in demand among countries that are an exporter's primary markets. If Mexico's main destination markets expand, the country's exports will tend to grow. A second component is changes in a country's capacity to export (relative to other countries), which is determined by its production costs and the size of its industrial base. A third component is changes in the export-supply capabilities of the specific countries that also trade with a country's main trading partners. If the countries with the largest expansion in export capacity are those that trade heavily with the United States – Mexico's largest trading partner – Mexican exports may be squeezed out of foreign markets. Naturally, the relative importance of demand and supply factors is likely to vary across industries, countries, and time. Our framework, which extends the gravity model of trade in Anderson and Van Wincoop (2004), provides an industry-by-industry decomposition of national export growth.

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[1] See Devlin, Estevadeoradal, and Rodriguez (2005), Eichengreen and Tong (2005), and Lopez Cordoba, Micco and Molina (2005) on the impact of China on other countries' trade and investment.

In section 2, we use a standard monopolistic-competition model of trade to develop an estimation framework. The specification is a regression of bilateral sectoral exports on importer country dummies, exporter country dummies, and factors that affect trade costs (bilateral distance, sharing a land border, sharing a common language, belonging to a free trade area, import tariffs). When these importer and exporter dummies are allowed to vary by sector and by year, they can be interpreted as functions of structural parameters and country-specific prices and income levels that determine a country's export supply and import demand. We decompose export growth for Mexico into four components: (a) changes in sectoral export-supply capacity, (b) changes in import-demand conditions in a country's trading partners, (c) changes in trade costs, and (d) residual factors. Changes in import-demand conditions can, in turn, be decomposed into two parts, one of which captures changes in income levels in import markets and another of which captures changes in sectoral import price indices for those markets, which are themselves a function of other countries' export-supply capacities.

In section 3, we report estimates based on our framework. The data for the analysis come from the UN Comtrade database and cover the period to 1995 to 2004, which follows the implementation of NAFTA. We begin by reporting estimated sectoral exporter dummy variables for Mexico vis-à-vis China and the United States. The results describe how Mexico's export-supply capacities in different industries evolve over time. Relative to all other countries, Mexico's export-supply capacity improves in most industries over the sample period. Relative to China, however, Mexico shows little improvement. Mexico's export capabilities are relatively strong in the same industries in which China's export capabilities are also strong, suggesting Mexico is relatively vulnerable to export-supply shocks in China. Since 1994, China's export capabilities have improved relative to Mexico in most of Mexico's large manufacturing industries.

We then decompose changes in Mexican exports into components associated with changes in Mexico's export-supply capacities, changes in import-demand conditions, changes in trade costs, and changes in residual factors. While changes in Mexico's export-supply capacities have contributed to growth in Mexican exports, changes in Mexico's import-demand conditions have not, at least since 2000. To explore why import-demand conditions have not been more favorable for Mexico, we examine two sources of negative import-demand shocks: China's growth in export supply, which may have lowered import prices in destination markets and diverted import demand away from Mexico; and the slow down in the growth of the U.S. economy, which may have reduced growth in demand for Mexican exports. The results suggest that had China's export-supply capacity remained constant after 1995, Mexican exports would have been up to 1.5% higher during the 1995-2000 period and up to 3% higher during the 2000-2004 period. Had U.S. GDP growth been the same over the 2000-2004 period as it was over the 1995-2000 period, Mexican exports would have been up to 1.4% higher.

The results hold at least three important lessons for policy makers. First, part of the slow down in the growth in Mexico's manufacturing exports appears to be associated with the slow down in the growth of the U.S. economy. As the U.S. economy continues to recuperate, so too will demand for Mexican goods on the world market. Since part of Mexico's export sluggishness is due to cyclical fluctuations, it is likely to be temporary in nature. Second, the growth in Mexico's export-supply capacities has slowed considerably since the late 1990s. Part of the stagnation in the growth in Mexican manufacturing exports is attributable to an inability on Mexico's part to expand the factors of production that generate export growth. Third, for the time being export growth in China is likely to have adverse consequences on the demand for Mexican exports. For better or worse, Mexico's most important export industries are also those in which China's appears to have relative strong export capabilities. Given that patterns of export specialization in Mexico, and in many other countries, change slowly over time, Mexico's vulnerability to China appears unlikely to diminish in the near term.

2. Empirical Specification

2.1 Theory

Consider a standard monopolistic model of international trade, as in Anderson and van Wincoop (2004) or Feenstra (2004). Let there be J countries and N manufacturing sectors, where each sector consists of a large number of product varieties. All consumers have identical Cobb-Douglas preferences over CES sectoral composites of product varieties, where in each sector n there are I_n varieties of n produced with country h producing I_{nh} of these varieties. There are increasing returns to scale in the production of each variety. In equilibrium each variety is produced by a single monopolistically-competitive firm and I_n is large, such that the price for each variety is a constant markup over marginal cost. Free entry drives profits to zero, equating price with average cost.

Consider the variation in product prices across countries. We allow for iceberg transport costs in shipping goods between countries and for import tariffs. The c.i.f. price of variety i in sector n produced by country j and sold in country k is then

$$P_{injk} = \left(\frac{\sigma_n}{\sigma_n - 1}\right) w_{nj} t_{nk} (d_{jk})^{\gamma_n} \qquad (1)$$

where P_{inj} is the f.o.b. price of product i in sector n manufactured in country j; σ_n is the constant elasticity of substitution between any pair of varieties in sector n; w_{nk} is unit production cost in sector n for exporter k; t_{nk} is one plus the ad valorem tariff in importer k on imports of n (assumed to be constant across exporters that do not belong to a free trade area with importer k); d_{jk} is distance between exporter j and importer k; and γ_n is the elasticity of transportation costs with respect to distance.

Given the elements of the model, total exports of goods in sector n by exporter j to importer k can be written as,

$$X_{njk} = \mu_n Y_k I_{nj} P_{njk}^{1-\sigma_n} G_{nk}^{\sigma_n - 1}, \tag{2}$$

where μ_n is the expenditure share on sector n and G_{nk} is the price index for goods in sector n in importer k. Hanson and Robertson (2006) show that equation (2) reduces to

$$X_{njk} = \frac{\mu_n Y_k I_{nj} \left(w_{nj} \tau_{nk}^{-1[jk]} (d_{jk})^{\gamma_n} \right)^{1-\sigma_n}}{\sum_{h=1}^{H} I_{nh} \left[w_{nh} \tau_{nk}^{-1[hk]} (d_{hk})^{\gamma_n} \right]^{1-\sigma_n}}. \tag{3}$$

where 1[jk] is an indicator variable that takes a value of one if countries j and k belong to a free trade area and zero otherwise.

Taking logs and regrouping terms in (3) we obtain,

$$\ln X_{njk} = \theta_n + m_{nk} + s_{nj} + \beta_{1n} \ln d_{jk} + \beta_{2n} 1[jk] + \beta_3 1[jk] \ln \tau_{jk} + \varepsilon_{njk}, \tag{4}$$

In equation (4), we see that there are four sets of factors that affect country j's exports to country k in sector n. The first term captures preference shifters specific to sector n; the second term captures demand shifters exporter j faces in sector n and importer k (which are a function of importer k's income and supply shifters for other countries that also export to importer k); the third term captures supply shifters in sector n for exporter j (which reflect exporter j's production costs and its industrial capacity in the sector); and the fourth through sixth terms capture trade costs specific to exporter j and importer k associated with distance (and, by extension, with having a common language or sharing a land border), being in a free trade area, and tariffs. Exporter j's shipments to importer k would expand if importer k's income increases, production costs increase in other countries that supply importer k, exporter j's supply capability expands (due to lower production costs or an expanded industrial base), or trade costs between the two countries decrease.

2.2 Decomposing Export Growth

Using annual data on bilateral trade by sector for a large cross section of countries, we estimate the parameters in equation (4). We do not need data on the components of m_{nk} or s_{nj}. By estimating equation (4) sector by sector and year by year, we identify the m_{nk} terms by including importer-specific dummy variables as regressors and the s_{nj} terms by including exporter-specific dummy variables as regressors.

Since equation (4) includes a constant term (θ_n), the estimated coefficients can be interpreted as deviations from mean industry export or import values. Thus, m_{nk} is the deviation from sector-n mean import demand for importer k and s_{nj} is the deviation from sector-n mean supply for exporter j. As a practical matter, we do not observe a country's exports to itself. Consequently, the country we treat as the excluded category in (4), off which the constant term is estimated, must be excluded from both the set of export dummies *and* the set of import dummies. The interpretation of the constant term is thus the mean trade value (rather than the mean export or import value) for the excluded country, which in all regressions we designate as the United States.

The specification in equation (4) is quite general. Restrictions arise only when we attempt to interpret the importer and exporter dummies. For instance, we have assumed that within sectors product varieties are identical between countries. Quality may be an important dimension along which varieties vary, especially between higher-wage and lower-wage exporters (Schott, 2004; Hummels and Klenow, 2005). Thus, the s_{nj} terms may also embody cross-country differences in the quality of product varieties. When evaluating how these terms change over time, we need to be mindful that improving quality is an additional means through which countries can expand their export capabilities. To identify exporter and sector-specific product quality parameters, we would need to know import quantities (which are unreported for many countries) *and* the value of σ_n for each sector.

For year t, let the OLS estimates of equation (4) be given by $\tilde{\theta}_{nt}, \tilde{m}_{nkt}, \tilde{s}_{njt}, \tilde{\beta}_{nt}$, and $\tilde{\varepsilon}_{njkt}$. For exposition simplicity, we subsume all variables associated with trade costs into a single term, denoted by the distance variable. Shipments by exporter j to importer k in sector n and year t equal

$$X_{njkt} = e^{\tilde{\theta}_{nt} + \tilde{s}_{njt} + \tilde{m}_{nkt} + \tilde{\varepsilon}_{njkt}} d_{jk}^{\tilde{\beta}_{nt}}, \tag{5}$$

and total exports by exporter j in sector n and year t equal

$$X_{njt} = e^{\tilde{\theta}_{nt} + \tilde{s}_{njt}} \sum_{K=1}^{H} e^{\tilde{m}_{nkt} + \tilde{\varepsilon}_{njkt}} d_{jk}^{\tilde{\beta}_{nt}}. \tag{6}$$

From (5) and (6), we can isolate the sources of export growth by country and sector. We write the distance term compactly as though it were a single variable, whereas in truth we model geographic trade costs as a function of distance, language, adjacency, belonging to a free trade area (FTA), and tariffs (which by (3) only appear for countries belonging to an FTA).

One source of export growth is improvement in the supply capability of exporter j in sector n, relative to the average for all other countries, which is captured by the sectoral exporter dummy, s_{njt}. The exporter dummy captures exporter j's average comparative advantage in sector n. A second source of export growth is changes in import demand, which is a function of national income in an importer country and product prices in the importer, which are in turn a function of the production costs and industrial capacities of the exporting countries that supply the importer.

To decompose changes in exports into component parts associated with changes in export capabilities and changes in demand conditions, rewrite (6) as

$$X_{njkt} = e^{\tilde{\theta}_{nt}} e^{\tilde{s}_{njt}} e^{\tilde{m}_{nkt}} e^{\tilde{\varepsilon}_{njkt}} d_{jk}^{\tilde{\beta}_{nt}} \equiv \Theta_{nt} S_{njt} M_{nkt} E_{njkt} D_{njkt} . \qquad (7)$$

For years t and t+s, define $\Delta Z \equiv Z_{t+s} - Z_t$ and $\overline{Z} \equiv 0.5 * (Z_{t+s} + Z_t)$. Since X_{njkt} is the product of five terms, there are 60 (5!/2) unique ways to decompose ΔX_{njkt}. For any individual component (Θ, S, M, D, or E), we take the mean across the possible decomposition terms. Changes in exports for exporter-importer pair jk in sector n are,

$$\begin{aligned} \Delta X_{njkt} = {} & \Delta\Theta_{njt} \overline{SMDE}_{njk} + \Delta S_{njt} \overline{\Theta MDE}_{njk} + \Delta M_{nkt} \overline{\Theta SDE}_{njk} \\ & + \Delta D_{njkt} \overline{\Theta SME}_{njk} + \Delta E_{njkt} \overline{\Theta SMD}_{njk} \end{aligned} , \qquad (8)$$

where $\overline{\Theta MDE}_{njk}$, for instance, is the mean across the 60 possible orderings of the 5 elements that compose trade values in (8). For exporter j, the change in total exports can be written by summing across sectors (n) and importers (k) in (8),

$$\begin{aligned} \Delta X_{jt} = \sum_n \sum_k \Delta X_{njkt} = \sum_n \sum_k (& \Delta\Theta_{njt} \overline{SMDE}_{njk} + \Delta S_{njt} \overline{\Theta MDE}_{njk} \\ & + \Delta M_{nkt} \overline{\Theta SDE}_{njk} + \Delta D_{njkt} \overline{\Theta SME}_{njk} + E_{njkt} \overline{\Theta SMD}_{njk}) \end{aligned} . \qquad (9)$$

The first term on the right of (9) is the change in exports for exporter j associated with changes in mean sectoral trade (designated to be that for the United States), the second term is the change in exports associated with changes in exporter j's supply capabilities, the third term is the change in exports associated with demand conditions in countries than import from exporter j, the fourth term is the change in exports associated with innovations in trade costs (or trade-cost elasticities), and the fifth term is residual sources of change in j's exports. Equation (9) is the basis for our decomposition results.

2.3 Decomposing Changes in Import-Demand Conditions

Returning to equation (3), it is apparent that a further decomposition of import-demand conditions facing country j is possible. In theory,

$$m_{nk} = \ln Y_k - \ln\left(\sum_{h=1}^{H} I_{nh} w_{nh}^{1-\sigma_n} \tau_{nh}^{-1[hk](1-\sigma_n)} d_{hk}^{\beta_n}\right), \qquad (10)$$

Thus, exporter j faces import-demand shocks due to changes in income and import prices in its trading partners, where import prices are a function of export-supply conditions in the countries that also export to country j's trading partners. One might consider estimating (4) subject to the constraint in (10). However, there are practical difficulties in imposing such a constraint. As is well known, there is zero trade at the sectoral level between many country pairs, especially in pairs involving a developing country. Tenreyro and Santos (2005) propose a Poisson pseudo-maximum likelihood (PML) estimator to deal with zero observations in the gravity model. In our application, this approach is subject to an incidental-parameters problem (Wooldridge, 2002). While in a Poisson model it is straightforward to control for the presence of unobserved fixed effects, it is difficult in this and many other nonlinear settings to obtain consistent estimates of these effects. Since, at the sectoral level, most exporters trade with no more than a few dozen countries, PML estimates of exporter and importer country dummies may be inconsistent.

Our approach is to estimate (4) using OLS for a set of medium to large exporters (OECD countries plus larger developing countries, which account for approximately 90% of world manufacturing exports) and larger importers (countries that account for approximately 90% of world manufacturing imports). For bilateral trade between larger countries, there are relatively few zero trade values. However, since we do not account explicitly for zero bilateral trade in the data, we are left with unresolved concerns about the consistency of the parameter estimates.[2]

Using (10), we modify (9) to decompose demand shifters that are specific to importer k (say, the United States) into a component associated with GDP in country k (e.g., U.S. business-cycle conditions) and a component associated with the import-price index in importer k, which is in turn a function of trade-cost-weighted export-supply shifters among the countries that export to importer k. In this framework, we can identify the contribution of changes in, say, China's export capacity to changes in other countries' demand for imports. We can also perform counterfactual decompositions of export growth for Mexico (or other countries) in which we assess how export growth in the country would have been different if China's export dummies had remain unchanged (which then would have increased global demand for other countries' goods) or if U.S. GDP growth had remain unchanged (which would have affected its import demand).

These counterfactual decompositions are not general-equilibrium in nature. Altering China's growth in export supply would affect the export supply of all other countries, not just

[2] Choosing large countries may subject the specification to selection bias. See Helpman, Melitz, and Rubinstein (2004).

Mexico. Thus, the counterfactual decompositions we construct are likely to overestimate the impact of export growth in China on Mexico. Our results are perhaps best seen as upper bounds of the possible impact of China on Mexico. Similar qualifications apply to the counterfactual decomposition in which we constrain US GDP growth to be constant.

3. Empirical Results

The data for the analysis come from the UN Comtrade database and cover manufacturing imports over the period 1995 to 2004. We examine bilateral trade at the four-digit harmonized system (HS) level. We estimate the gravity equation in (4) on a year-by-year basis, allowing coefficients on exporter country dummies, importer country dummies, and distance to vary by sector and year. The output from the regression exercise is for each sector a panel of exporter and importer country dummy variables, trade-cost coefficients, intercepts, and residuals. The country dummies are the deviation from the U.S. sectoral mean of exports or imports by year. For these coefficients to be comparable across time, the conditioning set for a given sector (i.e., the set of comparison countries) must be constant across time. For each sector, we limit the sample to bilateral trading partners that have positive trade in every year during the sample period (thus possibly introducing a further source of selection bias into the estimation).

3.1 Estimates of Sectoral Export Supply Capacities

The regression results for equation (4) involve a large amount of output. In each year, we estimate over 10,000 country-sector exporter coefficients, over 5,000 country-sector importer coefficients, and over 70 trade-cost coefficients. To summarize exporter and import dummies compactly, Figures 1a and 1b plot kernel densities for the sector-country exporter and importer coefficients (where the densities are weighted by sector-country exports or imports). Figure 1a shows that most exporter coefficients are negative, consistent with sectoral exports for most countries being below the United States. Over the sample period, the distribution of exporter coefficients shifts to the right, suggesting other countries are catching up to the United States. The figure indicates by vertical lines weighted mean values for Mexico's exporter coefficients in 1994 (equal to -3.9), 2000 (equal to -2.6), and 2004 (equal to -2.1), which rise in value over time relative to the overall distribution of exporter coefficients, suggesting Mexico's export-supply capacity improves relative to other countries over the sample period. Evidence we report later supports this finding. In Figure 1b, most importer coefficients are also negative, again indicating sectoral trade values for most countries are below those for the United States.

To provide further detail on the coefficient estimates, an appendix reports mean exporter and importer coefficients by country (across sectors and years) and the fraction of coefficient estimates that are statistically significant. For the large majority of countries, exporter and importer coefficients are precisely estimated. Further detail on the coefficient estimates is available in Table1, which reports average parameter estimates on the trade-cost variables. For the most part, the results align with previous literature (see Anderson and van Wincoop, 2004). While coefficients on distance and being in an FTA fluctuate mildly over the period, common language and adjacency show uneven downward trends. The coefficient on the tariff-FTA interaction increases markedly after 2000. Since 2000 is the dividing point between a period of global economic expansion and a period of global economic stagnation, the results may indicate that business cycles may affect substitution elasticities (or at least gravity model estimates of these elasticities).

Of primary interest is how Mexico's export-supply capacities compare to those of China and to import-demand conditions in the United States. Figure 2a plots export coefficients for Mexico against the estimated constant terms in the regression, which represent mean sectoral trade values for the United States. Observations are weighted by sectoral shares of annual manufacturing exports in Mexico. The figure shows a negative relation (-0.33 and statistically significant), suggesting that Mexico tends to have stronger exports in sectors in which the United States has *lower* levels of trade. Figure 2b plots annual changes in Mexico's export coefficients against annual changes in the constant terms, which are changes in mean U.S. sectoral trade. Here, there is a mild negative correlation between the two sets of coefficients (-0.10 and statistically significant). Sectors in which Mexico shows most improvement in export-supply capacity are those in which the United States shows weaker increases in trade.

Figure 3a plots exporter coefficients for Mexico and China over the sample period, using sectoral shares of annual manufacturing exports in Mexico as weights. There is a weak positive correlation between the two sets of exporter coefficients. Sectors in which Mexico has a relatively strong export-supply capacity tend to be those in which China's export capacity is also strong. Since exporter coefficients are expressed as deviations from U.S. sectoral means, the positive correlation between exporter coefficients for Mexico and China is not simply a statistical artifact (as would be the case, for instance, if we were comparing mean sectoral exports in Mexico and China). Figure 3a shows that, conditional on sectoral trade values for the United States, China tends to have higher exports in Mexico's larger export industries.

Figure 3b plots annual changes in export coefficients for Mexico against those for China (again, weighted by Mexico's annual industry export shares). The correlation is negative (-0.22 and statistically significant). This suggests that industries in which China's export supply capacities are strengthening are those in which Mexico's export capacities are not. Since the plotted values are changes in deviations from U.S. industry means (and not changes in the means themselves), the negative correlation for the two countries is not an artifact of the data.

To compare the export capabilities of Mexico and China more closely, Figure 4 plots export coefficients in the two countries in Mexico's 16 largest manufacturing sectors (defined as those that account for an average of 75% of Mexico's manufacturing exports over the sample period, excluding resource-intensive industries). Table 2 reports the average share of manufacturing exports by sector for Mexico.[3] Unreported results show that Mexico's sectoral export shares are stable over time. The largest export sectors are motor vehicles (8703, 8704, 8708), computers (8471), insulated wire and cable (8544), and TVs, which together account for an average of 44of Mexico's manufacturing exports over the sample period.

Consistent with Figure 1a, Figure 4 shows that in all sectors (except internal combustion engines and motor vehicles) Mexico's export coefficients increase over time, indicating that Mexico's export-supply capacity in these activities is improving relative to the United States. Thus, using the United States as a benchmark, Mexico's export capabilities have been improving in relative terms. However, Mexico has not been

[3] The appendix shows the four-digit HS industries from which we construct three-digit HS sectors.

showing gains in export supply capacity relative to China in most industries. In 10 of the 16 sectors, China's export-supply capacity rises relative to Mexico over the sample period. Importantly, these sectors include four of Mexico's six largest industries — motor vehicle parts (8703), computers (8471), insulated wire and cable (8544), and motor vehicle parts (8708), which together account for an average of 35% of Mexico's manufacturing exports. In none of Mexico's large export manufacturing industries does the country exhibit a strong increase in export-supply capacity relative to China.

For Mexico, we have noted that industry export shares are relatively stable across time, as they are for many countries. On the basis of country-specific factors that determine the pattern of industrial specialization, countries appear to be either exposed or not to export competition from China (or other industry-specific trade shocks). Mexico has the distinction, desired or not, of being strong in sectors in which China is also strong, making it vulnerable to export-supply shocks in China.

3.2 Decomposing Manufacturing Export Growth

Our next set of exercises involves the decomposition of export growth for Mexico into changes in export-supply capacities, changes in import-demand conditions, and changes in other components, as proposed in equation (9). Table 3 reports the total change in manufacturing exports for Mexico over two time periods, 1995-2000 and 2000-2004. The reported change in trade is the total change in trade values (divided by the number of years in the subperiod), normalized by the average of trade values in the beginning and end period. Thus, Table 3 shows that manufacturing exports in Mexico grew by an annual average of 16.8% over 1995-2000 and 1.9% over 2000-2004, which captures the much-noted slow down in export growth for Mexico.

Table 3 also reports export growth in Mexico decomposed into the five components identified in (9). The value for the change in the constant term (mean U.S. trade) is positive in the first time period and negative in the second time period, indicating that U.S. trade grew more slowly after 2000. Weak U.S. import demand could be due to weakness in the U.S. economy (which is likely to have been a factor after 2000 but not before) or to falling U.S. import prices associated with expansions in export-supply capacities in other countries (which may have been a factor in both time periods). In the next section, we examine each source in more detail.

The second term in Table 3 is the contribution of changes in importer coefficients in other countries to Mexico's export growth, which captures changes in import demand coming from non-U.S. sources. In either period, this component is small relative to other terms. For Mexico, changes in import demand from countries other than the United States do not appear to be an important factor in its recent export growth. This is not surprising, given that the United States accounts for more than 70% of Mexico's trade.

The third term in Table 3 is changes in Mexico's export-supply capacity, which is very large in the first time period (with annual growth of 47%) and smaller but still considerable in the second time period (with annual growth of 23%). Strong growth in the first time period could reflect the consequences of Mexico's peso crisis in 1995, which lead to a temporary depreciation of Mexico's real exchange rate, or to the implementation of NAFTA, and the associated surge in foreign direct investment in Mexican manufacturing. As suggested by Figures 1 and 2, Mexico has had strong growth in its export capabilities relative to other countries.

The fourth term in Table 3 is changes in trade-cost coefficients (log distance, common language, adjacency, FTAs, tariffs), which counterintuitively are negative in the first period (immediately post NAFTA) and positive in the second period. This is suggestive evidence that estimated trade-cost coefficients are counter-cyclical, since the latter time period coincides with a global economic slowdown. The final term in Table 3 is the growth in Mexican exports associated with residual factors. This term is negative in both time periods. There thus appear to be important unexplained sources of negative trade growth for Mexico.

3.3 Counterfactual Decompositions

The results in Table 3 provide a summary of how Mexican exports have grown but they do not reveal why they have grown. To explore this issue, we apply insights derived from equation (10). In Table 4, we explore how Mexico's export growth might have differed had the U.S. economy not slowed down after 2000. We impose the assumption that U.S. GDP growth over 2000 to 2004 (3.2%) was the same as that over 1995 to 2000 (2.6%). Returning to (9), we perform the following counterfactual calculation:

$$X_{njkt} = e^{\tilde{\theta}_{nt}} e^{\tilde{s}_{njt}} e^{\tilde{m}_{nkt} + \pi_{nkt}} e^{\tilde{\varepsilon}_{njkt}} d_{jk}^{\tilde{\beta}_{nt}} \equiv \Theta_{nt} S_{njt} \hat{M}_{nkt} E_{njkt} D_{njkt}. \qquad (11)$$

in which we set π_{nkt} equal to 0.024 (4*0.006) if k equals the United States and t equals 2004, and zero otherwise. This has the effect of inflating the import-demand coefficient for the United States in 2004 to what it would have been had the U.S. economy grown by the same rate after 2000 as it had before (and no other changes occurred in the global economy). We then use (11) to estimate counterfactual export growth in Mexico over 2000-2004, in which we replace ΔM_{nkt} with $\Delta\hat{M}_{nkt}$.

It is important to recognize that the counterfactual estimation of Mexican export growth in Table 4 is not a general-equilibrium exercise. Since the United States is a large country, stronger U.S. economic growth (due, say, to higher levels of Hicks neutral technological change) would have likely affected the global demand for goods and therefore global factor demands, generating changes in factor prices in U.S. trading partners, including Mexico. In the counterfactual calculations we report, we assume away such feedback effects from import demand into factor prices. Since higher demand for Mexican exports would have likely increased production costs in the country and the relative price of Mexican exports, the counterfactual export growth we report likely overstates what would have occurred in actuality. (One factor possibly mitigating the feedback of demand for Mexican exports on Mexican factor prices is the apparent high elasticity of labor supply in Mexico, associated with migration to the United States. Higher export growth in Mexico after 2000 might simply have reduced pressure for emigration, leading to higher labor supply in Mexico at factor prices that were not considerably higher.)

The results in Table 4 suggest that had U.S. GDP growth not decelerated after 2000, over 2000-2004 Mexican exports would have grown by 3.3% instead of 1.9%. In performing this exercise, we impose the unitary coefficients on the variables on the right of equation (10). Our results suggest that had the U.S. economy not slowed down in the early 2000s, annual manufacturing export growth in Mexico would have been 1.4 percentage points higher.

To evaluate the impact of China's export growth on Mexico, we again utilize (10). We impose the assumption that China's export coefficients remain unchanged from 1995 forwards. Following (10), this would have the effect of raising the import-price index in importing countries, leading to an overall increase in their importer coefficient. For country k, we redefine the change in importer coefficient in (11) to be,

$$\pi_{nkt} = \ln\left(\sum_{h \neq c} e^{\tilde{s}_{nht}} d_{hk}^{\tilde{\beta}_{nt}} + e^{\tilde{s}_{nc0}} d_{hk}^{\tilde{\beta}_{nt}}\right) - \ln\left(\sum_{h \neq c} e^{\tilde{s}_{nht}} d_{hk}^{\tilde{\beta}_{nt}} + e^{\tilde{s}_{nct}} d_{hk}^{\tilde{\beta}_{nt}}\right), (12)$$

where h=c indicates China and $\tilde{s}_{nc0}$ indicates China's exporter coefficient in sector n in the initial period. Thus, (12) shows how the importer coefficient for country k would have differed in year t had China's exporter coefficients remain unchanged from the initial year. Again, it is important to recognize that this is not a general-equilibrium exercise.

The results in Table 4 suggest that had China's export-supply capacity not changed over the sample period, Mexico's annual average export growth would have been 1.5 percentage points higher over 1995-2000 and 3.0 percentage points higher over 2000-2004. Naturally, the effects are larger in the latter time period, as the impact of holding China's export supply capacities constant cumulates over time. Interestingly, the impact on Mexican exports of China's export-capacity growth is roughly twice as large as the impacts of the U.S. economic slowdown. While it may be reasonable to view China's growth as shock that is likely to persist, the same does not hold for the sluggishness of the U.S. economy. Thus, only a part of the recent slow down in Mexico's export growth appears associated with transitory business cycle factors.

Comparing the results in Tables 3 and 4, the estimated impact of China's growth on Mexico is small relative to the impact of changes in Mexico's export-supply capacities, distance coefficients, or residual factors. While China's performance clearly seems to affect Mexico, other factors matter more. Our results suggest there is no basis for claiming that China's growth is the largest shock to have affected Mexico's manufacturing exports in the last decade.

3.4 Explaining Mexico's Growth in Export Supply Capacity

So far, our analysis has not examined what shocks might have contributed to growth in Mexico's export supply capacity, which is clearly an issue of great importance to policy makers. To examine this question, we take the estimated export supply dummies and examine their correlates. When pooled over time, these estimated coefficients represent changes in a country's export supply capacity relative to U.S. sectoral trade. In theory, following equation (3), the sectoral exporter dummies embody production costs and the number of product varieties a country produces. In general equilibrium, either component is likely to be determined by factor supplies and technology in a country. Following the logic of the Rybczynski Theorem, the impact of factor supplies on export supply capacity is likely to vary across industries, depending on industry relative factor intensities. We define production factors expansively to include public infrastructure. For simplicity, we pool regressions across Mexico's 20 most important non-apparel export industries, shown in Table 2. Once apparel is excluded, the remaining industries are concentrated in industrial machinery, electronics, and transportation equipment, which have similar factor intensities.

In Table 5 we report regressions in which the dependent variable is the exporter dummy for a particular sector (by year and exporter) and the independent variables are measures of country factor supplies. We include sectoral exporter dummies for all exporters represented in the sample, not just Mexico. This allows us to use the entire sample of countries to examine which factors are associated with a stronger export supply capacity in the industries in which Mexico's exports are concentrated. All regressions include country dummy variables to control for country-specific and time-invariant characteristics that affect exports. In the first column, and in all subsequent regressions, we include the log labor force, log arable land, log electricity production, and the nominal interest rate as regressors. The labor force and electricity production are positively correlated with export supply capacity, indicating that in Mexico's key export industries a larger labor supply and greater energy capacity is associated with greater export supply capability. Arable land is negatively correlated with sectoral export dummies, suggesting that greater abundance of land is a source of comparative disadvantage in Mexico's main export industries. The nominal interest rate is negatively correlated with the sectoral exporter dummies, revealing that a higher cost of capital is associated with weaker export supply capacity.

Obviously, one would like to include the capital stock and national TFP as regressors. Unfortunately, measures of these variables for the countries and years in our sample are unavailable. As a crude approximation, we include GDP as regressor in column (2) of Table 5. Controlling for the labor force and land, GDP picks up variation in the capital stock and TFP across time. Not surprisingly, GDP is positively correlated with the exporter dummies. This could mean that in Mexico's key export industries physical capital and TFP are a source of comparative advantage. However, it could also capture correlation between sectoral export dummies and national level shocks to aggregate demand.

In columns (3)-(7) we add measures of telecommunications infrastructure. The sectoral exporter dummies are positively correlated with the availability of fixed telephone lines, mobile phones, personal computers, and internet connections. As countries increase their supply of telecommunications infrastructure, their export supply capacity tends to increase, at least in the 20 industries included in the sample. This suggests that Mexico's key export industries are relatively intensive in the use of telecommunications infrastructure. Since the additional regressors in columns (3)-(7) are highly correlated with one another, the precision of the coefficient estimates on these variables declines if they are included to a single regression. Thus, we cannot identify which of these factors contributes most to export supply capacity in Mexico's key export industries.

In unreported results, we experimented with including other factor supplies in the regression. Sectoral exporter dummies are positively correlated with domestic credit as a share of GDP, the share of roads that are paved, vehicles per capita, the share of workers with primary education, and the share of workers with second education (but not with the share of workers with tertiary education). However, none of these results hold once controls for country fixed effects are included in the regression. The results in Table 5 show the variables for which the correlation with sectoral exporter dummies is precisely estimated, with or without country dummies in the regression.

4. Discussion

In this paper, we use the gravity model of trade 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. There are three main findings. First, since the mid 1990s Mexico's export-supply capacities have improved relative to the rest of the world (as seen in Figure 1). 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 (as seen in Figure 2). 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 (as seen in Table 4). 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 (as seen in Table 3). 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 (as seen in Table 4).

There are several important caveats to our results. Our 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 we 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. There are also concerns about the consistency of the coefficient estimates, due to the fact that we do not account for why there is 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. However, given the relatively high exposure of Mexico to export competition from China, 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. However, Mexico 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.

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Appendix A: Average Exporter Coefficients

Country	Exporter Coefficient	% Significant
Angola	0.776	62.50
United Arab Emirates	1.135	98.70
Bangladesh	0.900	70.17
Bulgaria	-3.292	99.40
Cote d'Ivoire	0.939	89.12
Cameroon	-0.009	60.00
Dominican Republic	-4.061	91.46
Gabon	-0.268	70.00
Honduras	-2.187	100.00
Iran, Islamic Rep.	0.935	87.26
Kuwait	0.884	83.28
Sri Lanka	-1.621	88.38
Nigeria	0.955	67.45
Pakistan	-1.363	87.49
Philippines	-2.544	97.75
Qatar	0.682	76.47
Saudi Arabia	1.599	85.67
Thailand	-2.481	84.52
Trinidad and Tobago	-2.842	96.40
Taiwan, China	-1.200	92.65

Appendix B: Average Country Importer and Exporter Coefficients

Country	Importer Coefficient	% Significant	Exporter Coefficient	% Significant
Argentina	-3.121	97.94	-2.466	98.60
Australia	-1.925	96.59	-2.380	98.22
Austria	-4.104	100.00	-3.935	100.00
Brazil	-2.173	98.67	-1.662	99.47
Canada	-2.148	99.06	-2.291	99.77
Switzerland	-3.924	99.81	-3.835	99.72
Chile	-3.222	98.19	-4.654	98.46
China	-1.440	93.59	0.367	83.13
Colombia	-3.949	99.88	0.211	98.84
Costa Rica	-5.670	100.00	-3.446	99.94
Czech Republic	-4.522	99.98	-3.767	99.12
Germany	-1.554	93.57	-0.196	68.49
Denmark	-4.165	100.00	-3.090	99.22
Algeria	-5.204	100.00	-0.790	75.00

Ecuador	-4.565	99.98	-0.536	89.43
Egypt, Arab Rep.	-4.871	100.00	-1.173	97.94
Spain	-2.886	99.38	-2.052	96.06
Finland	-4.024	100.00	-2.836	98.88
France	-2.306	99.52	-1.539	91.75
United Kingdom	-1.688	94.94	-1.679	96.64
Greece	-4.026	100.00	-3.368	97.11
Guatemala	-5.376	100.00	-1.883	99.63
Hong Kong, China	-1.829	94.40	-1.385	93.18
Hungary	-4.096	100.00	-3.835	98.22
Indonesia	-3.252	99.06	-0.835	78.45
India	-3.559	99.97	-1.906	90.43
Ireland	-3.674	100.00	-3.349	98.63
Iceland	-6.030	100.00	-8.117	100.00
Israel	-3.420	99.35	-3.679	100.00
Italy	-2.482	99.45	-1.220	83.48
Japan	-1.351	95.95	0.332	78.57
Korea, Rep.	-1.840	99.14	-1.135	82.87
Morocco	-4.878	100.00	-2.615	94.57
Mexico	-2.592	99.92	-2.129	95.85
Malaysia	-1.860	98.59	-1.599	91.67
Netherlands	-2.413	99.85	-3.027	97.12
Norway	-3.908	99.51	0.533	98.99
New Zealand	-3.012	99.02	-3.921	99.40
Oman	-4.489	100.00	0.628	79.77
Peru	-4.377	100.00	-1.022	99.59
Poland	-3.677	99.78	-2.933	98.41
Portugal	-4.197	99.84	-3.368	93.01
Romania	-4.885	100.00	-2.402	92.13
Singapore	-1.392	97.32	-1.679	93.96
El Salvador	-5.676	100.00	-1.877	95.65
Sweden	-3.366	100.00	-2.349	99.53
Tunisia	-6.049	100.00	-2.583	93.98
Turkey	-3.510	99.31	-1.092	91.70
Venezuela	-3.924	99.48	-0.254	86.11
South Africa	-2.897	99.52	-3.531	99.84

Appendix C: HS Industry Code Descriptions

4 Digit HS	Description
901	Coffee; Coffee Husks Etc; Substitutes With Coffee
2203	Beer Made From Malt
2709	Crude Oil From Petroleum And Bituminous Minerals
2710	Oil (Not Crude) From Petrol & Bitum Mineral Etc.
6109	T-Shirts, Singlets, Tank Tops Etc, Knit Or Crochet
6110	Sweaters, Pullovers, Vests Etc, Knit Or Crocheted
6203	Women's Or Girls' Overcoats Etc, Not Knit Or Croch
6204	Men's Or Boys' Suits, Ensembles Etc, Not Knit Etc
8407	Spark-Ignition Recip Or Rotary Int Comb Piston Eng
8409	Parts For Engines Of Heading 8407 Or 8408
8414	Air Or Vac Pumps, Compr & Fans; Hoods & Fans; Pts
8415	Air Conditioning Machines (Temp & Hum Change), Pts
8418	Refrigerators, Freezers Etc; Heat Pumps Nesoi, Pts
8471	Automatic Data Process Machines; Magn Reader Etc
8473	Parts Etc For Typewriters & Other Office Machines
8481	Taps, Cocks, Valves Etc For Pipes, Tanks Etc, Pts
8501	Electric Motors And Generators (No Sets)
8504	Elec Trans, Static Conv & Induct, Adp Pwr Supp, Pt
8512	Electric Light Etc Equip; Windsh Wipers Etc, Parts
8516	Elec Water, Space & Soil Heaters; Hair Etc Dry, Pt
8517	Electric Apparatus For Line Telephony Etc, Parts
8518	Microphones; Loudspeakers; Sound Amplifier Etc, Pt
8525	Trans Appar For Radiotele Etc; Tv Camera & Rec
8527	Reception Apparatus For Radiotelephony Etc
8528	Tv Recvrs, Incl Video Monitors & Projectors
8529	Parts For Television, Radio And Radar Apparatus
8536	Electrical Apparatus For Switching Etc, Nov 1000 V
8537	Boards, Panels Etc Elec Switch And N/C Appar Etc.
8541	Semiconductor Devices; Light-Emit Diodes Etc, Pts
8542	Electronic Integrated Circuits & Microassembl, Pts
8544	Insulated Wire, Cable Etc; Opt Sheath Fib Cables
8703	Motor Cars & Vehicles For Transporting Persons
8704	Motor Vehicles For Transport Of Goods
8708	Parts & Access For Motor Vehicles (Head 8701-8705)
9018	Medical, Surgical, Dental Or Vet Inst, No Elec, Pt
9029	Revolution & Production Count, Taximeters Etc, Pts
9032	Automatic Regulating Or Control Instruments; Parts
9401	Seats (Except Barber, Dental, Etc), And Parts
9403	Furniture Nesoi And Parts Thereof
9405	Lamps & Lighting Fittings & Parts Etc Nesoi

Table 1: Average Coefficient Estimates on Trade Cost Variables

Year	ln(Distance)	Common Language	Adjacency	FTA	FTA*ln(1+Tariff)
1995	-1.118	0.652	0.519	0.045	7.964
1996	-1.121	0.640	0.402	0.121	5.757
1997	-1.115	0.531	0.370	0.065	7.112
1998	-1.076	0.573	0.461	0.016	7.490
1999	-1.076	0.542	0.382	0.028	8.540
2000	-1.111	0.532	0.255	-0.074	11.396
2001	-1.086	0.493	0.239	0.001	16.854
2002	-1.049	0.545	0.348	0.165	20.709
2003	-1.063	0.479	0.299	0.184	22.771
2004	-1.118	0.497	0.207	0.128	13.804

Notes: Coefficient estimates are expressed as trade-value-weighted means for manufacturing industries.

Table 2: Industry Shares of Manufacturing Exports in Mexico

HS Industry	HS Industry	Share of Mexican Manufacturing Exports
Internal combustion engine parts	8409	0.0106
Valves	8481	0.0115
Medical instruments	9018	0.0116
Automatic regulating equipment	9032	0.0139
Radio and TV parts	8529	0.0141
Women's and girl's dresses	6204	0.0147
Electric motors	8501	0.0156
Men's and boy's suits	6203	0.0183
Radio receivers	8527	0.0203
Telephone apparatus	8517	0.0205
Electric transformers	8504	0.0206
Electric switches	8536	0.0226
Internal combustion engines	8407	0.0236
Parts for office machines	8473	0.0248
Seats	9401	0.0278
Radios and TV transmitters	8525	0.0305
Motor vehicle parts	8708	0.0534
TV receivers	8528	0.0558
Motor vehicles for transporting goods	8704	0.0579
Insulated wire and cable	8544	0.0642
Computers	8471	0.0648
Motor vehicles for transporting people	8703	0.1463

This table shows the share of Mexican manufacturing exports for the industries that account for an average of 75% of Mexico’s total exports over the sample period (1995-2004). See the appendix for the four-digit HS industries that compose the composite three-digit HS sectors listed above.

Table 3: Decomposing Mexican Export Growth, 1995-2004

Period	Growth in Mexican Manufacturing Exports	Decomposition of Export Growth				
		Component of Growth Associated with Change in:				
		Mean US Trade	Importer Coefficients	Exporter Coefficients	Trade-Cost Coefficients	Residual Factors
1995-2000	0.168	0.185	-0.017	0.477	-0.173	-0.305
2000-2004	0.019	-0.218	0.007	0.230	0.179	-0.181

Notes: This table uses equation (9) to decompose annual average growth in Mexico's manufacturing exports into components associated with changes in mean U.S. sectoral trade, changes in sectoral importer coefficients in Mexico's trading partners, changes in sectoral exporter coefficients in Mexican manufacturing, changes in trade costs (log distance, common language, adjacency, FTAs, tariffs), and changes in residual factors.

Table 4: Counterfactual Decompositions of Mexican Export Growth

Period	Actual Growth in Mexican Manufacturing Exports	Counterfactual Growth in Mexican Manufacturing Exports: Assume US GDP Growth 2000-2004 =1995-2000	Counterfactual Growth in Mexican Manufacturing Exports: Assume China's Exporter Coefficients = 1995 values
1995-2000	0.168	--	0.183
2000-2004	0.019	0.033	0.049

Notes: This table reports actual and counterfactual export growth in Mexico based on two scenarios: U.S. GDP growth over 2000-2004 equals that for 1995-2000, and China's export-supply capacity remains constant over the sample period at levels equal to 1995 values.

Table 5: Regression Results for Sectoral Exporter Coefficients

Regressors							
ln(labor force)	1.273	2.273	0.167	0.381	0.958	0.359	-0.232
	(1.068)	(0.803)	(1.120)	(1.085)	(1.064)	(1.087)	(1.101)
ln(arable land)	1.324	0.534	1.424	1.598	0.144	1.596	1.357
	(0.738)	(0.642)	(0.756)	(0.739)	(0.761)	(0.739)	(0.735)
ln(electricity production)	1.248	0.621	0.482	0.535	0.512	0.399	0.328
	(0.353)	(0.539)	(0.420)	(0.389)	(0.374)	(0.405)	(0.395)
nominal interest rate	-0.017	-0.022	-0.013	-0.011	-0.010	-0.013	-0.010
	(0.004)	(0.005)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)
ln(GDP)		1.603					
		(0.322)					
ln(telephone subscribers per capita)			0.112				
			(0.029)				
ln(mobile phones per capita)				0.140			
				(0.032)			
ln(telephone mainlines per capita)					0.993		
					(0.168)		
ln(personal computers per capita)						0.392	
						(0.092)	
ln(internet users per capita)							0.467
							(0.090)
R^2	0.583	0.583	0.584	0.585	0.588	0.585	0.587
Observations	4008	4280	3966	4008	3999	4008	3999

Notes. This table reports regressions in which the dependent variable is the estimated sectoral exporter coefficient from equation (4) for the sample of exporting countries pooled across industries (where the industries are limited to the 20 non-apparel industries shown in Table 2). The independent variables are the nominal interest rate and log values of the labor force, arable land, electricity production, GDP, fixed line and mobile phone users per capita, mobile phones per capita, telephone mainlines per capita, personal computers per capita, and/or internet users per capita (where all independent variables are measured at the national level). All regressions include controls for country fixed effects. Standard errors are in parentheses.

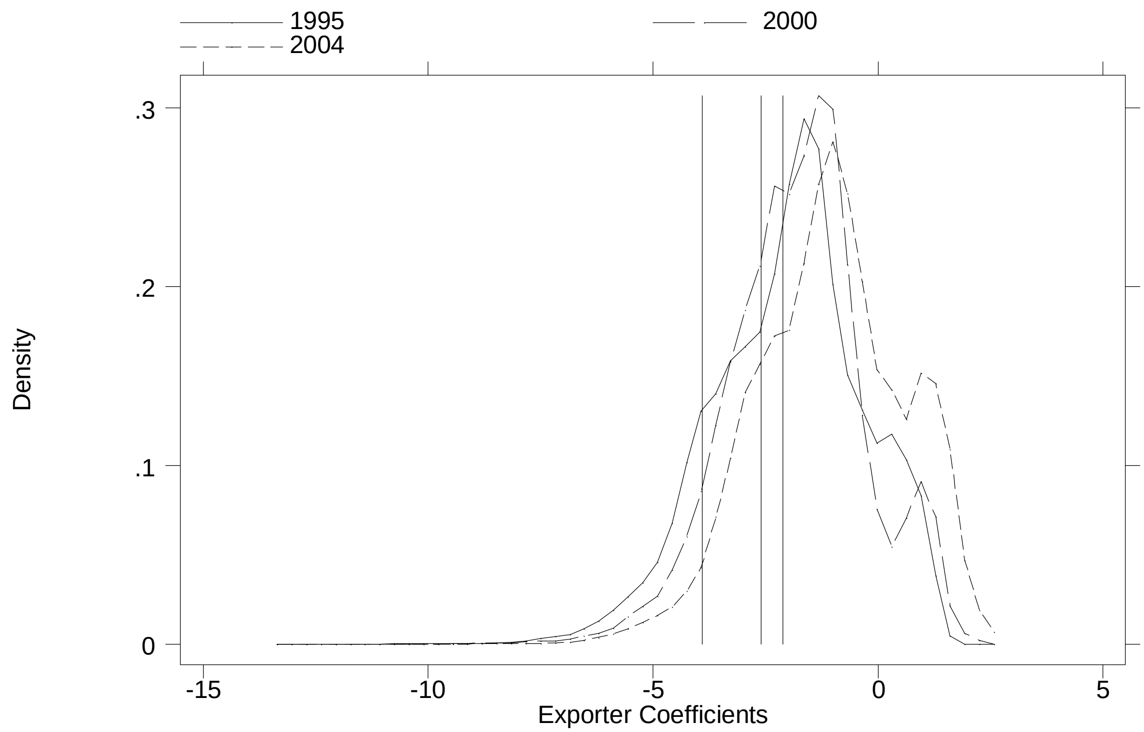

Figure 1a: Estimated Sector-Country Exporter Coefficients, Selected Years

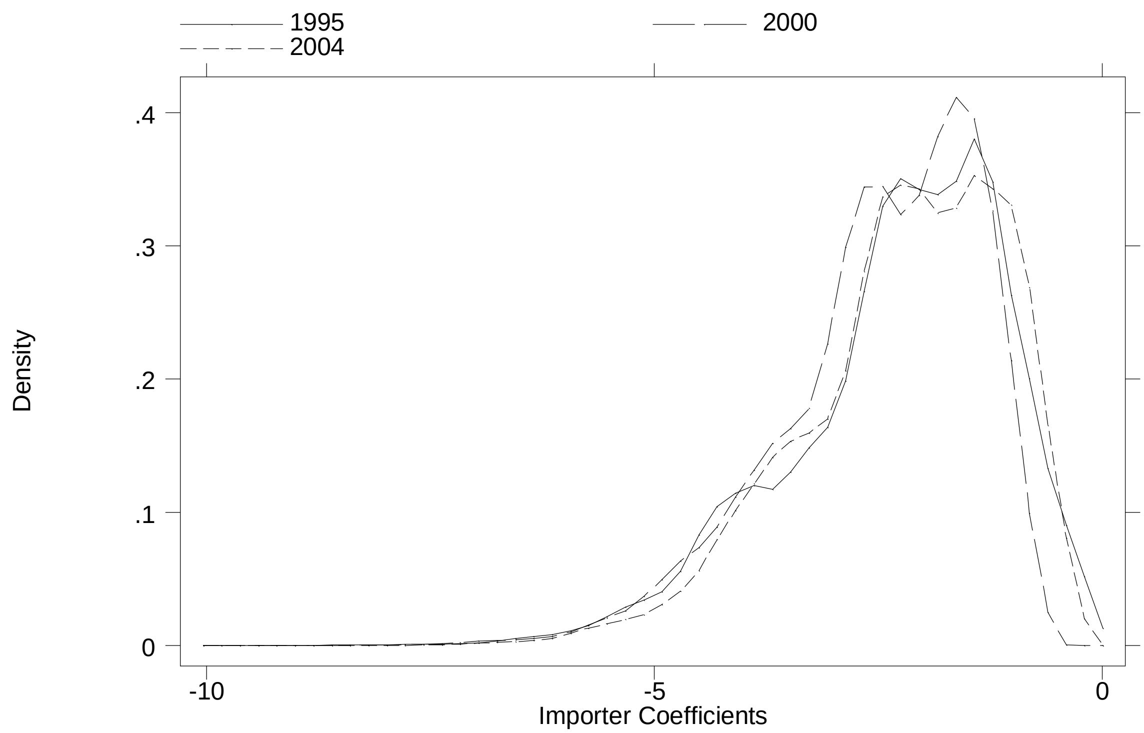

Figure 1b: Estimated Sector-Country Importer Coefficients, Selected Years

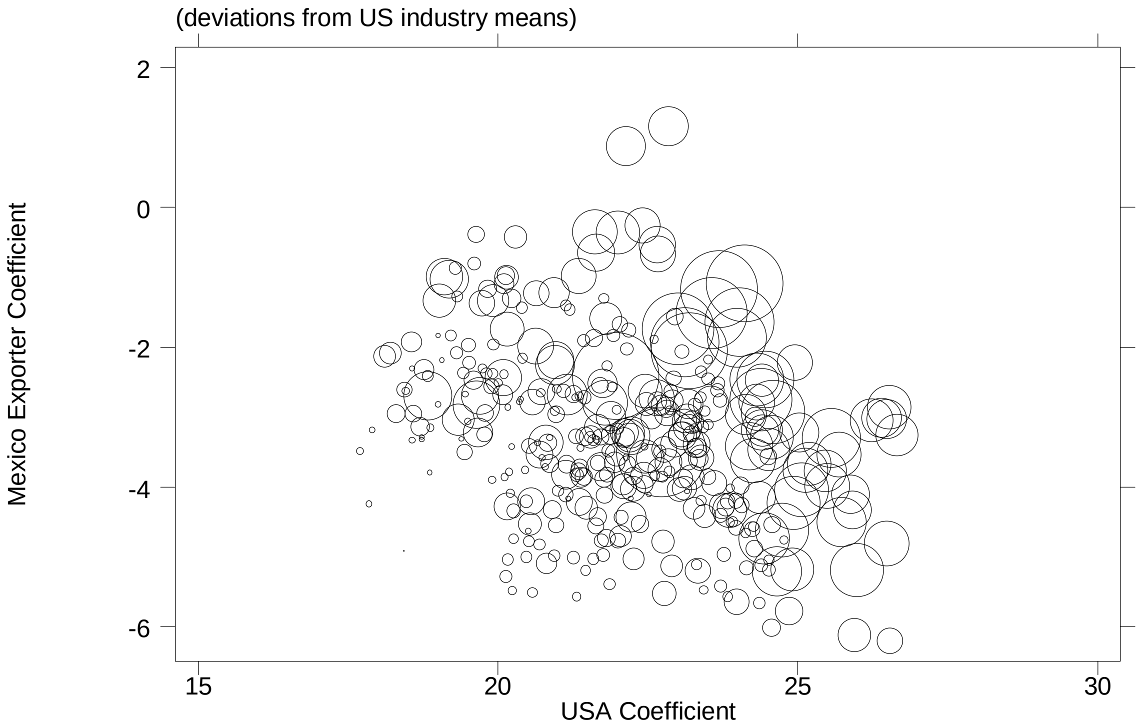

Figure 2a: Sectoral Export Coefficients for Mexico and US Sectoral Trade

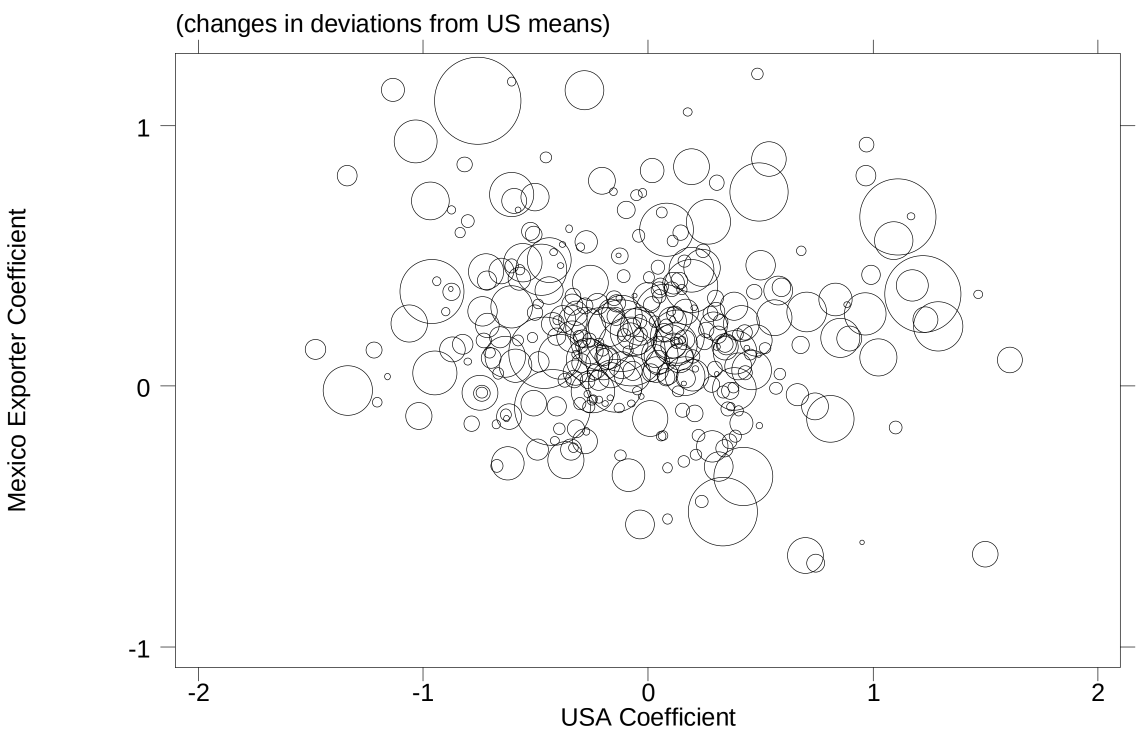

Figure 2b: Changes in Mexico Export Coefficients and Changes in US Trade

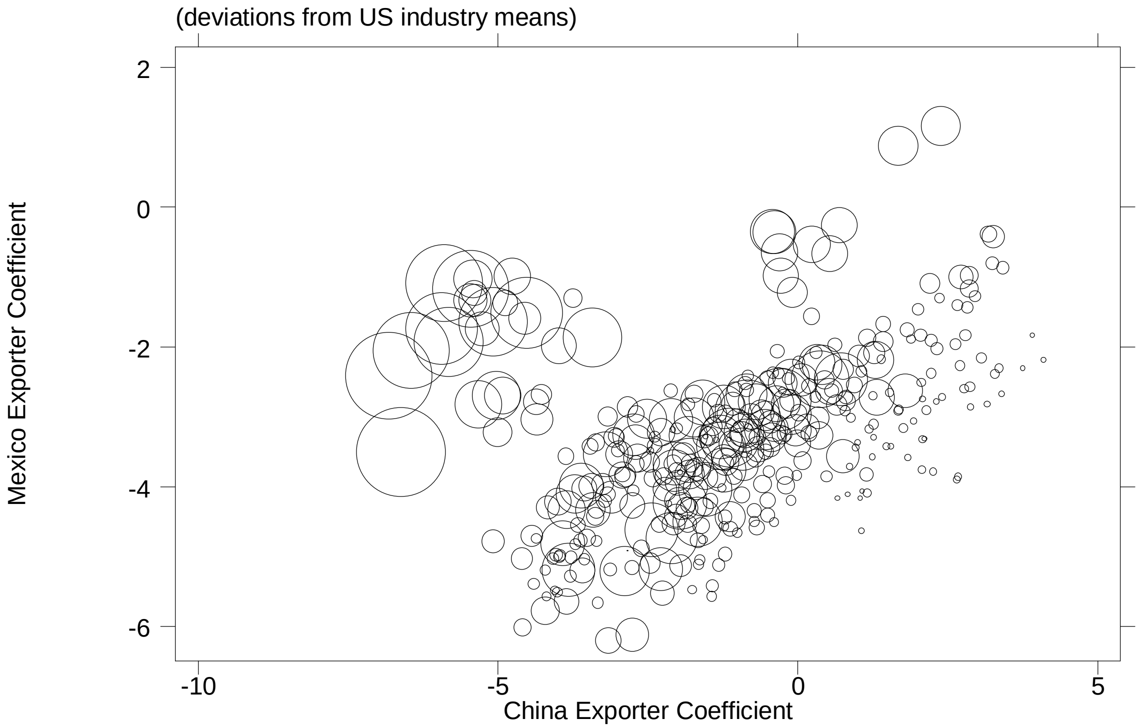

Figure 3a: Sectoral Export Coefficients, China and Mexico

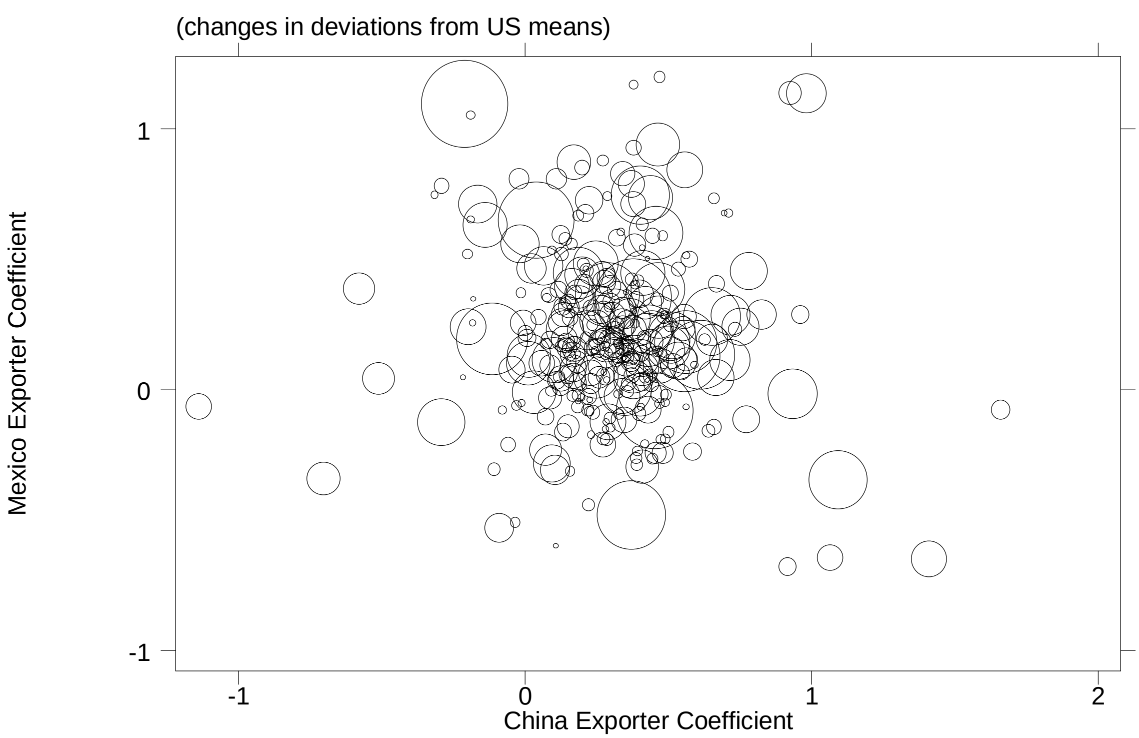

Figure 3b: Annual Changes in Sectoral Export Coefficients, China and Mexico

Figure 4: Exporter Coefficients in Mexico and China by Sector