

SHELTERING EFFECTS OF NAFTA: PERFORMANCE OF MEXICAN EXPORTS TO U.S. MARKETS IN VIEW OF ASIAN COUNTRIES CRISIS OF 1997-98

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I Introduction

Several authors have assessed the implications of the North American Free Trade Agreement (NAFTA) for Mexican policymakers. Weintraub (1997), for example, points out that, during the balance of payments crisis of 1994, Mexican authorities did not follow earlier practices of imposing across the board import restrictions, because NAFTA had locked Mexico into an open market policy, vis-à-vis the U.S. and Canada. The result, according to him, was “a severe depression, but Mexico’s economy recovered more quickly than it had after the 1982 crisis, and U.S. exports to Mexico fared considerably better during this economic horror than they had after the previous one”².

Another implication of NAFTA for policymakers in Mexico may be derived in view of their performance when faced with the major exchange rate depreciations experienced in 1997 and 1998 by a number of its competitors in the U.S. market - Indonesia, Thailand,

¹The author is grateful for the helpful suggestions of Salvador Ortiz. Skillful research assistance from Salvador Navarro and comments from Johanna Koolemans and Alicia Puyana are acknowledged.

²*Op. Cit.* P. 52. NAFTA came into effect on January 1, 1994. It must be pointed out that this author correctly identifies the 1995 and 1982 episodes as two different trade policy responses to a balance of payments crisis. However, in his comparison of policy responses to balance of payments problems in 1985 and 1982 Calderón-Madrid (1997) argues that the change in trade policy occurred in 1985, when Mexican authorities locked themselves into an open market policy by embarking for the first time upon a sudden and unexpected trade liberalization process in spite of the balance of payments crisis that occurred during that year.

Malaysia, Philippines, Korea, Taiwan and Singapore³. Namely that, unlike in years previous to 1995, the nominal exchange rate should no longer be considered the variable to be abruptly re-aligned in response to a perceived deterioration in price competitiveness in U.S. markets.

These years constitute a good observation period to examine whether NAFTA, by encouraging co-production arrangements, off-shore assembly operations, production-sharing and other operative synergies with U.S. producers, helped protect Mexican exports to the U.S. from the effects of the currency depreciations of competing countries.

That is, to examine whether the Mexican exports that benefited from the treaty between 1993 and 1996 remain unaffected in the U.S. markets between 1997 and 1998, in spite of the real appreciation of the peso which resulted from the increased price competitiveness from some East Asian countries.

In order to address this question, in this paper we analyze U.S. imports from Mexico as a share of total U.S. imports according to different industries and products and identify those that benefited by NAFTA between 1993 and 1996. For the years 1997-1998, we also compare Mexico's performance in the U.S. markets to that of the East Asian countries that experienced devaluations then. We show which country lost market share and which one gained, as well as the proportion gained or lost by each country⁴. Finally, we present a counterfactual analysis to estimate export earnings forgone by Mexico as a result of gains of the seven Asian countries at their expense.

³ During the first months of the Asian crisis (Jun97-Jan98), their currencies had depreciated by 198, 104, 77, 67, 85, 20 and 23 percent respectively. In the same period, the Mexican peso depreciated 1.4%.

⁴ We present the results for Mexico, for each of the seven Asian countries -Philippines, Indonesia, Korea, Malaysia, Singapore, Taiwan and Thailand- that experienced a devaluation in 1997-1998, and for the set of other countries that compete with Mexico in U.S. markets.

A study made for the president of the USA states that: “while Mexico’s share of U.S. imports across many sectors increased, those increases did not typically displace U.S. production, which was robust across sectors. For example, in two sectors in which Mexico’s market share expanded most significantly, car parts and textiles and apparel, the gains were a reflection of competitive advantages accruing to U.S. and Mexican producers as a result of co-production arrangements. Those arrangements were enhanced by NAFTA and resulted in Mexican imports with relatively high U.S. content displacing imports from third countries, particularly in Asia⁵.”

This statement could be compatible with the hypothesis, presented in this paper, that NAFTA propelled an initial take-off in export growth in some sectors, relative to non-NAFTA member countries, leading to a new plateau of participation in U.S. markets. We further posit that, as a side benefit of NAFTA, once this new plateau was reached, Mexican exports were largely sheltered from attempts of other countries to win market share at their expense by means of nominal currency depreciation –that is, of those effects which were characterized in the 60’s international trade literature as ‘beggar thy neighbor’ –type policies.

This conjecture is based on the observation that a large number of Mexican exports to the U. S. that have been identified as beneficiaries of NAFTA are either goods used as intermediate inputs by firms in the U.S., or consumer goods produced by multinational firms which locate only part of the production process in Mexico⁶.

⁵President of the USA, *Study on the Operation and Effects of the North American Free Trade Agreement*, Washington D.C., 1997, pp. 39.

⁶Inter-country specialization within industrial sectors was propelled not only by the close geographic proximity of the U.S. with Mexico and the lower labor costs of the latter: changes in U.S. regulations related to trade with Mexico (especially those related to production sharing operations) were also important, *cfr.* OECD (1996). In addition, as has been stressed by Hufbauer and Schott (1993), the strict rules of origin NAFTA established for textiles and apparel as well as for autos was another reason why foreign firms switched operations to Mexico. Moreover, a large percentage of exports are from ‘maquiladora industries.’ These are nothing more than the

This stylized fact has been identified as the result of the “creation of larger, longer-term endeavors like multinational business alliances and a new business mentality,⁷ a major by-product of this treaty. It suggests, together with the short term irreversibility of export oriented investments projects propelled by NAFTA, that the performance of Mexican exports to the U.S. depends more on the extent to which multinational firms gain efficiency and international competitiveness by locating production in Mexico than on the relative competitiveness of the Mexican peso –especially if changes in this last variable are perceived as temporary.

This paper is structured in three sections, in addition to this introduction and a conclusion. In section II, after identifying the industries that benefited to a significant extent from NAFTA provisions, we assess variations in Mexico’s participation share in U.S. imports during 1997 and 1998. This variation is calculated as a share of the sum of the total market shares lost by all those countries whose exports declined relative to total U.S. imports. This calculation enables us to identify which country lost market and which one gained it, as well as the proportion gained or lost by each country. Indicators are presented there for Mexican exporting sectors during 1997 and 1998, together with corresponding calculations for the seven Asian countries -Philippines, Indonesia, Korea, Malaysia, Singapore, Taiwan and Thailand- and for the set of other countries, that compete with Mexico in U.S. markets. In Section III we present a counterfactual analysis to assess the dollar value of Mexican products displaced in 1998 by the seven Asian countries that devalued their currency.

result of provisions that imply that those American components which were exported to Mexico and are being re-exported to the U.S. are entitled to duty-free entry.

⁷Carrera (1999), p. 28.

II Changes in Mexican Exports to the U.S. After 1993

II.1 NAFTA and Export Performance Between 1993 and 1996

Total non-oil U.S. imports from Mexico increased from about USD 35.5 billion in 1993 to about USD 66.5 billion in 1996, an 87% increase, as shown in table 1. This table also presents a number of indicators of the performance of the ten most dynamic sectors, those that increased their exports to the U.S. by more than one percentage point of total U.S. imports of that sector between 1993-1996⁸ and that accounted each for more than 1% of total Mexico's export earnings in 1996.

Several studies that isolated effects attributed exclusively to NAFTA from other major events that took place soon after it came into effect—large peso devaluation and fast growth of the U.S. economy, among them⁹—coincide in identifying these sectors as those that benefited most by the signing of the treaty. Therefore, we consider the growth in exports of these sectors to have been to a large extent the result of NAFTA, although we do not prove this to have been the case.

⁸As has been noted by Krueger (1999) 'there is nothing in theory that says that shares should remain constant. One country might have low average costs and rapidly rising marginal costs, while another might have a higher average cost, but a flat (and therefore after a point lower than the first country's) marginal cost curve'. *Op. Cit.* p.p.12.

⁹Gould (1996), for example, explores the effect of NAFTA on trade between U.S. and Mexico by means of a counterfactual analysis of what would have happened if NAFTA hadn't been established. He also analyses what would have happened if the peso had not been devalued. However, his results are focused on the decline of U.S. exports to Mexico, which he attributes to the devaluation of the Mexican peso.

Table 1										
Mexican Sectors Which Most Benefited From NAFTA Provisions										
SIC	Sector Description	U.S. Imports from Mexico (U.S.\$ millions)			Imports from Mexico as a Share of Total U.S. Imports of the Sector				Gain/Loss of Market Share Index ^b	
		1993	1996	1998	1993	1996	1997	1998	1997	1998
01	Agricultural products	1,429	2,211	2,512	22.06%	25.76%	23.39%	25.47%	-84.99	82.72
22	Textile mill products	204	775	1,343	1.88%	6.89%	8.46%	8.92%	62.92	35.49
23	Apparel and related products	2,367	4,319	6,889	7.65%	11.30%	12.91%	14.24%	96.57	83.74
25	Furniture and fixtures	956	1,514	2,248	14.42%	15.98%	16.76%	16.85%	26.47	4.57
33	Primary metal products	3,139	5,517	6,064	12.53%	16.82%	17.39%	16.31%	68.21	-64.68
34	Fabricated metal products, except machinery and transportation equipment	1,124	1,957	3,193	7.23%	9.43%	11.80%	13.04%	93.24	93.55
35	Machinery, except electrical	2,471	3,853	5,251	3.21%	4.88%	5.42%	6.14%	30.68	18.04
36	Electrical machinery, equipment and supplies	8,888	10,293	10,020	11.62%	17.94%	17.95%	18.07%	1.05	6.96
37	Transportation equipment	6,015	15,034	17,741	6.22%	12.40%	12.20%	12.08%	-58.95	-25.92
38	Scientific and professional instruments; photographic and optical goods; watches and clocks	1,459	2,481	3,549	6.61%	9.47%	10.16%	12.35%	53.05	84.17
	TOTAL NON-OIL U.S. IMPORTS FROM MEXICO	35,685	66,602	89,700						

Most products in these sectors are characterized by three interrelated factors: the short term irreversibility of export oriented investments projects propelled by NAFTA, the high content of U.S. imports in Mexican export products, relative to the seven Asian countries considered in this study, and special regulations related to trade with Mexico, especially those related to production sharing operations, which imply duty-free entry (*cfr.* table 2). These factors seem to be the most important ones suggesting that the Mexican products that benefited from NAFTA would be sheltered in U.S. markets against the adverse shock implied by the Asian increased competitiveness.

Table 2						
U.S. Imports for Final Consumption Under the Production-sharing Provisions						
	1993			1996		
Source	Total Imports	Imports under PSP	U.S. Content	Total Imports	Imports under PSP	U.S. Content
	-US million-	-percentage-		-US million-	-percentage-	
Mexico	38,668	33.1	56.3	74,179	41.4	61.1
Malaysia	10,482	2.9	4.5	17,711	3.5	4.7
Korea	16,986	2.9	2.7	22,532	2.6	2.7
Singapore	12,744	2.5	2.0	20,249	1.4	0.9
Philippines	4,864	1.8	2.8	8,174	2.7	3.2
Taiwan	24,981	1.7	1.9	29,797	1.6	1.6
Thailand	8,539	0.7	1.4	11,324	1.2	1.8
Indonesia	5,342	0.3	0.2	8,079	0.8	0.4

The ten sectors presented in table 1 are a subset of the 26 sectors into which non-oil Mexican exports are classified in this study. In table table 3¹⁰, which is relegated to the appendix we present corresponding values for the other sectors. The reasons why 16 sectors were not included in table 1 can be seen there: two sectors saw their market participation fall by more than one percentage point during between 1993 and 1996. Another nine sectors experienced negligible effects (their share in 1996 increased or decreased by less than one percentage point compared to 1993). The remaining 15 sectors increased their exports to the U.S. by more than one percentage point between 1993-1996. Out of these fifteen sectors, five accounted for 1% or less each of total U.S. imports from Mexico in 1996: fish, fresh, chilled, or frozen and other marine products (09); metallic ores and concentrates (10); tobacco manufactures (21); printing, publishing, and allied products (27); and rubber and miscellaneous plastic products (30).

¹⁰Total Mexican exports to the U.S. have been classified according to the two-digit industries of the Standard Industry Classification of 1987 (SIC-87). One of them (13 crude petroleum and natural gas) is not directly affected by NAFTA, and will not be discussed in this paper. The groups 39 (misc. manuf. commodities), 91 (scrap & waste), 92 (used or second-hand merchandise), 98 (re-imported articles) and 99 (special provisions) are not included in this analysis because they refer to commodities that fall into multiple sector groupings. They are, however, included when we consider total U.S. imports from Mexico.

II.2 The Performance of Mexican Exports to the U.S. During 1997 and 1998

During 1997 and 1998, Mexican exports to the U.S. of its 10 most important sectors slowed notably compared to the period between 1993 and 1996. As can be seen in table 1, growth in total non-oil U.S. imports from Mexico slowed from a yearly rate of approximately 30% between 1993 and 1996 to just over half of that between 1996 and 1998.

However, this slowdown was a reflection of a slowdown of total U.S. imports in the sectors which initially showed the strongest growth, as can be seen by the fact that market shares for the exports, as shown in table 1, remain roughly constant. Indeed, it is apparent that most of this slowdown was due to a slower rate of growth in the two most important sectors of non-oil exports to the U.S.: transportation equipment (37), whose yearly rate of growth slowed from 50% to less than 10%, and electrical machinery, equipment and supplies (36), whose rate of growth declined from 5.3% to -1.5%. Comparing the fifth and seventh columns in tables 1 we observe that the market share for these two sectors remained roughly constant between 1996 and 1998.

This change in trend could be compatible with the hypothesis that NAFTA propelled an initial take-off in export growth in these sectors, relative to non-NAFTA member countries, leading to a new plateau of participation in U.S. markets. As a side benefit of NAFTA, once this new plateau was reached, Mexican exports were largely sheltered from attempts of other countries to win market share at their expense by means of nominal currency depreciations.

In contrast, table 1 also shows that during 1997 and 1998 four sectors not loose their dynamic impetus gaining market share, while only sectors 1 and 33 showed a (relative small) decline in market share¹¹.

In addition to changes in market share, in table 1 we present an index which shows not only whether the market shares of Mexican products in U.S. markets changed after 1996, but also when they did, how this gain/loss of market share compares with the sum of market share of that same product lost during this period by all countries exporting to the U.S. during 1997 and 1998. This indicator, which is represented by β in the table, was originally used by Banamex (1998) for an exhaustive analysis of Mexican export performance during 1993-1996¹².

This parameter enables us to assess the relative variation in the participation of Mexican products in U.S. imports during 1997 and 1998. This variation is represented by Mexico's share of the change in the sum of the total market share of all those countries whose exports, as a share of total U.S. imports, declined.

Formally, the indicator β is defined as follows. Let S_{ij98} stand for the share that country i had of total U.S. imports of sector j in 1998, and S_{ij97} represent the corresponding share for 1997. Also let the variable L_j represent the total percentage points of market share of

¹¹The market participation in the U.S. of Mexican exports of primary metal products (33) fell by only half a percentage point between 1996 and 1998, while those of agricultural products (1) declined by even less.

¹² Unlike our analysis, which uses 4 digit category level of Standard Industry Classification, theirs is based on product classification by fraction, with particular reference to non-oil manufacturing products.

product j lost during the period by all countries exporting to the U.S. That is, If we define the variable L as:

$$L_i = \sum_i (S_{ij98} - S_{ij97}) \quad \text{such that } (S_{ij98} - S_{ij97}) < 0$$

we can calculate the parameter, β , with the following relationship:

$$b_i = \frac{S_{ij98} - S_{ij97}}{|L_j|} * 100$$

This coefficient takes values in the range of 100 to -100 and represents the penetration/loss ratio in the U.S. import market for a given export product or sector: A value of β of 100 for a country means it was the only one increasing its market share during the period. In turn, positive values of β below 100 mean that at least one other country also increased its market share. For example, if Mexico had a β of 70, it would mean that, of the market share gained by all countries exporting to the U.S., Mexico obtained 70%. Thus, some other country (or countries) should have gained the remaining 30%. On the other hand, it must also be true that some country (or countries) should have negative β 's that add to -100 .

Given that the share that one or more countries gained must have been lost by one or more other countries, it follows that the coefficient β indicates not only which country lost market and which one gained it. It also constitutes a precise measure of the proportion gained or lost by each country. For example, suppose there are only 4 countries exporting a product to the US: Mexico, Korea, Singapore and Taiwan. Suppose furthermore that total US imports of a product in 1997 and 1998 remained unchanged during this period at say \$100 each year. Of this \$100, Mexico exported \$20 in 1997 and \$30 in 1998; Korea \$20 and \$40; Singapore \$30 and \$25 and Taiwan \$30 and \$5. In this example, Mexico's β

would be 33, which results from dividing 10 (\$30 in 98 minus \$20 in 97) over the absolute value of -30 (The sum of the 5 percentage points lost by Singapore and the 25 lost by Taiwan) and multiplying the result by 100. Korea's β would then equal 77. It would then follow that out of the market gained by Korea and Mexico (lost by Singapore and Taiwan), Mexico won 33% and Korea 77%. Similar calculations would indicate that, out of the total market lost, Singapore lost 16% and Taiwan 84%.

II.3 Changes in the Participation of U.S. Export Markets: Which Asian Export Products Displaced Mexican Exports?

The β values in table 1 show that Mexican exports increased their share of the U.S. market for imports in almost all of the 10 sectors shown there. Transportation equipment (37) is the only sector that consistently lost market share over the two-year period. On the other hand, apparel and related products (23) and fabricated metal products, except machinery and transportation equipment (34) averaged β s in the 80s or 90s each year over the period.

In table 4 in the text and table 5, which is relegated to the appendix, we present the penetration/loss market ratio -i.e. the β coefficients described in the previous subsection- not only for Mexico, but also for each of the seven Asian countries that devalued their currencies in 1997-1998.

Table 4													
		Mexico			Rest of the world Except Seven Asian Countries		Philippines		Indonesia		Korea		
SIC	SECTOR DESCRIPTION	Imports from Mexico as a Share of Total U.S. Imports of the Sector			Gain/Loss of Market Share Index b	Gain/Loss of Market Share Index b	Imports as a Share of Total U.S. Imports of the Sector	Gain/Loss of Market Share Index b	Imports as a Share of Total U.S. Imports of the Sector	Gain/Loss of Market Share Index b	Imports as a Share of Total U.S. Imports of the Sector	Gain/Loss of Market Share Index b	Imports as a Share of Total U.S. Imports of the Sector
		1996	1998	D share (97-98)		1998		1998		1998		1998	
01	Agricultural products	25.76%	25.47%	2.0838	82.72	-87.84	68.81%	-0.28	0.06%	16.73	4.82%	-0.22	0.06%
02	Livestock and livestock products	7.00%	10.79%	1.3986	98.75	-95.38	88.97%	-1.84	0.01%	-2.57	0.10%	0.66	0.01%
08	Forestry products	1.00%	1.40%	0.1732	1.80	94.79	41.72%	0.48	0.77%	-73.59	33.95%	0.61	0.29%
09	Fish, fresh, chilled, or frozen, and other marine products	7.68%	6.84%	-0.3173	-14.73	-47.60	72.43%	-2.86	0.96%	20.01	3.63%	-18.71	0.42%
10	Metallic ores and concentrates	6.86%	6.87%	0.8498	19.73	-97.93	89.33%	-0.66	0.04%	78.27	3.37%	1.84	0.08%
12	Coal and lignite	0.10%	0.01%	0.0115	0.51	99.49	84.02%	0.00	0.00%	-100.00	15.97%	0.00	0.00%
13	Crude petroleum and natural gas	10.96%	11.02%	-1.6844	-96.91	89.82	88.04%	0.10	0.00%	-1.82	0.57%	-0.06	0.00%
14	Non-metallic minerals, except fuels	11.82%	8.53%	-0.2614	-91.48	58.27	91.15%	-1.34	0.01%	9.84	0.03%	1.62	0.09%
20	Food and kindred products	6.41%	7.66%	0.7222	77.04	-25.81	81.70%	-13.04	2.69%	-48.62	1.25%	-4.79	0.46%
21	Tobacco manufactures	4.20%	2.26%	-2.9919	-90.96	76.10	95.60%	-7.23	0.13%	16.47	1.64%	-1.80	0.04%
22	Textile mill products	6.89%	8.92%	0.4594	35.49	-34.59	69.19%	10.95	1.87%	-14.12	2.70%	19.74	6.35%
23	Apparel and related products	11.30%	14.24%	1.3378	83.74	-61.87	68.06%	-3.17	3.23%	-12.34	3.10%	12.66	3.27%
24	Lumber and wood products, except furniture	3.52%	3.30%	-0.2714	-48.16	34.28	91.25%	-18.28	0.62%	42.18	1.61%	2.08	0.05%
25	Furniture and fixtures	15.98%	16.85%	0.0887	4.57	88.82	65.91%	-2.50	1.70%	5.06	2.61%	1.55	0.46%
26	Paper and allied products	1.63%	1.99%	0.1342	9.41	-97.09	94.49%	-0.21	0.18%	35.76	0.71%	49.14	1.49%
27	Printing, publishing and allied products	6.29%	7.42%	0.5186	75.71	-2.72	84.84%	23.74	0.25%	-39.44	0.23%	0.55	1.80%
28	Chemicals and allied products	3.43%	3.11%	-0.3231	-26.72	78.61	93.52%	-0.59	0.04%	3.39	0.25%	14.18	1.40%
29	Petroleum refining and related products	2.97%	2.76%	0.3472	12.86	-90.63	91.93%	-0.02	0.00%	17.89	1.21%	42.89	2.10%
30	Rubber and miscellaneous plastic products	4.47%	5.57%	0.3738	34.12	31.78	77.92%	-0.92	0.16%	-35.98	1.96%	-9.41	3.09%
31	Leather and leather products	3.48%	3.65%	-0.0487	-2.53	89.72	82.97%	8.67	2.04%	-73.93	4.01%	-16.04	1.95%
32	Stone, clay, glass and concrete products	10.17%	10.72%	0.6063	74.74	-16.49	83.10%	-4.34	0.41%	3.62	1.11%	8.71	0.77%
33	Primary metal products	16.82%	16.31%	-1.0826	-64.68	36.91	78.64%	-7.71	0.51%	-0.16	0.36%	60.91	2.62%
34	Fabricated metal products, except machinery and transportation equipment	9.43%	13.04%	1.2412	93.55	-60.89	71.54%	0.04	0.19%	-2.91	0.37%	6.41	2.36%
35	Machinery, except electrical	4.88%	6.14%	0.7154	18.04	-72.47	73.31%	18.19	1.34%	3.75	0.31%	-6.60	3.21%
36	Electrical machinery, equipment and supplies	17.94%	18.07%	0.1202	6.96	73.68	62.10%	2.45	1.26%	8.47	1.46%	8.45	3.56%
37	Transportation equipment	12.40%	12.08%	-0.1110	-25.92	87.32	85.53%	-4.81	0.03%	-0.49	0.02%	-60.57	1.39%
38	Scientific and professional instruments; photographic and optical goods; watches and clocks	9.47%	12.35%	2.1914	84.17	-92.81	77.80%	1.57	1.09%	-0.74	0.70%	2.89	1.23%

TABLE 4 (continued)

SIC	SECTOR DESCRIPTION	Malaysia		Singapore		Taiwan		Thailand		1998 U.S. Imports US\$ Million
		Gain/ Loss of Market Share Index b	Imports as a Share of Total U.S. Imports of the Sector	Gain/ Loss of Market Share Index b	Imports as a Share of Total U.S. Imports of the Sector	Gain/ Loss of Market Share Index b	Imports as a Share of Total U.S. Imports of the Sector	Gain/ Loss of Market Share Index b	Imports as a Share of Total U.S. Imports of the Sector	
01	Agricultural products	-3.22	0.03%	-3.74	0.05%	0.55	0.13%	-4.71	0.56%	9,861.922
02	Livestock and livestock products	0.59	0.01%	0.00	0.00%	-0.03	0.09%	-0.18	0.01%	1,986.432
08	Forestry products	-16.53	7.02%	2.32	0.74%	-0.16	0.07%	-9.73	14.04%	1,674.979
09	Fish, fresh, chilled, or frozen, and other marine products	1.09	0.15%	-16.09	0.95%	13.57	3.03%	65.33	11.58%	6,648.050
10	Metallic ores and concentrates	0.12	0.27%	0.00	0.00%	0.04	0.00%	-1.41	0.04%	1,610.479
12	Coal and lignite	0.00	0.00%	0.00	0.00%	0.00	0.00%	0.00	0.00%	280.770
13	Crude petroleum and natural gas	10.09	0.36%	-1.20	0.01%	0.00	0.00%	0.00	0.00%	45,486.406
14	Non-metallic minerals, except fuels	-7.18	0.02%	0.88	0.00%	1.61	0.06%	27.78	0.09%	965.872
20	Food and kindred products	-2.66	0.98%	10.37	0.26%	-5.09	0.46%	12.59	4.55%	23,864.154
21	Tobacco manufactures	5.52	0.19%	1.90	0.13%	0.02	0.01%	0.00	0.00%	463.032
22	Textile mill products	0.14	1.08%	-0.51	0.84%	-50.78	5.94%	33.68	3.12%	15,065.216
23	Apparel and related products	-1.29	1.24%	-1.24	0.38%	-20.10	3.93%	3.60	2.56%	48,366.503
24	Lumber and wood products, except furniture	3.86	0.80%	-8.21	0.07%	-25.35	1.14%	17.61	1.17%	11,505.099
25	Furniture and fixtures	-33.35	3.05%	-8.46	0.10%	-55.15	7.73%	-0.54	1.59%	13,338.241
26	Paper and allied products	-0.35	0.04%	-1.40	0.03%	-0.95	0.80%	5.69	0.26%	15,845.047
27	Printing, publishing and allied products	-9.08	0.24%	-24.95	3.44%	-18.74	1.50%	-5.07	0.27%	3,443.141
28	Chemicals and allied products	-3.85	0.17%	-68.85	0.71%	2.47	0.66%	1.35	0.14%	48,020.786
29	Petroleum refining and related products	-7.64	0.42%	26.36	1.57%	0.00	0.00%	-1.71	0.00%	10,825.690
30	Rubber and miscellaneous plastic products	-8.35	3.67%	-2.33	0.23%	-43.02	5.10%	34.10	2.29%	19,082.620
31	Leather and leather products	0.53	0.10%	0.51	0.05%	-7.50	1.85%	0.57	3.38%	16,109.084
32	Stone, clay, glass and concrete products	3.08	0.53%	-9.71	0.06%	-69.46	1.76%	9.84	1.55%	10,389.805
33	Primary metal products	-2.28	0.14%	2.18	0.06%	-13.32	0.84%	-11.86	0.52%	37,175.850
34	Fabricated metal products, except machinery and transportation equipment	-5.21	0.27%	-2.45	0.13%	-22.73	11.50%	-5.79	0.60%	24,487.268
35	Machinery, except electrical	59.64	3.85%	-18.55	3.68%	-2.38	7.50%	0.39	0.65%	85,527.009
36	Electrical machinery, equipment and supplies	-14.83	5.85%	-15.18	1.36%	-50.02	4.60%	-19.97	1.74%	55,445.681
37	Transportation equipment	1.52	0.03%	-5.35	0.10%	11.16	0.75%	-2.87	0.04%	146,812.000
38	Scientific and professional instruments; photographic and optical goods; watches and clocks	-5.18	0.95%	7.62	1.91%	3.76	2.85%	-1.27	1.14%	28,746.342

Table 4 contains these figures and those for imports from Mexico as a share of total U.S. imports for the 10 sectors in table 1 and for the other 16 sectors into which Mexican exports to the U.S. are classified. They show that in five sectors Mexican gains represented more than one percentage point of the market, and had β coefficient of more than 80. None of the seven Asian countries had such high positive β s in any of the sectors displayed in table 4.

The general outline for table 5 (for 1997) is similar to that shown by table 4 (for 1998): ten sectors registered negative β s during 1997, but in this year only in two of them lost more than one percentage point of the total U. S. imports for these sectors. As in 1998, in 1997, Mexico had β s of over 80 in four sectors. The number of negative β s was much higher for the seven Asian countries, and again none of them had such high positive β s.

It is apparent from these tables that the other sector which showed the strongest growth between 1993 and 1996, transportation equipment, lost market share in 1998; however this loss was negligible (10% of one percentage point) and not to the Asian countries whose currency was devalued, with the possible exception of Taiwan. In turn, the other sector with a strong take-off, electrical machinery, equipment and supplies, registered a slight market share increase, contrasting with the bad performance exhibited by Malaysia, Singapore, Taiwan and Thailand.

A more disaggregated picture of these two sectors can be obtained by breaking each sector down to the 4-digit category level¹³. This will enable us to assess to what extent

¹³At this level of disaggregation, the number of products that Mexico exported to the U.S. in 1998 totalled 448.

Mexican exports in these sectors were sheltered from attempts of other countries to win market share at their expense by means of nominal currency depreciations.

When this is done, we see that 4 products out of the 14 that are included in the transportation equipment sector experienced strong export growth between 1993 and 1996 and that they represent 99% of U.S. imports from Mexico for this sector. As shown in table 6, only one of these products -motor vehicle parts and accessories- lost market share against the Asian countries in 1998. The loss is very small, amounting to less than 0.2% of Mexican exports to the US for the transportation sector.

TABLE 6

Table 6									
Mexican Products, Classified by Sector, Which Most Benefited From NAFTA Provisions									
SIC	Product Description	Share of total U.S. imports of the product		Gain/Loss of Market Share Index β for México in 1998	SIC	Product Description	Share of total U.S. imports of the product		Gain/Loss of Market Share Index β for México in 1998
		1993	1996				1993	1996	
TRANSPORTATION EQUIPMENT					APPAREL AND RELATED PRODUCTS				
3711	Motor vehicles and car bodies	5.97%	14.15%	36.09	2311	Men's and Boys' suits and coats	2.81%	6.37%	71.91
3714	Motor vehicle parts and accessories	10.12%	13.07%	-13.28 *	2321	Men's and Boys' shirts	2.25%	10.01%	78.63
3715	Truck trailers	53.11%	68.72%	-91.65 **	2322	Men's & boys' underwear & nightwear	2.53%	4.38%	12.95
3795	Tanks and tank components	0.00%	1.39%	-67.23 **	2323	Men's and boys' neckwear	0.03%	1.58%	66.11
PRODUCTS RELATED TO AUTOMOBILE INDUSTRY					2325	Men's and boys' trousers and slacks	11.15%	22.25%	91.27
		1993	1996	Mexico	2331	Women's & Misses' blouses & shirts	1.41%	4.83%	53.2
2599	Furniture and fixtures, nec	14.37%	16.17%	7.61	2335	Women's, Juniors', & misses' dresses	1.90%	6.18%	59.34
3465	Automotive stampings	9.02%	10.73%	96.29	2337	Women's and misses' suits and coats	4.28%	11.19%	80.8
3647	Vehicular lighting equipment	11.25%	12.35%	80.7	2339	Women's and misses' outerwear, nec	1.58%	4.44%	25.07
3691	Storage batteries	22.42%	24.20%	1.21	2341	Women's and children's underwear	5.88%	8.62%	48.24
3694	Engine electrical equipment	2.92%	5.51%	88.31	2342	Bras, girdles, and allied garments	16.80%	22.03%	4.14

Primary Metal Products				
		1993	1996	Mexico
3312	Blast furnaces and steel mills	4.01%	10.12%	-80.95 *
3339	Primary nonferrous metals, nec	3.47%	5.66%	53.36
3351	Copper rolling and drawing	11.65%	20.72%	70.71
3354	Aluminum extruded products	0.12%	9.97%	-73.8 **
3357	Nonferrous wiredrawing and insulating	56.96%	58.10%	88.85
2369	Girls' and children's outerwear, nec	0.00%	17.01%	67.31
2381	Fabric dress and work gloves	0.41%	5.08%	-21.93 *
2384	Robes and dressing gowns	1.31%	4.18%	99.5
2391	Curtains and draperies	2.74%	8.34%	-37.31 **
2392	House furnishings, nec	3.47%	6.90%	66.35
2393	Textile bags	14.06%	21.25%	-24.85 **
2395	Pleating and stitching	0.76%	5.30%	-5.04 **
2396	Automotive and apparel trimmings	4.03%	14.76%	-18.07 *

Memo: a value of $\beta < 0$ indicates that Mexico lost market share; * that the EA7 countries gained it at its expense, ** that it lost it to the ROW entirely. In turn, *** indicates that Mexico loss its market to both, the A7 and the ROW.

The same provisions that NAFTA introduced for the transportation equipment sector also cover a number of other products related to the automotive industry. Table 6 reinforces the contention that these provisions sheltered Mexican exports from temporary shocks. None of the five products grouped under this heading lost market against the seven Asian countries which devalued in 1997-98, and three of them continued to gain market share at their expense.

The products in the sector which includes electrical machinery, equipment and supplies not related to the automobile industry are disaggregated into four tables, each one containing the beneficiaries of NAFTA: household appliances, electronic components, telecommunications equipment, and other electrical machinery, equipment and supplies (Table 7 presented in the appendix).

Table 7 shows that both of the products identified as beneficiaries from NAFTA in the household appliances sector gained market share at the expense of Asian producers

between 1997 and 1998. This table also shows that Mexico also did well against Asian producers in the category of electronic components. In fact, here again it gained market share against Asia in two products out of the four identified as beneficiaries of NAFTA.

It is apparent from table 7 too that Mexico lost market share to the seven Asian countries during 1997-98 in half of the products identified as beneficiaries of NAFTA in the category of telecommunications equipment; this loss was equivalent to 7% of total Mexican exports to the U.S. of this product. A similar case happened with four of products of other electrical machinery, equipment and supplies in table 7.

Hence it would appear that the evidence is not as conclusive with products in telecommunications equipment, and other electrical machinery, equipment and supplies as it was the case with the sectors discussed above.

Returning briefly to tables 4 and 5 we also see that Mexican exports of textile mill products and of apparel and related products continued to increase their share of the U.S. market. As follows from examination of the β coefficients of the other countries, the gains of apparel sector during 1998 were partly at the expense of most Asian countries, especially Indonesia and Taiwan. In contrast, the increase of Mexican exports of textile mill products occurred largely at the expense of countries other than these seven Asian countries.

Breaking these two sectors down to the 4-digit level we see that eleven of the thirteen products in the textile sector whose growth between 1993 and 1996 was linked to NAFTA remained unaffected by the increased competitiveness of Asian prices. (As shown in table 7 of the appendix). Only two of them were not sufficiently sheltered by the restructuring process put into motion by NAFTA provisions. Furthermore, the decline in the value of

exports of these two products was equivalent to a mere 1.09% of total Mexican exports to the U.S. in this sector during 1998¹⁴.

In turn, the right hand side of table 6, shows that the apparel and related products sector also remained unaffected by the threat implied by the increased price competitiveness of Asian countries: during the 1997-98 period, only two out of 19 products lost market against the 7 Asian countries. Moreover, the market share lost in these products in 1998 amounted to only 0.03% of total sector exports to the U.S. The remaining 17 products continued the dynamic impetus begun in 1993 – U. S. imports from Mexico of these products increased by 200%.

In contrast to what happened with the sectors discussed above, primary metal products is a sector which does appear to have been affected by increased competitiveness of Asian countries specially by Korea during 1998: its loss represented more that one percentage point of the total market in 1998.

Only five of the 15 products in this sector exhibited a high rate of growth between 1993 and 1996 so as to be considered as beneficiaries of NAFTA. Moreover these five sectors accounted for more than 93% of the Mexico's exports in this sector in 1996. Of these 5 products, presented in the bottom left hand side of table 6, only blast furnaces and steel mills lost market against the Asian countries.

In the next section we examine how each product performed relative to the Asian countries that devalued, as well as to the rest of the world. Using the β coefficients discussed above

¹⁴ The loss is measured by calculating how much exports would have been if their market share had remained constant at 1997 levels, and then subtracting what they actually were in 1998.

we show that a subset of 358 products not only were sheltered against the adverse shock implied by the Asian countries' increased competitiveness but even increased their share of the U.S. market at the expense of the set of seven Asian countries under consideration.

III Impact of the Asian Crisis on Mexican Exports Earnings

In this section, we use the same level of product disaggregation as above, but here we consider all 448 products which Mexico exports to the U.S. We show that the majority of these products were able to maintain or increase their share of the U.S. market during 1998, relatively to 1997.

We highlight the fact that a number of Mexican products continued their expansion in U.S. market at the expense of the seven Asian countries that devalued their currencies. We finally identify the products that lost market share against these countries and estimate what would have happened to México's total export earnings during 1998, had these Asian products not gained market share at the expense of Mexico; that is, had this set of Mexican products kept the same share in U.S. market as in 1997.

We take the β coefficient of each of the 448 products which Mexico exports to the U.S. and classify them into five different groups according to their performance relative to two sets of countries: the seven Asian countries that devalued their currencies (EA7) on the one hand, and the rest of the world (ROW) on the other hand. Three of these groups contain products in which México lost market share, while the other two contain those in which it did not.

The two groups with products in which México did not lose market share contain all products whose β coefficient is positive or zero. Their classification depends on whether

they gained market share exclusively at the expense of the rest of the world, or whether they gained it partly or entirely at the expense of the EA7 countries.

In turn, the groups in which México lost market share correspond to three sets of products. One of them contains the products in which the ROW gained market at the expense of both the EA7 countries and Mexico. The other two groups contain the products in which México lost market share at the expense of the EA7 countries and are: a) those in which the market lost was entirely gained by the EA7 and b) those in which it was lost to both the EA7 and the ROW - the first classification has those with negative β values for both Mexico and the ROW and a positive β for the products exported by the EA7 and the second one those in which both the EA7 countries and the ROW have a positive β coefficient.

The group that contains those Mexican products that gained market share partly or completely at the expense of the EA7 countries points to an important implication: in spite of reduced price competitiveness a large number of products were not only sheltered from the adverse effects of the currency devaluation of EA7 countries, but even exhibited a stronger performance than the EA7 countries did in the U.S. market.

Tables 8 and 9 present, respectively, the values for the total non-oil exports to the U.S. and the amount corresponding to the actual export earnings of those Mexican products that lost market share exclusively at the expense of the EA7 countries, or at the expense of the EA7 countries and the ROW.

Table 8				
Total Non-Oil Exports to the U.S. by Regions				
U.S \$ millions				
	Mexico	Rest of the World (except Seven Asian)	Seven East Asian Countries	Total U.S. Imports
1997 (U.S. million)	77,735	607,169	125,658	810,562
1998 (U.S. million)	89,700	652,597	128,714	871,010
Percentage change	15.39%	7.48%	2.43%	7.46%
Market share 1997	9.59%	74.91%	15.50%	100.00%
Market share 1998	10.30%	74.92%	14.78%	100.00%

Table 9				
Non-Oil exports to the U.S. by Regions				
Products in Which Mexico Lost Market Share at the Expense Entirely of the Seven Asian Countries or of Both the EA7 and the ROW				
	Mexico	Rest of the World (except Seven Asian)	Seven East Asian countries	Total U.S. Imports
1997 (U.S. million)	14,926	112,271	12,137	139,335
1998 (U.S. million)	14,121	119,117	14,007	147,245
Percentage change	-5.39%	6.10%	15.40%	5.68%
Market share 1997	10.71%	80.58%	8.71%	100.00%
Market share 1998	9.59%	80.90%	9.51%	100.00%

Table 10				
Non-Oil exports to the U.S. by Region				
Products in Which Mexican Products Perform Well Relative to the Seven East Asian Countries				
	Mexico	Rest of the world (except Seven Asian)	Seven East Asian countries	Total U.S. Imports
1997 (U.S. million)	62,808	494,459	113,516	670,782
1998 (U.S. million)	75,578	533,149	114,707	723,435
Percentage change	20.33%	7.82%	1.05%	7.85%
Market share 1997	9.36%	73.71%	16.92%	100.00%
Market share 1998	10.45%	73.70%	15.86%	100.00%

As is apparent in the first column of this last table, these two groups generated twenty percent of total non oil Mexican exports to the U.S. in 1997. In turn, the third column of

this table indicates that the products exported by the EA7 countries increased by \$1.870 billion U.S. dollars. We show below that 35% of this amount was gained at the expense of Mexico.

The actual value of the Mexican exports to the U.S. that perform well during 1998, relative to the EA7 countries, is given in Table 10 and contains three group of products (those in which the ROW gained market at the expense of both the EA7 countries and Mexico and the two in which Mexico increased or kept its market share).

We estimate that, by increasing its share in U.S. markets at the expense of both EA7 and ROW, the Mexican products contained in table 10 (108 out of 448) generated almost 2.8 U.S. billion dollars of additional export earnings, relative to what they would have generated if they had continued to grow at the same rate as the demand of imports of these products in the U.S. Out of this amount, 40% was won at the expense of the EA7 countries. That is, 1.156 U.S. billion dollars as shown in the final row of table 11 in the appendix¹⁵.

Table 9, which contains the 91 Mexican products that lost market to the EA7 countries, shows that actual export earnings of these Mexican products represented almost 15 U.S. bn, 20% of total export earnings in 1997. They declined by US\$ 805 million in 1998 as a result of the 46 products that lost share entirely to the EA7 countries or to the 45 products that lost it to both the EA7 and the ROW (Tables 12 and 13 in the appendix)¹⁶.

¹⁵Notice that the last column of table 11 does not include the value of export market lost by the EA7 to the ROW. Hence the last three columns do not add zero. Total U.S. dls lost to both Mexico and the ROW by the EA7 countries was 2.88 bn. This implies, that the ROW lost 1.67 bn at the expense of Mexico, but gained 1.72 bn to the EA7 countries.

¹⁶Using the β coefficients, in table 11 we calculated the percentage of U.S. market gained by Mexico at the expense of the total share lost by the Row and the EA7 (*viz* of the share of the 'shift in U.S. Market'). Similar percentages were calculated in tables 12 and 13.

The value that these products would have represented in Mexico's export earnings if their market shares of 1998 had been the same as in 1997 (*i.e.* if their corresponding β coefficient had been equal zero) is \$15. 503 US. billion, instead of the \$14. 121 U.S. billion in table 9. This result follows from the fifth column in table 12 and the fourth one in table 13. That is, adding the 449 898 U.S. million dlls. lost by Mexico to the EA7 in table 24 and the 214 201 million dlls. gained by the EA7 at the expense of Mexico in table 25, we obtain the \$664 099 millions which constitutes that difference.

IV Conclusions

The results presented in this paper suggest that, to the extent that most Mexican exports to the U.S. are on the one hand the result of multinational business alliances with firms that switched operations from other countries to Mexico, and on the other hand the result of a production process with a high U.S. import content, their performance no longer depends so much on the relative competitiveness of the Mexican peso -as it used to in the pre-NAFTA years. In view of the organization and location changes that occurred within industries after 1994¹⁷, the participation of Mexican exports in U.S. markets appears to depend more on the extent to which multinational firms, in a global context, gain efficiency and international competitiveness when they move operations to Mexico –especially when changes in the real value of the Mexican peso are perceived as reversible in the medium term.

We found evidence indicating that the great majority of Mexican exports which boomed after the beginning of the treaty negotiations in 1993 continued to perform well in spite of

¹⁷ Hanson (1996), who applied a model of regional production networks to the Mexican apparel industry, suggested that NAFTA only formalized a de facto process of integration with the U.S.

the major appreciation of the peso against a number of Asian currencies in 1997-1998 - the only sector which appear to have been affected by increased competitiveness of these countries was primary metal products.

The two non-oil sectors that contribute more to export earnings in Mexico, namely transportation equipment and electrical machinery, equipment and supplies experienced an initial three year take-off in export growth relative to non-NAFTA member countries, leading to a new plateau of participation in U.S. markets. We show that, in what appears to be a side benefit of NAFTA, once this new plateau was reached, Mexican exports were largely sheltered from attempts of other countries to win market share at their expense by means of nominal currency depreciations. Export products in other dynamic sectors performed better relative to those in these two sectors: they even increased their share of the U.S. market at the expense of the seven Asian countries under consideration.

To investigate empirically if Mexican products were sheltered against the adverse shock implied by the Asian countries' increased competitiveness during 1998 we constructed and analysed an index. This index showed not only whether the market shares of Mexican products in U.S. markets changed after 1996, but also when they did, how this gain/loss of market share compared with the sum of market share of that same product lost during this period by all countries exporting to the U.S. during 1997 and 1998.

Based on the four digit level categories into which the products that Mexico exports to the U.S. are classified, we considered what happened to the products in those sectors that most benefited from NAFTA initially. We then examined how each product performed in 1997-98 relative to the Asian countries that devalued, as well as to the rest of the world as a single aggregate.

During 1997 and 1998 the movements of the Mexican peso did not imperil domestic financial stability targets while the potential risk to export markets implied by this did not materialize¹⁸: we calculated the dollar value of Mexican products displaced by the seven Asian countries with major exchange rate depreciations during this period and found that these countries increased their exports to the U.S. at the expense of Mexican products during 1998 by just over 664 000 million U.S.D. We then compared this amount with the one in which Mexican products displaced Asian ones during the same period: the latter amount, 1156 million U.S.D. was larger than the former.

The extent to which the results presented in this paper are robust for a longer period of time would require the extension of this analysis using data from 1999 onwards. Another interesting extension is to consider to what extent the relative better performance of Mexican exports to the U.S. during 1997 and 1998 was the result of factors not directly related to the effects of NAFTA, but to supply side problems in the seven Asian countries under consideration.

The results presented in this paper are compatible with the following conjecture: NAFTA provisions propelled structural changes in the Mexican economy that gave place to an export platform less vulnerable to some kinds of shocks, such as a sharp, but non-permanent increase in the competitiveness of the currencies of other countries exporting to the US.

¹⁸Nominal exchange rate registered a 25% depreciation between the end of 1996 and the end of 1998, while during the same period of time prices increased by 37%.

The ability to match potential competitors during these years appeared to have resulted from co-production arrangements with multinationals, thereby depending on the extent to which these gain efficiency and international competitiveness by locating production in Mexico. However, we cannot discard other possibilities. For example, in an analysis which also considers export penetration among NAFTA countries, but with an emphasis on the trade creation and trade diversion effects of the treaty, Krueger (1999) raised a number of points which cannot be discarded. From the analysis of this author, we can derive the need to consider the possibility that the increase in Mexican exports at the expense of other countries could have been due to protectionist measures in the U.S. aimed in particular at East Asia. This endeavor would require, as suggested by her analysis, examining how Mexico's exports performed in the rest of the world as well as assessing whether displaced exports in the U.S. came from countries that may have a comparative advantage in the production of those goods.

Finally, the results presented in this paper also appear to support the view that Mexican policymakers in particular, and market participants in general, should no longer consider abrupt nominal exchange rate re-alignments as the panacea to perceived non-permanent deterioration in price competitiveness in U.S. markets.

References

Banco Nacional de México (1998) 'Structure of U.S. imports from Mexico and Asia', in Review of the Economic Situation of Mexico, February.

Bank of Mexico (1998). The Mexican Economy. Annual Report.

Calderón-Madrid, A. (1997) "Incomplete Adjustment: Fiscal Policy, Private Savings and Current Account Deficits in Mexico since 1982", in Jansen, K., (1997) eds. "External Finance and Adjustment, Failure and Success in the Developing World" MACMILLAN PRESS LTD, London.

Carrera, O. (1999) "NAFTA at Five" in Business Mexico, 1999, vol. IX-2, pp.28-33.

Gould, D. (1993) "Distinguishing NAFTA from the peso crisis" in Southwest Economy, September 1996.

Hanson, G. (1996) "Localization Economies, Vertical Organization and Trade" in American Economic Review, Vol (86) 5. December, pp. 1266-1278.

Hufbauer, G.C. and Schott, J. (1993) "NAFTA an Assessment". Institute for International Economics. Washington D.C.

Krueger, A. (1999) "Trade Creation and Trade Diversion Under NAFTA" NBER Working Paper 7429. December.

OECD (1996) "Trade Liberalization Policies in Mexico". OECD, Paris.

President of the USA (1997). "Study on the Operation and Effects of the North American Free Trade Agreement", Washington D.C.

USITC (1997). "Production Sharing: Use of U.S. Components and Material in Foreign Assembly Operations, 1993-1996", Washington D.C.

USITC (1998). "Production Sharing: Use of U.S. Components and Material in Foreign Assembly Operations, 1994-1997", Washington D.C.

USITC (1997) "The Impact of the North American Free Trade Agreement on the U.S. Economy and Industries: A Three-year Review". Washington D.C.

Werner International Management Consultants (1997) "Dynamics of Far Eastern Markets and Impact of Needle Migration to Latin/Central/South America". New York, May 21.

Weintraub, S. (1997) "NAFTA at Three: a Progress Report". San Diego, CSIS.

APPENDIX

Table 3							
Mexian Sectors Not Identified as those Which Most Benefited from NAFTA Provisions							
SIC	SECTOR DESCRIPTION	Imports from Mexico as a Share of Total U.S. Imports of the Sector (percentage)				Gain/Loss of Market Share Index β	
		1993	1996	1997	1998	1997	1998
02	Livestock and livestock products	24.02%	7.00%	9.39%	10.79%	97.89	98.75
08	Forestry products	1.40%	1.00%	1.23%	1.40%	4.05	1.80
09	Fish, fresh, chilled, or frozen, and other marine products	5.37%	7.68%	7.15%	6.84%	-19.50	-14.73
10	Metallic ores and concentrates	3.09%	6.86%	6.02%	6.87%	-100.00	19.73
12	Coal and lignite	0.04%	0.10%	0.00%	0.01%	-3.63	0.51
13	Crude petroleum and natural gas	9.69%	10.96%	12.70%	11.02%	92.23	-96.91
14	Non-metallic minerals, except fuels	11.59%	11.82%	8.79%	8.53%	-98.20	-91.48
20	Food and kindred products	5.59%	6.41%	6.94%	7.66%	51.44	77.04
21	Tobacco manufactures	0.61%	4.20%	5.25%	2.26%	92.39	-90.96
24	Lumber and wood products, except furniture	3.61%	3.52%	3.57%	3.30%	15.98	-48.16
26	Paper and allied products	1.00%	1.63%	1.86%	1.99%	38.26	9.41
27	Printing, publishing and allied products	3.35%	6.29%	6.90%	7.42%	57.87	75.71
28	Chemicals and allied products	2.81%	3.43%	3.43%	3.11%	1.53	-26.72
29	Petroleum refining and related products	5.66%	2.97%	2.42%	2.76%	-44.00	12.86
30	Rubber and miscellaneous plastic products	2.94%	4.47%	5.20%	5.57%	66.86	34.12
31	Leather and leather products	2.81%	3.48%	3.70%	3.65%	10.19	-2.53
32	Stone, clay, glass and concrete products	9.21%	10.17%	10.12%	10.72%	-6.67	74.74

Table 5

Gain/Loss of Market Share Index **b** during 1997 */

SIC	SECTOR DESCRIPTION	Rest of the world	Philippines	Indonesia	Korea	Malaysia	Singapore	Taiwan	Thailand	Total 1997 U.S.Imports Million dls.
1	Agricultural products	83.40	-0.46	10.14	0.08	2.57	3.48	0.33	-14.55	9,654.143
2	Livestock and livestock products	-99.60	-0.24	0.99	0.02	-0.16	0.00	1.10	0.00	2,014.138
8	Forestry products	88.19	-0.44	-85.15	-0.35	-10.96	3.05	-3.10	4.71	1,798.877
9	Fish, fresh, chilled, or frozen, and other marine products	79.05	1.62	16.15	1.89	-3.33	1.30	-8.13	-69.04	6,416.384
10	Metallic ores and concentrates	94.86	0.45	0.03	0.00	3.15	0.00	0.00	1.51	1,523.250
12	Coal and lignite	100.00	0.00	-96.37	0.00	0.00	0.00	0.00	0.00	256.917
13	Crude petroleum and natural gas	-99.17	0.00	-0.29	-0.10	6.46	1.31	0.00	-0.45	64,673.645
14	Non metallic minerals, except fuels	99.19	0.05	0.02	-0.61	0.74	-0.32	-0.85	-0.02	1,020.366
20	Food and kindred products	-90.38	0.78	29.26	-3.56	12.88	-1.74	-4.32	5.64	22,892.708
21	Tobacco manufactures	-69.41	-1.43	-28.21	1.96	-0.28	5.65	-0.67	0.00	478.265
22	Textile mill products	-68.78	0.73	19.35	3.88	-7.75	-4.78	-18.68	13.13	13,587.060
23	Apparel and related products	-4.00	-22.80	3.43	-17.58	-12.97	-10.85	-29.45	-2.35	43,918.616
24	Lumber and wood products, except furniture	44.65	-35.69	22.85	-6.11	3.54	12.98	-27.31	-30.89	11,430.524
25	Furniture and fixtures	73.53	-0.76	-0.31	-2.51	-16.25	-1.96	-70.18	-8.03	11,202.654
26	Paper and allied products	-69.83	1.79	-3.32	43.05	-20.82	-6.02	4.64	12.27	14,825.960
27	Printing, publishing and allied products	35.73	-0.81	-20.57	-34.76	6.40	-35.00	-8.50	-0.35	3,198.420
28	Chemicals and allied products	-74.15	-0.94	19.83	43.13	-21.67	27.98	-3.24	7.52	44,625.795
29	Petroleum refining and related products	50.94	0.00	-54.39	25.29	20.13	-1.00	-0.61	3.64	13,345.762
30	Rubber and miscellaneous plastic products	-1.01	-0.16	27.70	-37.51	-22.93	-0.84	-37.56	5.44	17,353.660
31	Leather and leather products	80.34	8.91	-20.82	-35.48	0.56	-0.01	-41.04	-2.65	16,412.791
32	Stone, clay, glass and concrete products	88.89	-1.96	-1.98	-5.38	0.63	10.48	-72.48	-11.54	9,562.298
33	Primary metal products	-47.60	-9.97	-5.48	31.79	-13.13	-3.56	-9.22	-11.04	34,649.077
34	Fabricated metal products, except machinery and transportation equipment	-89.47	-0.77	2.51	-1.46	0.30	1.93	-8.30	2.01	22,524.716
35	Machinery, except electrical	-89.04	26.06	3.85	-9.01	2.81	11.57	25.03	-1.94	81,732.036
36	Electrical machinery, equipment and supplies	50.65	-1.82	19.56	-36.19	-17.48	-20.90	-23.62	28.74	57,304.657
37	Transportation equipment	82.78	8.14	1.70	-21.78	-1.30	7.38	-15.59	-2.38	132,797.000
38	Scientific and professional instruments ; photographic and optical goods; watches and clocks	-71.14	-4.26	12.06	6.30	-20.66	16.52	12.07	-3.95	27,577.878

*/ The sum of **b** values for the seven East Asian countries and the Rest of the World equals minus the **b** value for Mexico.

Table 7

Mexican Products, Classified by Sector, Which Most Benefited From NAFTA Provisions									
Share of total U.S. imports of the product	Product Description	Share of total U.S. imports of the product		Gain/Loss of Market Share Index β for México in 1998	SIC	Product Description	Share of total U.S. imports of the product		Gain/Loss of Market Share Index β for México in 1998
		1993	1996				1993	1996	
Household Appliances					TEXTILES				
3634	Electrical housewares and fans	19.54%	21.81%	97.98	2211	Broadwoven Fabric Mills, Cotton	1.72%	9.75%	-42*
3639	Household appliances, nec	9.46%	12.20%	69.38	2221	Broadwoven Fabric Mills, Manmade	0.73%	2.71%	3.85
ELECTRONIC COMPONENTS					2231	Broadwoven Fabric Mills, Wool	1.43%	4.85%	66.6
3671	Electron tubes	0.89%	17.78%	54.36	2252	Hosiery, nec	0.70%	27.00%	-85.51**
3674	Semiconductors and related devices	2.40%	8.06%	29.56	2253	Knit outerwear mills	1.75%	6.72%	40.51
3678	Electronic connectors	0.00%	5.58%	-47.36 **	2257	Weft knit fabric mills	1.86%	5.93%	9.15
3679	Electronic components, nec	8.04%	10.01%	-53.9 **	2258	Lace & warp knit fabric mills	0.23%	17.57%	-29.55*
Telecommunications equipment					2273	Carpets and Rugs	0.87%	2.83%	-90.91**
3661	Telephone and telegraph apparatus	4.03%	6.14%	16.66	2281	Yarn spinning mills	5.93%	9.80%	61.95
3663	Radio & TV communications equipment	5.55%	31.13%	-71.07 *	2284	Thread mills	0.15%	11.70%	12.05
OTHER ELECTRICAL MACHINERY, EQUIPMENT AND SUPPLIES					2295	Coated fabrics, not rubberised	3.14%	5.23%	6.19
3612	Transformers, except electronic	47.07%	48.55%	92.54	2298	Cordage and twine	8.88%	15.88%	60.12
3621	Motors and generators	12.51%	19.18%	37.04	2299	Textile goods, nec	2.84%	5.80%	96.3
3631	Household cooking equipment	15.15%	18.48%	-71.97 *	Fabricated Metal Products, Except Machinery and Transportation Equipment				
3643	Current-carrying wiring devices	16.15%	25.32%	73.14	3411	Metal cans	1.34%	10.32%	36.04
3652	Prerecorded records and tapes	2.74%	9.63%	-25.28 *	3412	Metal barrels, drums and pails	9.90%	11.84%	-89.51 ***
3669	Communication equipment, nec	14.53%	26.92%	99.18	3421	Cutlery	2.28%	3.84%	37.85
3692	Primary batteries, dry and wet	0.22%	2.94%	-43.08 *	3423	Hand and edge tools, nec	2.43%	4.04%	-3.93 *
3695	Magnetic and optical recording media	10.03%	13.78%	-21.42	3429	Hardware, nec	9.06%	11.80%	98.07
3699	Electrical equipment & supplies, nec	8.89%	9.91%	-75.19 ***	3441	Fabricated structural metal	0.00%	23.66%	97.7
AGRICULTURAL PRODUCTS					3442	Metal doors, shash and trim	10.23%	12.74%	-92.56**
132	Tobacco	2.38%	14.65%	-6.57 **	3444	Sheet metal work	0.00%	11.67%	-85.1**
133	Sugarcane and sugar beets	0.00%	1.26%	77.23	3446	Architectural metal work	0.00%	1.57%	100
161	Vegetables and melons	76.83%	80.89%	-99.49 **	3462	Iron and steel forgings	21.14%	34.94%	-99.38 ***
171	Berry crops	24.30%	56.05%	100	3466	Crowns and closures	5.15%	9.89%	81.57
172	Grapes	21.34%	22.53%	100	3493	Steel springs, except wire	16.50%	22.36%	99.13

179	Fruits and tree nuts, nec	21.48%	24.55%	-90.33 ***	3494	Valves and pipe fittings, nec	11.80%	13.93%	87.73
Machinery, Except Electrical					3496	Misc. Fabricated wire products	3.33%	7.74%	-11.83 *
3531	Construction machinery	5.79%	7.11%	-26.41 *	SCIENTIFIC AND PROFESSIONAL INSTRUMENTS				
3534	Elevators and moving stairways	6.35%	11.01%	84.37	3812	Search and navigation equipment	3.77%	7.26%	5.6
3546	Power-driven hand tools	8.49%	14.48%	41.47	3822	Environmental controls	20.02%	28.54%	80.06
3563	Air and gas compressors	9.66%	10.80%	-73.53 **	3824	Fluid meters and counting devices	39.20%	57.65%	78.38
3564	Blowers and fans	7.81%	19.58%	-2.45 **	3829	Measuring & controlling devices, nec	3.86%	5.53%	-9.87 *
3581	Automatic vending machines	1.99%	15.45%	97.78	3841	Surgical and medical instruments	10.60%	15.74%	-51.2**
3585	Refrigeration and heating equipment	14.59%	25.75%	-23.57 **	3842	Surgical appliances and supplies	26.94%	28.72%	-76.33**
3599	Industrial machinery, nec	1.28%	3.86%	5.42	3843	Dental equipment and supplies	4.10%	8.00%	-74.27**
					3845	Electromedical equipment	8.52%	9.66%	20.01
					3861	Photographic equipment and supplies	2.22%	4.11%	86.38

Memo: a value of $\beta < 0$ indicates that Mexico lost market share; * that the EA7 countries gained it at its expense, ** that it lost it to the ROW entirely. In turn, *** indicates that Mexico loss its market to both, the A7 and the ROW.

TABLE 11

**PRODUCTS IN WHICH MEXICO GAINED MARKET SHARE PARTLY OR ENTIRELY TO THE SEVEN EAST
ASIAN COUNTRIES DURING 1998**

SIC	Product Description	Share of the Shift in U.S. Market Gained by: (percentage)			Value of the Shift in U.S. Market Gained by: (Thousands of U.S. dlls.)		
		Mexico	the ROW	the EA7	Mexico	the ROW	the EA7 to Mexico exclusively
0111	Wheat	100.00	-99.80	-0.20	1,443,861	-1,440,912	-2,949
0115	Corn	47.17	52.83	-100.00	453,401	507,758	-453,401
0173	Tree nub	14.44	85.56	-100.00	3,004,739	17,798,889	-3,004,739
0259	Poultry and eggs, nec	0.00	100.00	-100.00	0	222,391	0
0811	Timber tracts	100.00	-70.64	-29.36	692,944	-489,506	-203,439
0831	Forest products	1.34	98.66	-100.00	2,068,990	151,868,395	-2,068,990
1041	Gold ores	100.00	-97.33	-2.67	416,698	-405,561	-11,137
1061	Ferroalloy ores, except vanadium	20.99	79.01	-100.00	197,919	745,150	-197,919
1221	Bituminous coal and lignite—surface	0.48	99.52	-100.00	32,137	6,602,676	-32,137
1446	Industrial sand	100.00	-54.96	-45.04	25,038	-13,762	-11,276
1475	Phosphate rock	100.00	-98.51	-1.49	2,140,684	-2,108,830	-31,853
2011	Meat packing plants	74.52	25.48	-100.00	7,227,868	2,471,755	-7,227,868
2015	Poultry slaughtering and processing	0.00	100.00	-100.00	0	69,469	0
2022	Cheese, natural and processed	100.00	-96.32	-3.68	2,051,164	-1,975,766	-75,398
2033	Canned fruits and vegetables	57.78	42.22	-100.00	17,629,656	12,882,395	-17,629,656
2034	Dehydrated fruits, vegetables, soups	100.00	-59.03	-40.97	1,785,932	-1,054,158	-731,774
2035	Pickles, sauces, and salad dressings	2.33	97.67	-100.00	168,359	7,063,481	-168,359
2037	Frozen fruits and vegetables	100.00	-75.45	-24.55	28,199,030	-21,275,252	-6,923,778
2046	Wet corn milling	69.80	30.20	-100.00	411,021	177,838	-411,021
2076	Vegetable oil mills, nec	100.00	-11.52	-88.48	15,401,658	-1,774,530	-13,627,128
2082	Malt beverages	100.00	-96.50	-3.50	78,881,320	-76,121,087	-2,760,233
2085	Distilled and blended liquors	100.00	-97.86	-2.14	7,130,301	-6,977,561	-152,739
2087	Flavoring extracts and syrups, nec	16.07	83.93	-100.00	1,941,756	10,143,474	-1,941,756
2099	Food preparations, nec	83.40	16.60	-100.00	4,377,708	871,354	-4,377,708
2221	Broadwoven Fabric Mills, Manmade	9.40	90.60	-100.00	1,229,875	11,847,908	-1,229,875
2257	Weft knit fabric mills	9.81	90.19	-100.00	4,600,193	42,280,269	-4,600,193
2295	Coated fabrics, not rubberised	6.32	93.68	-100.00	811,848	12,031,646	-811,848
2299	Textile goods, nec	100.00	-80.41	-19.59	11,098,603	-8,924,511	-2,174,092
2311	Men's and Boys' suits and coats	100.00	-88.12	-11.88	29,349,825	-25,864,391	-3,485,435
2321	Men's and Boys' shirts	100.00	-13.79	-86.21	103,463,877	-14,263,516	-89,200,361
2325	Men's and boys' trousers and slacks	100.00	-90.67	-9.33	167,499,835	-151,864,856	-15,634,980
2335	Women's, juniors', & misses' dresses	62.70	37.30	-100.00	21,679,481	12,899,139	-21,679,481
2337	Women's and misses' suits and coats	100.00	-85.84	-14.16	256,770,365	-220,406,006	-36,364,358
2384	Robes and dressing gowns	100.00	-46.02	-53.98	4,149,337	-1,909,522	-2,239,815
2385	Waterproof outerwear	59.69	40.31	-100.00	4,843,409	3,270,326	-4,843,409

2389	Apparel and accessories, nec	100.00	-73.56	-26.44	10,304,134	-7,579,556	-2,724,578
2392	Housefurnishings, nec	90.93	9.07	-100.00	16,293,707	1,625,358	-16,293,707
2448	Wood pallets and skids	100.00	-92.59	-7.41	3,917,748	-3,627,454	-290,293
2449	Wood containers, nec	33.37	66.63	-100.00	150,529	300,554	-150,529
2452	Prefabricated wood buildings	16.84	83.16	-100.00	31,457	155,335	-31,457
2493	Reconstituted wood products	100.00	-46.59	-53.41	1,621,765	-755,540	-866,225
2499	Wood products, nec	28.05	71.95	-100.00	17,124,572	43,927,095	-17,124,572
2517	Wood TV and radio cabinets	29.09	70.91	-100.00	17,700	43,136	-17,700
2522	Office furniture, except wood	14.20	85.80	-100.00	220,358	1,331,975	-220,358
2599	Furniture and fixtureg, nec	8.24	91.76	-100.00	19,369,029	215,716,020	-19,369,029
2653	Corrugated and solid fiber boxes	100.00	-22.86	-77.14	2,434,972	-556,555	-1,878,417
2675	Die-cut paper and board	16.70	83.30	-100.00	3,159,929	15,765,038	-3,159,929
2676	Sanitary paper products	100.00	-96.10	-3.90	2,815,025	-2,705,323	-109,702
2677	Envelopes	100.00	-88.84	-11.16	3,605,037	-3,202,610	-402,427
2711	Newspapers	100.00	-89.23	-10.77	68,068	-60,738	-7,330
2752	Commercial printing, lithographic	100.00	-58.21	-41.79	5,574,284	-3,244,719	-2,329,565
2782	Blankbooks and looseleaf binders	72.93	27.07	-100.00	8,549,532	3,173,935	-8,549,532
2892	Explosives	100.00	-99.55	-0.45	979,984	-975,554	-4,430
2992	Lubricating oils and greases	100.00	-93.87	-6.13	56,777	-53,297	-3,480
3021	Rubber and plastics footwear	0.26	99.74	-100.00	270,613	105,082,559	-270,613
3085	Plastics bottles	100.00	-51.76	-48.24	4,772,159	-2,470,199	-2,301,961
3089	Plastics products, nec	97.28	2.72	-100.00	83,971,800	2,345,311	-83,971,800
3111	Leather tanning and finishing	100.00	-59.79	-40.21	6,496,629	-3,884,041	-2,612,588
3151	Leather gloves and mittens	100.00	-78.59	-21.41	2,320,413	-1,823,579	-496,834
3231	Products of purchased glass	100.00	-98.76	-1.24	48,335,485	-47,737,953	-597,532
3255	Clay refractories	100.00	-93.21	-6.79	3,997,242	-3,725,785	-271,457
3269	Pottery products, nec	47.49	52.51	-100.00	13,220,561	14,618,765	-13,220,561
3272	Concrete products, nec	40.80	59.20	-100.00	3,206,200	4,651,210	-3,206,200
3275	Gypsum products	100.00	-93.24	-6.76	2,562,022	-2,388,798	-173,225
3281	Cut stone and stone products	54.85	45.15	-100.00	5,134,492	4,226,927	-5,134,492
3299	Nonmetallic mineral products, nec	100.00	-97.93	-2.07	3,373,897	-3,303,920	-69,976
3339	Primary nonferrous metals, nec	100.00	-0.92	-99.08	19,461,798	-179,996	-19,281,801
3357	Nonferrous wiredrawing & insulating	91.39	8.61	-100.00	116,937,320	11,020,890	-116,937,320
3411	Metal cans	100.00	-54.52	-45.48	56,447	-30,772	-25,674
3421	Cutlery	39.86	60.14	-100.00	7,307,371	11,026,010	-7,307,371
3429	Hardware, nec	100.00	-49.26	-50.74	68,762,373	-33,868,946	-34,893,427
3465	Automotive stampings	100.00	-87.00	-13.00	149,415,492	-129,986,690	-19,428,803
3492	Fluid power valves & hose fittings	100.00	-94.79	-5.21	26,382,423	-25,009,002	-1,373,421
3493	Steel springs, except wire	100.00	-98.02	-1.98	65,964,622	-64,656,234	-1,308,388
3494	Valves and pipe fittings, nec	100.00	-84.29	-15.71	44,195,693	-37,251,052	-6,944,641
3519	Internal combustion engines, nec	100.00	-95.61	-4.39	137,500,693	-131,469,607	-6,031,086
3533	Oil and gas field machinery	90.96	9.04	-100.00	309,961	30,792	-309,961
3537	Industrial trucks and tractors	100.00	-57.52	-42.48	2,522,256	-1,450,895	-1,071,361
3546	Power-driven handtools	44.14	55.86	-100.00	6,359,527	8,046,821	-6,359,527
3553	Woodworking machinery	16.60	83.40	-100.00	4,438,382	22,304,321	-4,438,382
3556	Food products machinery	76.24	23.76	-100.00	4,864,978	1,515,998	-4,864,978

3562	Ball and roller bearings	100.00	-49.52	-50.48	8,555,366	-4,236,447	-4,318,919
3566	Speed changers, drives, and gears	100.00	-95.21	-4.79	94,140,069	-89,627,105	-4,512,964
3569	General industrial machinery, nec	100.00	-74.45	-25.55	28,394,834	-21,140,711	-7,254,123
3581	Automatic vending machines	100.00	-87.05	-12.95	9,802,754	-8,533,288	-1,269,466
3599	Industrial machinery, nec	5.53	94.47	-100.00	454,073	7,750,910	-454,073
3612	Transformers, except electronic	100.00	-11.26	-88.74	56,774,787	-6,390,161	-50,384,626
3613	Switchgear and switchboard apparatus	100.00	-60.03	-39.97	50,435,686	-30,278,019	-20,157,667
3621	Motors and generators	100.00	-3.29	-96.71	17,844,413	-587,470	-17,256,943
3625	Relays and industrial controls	100.00	-92.94	-7.06	47,127,850	-43,800,036	-3,327,815
3634	Electric housewares and fans	100.00	-57.29	-42.71	62,353,841	-35,722,533	-26,631,308
3641	Electric lamps	90.63	9.37	-100.00	17,820,112	1,842,670	-17,820,112
3643	Current-carrying wiring devices	100.00	-78.03	-21.97	119,095,521	-92,932,042	-26,163,478
3648	Lighting equipment, nec	8.85	91.15	-100.00	6,596,066	67,942,001	-6,596,066
3651	Household audio and video equipment	3.03	96.97	-100.00	15,986,283	511,882,819	-15,986,283
3661	Telephone and telegraph apparatus	16.98	83.02	-100.00	23,219,667	113,564,482	-23,219,667
3669	Communications equipment, nec	100.00	-45.82	-54.18	65,839,534	-30,165,969	-35,673,564
3676	Electronic resistors	100.00	-37.10	-62.90	8,424,276	-3,125,096	-5,299,180
3677	Electronic coils and transformers	100.00	-79.00	-21.00	91,688,008	-72,431,692	-19,256,317
3691	Storage batteries	2.36	97.64	-100.00	450,862	18,670,069	-450,862
3711	Motor vehicles and car bodies	36.19	63.81	-100.00	129,177,274	227,780,713	-129,177,274
3743	Railroad equipment	100.00	-99.44	-0.56	166,732,066	-165,790,596	-941,470
3751	Motorecycles, bicycles, and parts	53.97	46.03	-100.00	16,225,116	13,837,604	-16,225,116
3822	Environmental controls	100.00	-45.16	-54.84	14,379,044	-6,493,873	-7,885,171
3824	Fluid meters and counting devices	100.00	-80.44	-19.56	17,902,984	-14,401,050	-3,501,934
3844	X-ray apparatus and tubes	100.00	-74.60	-25.40	116,183	-86,670	-29,512
3851	Ophthalmic goods	100.00	-7.74	-92.26	8,736,558	-675,944	-8,060,614
3873	Watches, clocks, watchcageg & parts	100.00	-5.01	-94.99	45,883,623	-2,299,797	-43,583,827
	TOTAL				2,833,771,132	46,346,592	-1,156,184,092

TABLE 12

**PRODUCTS IN WHICH MEXICO'S LOSS OF MARKET SHARE
WAS ENTIRELY GAINED BY THE SEVEN EAST ASIAN COUNTRIES DURING 1998**

SIC	Description	Share of the Shift in the U.S. Market Gained by:			Share of the Shift in the U.S. Market Gained by:		
		(percentage)			(percentage)		
		Mexico	The ROW	the EA7	the EA7	México	the ROW
0139	Field crops, except cash grains, nec	-50.56	-49.44	100	5,635,343	-2,849,485	-2,785,858
0913	Shellfish	-11.43	-88.57	100	97,521,638	-11,150,363	-86,371,275
1479	Chemical and fertilizer mining, nec	-88.66	-11.34	100	742,225	-658,093	-84,132
2024	Ice cream and frozen desserts	-29.66	-70.34	100	258,522	-76,690	-181,832
2047	Dog and cat food	-59.43	-40.57	100	3,243,233	-1,927,551	-1,315,682
2091	Canned and cured fish and seafoods	-22.82	-77.18	100	50,254,491	-11,470,061	-38,784,430
2097	Manufactured ice	-62.84	-37.16	100	45,337	-28,491	-16,846
2211	Broadwoven Fabric Mills, Cotton	-42.31	-57.69	100	33,387,475	-14,127,548	-19,259,926
2258	Lace & warp knit fabric mills	-45.28	-54.72	100	991,901	-449,107	-542,794
2381	Fabric dress and work gloves	-29.08	-70.92	100	6,528,081	-1,898,252	-4,629,829
2396	Automotive and apparel trimmings	-18.91	-81.09	100	2,677,389	-506,305	-2,171,084
2426	Hardwood dimension & flooring mills	-14.95	-85.05	100	3,933,439	-587,917	-3,345,523
2679	Converted paper products, nec	-56.21	-43.79	100	1,934,159	-1,087,097	-847,062
2812	Alkalies and chlorine	-23.05	-76.95	100	5,532,866	-1,275,324	-4,257,542
2816	Inorganic pigments	-7.25	-92.75	100	4,766,980	-345,708	-4,421,272
2824	Organic fibers, noncellulosic	-49.22	-50.78	100	29,769,983	-14,653,182	-15,116,801
3011	Tires and inner tubes	-21.59	-78.41	100	31,826,805	-6,872,693	-24,954,112
3052	Rubber & plastics hose & belting	-22.86	-77.14	100	15,957,014	-3,647,479	-12,309,535
3069	Fabricated rubber products, nec	-2.72	-97.28	100	29,562,483	-803,213	-28,759,270
3312	Blast furnaces and steel mills	-92.02	-7.98	100	264,005,698	-242,949,753	-21,055,945
3313	Electrometallurgical products	-79.95	-20.05	100	6,605,572	-5,281,279	-1,324,293
3341	Secondary nonferrous metals	-54.49	-45.51	100	14,502,561	-7,903,031	-6,599,530
3353	Aluminum sheet, plate,	-9.10	-90.90	100	19,983,660	-1,818,954	-18,164,706

	and foil						
3423	Hand and edge tools, nec	-4.36	-95.64	100	10,124,765	-441,841	-9,682,924
3482	Small arms ammunition	-18.85	-81.15	100	3,372,307	-635,674	-2,736,633
3495	Wire springs	-90.26	-9.74	100	6,477	-5,846	-631
3496	Misc. fabricated wire products	-16.70	-83.30	100	13,014,865	-2,173,652	-10,841,213
3531	Construction machinery	-30.19	-69.81	100	84,619,220	-25,546,628	-59,072,592
3532	Mining machinery	-1.52	-98.48	100	997,502	-15,207	-982,295
3536	Hoists, cranes, and monorails	-0.03	-99.97	100	12,734,208	-4,236	-12,729,971
3552	Textile machinery	-2.72	-97.28	100	4,572,016	-124,368	-4,447,648
3555	Printing trades machinery	-36.02	-63.98	100	7,157,870	-2,578,252	-4,579,618
3559	Special industry machinery, nec	-89.23	-10.77	100	1,634,268	-1,458,291	-175,977
3561	Pumps and pumping equipment	-16.98	-83.02	100	5,157,929	-875,984	-4,281,945
3565	Packaging machinery	-5.24	-94.76	100	8,296,453	-434,725	-7,861,728
3596	Scales and balances, exc. laboratory	-39.66	-60.34	100	2,381,218	-944,432	-1,436,787
3631	Household cooking equipment	-73.04	-26.96	100	47,715,704	-34,852,697	-12,863,006
3652	Prerecorded records and tapes	-25.32	-74.68	100	43,323,182	-10,971,544	-32,351,638
3692	Primary batteries, dry and wet	-63.59	-36.41	100	272,794	-173,475	-99,319
3714	Motor vehicle parts and accessories	-13.79	-86.21	100	72,818,528	-10,038,119	-62,780,408
3826	Analytical instrumentg	-13.93	-86.07	100	11,728,745	-1,633,582	-10,095,163
3829	Measuring & controlling devices, nec	-22.26	-77.74	100	3,914,819	-871,421	-3,043,398
3953	Marking devices	-9.13	-90.87	100	1,603,381	-146,403	-1,456,978
3996	Hard surface floor coverings, nec	-41.69	-58.31	100	6,869,340	-2,864,015	-4,005,325
9800	US goods returned, and re-imported articles, duty paid upon importation	-32.62	-67.38	100	63,572,557	-20,740,503	-42,832,053
	TOTAL				1,035,555,003	-449,898,473	-585,656,531

TABLE 13							
PRODUCTS IN WHICH MEXICO'S LOSS OF MARKET SHARE WAS GAINED BY THE SEVEN EAST ASIAN COUNTRIES AND BY THE ROW DURING 1998							
SIC	Description	Share of the Shift in the U.S. Market Gained by: (percentage)			Value of Shift in the U.S. Market Gained by: (Thousands of U.S. dlls.)		
		Mexico	the ROW	the EA7	the EA7	México	the ROW
0179	Fruits and tree nuts, nec	-100	76.95	23.05	9,632,871	-41,792,475	32,159,604
0182	Food crops grown under cover	-100	99.31	0.69	7,831	-1,141,499	1,133,668
0279	Animal specialtiaties, nec	-100	93.83	6.17	209,645	-3,396,188	3,186,543
0919	Miscellaneous marine products	-100	23.84	76.16	511,350	-671,436	160,086
1011	Iron ores	-100	46.80	53.20	18,910	-35,544	16,634
1411	Dimension stone	-100	79.24	20.76	197,733	-952,565	754,832
1422	Crushed and broken limestone	-100	96.58	3.42	44,273	-1,295,767	1,251,494
2043	Cereal breakfast foods	-100	98.15	1.85	73,986	-3,992,887	3,918,901
2074	Cottonseed oil mills	-100	99.77	0.23	18,536	-8,221,469	8,202,933
2084	Wines, brandy, and brandy spirits	-100	2.60	97.40	304,260	-312,373	8,112
2111	Cigarettes	-100	74.62	25.38	250,880	-988,513	737,633
2121	Cigars	-100	99.43	0.57	63,459	-11,198,558	11,135,099
2399	Fabricated textiie products, nec	-100	89.64	10.36	12,623,015	-121,854,481	109,231,466
2431	Millwork	-100	98.91	1.09	541,955	-49,569,251	49,027,295
2655	Fiber cans, drums & similar products	-100	99.05	0.95	2,467	-260,264	257,798
2673	Bags: plastics, laminated, & coated	-100	66.36	33.64	3,011,621	-8,953,102	5,941,481
2879	Agriculturai chemicals, nec	-100	72.81	27.19	10,259,609	-37,726,442	27,466,833
3084	Plastics pipe	-100	91.38	8.62	40,283	-467,130	426,847
3088	Plastics plumbing fixtures	-100	54.19	45.81	1,308,903	-2,857,371	1,548,468
3221	Glass containers	-100	12.79	87.21	139,331	-159,760	20,429
3253	Ceramic wall and floor tile	-100	91.51	8.49	1,816,188	-21,397,435	19,581,247
3259	Structural clay products, nec	-100	21.53	78.47	73,565	-93,747	20,183
3264	Porcelain electrical supplies	-100	54.66	45.34	1,956,637	-4,315,778	2,359,141
3271	Concrete block and brick	-100	97.69	2.31	10,695	-463,266	452,571
3292	Asbestos products	-100	69.18	30.82	3,012,283	-9,773,087	6,760,804
3297	Nonclay refractories	-100	96.89	3.11	127,264	-4,090,529	3,963,265

3334	Primary aluminum	-100	70.96	29.04	660,503	-2,274,665	1,614,162
3412	Metal barrels, drums, and pails	-100	77.78	22.22	334,898	-1,507,143	1,172,244
3443	Fabricated plate work (boiler shops)	-100	75.83	24.17	7,554,696	-31,259,376	23,704,681
3462	Iron and steel forgings	-100	85.18	14.82	2,742,593	-18,509,278	15,766,685
3511	Turbines and turbine generator sets	-100	63.26	36.74	3,834,618	-10,438,300	6,603,682
3523	Farm machinery and equipment	-100	24.47	75.53	7,215,843	-9,553,095	2,337,252
3535	Conveyors and conveying equipment	-100	67.83	32.17	6,411	-19,927	13,516
3543	Industrial patterns	-100	17.18	82.82	83,694	-101,056	17,362
3549	Metalworking machinery, nec	-100	97.23	2.77	164,653	-5,938,686	5,774,033
3554	Paper industries machinery	-100	23.60	76.40	317,123	-415,064	97,941
3633	Household laundry equipment	-100	80.89	19.11	727,737	-3,808,944	3,081,207
3635	Household vacuum cleaners	-100	87.97	12.03	3,388,499	-28,178,711	24,790,213
3644	Noncurrent-carrying wiring devices	-100	99.43	0.57	77,913	-13,594,254	13,516,341
3663	Radio & TV communications equipment	-100	85.13	14.87	36,788,109	-247,454,379	210,666,270
3672	Printed circuit boards	-100	35.55	64.45	80,692,736	-125,203,207	44,510,471
3675	Electronic capacitors	-100	78.75	21.25	6,242,432	-29,382,636	23,140,204
3699	Electrical equipment & supplies, nec	-100	86.65	13.35	3,739,728	-28,002,579	24,262,851
3931	Musical instruments	-100	67.73	32.27	3,273,578	-10,144,664	6,871,086
3955	Carbon paper and inked ribbons	-100	84.59	15.41	1,328,879	-8,624,403	7,295,524
9100	Scrap and waste	-100	60.02	39.98	8,769,112	-21,936,364	13,167,252
	TOTAL				214,201,305	-932,327,648	718,126,343