

The impacts of U.S. agricultural policies on Mexican producers

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¹ This chapter summarizes work presented more extensively in a longer background paper (Wise 2010). The author would like to thank Betsy Rakocy for invaluable research assistance for this project.



The Mexican government has shaped its agricultural policies during a time of severe adjustment, which was ushered in by the opening of the Mexican economy under NAFTA. It was widely recognized at the beginning of NAFTA that Mexico had geographically-based comparative advantages in supplying off-season fruits and vegetables to a hungry U.S. market. U.S. producers maintained clear advantages over their southern neighbors in many staple crops and meats, with yields much higher than their Mexican counterparts and with large exportable surpluses. This posed clear risks to Mexico's large smallholder population, many of whom relied on crops that competed with U.S. imports proposed for liberalization. NAFTA's liberalization of agricultural trade produced the expected results, with more staple crops and meats flowing south and seasonal fruits and vegetables flowing north (for background, see de Ita 2008; Romero 2009; Zahniser and Crago 2009).

NAFTA reduced tariffs and quotas on a wide range of products, with some sensitive products allowed longer transition periods to eliminate existing protections, up to 15 years. Not all of these transition periods were followed – most notably corn in Mexico's case – but the last of the transition periods came to a close on January 1, 2008. In agriculture, tariffs and quotas have now largely been eliminated. Not so agricultural subsidies. NAFTA did not discipline subsidies, in contrast to WTO negotiations which in agriculture have treated domestic farm subsidies as one of the three “pillars” of trade-distorting agricultural protection, the other two being export subsidies and tariffs. U.S. farm subsidies since NAFTA have dwarfed Mexico's, and many of those subsidies are for crops the United States exports to Mexico (Wise 2007). This has prompted charges that the level playing field NAFTA was supposed to create is in fact tilted heavily in favor of the United States.

How have U.S. agricultural policies affected Mexican producers in an economic environment of liberalized trade? We analyzed eight heavily supported commodities – corn, soybeans, wheat, cotton, rice, beef, pork, and poultry – that compete with Mexican production and that have seen increases in U.S. exports to Mexico of between 159% and 707% since the early 1990s. Together they represent 52% of the value of U.S. agricultural exports to Mexico. We examined the extent to which those products were exported to Mexico at prices below production costs between 1997 and 2005. We look at those years because the period begins after NAFTA's liberalization was largely implemented *and* after the 1996 U.S. Farm Bill, which caused significant changes to U.S. production and prices by bringing a great deal of land back into agricultural production. The period under study ends before the recent run-up in commodity prices.

Our goal was to estimate the costs to Mexican producers of domestic farm prices driven down by below-cost imports from the United States. We estimate the costs at \$12.8 billion from 1997-2005 for the eight products (in constant 2000 US dollars), 10% of the value of all Mexican agricultural exports to the United States. Corn producers were by far the most heavily affected, with \$6.6 billion in losses, an average of \$38 per metric ton, or \$99 per hectare. This is more than the average per-hectare payment to small-scale producers under the Procampo subsidy program.

1. ESTIMATING DUMPING

All eight products have been heavily impacted by U.S. agricultural policies – not just subsidies – which have increased the competitiveness of U.S. exports. According to U.S. government data, U.S. farm subsidies for these crops averaged \$11.5 billion per year from 1997-2005, with corn receiving \$4.5 billion/year in commodity program support. U.S. export credits provided additional support to exporters, though this has declined significantly in recent years.

On a per hectare basis, U.S. subsidy levels are significantly higher than they are in Mexico, with the exception of wheat. While U.S. farm subsidies increased after the 1996 U.S. Farm Bill, the law's most important effect was the removal of floor prices, stock management, and land set-asides, which brought previously idle land back into production. The resulting surpluses drove prices well below production costs. Low prices brought higher subsidies, since some subsidies were triggered by low prices, but it is not clear that the subsidies themselves caused the low prices (Ray, de la Torre Ugarte et al. 2003). (In fact, economic modeling of subsidy elimination generally finds limited long-term price impacts.)

The best estimate of the impacts of U.S. policies on exports is the so-called “dumping margin,” the percentage by which export prices are below production costs. This captures the impact of all changes in agricultural policies in relation to exports, defining as “dumping” the exportation of any product at a price below costs (that is, not just direct subsidies). This is one of the definitions of dumping in the World Trade Organization agreement (Ritchie, Murphy et al. 2003). It is a more reliable estimate than the widely cited Producer Subsidy

Equivalent (PSE), which estimates support in unreliable ways, particularly for developing countries (see Wise 2004 for more detailed analysis).

Table 1
IMPACT OF U.S. DUMPING ON MEXICAN PRODUCERS

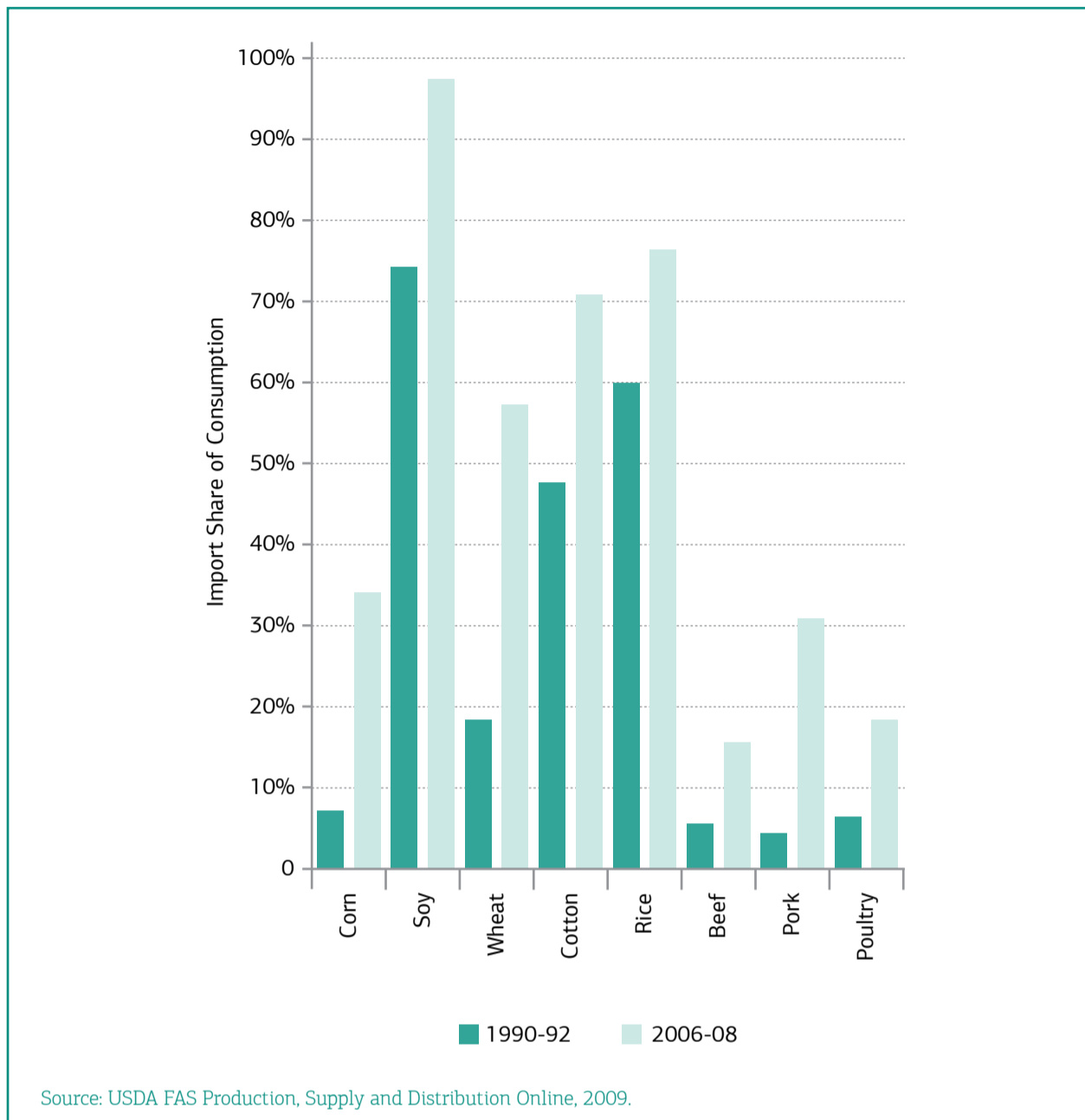
| | United States | | | | Mexico | | | | | | |
|--------------|--------------------------------|--------|----------|-----------------------------------|---|-----------------------------|--------|--------|----------------------------|--------|----------------------|
| | Exports to Mexico (1000 tm) | | | Dumping margin avg 97-05 | Price Drop 2005/90-2 real pesos 2000 | Production Mex (1000 tm) | | | Total import dependency | | Losses |
| | 1990-92 | 2006-8 | growth % | | | 1990-92 | 2006-8 | growth | 1990-92 | 2006-8 | 1997- 2005 |
| | | | | | | | | | | | 2000US\$ millions |
| Corn - all | 2,014 | 10,330 | 413% | 19% | -66% | 15,807 | 23,650 | 50% | 7% | 34% | 6,571 |
| w/o cracked | 1,982 | 8,385 | 323% | | | | | | 7% | 28% | |
| Soybeans | 1,410 | 3,653 | 159% | 12% | -67% | 619 | 105 | -83% | 74% | 97% | 31 |
| Wheat | 360 | 2,515 | 599% | 34% | -58% | 3,871 | 3,611 | -7% | 18% | 57% | 2,176 |
| Cotton | 49 | 312 | 531% | 38% | -65% | 138 | 134 | -3% | 48% | 70% | 805 |
| Rice | 129 | 806 | 524% | 16% | -51% | 197 | 181 | -8% | 60% | 76% | 67 |
| Subtotal | | | | | | | | | | | 9,650 |
| Beef | 54 | 204 | 278% | 5% | -45% | 1,677 | 2,191 | 31% | 6% | 16% | 1,566 |
| Pork | 27 | 218 | 707% | 10% | -56% | 814 | 1,140 | 40% | 4% | 31% | 1,161 |
| Poultry | 85 | 396 | 363% | 10% | -44% | 1,156 | 2,693 | 133% | 7% | 19% | 455 |
| Subtotal | | | | | | | | | | | 3,182 |
| Total Losses | | | | | | | | | | | 12,832 |

Sources: USDA-FATUS; Starmer et al. (2006); SAGARPA

For the five crops and three livestock sectors analyzed, the results show varied but significant impacts on Mexican producers, as presented in Table 1. As noted earlier, all eight products saw significant growth in U.S. exports from the early 1990s, the lowest being a 159% increase in soybean exports and the highest a 707% increase in pork exports. All eight products showed positive dumping margins for the period we examined (1997-2005), with the estimates for the livestock products (using a different methodology) lower (5%-10%) than the estimates for the crops (17%-38%). The related trends in Mexico were significant as well. Real producer prices fell dramatically for all products from their levels in the early 1990s, with 2005 prices (in real pesos) 44%-67% lower.

There was significant variation in the observed impacts of rising imports and lower prices on Mexican production. Corn stands out for its counterintuitive 50% increase in production, which leaves Mexico largely self-sufficient in the production of white corn for human consumption and highly dependent on imports for the fast-growing livestock sector. The other crops all showed declines in Mexican production, with small declines in wheat (-7%), cotton (-3%) and rice (-8%) and a large drop (-83%) in soybean production, which Mexico all-but-ceased producing. The livestock products all showed robust production increases (31%-133%), which reflect the dynamic demand for meat-based proteins in the Mexican diet and the continued ability of Mexico-based producers to meet some of that growing demand.

Figure 1
MEXICO: RISING IMPORT DEPENDENCY



Mexico's import dependency for all eight products increased significantly. (See Figure 1.) In livestock, dependency increased from the early-1990s levels of 4-7% to 2006-8 levels of 16-31%. For the crops, the initial levels of dependency were already high in the early 1990s (7-74%) and the levels of import dependency were much higher by 2006-8 – ranging from 34% for corn to 97% for soybeans. The vast majority of imports came from the United States.

2. ESTIMATING THE COSTS TO MEXICAN PRODUCERS

The costs to Mexican producers of exports entering the country at prices below their costs of production fall in two broad categories:

- Domestic farm prices are driven lower, reducing receipts to farmers.
- Demand for domestic farm products is displaced by imports.

For this project, we attempt only to estimate the direct costs of lower prices. It would require more complex modeling to estimate accurately the ways in which higher U.S. prices for a variety of farm products would reduce demand in Mexico for U.S. exports and boost demand for Mexican production, which would raise prices further (see Dyer 2008 for a discussion of these impacts).

As Table 1 shows, from 1997-2005 the U.S. exported the five crops studied here at dumping margins ranging from 12% for soybeans to 38% for cotton. Assuming Mexican producer prices were depressed by the same percentage as the dumping margins, below-cost exports cost Mexican producers of corn, soybeans, wheat, cotton and rice an estimated \$9.7 billion from 1997-2005, just over \$1 billion per year.

Meat was exported at below-cost prices because U.S. producers benefited from below-cost soybeans and corn, key components in feed, which is the largest single operating cost for in-

dustrial livestock producers. This so-called implicit subsidy to industrialized meat producers resulted in dumping margins of 5-10% (Starmer, Witterman et al. 2006; Starmer and Wise 2007). This cost those Mexican livestock producers who did not benefit from imported feed an estimated \$3.2 billion. The largest losses were in beef, at \$1.6 billion, or \$175 million per year.

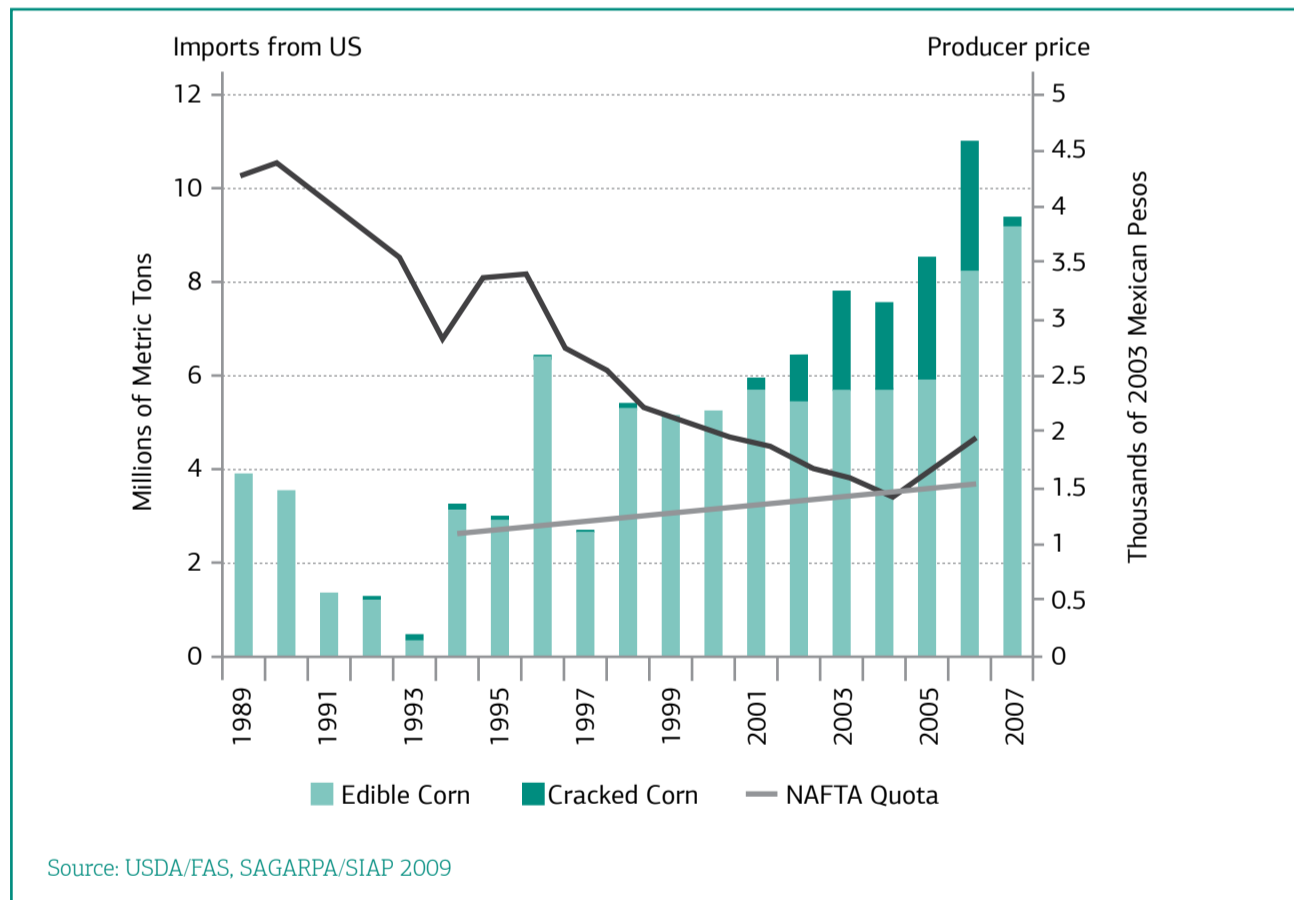
Total losses for the eight products together are estimated at \$12.8 billion for the nine-year period, or \$1.4 billion per year. To put these numbers in context, the annual losses are more than 10% of the value of all Mexican agricultural exports to the United States (including beer, which is, oddly, classified as Mexico's most important agricultural export). The losses from U.S. dumping surpass the total value of Mexico's annual tomato exports to the United States, which surged after NAFTA.

3. THE CASE OF CORN

Not surprisingly, corn showed the highest overall losses, with average dumping margins of 19%. This contributed to a 413% increase in U.S. exports (counting unregulated cracked corn exports) and a 66% decline in real producer prices from the early 1990s to 2005. In part, of course, this was caused by the Mexican government's decision not to enforce NAFTA's tariff-rate quota (TRQ) for most corn imports. (See Figure 2.) While some have focused on Mexico's estimated \$3.8 billion in lost tariff revenues from not enforcing the TRQ, this was not the most important cost of Mexico's accelerated liberalization. The TRQ's prohibitive tariffs would have slowed or halted imports, so the foregone tariff revenue is entirely hypothetical. The real impact was on prices, as the government chose not to use the TRQ to slow the import surge. With imports flooding the market at dumping-level prices, the impacts on producers were dramatic.

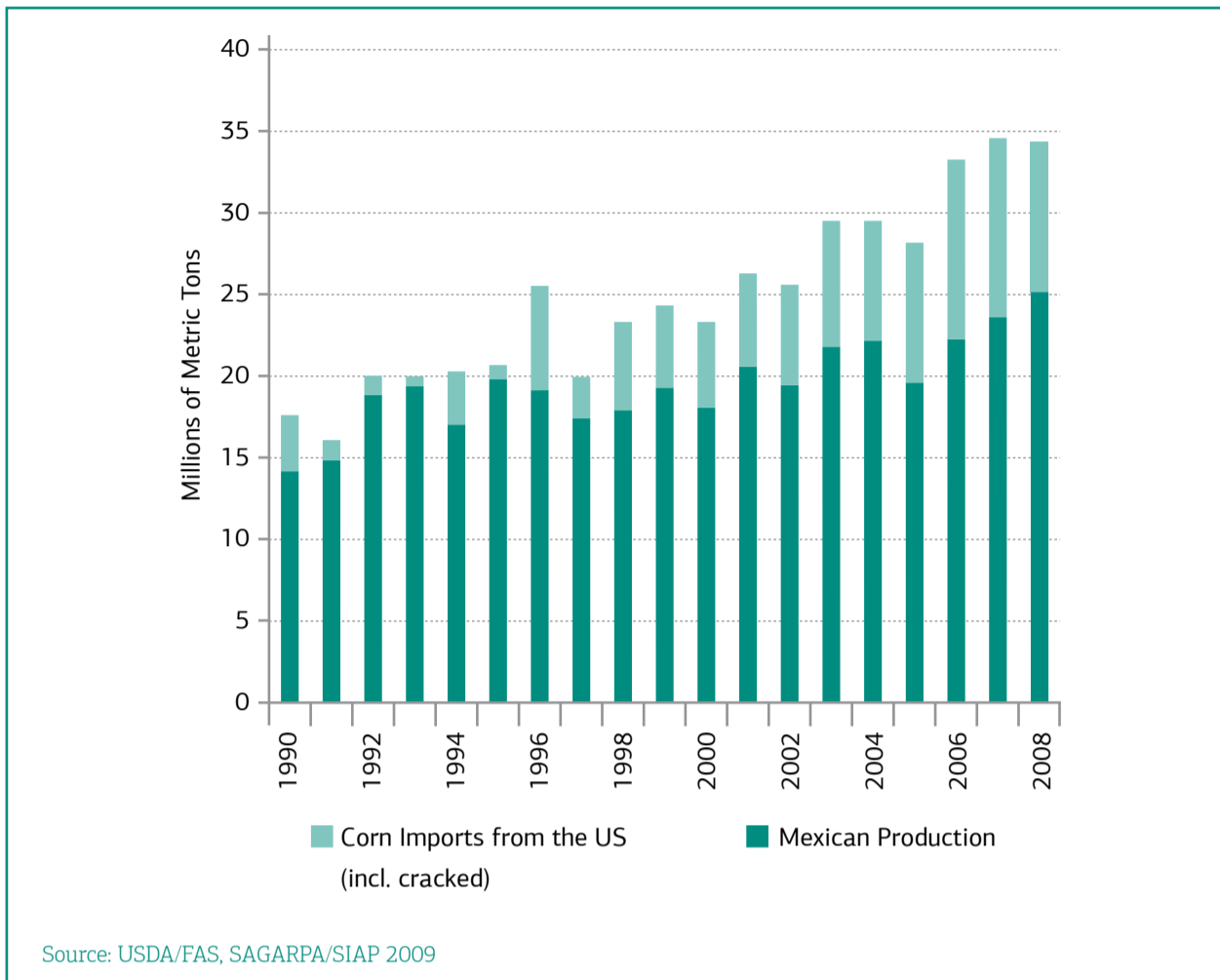
Figure 2

MEXICAN CORN: IMPORTS AND REAL PRODUCER PRICES, 1989-2008



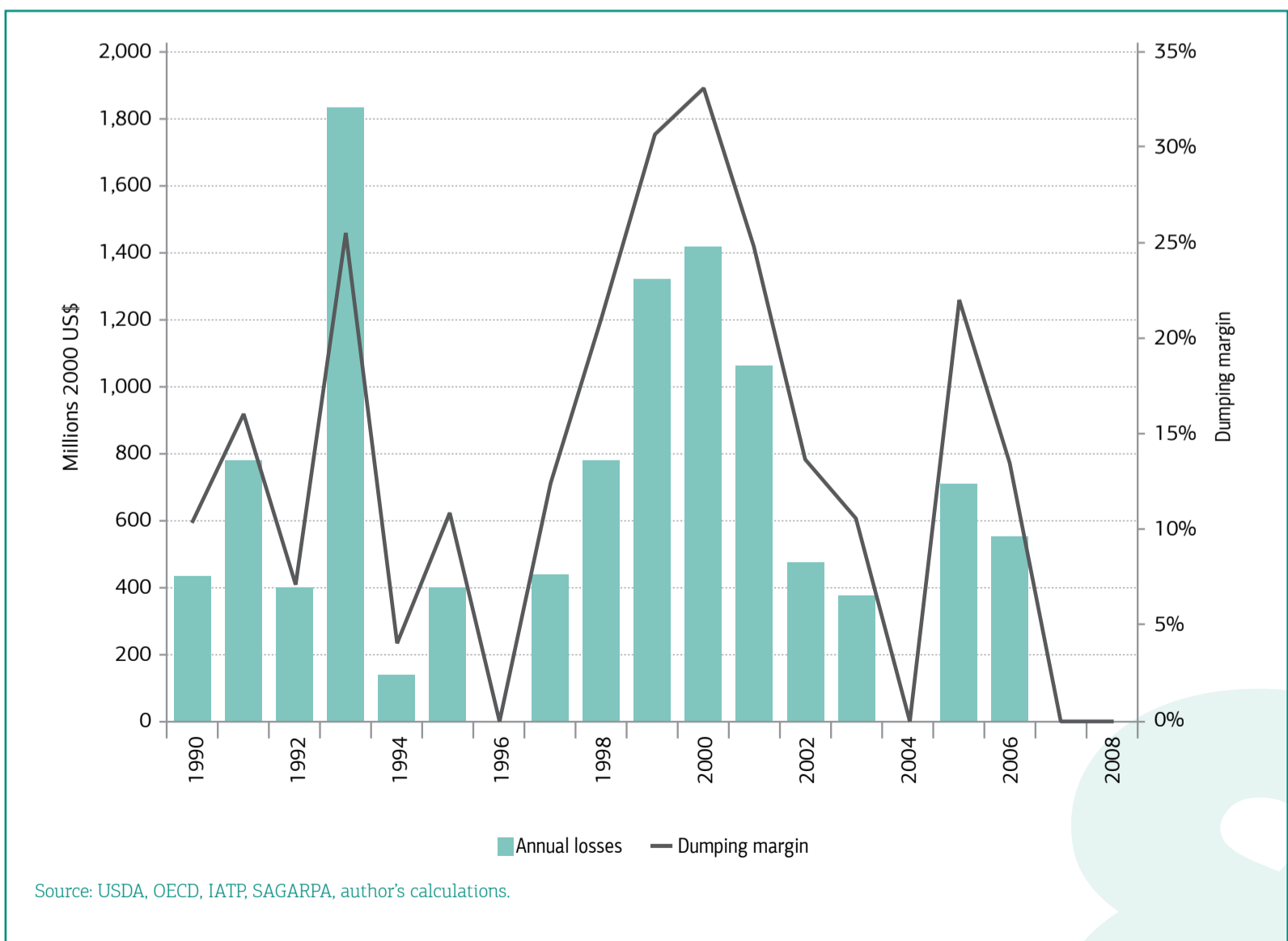
Remarkably, Mexican production of white corn increased 50% in spite of the competition from imports and the fall in prices (see Figure 3).

Figure 3
MEXICAN CORN: PRODUCTION, IMPORTS, 1990-2008



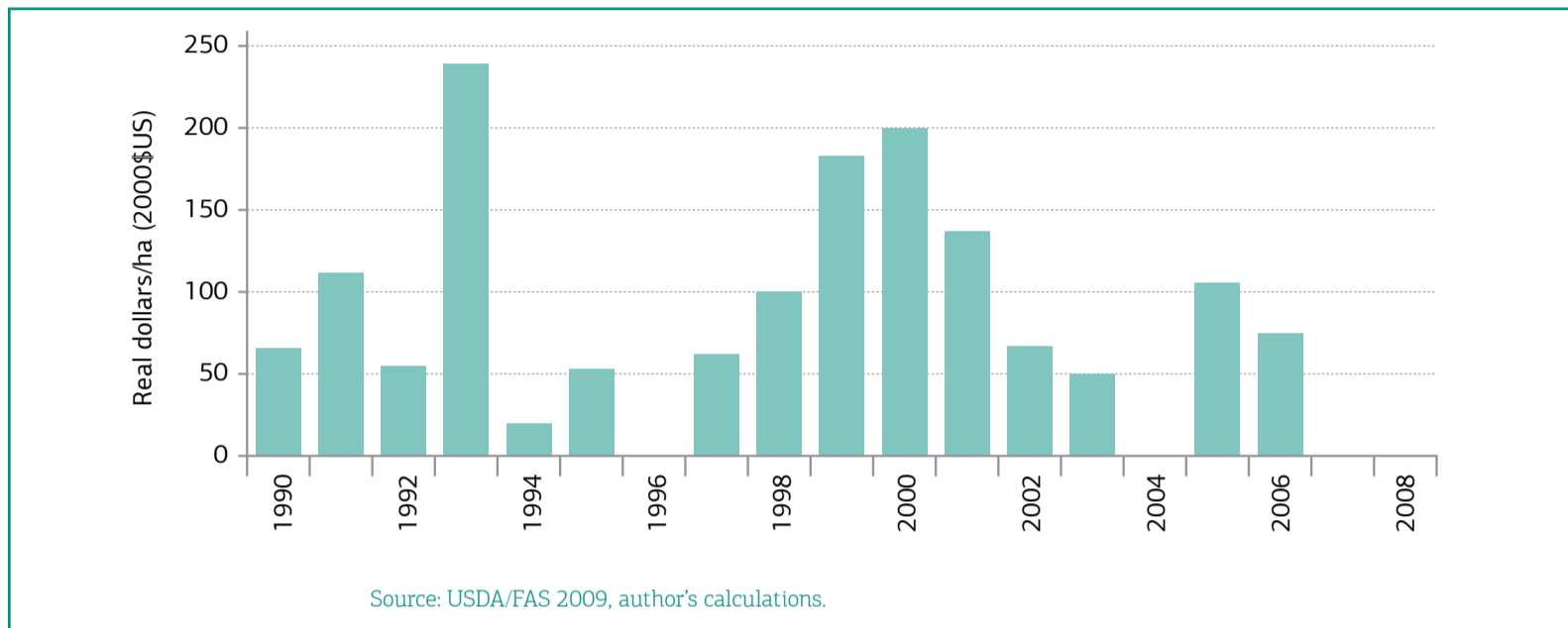
The estimated cost to Mexican producers of dumping-level prices was more than \$6 billion over the nine-year period, or \$730 million per year (in constant 2000 dollars). Losses exceeded \$11 billion since 1990, with the highest losses in 1993, and in 1999 and 2000 when dumping margins exceeded 30% (see Figure 4).

Figure 4
CORN: DUMPING MARGINS AND ANNUAL LOSSES 1990-2008



What did this mean for Mexican producers? From 1997-2005, producers lost an estimated \$38 per metric ton of corn, or \$99/ha per year. For most years, per hectare losses were between \$50 and \$100. In 1993, 1999, and 2000, losses exceeded \$175/ha (see Figure 5).

Figure 5
CORN DUMPING LOSSES/HA TO MEXICAN PRODUCERS 1990-2008



This highlights the human costs of agricultural dumping. In real pesos (2000), this is an average loss of 958 pesos/ha between 1997 and 2005, or 367 pesos per metric ton. For the lowest productivity smallholders, this eliminated any positive income from the sales of corn in the marketplace. It illustrates one of the most important reasons for the widely observed “retreat to subsistence” among Mexican smallholders: When it no longer pays to sell your corn, better to use it just to feed your family.

These losses also highlight the importance of Procampo payments to Mexican farmers, and the irony that these subsidies have compensated for U.S. dumping rather than helped farmers increase productivity. Procampo was set up as part of the transition period under NAFTA as an income-support program to help farmers become more competitive or shift to other crops or livelihoods. On its face, Procampo was intended to address the asymmetries between U.S. and Mexican agriculture. As an income-support program, Procampo proved an important lifeline, but its value as a stimulus to competitive corn production was largely undercut by U.S. dumping. Between 1994 and 2005, the real value of Procampo payments declined 39%. In 2000 pesos, payments to the smallest producers averaged 858 pesos/ha. This was insufficient even to compensate Mexico’s corn farmers for the price impacts of dumping, which averaged 958 pesos/ha. Nothing was left over to help farmers address the true sources of the developmental asymmetries between U.S. and Mexican corn farmers.

4. IS DUMPING A THING OF THE PAST?

While the long-term trends suggest nominal prices for some agricultural commodities slightly higher than their pre-boom lows, it would be a mistake to conclude that Mexican producers have seen the end of U.S. agricultural dumping (OECD-FAO 2009). Costs of production, heavily driven by the prices for petroleum-based inputs, remain well above their pre-spike levels as well, and there is little indication that input costs will go down significantly in the future. Costs of production for corn in the United States in 2009 were 17% above their 2007 levels, while prices continue to fall. Preliminary price data suggest that in 2009 the United States was already exporting wheat and cotton at prices below production costs.

Unfortunately, NAFTA has eliminated Mexico’s most effective policy instruments for addressing dumping-level prices. Under the TRQ, the Mexican government could have levied tariffs to compensate for dumping. No longer. Now, the government would need to file a dispute under the WTO in an attempt to win the right to impose countervailing duties to make up for high U.S. subsidies. The political costs of such a strategy are high, and Mexico has a poor track record in such disputes.

Short of renegotiating NAFTA, only greater cooperation from the United States in limiting exports of the most sensitive products – white corn, beans, and nonfat dry milk, among others – will help protect Mexico’s small-scale farmers from future dumping.

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