



AMERICAN UNIVERSITY

W A S H I N G T O N , D C

Department of Economics

Working Paper Series

**Dumping on U.S. Farmers:
Are There Biases in Global Antidumping
Regulations?**

by

Kara M. Reynolds

No. 2006-03

January 2006

<http://www.american.edu/academic.depts/cas/econ/workingpapers/workpap.htm>

Copyright © 2006 by Kara M. Reynolds. All rights reserved. Readers may make verbatim copies of this document for non-commercial purposes by any means, provided that this copyright notice appears on all such copies.

Dumping on U.S. Farmers: Are There Biases in Global Antidumping Regulations?*

Kara M. Reynolds**

Abstract

The explosion of antidumping activity over the past 10 years has raised concern among agriculture analysts that antidumping regulations are biased toward imposing more protection on U.S. agricultural goods than other products. This research fails to find a statistically significant bias in the outcomes of antidumping investigations involving agricultural goods compared to other products, nor does it find significant evidence that foreign antidumping investigations into imports of food products have resulted in higher levels of protection than U.S. investigations. However, the results from a comprehensive case study analysis suggest that despite the lack of statistical evidence of bias, U.S. agricultural producers have reason to question the fairness of global antidumping regulations. Given these results, government officials should consider whether U.S. food producers could be better served by changes to both U.S. antidumping regulations and the World Trade Organization Antidumping Agreement.

Key words: antidumping, agriculture trade, import protection

JEL classification: F13, Q17

* This project was supported by the National Research Initiative of the Cooperative State Research, Education and Extension Service, USDA, Grant #2005-35400-15849.

** American University. Contact: Kara M. Reynolds, Department of Economics, American University, 4400 Massachusetts Avenue, NW, Washington, DC 20016-8029. Email: reynolds@american.edu.

1 Introduction

As multilateral trade agreements have lowered tariffs and quantitative trade restrictions across the world, the use of other regulatory tools has increased to fill the protection void. One of these “new” forms of protection, antidumping regulation, has the potential to become one of the most significant barriers to world trade. Antidumping regulations allow industries to request that tariffs be imposed upon specific products from specific countries because these products are allegedly being sold at unfairly low prices and causing irreparable harm to the domestic industry. Once the domain of a handful of industrialized countries, since the inclusion of the Antidumping Agreement in the last WTO trade agreement the amount of antidumping trade protection across the world has skyrocketed. Forty-one WTO members filed 2,437 antidumping cases between 1995 and 2003, an almost 40 percent increase over the nine years prior to this period. The United States alone filed 330 antidumping petitions against other countries and was subjected to 139 antidumping cases filed by 20 different countries during the period.

Although the traditional, industrialized users of antidumping primarily use the regulations to protect domestic manufacturing industries, new, developing users file more antidumping cases against agricultural products. Agriculture accounted for 6 percent of AD investigations between 1987 and 1997, but over 10 percent of total investigations among new users such as Brazil and Colombia. Depending on the outcome, even one antidumping case can dramatically limit exports of agricultural products. For example, in 2000 Mexico filed an antidumping case that eventually led to the imposition of a 10.18 percent antidumping tariff on all U.S. exports of rice. The quantity of U.S. exports of rice to Mexico fell nearly 10 percent between 2000 and 2001 alone. Over the past 10 years, producers in the United States have seen exports plummet due to the imposition of antidumping duties as high as 50 percent on exports of such things as apples, beef, chicken, pork, tomatoes, corn, rice, fructose and refined sugar. However, other growers have benefited from the protection afforded to them by U.S. antidumping regulations. U.S. producers have successfully requested antidumping protection from imports of a wide variety of food products, including wheat, raspberries, honey, apple juice, and mushrooms.

Many economists and industry analysts argue that current antidumping regulations re-

sult in the imposition of more antidumping protection on agricultural products than others because of the unique characteristics of the industry. For example, because the supply of perishable products cannot be adjusted to price variation in the short-run, selling below the sunk cost of production is completely rational. Moreover, food and fiber products, particularly perishable products, experience more frequent price variations than manufactured goods. Therefore, it is likely that government investigators will set higher antidumping tariffs in agriculture than in manufacturing sectors. Others argue that in addition to this agriculture bias in global antidumping regulations, there may be a bias in the implementation of antidumping regulations against U.S. producers. Specifically, U.S. government officials have stated that developing countries tend to impose higher dumping margins than the United States due to questionable legal practices. Therefore, U.S. agricultural producers may be especially hard hit by global antidumping protection if both forms of bias exist in global antidumping regulations.

Given the increasing use of antidumping protection in the agriculture sector and the dramatic impact these regulations have on world trade of food products, it is important to understand to what degree antidumping regulations are biased toward imposing higher levels of protection against agricultural products compared to other goods, and whether there is an even larger bias toward imposing antidumping protection on U.S. produced food products.¹ To accomplish this task, I first compare the outcomes of the 36 antidumping investigations involving U.S. agricultural producers between 1995 and 2003 to those investigations involving other U.S. producers over the period. Although this statistical comparison of outcomes fails to find much evidence of a significant agriculture bias in antidumping investigations, the results do suggest that investigations involving agricultural products are slightly more likely to result in the imposition of tariffs than other investigations. I next conduct a comprehensive case study analysis to determine what specific aspects of antidumping regulations may be causing an agriculture bias, and whether foreign governments tend to impose more protection upon U.S. food products than the United States imposes upon foreign food products. The results reveal a number of surprising similarities in the outcomes of these investigations that should be noted both by agricultural producers considering requesting antidumping

¹I define the agricultural sector to include both raw and processed food products, including seafood.

protection and government officials charged with setting and implementing antidumping regulations. For example, many of the antidumping petitions filed against U.S. agriculture producers over the past 10 years have been politically motivated and in direct retaliation for U.S. trade policies. It also appears that although agriculture producers are severely impacted by the imposition of antidumping protection on processed food products, these producers are often barred from participating in antidumping investigations due to current regulations.

The paper proceeds as follows. In the next section I present a brief review of international regulations governing the imposition of antidumping duties, and Section [3] discusses previous research on the impact of these regulations on the agricultural sector and the extent to which laws are biased toward the imposition of protection on agricultural products. Sections [4] and [5] present a statistical and case study analysis of bias in the antidumping petitions involving U.S. food producers between 1995 and 2003. Finally, Section[6] concludes.

2 Antidumping Regulations

The current international Antidumping Agreement (the Agreement), which was included in the 1994 Uruguay Round Trade Agreement, allows countries to protect their domestic industries by imposing extra import duties on the products the country finds have been dumped. Prior to imposing these tariffs, however, the country must undertake a lengthy investigation to (1) show that dumping is taking place and calculate the extent of this dumping and (2) prove that the dumping is hurting the domestic industry. The Agreement provides very specific guidelines as to how the investigation must be conducted and the subsequent antidumping duties imposed.

Under the Agreement, antidumping petitions may be filed by or on behalf of a domestic industry. The agreement defines the domestic industry as producers of the “like” product, or the product identical to or, in the absence of an identical product, the products which have characteristics closely resembling those of the product under investigation.² In order

²The Agreement includes provisions to consider geographical characteristics in the definition of the domestic industry. For example, in 2001 Canada initiated an antidumping investigation that dumped imports from the United States were causing injury to corn growers in western Canada, or those in the provinces of Manitoba, Saskatchewan, Alberta and British Columbia.

to have standing to file the petition, supporters of the petition must constitute more than 25 percent of domestic production of the like product and 50 percent of production of those producers that both support and oppose the petition. The government may initiate an official antidumping investigation only if they determine that there is sufficient evidence provided in the petition that dumped imports from the country under investigation have caused injury to the domestic industry. The agreement allows the government to self-initiate an antidumping investigation in special circumstances if they have sufficient evidence that dumped imports are causing injury to the domestic industry.

The WTO antidumping agreement directs countries to calculate the antidumping margin or duty as the difference between the export price and the normal value of the product in the “ordinary course of trade.”³ Typically, the normal value is defined as the price set by the producer in their domestic market. However, any sales made at prices below the producer’s average cost of production over an extended period of time and in substantial quantities may be defined by the investigating authority as outside of the ordinary course of trade, and thus excluded from the calculation of normal value.⁴ Thus, antidumping regulations target both price discrimination and predatory pricing, or pricing below the average total cost of production. If there are insufficient sales in the domestic market to calculate the normal value, the investigating authority may use alternative definitions of normal value. For example, normal value may also be defined as the price set by the producer in a representative third country market. Alternatively, investigating authorities may define the normal value as the producer’s cost of production plus a built in margin for administrative expenses and profits, often referred to as a “constructed value.” The Agreement also includes stipulations as to how the investigating authority should best adjust export price and normal value to account for such things as the terms of sale and physical characteristics, as well as how to take such things as current exchange rates into account.

The Agreement specifies that governments must make injury determinations based upon

³In the United States, this determination is made by the International Trade Administration of the Department of Commerce.

⁴Specifically, sales are considered outside the normal course of trade if at least 20 percent of the total volume of goods are sold by the producer at prices below the average cost of production over a six month time period.

an objective examination of the volume of dumped imports and the effect of these imports on domestic prices, as well as the impact of these imports on domestic producers. Importantly, it is not enough to show that the domestic industry has been injured; the government must prove a causal link between the dumped imports and the injury. Governments are directed to consider a wide range of economic factors, including decline in sales, profits, output, market share, productivity, employment, wages, and capacity utilization rates. Investigators should also take into account other factors affecting domestic prices and the health of the domestic industry. When the investigating authority is considering the impact of imports from more than one country simultaneously, the Agreement allows officials to cumulatively assess the effects as long as this cumulation is appropriate under the conditions of competition between the imported products and the domestic products.

The Agreement requires investigating authorities to terminate all investigations immediately upon finding that the margin of dumping is *de minimis*, or less than two percent as a percentage of the export price, or that there is insufficient evidence that the dumped imports have caused injury to the domestic industry. Governments may impose preliminary antidumping measures prior to the final conclusion of the investigation if they have made preliminary determinations that there is evidence that dumped imports have caused injury to the domestic industry and these provisional duties are necessary to prevent imports from causing further injury; provisional duties may be applied as soon as 60 days after initiation of the investigation but should not be imposed for more than six months. All antidumping investigations must be completed within 18 months of their initiation, although the Agreement notes that investigating authorities should try to complete all investigations within one year of initiation. Note that the Agreement also allows governments to terminate or suspend antidumping investigations if they reach an agreement with the exporting country, typically known as a suspension agreement, to revise its prices or limit its exports so that the injurious effect of the dumping is eliminated. If the investigating authorities make final affirmative determinations that the country under investigation has dumped products on the domestic market and these dumped imports have caused injury to the domestic industry then they may impose more permanent antidumping duties on the products in question.⁵

⁵Under the Agreement, countries must review antidumping orders every five years in “sunset reviews”

3 Review of the Current Literature

A number of authors have utilized case study analysis to study the use of antidumping regulations in the agricultural sector, noting that agricultural producers may be particularly susceptible to the imposition of dumping duties due to the unique nature of the products in question. For example, NFAPP (2000) specifically studies whether antidumping regulations are appropriate tools for perishable agriculture products, and in particular produce. The authors note that due to the perishable nature of the products, producers may often be forced to sell products at “distressed” prices, or those below its variable cost of production. However, this does not necessarily indicate that the product was sold at an unfair market value. The study also raises concerns over statutes governing the definition of “like” products. In cases involving processed food products, investigating authorities must decide whether to include growers of the raw agriculture input in the definition of the domestic industry. Often this prevents agricultural producers from filing or taking part in an antidumping petition even though imports of a processed food product have a significant impact on profit margins. NFAPP considers whether the fact that antidumping cases are typically lengthy processes has a positive or negative impact on agricultural producers, where production is typically seasonal and antidumping protection may not be imposed until long after the damage from imports has already occurred.

Carter and Gunning-Trant (2003) reviews the use of trade remedy laws, including antidumping laws, by U.S., Canadian and Mexican agricultural producers and studies the impact of these laws on agricultural imports. Using summary statistics, Carter and Gunning-Trant (2003) note that there was a disproportionate share of antidumping cases filed by U.S. agricultural industries between 1984 and 2001 compared to other U.S. industries. The authors also note that antidumping cases tended to be more successful in Canada than in the United States. Finally, by comparing the change in the value of imports from countries targeted in antidumping investigations and the rest of the world in the period before the antidumping petition and after, the authors conclude that successful antidumping petitions result in trade diversion; in other words, the importing country substitutes products from

to determine whether the imposition of the antidumping duty is still warranted, or if it is still necessary to counteract the dumping of products which is causing industry.

the rest of the world for those products that must now pay antidumping duties.

Barichello (2002) presents a thorough description of one unique pair of antidumping cases—the simultaneous petitions filed by U.S. and Canadian tomato growers against each other. The author hypothesizes that a country is more likely to find evidence of dumping of horticulture products than others. First, Barichello notes that it is natural for smaller countries exporting to larger countries to face more competition in the export market than in the domestic market, thus the smaller exporter will be forced to lower prices. Moreover, real producer prices in agriculture tend to trend downward due to improvements in technology and increased productivity. Firms slow to adopt the changes in technology are more likely to face losses. As a result, it is more likely that government investigators will find evidence of financial losses in the domestic industry, and because of lags in getting up to date cost data, the government is more likely to find evidence that prices are below cost. Barichello also notes that many agricultural commodities' prices fluctuate in cycles that often last more than the two or three years used in the government's calculation of injury and dumping, thus the government is almost guaranteed to find evidence of dumping and injury during periods of investigation that occur during low-points in the cycle.

Sumner, Barichello and Paggi (2003) review the role of economic analysis in agricultural antidumping petitions, and note that the partial equilibrium simulation models typically used to evaluate the impact of antidumping by U.S. investigating authorities are not designed to deal with import sensitive industries that are also major exporters, such as many U.S. agricultural sectors. The authors also suggest that the typical approach to prove that dumped imports are causing injury to the domestic industry—studying trends in imports over a three-year period to trends in prices or domestic production—may be problematic given the seasonal nature of agriculture production where seasonal trends in prices will likely dominate all other trends.

Finally, Coleman, Fry and Payne (2003) present a case study analysis of four antidumping cases filed against U.S. agricultural producers to illustrate concerns U.S. industry groups have regarding antidumping practices in developing countries, particularly a lack of transparency and due process in the implementation of developing countries. Moreover, the paper notes that U.S. Department of Commerce officials have argued that developing coun-

tries have a tendency to impose especially high dumping margins, which may be due to the use of questionable procedural and legal assumptions and conclusions over the course of the investigation.

Most of the papers considered above base their analysis on detailed descriptions of a handful of specific antidumping investigations. This research builds on this previous analysis by perhaps most importantly conducting statistical tests of whether antidumping investigations involving food products actually are more likely to be successful and result in higher antidumping tariffs than other investigations, as suggested above. I also improve upon former case study analyses by expanding the dataset to include all antidumping investigations involving U.S. food producers between 1995 and 2003. The expanded dataset is better able to identify the similarities in investigations involving food products that could result in an agriculture bias.

4 A Statistical Analysis of Agriculture Bias in Antidumping

Between 1995 and 2003, U.S. agricultural producers and food manufacturers filed 25 antidumping petitions against foreign producers, or 7.6 percent of all antidumping petitions filed by U.S. producers. As noted in Carter and Gunning-Trant (2003), the agriculture and food processing sectors account for only 2.6 percent of U.S. GDP and less than five percent of U.S. imports, thus these agriculture producers file a disproportionate share of antidumping petitions. The leading targets of antidumping petitions filed by U.S. agricultural industries include Canada, Mexico, Chile and China, as illustrated in Figure [1]. Of these investigations, 36 percent involved raw agricultural products while the remaining 64 percent involved processed food products of one degree or another.⁶

Foreign producers filed a total of 137 antidumping petitions against U.S. industries between 1995 and 2003. However, only 11 of these antidumping petitions were filed against U.S. food producers. Virtually all of these petitions were filed by the United States' North American Free Trade Agreement (NAFTA) partners, as illustrated in Figure [2], although South Africa also filed an antidumping petition against U.S. poultry producers. It is inter-

⁶The degree of processing varied considerably among those goods investigated, ranging from honey, seafood and meat products to pasta, cookies and jarred baby food.

esting to note that over one-third of the antidumping petitions filed by Mexico and Canada against the United States involved agriculture or food products, which may indicate the high degree of conflict in the North American agricultural industries since the passage of NAFTA.

Using basic summary statistics, there is only limited evidence that antidumping petitions involving agricultural products are more likely to result in the imposition of duties than those involving other industries. For example, as noted in Tables [1] and [2], 60 percent of the antidumping petitions filed by U.S. agricultural producers between 1995 and 2003 successfully resulted in the imposition of antidumping duties, while 28 percent resulted in no long-term protection. In comparison, only 46.2 percent of all antidumping petitions filed by U.S. industries during this time period resulted in the permanent imposition of antidumping duties. Note that the rate of affirmative determinations at the preliminary injury and the dumping margin determination stage are virtually identical for both agriculture and non-agriculture petitions. Approximately 20 percent of the antidumping petitions considered in this research were terminated after the government made a preliminary determination that there was no evidence to indicate that imports had caused injury to the domestic industry. The U.S. government almost always finds evidence that the imports under investigation have been dumped or sold at less than normal value. Therefore, the large apparent discrepancy in success rates between agriculture and non-agriculture related petitions occurs in the final injury determination. However, this difference in success rates is not actually statistically significant.⁷

It is even less clear that an agriculture bias exists in antidumping petitions filed by other countries. Of those antidumping investigations initiated by Mexico, Canada and South Africa against U.S. agricultural exports, 63.6 percent successfully resulted in the imposition of antidumping duties compared to a 66.6 percent success rate for all antidumping investigations filed by the three countries against the United States. Note that the success rate for these foreign investigations is only slightly higher than the success rate for agriculture-related investigations in the United States.

There is also little evidence that dumping margins tend to be higher in those investiga-

⁷The t-statistic associated with a test of equal success rates among agriculture and non-agriculture investigations is 1.48, therefore I fail to reject the null hypothesis that the two success rates are equal.

tions involving food products. Statistically, the mean and variance of the final antidumping duty determination in the United States was the same regardless of whether or not the investigation involved a food product.⁸ The average final dumping margin set by the United States in non-agriculture related investigations between 1995 and 2003 was 59.65, compared to 60.22 in agriculture related investigations. Although the histograms of the distributions of the final dumping margin determinations in the United States presented in Figures [3] and [4] seem to indicate that there is a disproportionate share of agriculture-related investigations with antidumping duties over 180 percent, in fact a chi-square goodness of fit test fails to reject the null hypothesis that the distributions of agriculture and non-agriculture dumping duties are identical. The average final dumping margin set in the foreign antidumping investigations targeting U.S. food producers was virtually identical to the U.S. final dumping margins; the average final dumping margin set by Canada, Mexico and South Africa during antidumping investigations targeting U.S. food producers was 62.5 percent.⁹

As noted above, over 64 percent of the investigations considered in this research are food products that have been processed in some way. One might suspect that the agriculture bias is more prevalent in investigations involving raw agricultural products, which tend to be more perishable. However, there is virtually no evidence that more antidumping protection is imposed on raw agricultural goods versus processed food products—in fact quite the opposite. Only 37.5 percent of those U.S. antidumping investigations involving raw agricultural goods resulted in the imposition of dumping duties compared to an 85.7 percent success rate for processed food products.¹⁰ Moreover, the average final dumping margin determination in the United States was 8.8 percent for raw agricultural goods compared to 81.8 percent for processed food products.

⁸The t-statistic associated with the test that the mean of agriculture and non-agriculture final dumping duties were equal was 0.032. The F-statistic associated with the test that the variance of agriculture and non-agriculture final antidumping duties were equal was 95. Therefore, I fail to reject the null hypotheses that mean and variance of antidumping duties in agriculture and non-agriculture industries are the same.

⁹Note that this average is based in part on my estimate of the dumping margin based on the average unit price of U.S. exports in the year the dumping margin was imposed because Mexico in particular tends to set specific rather than ad valorem dumping margins in investigations involving agriculture products.

¹⁰To calculate these success rates, I exclude those investigations that were terminated prior to a final government determination such as those resulting in suspension agreements.

5 A Case Study Analysis of Agriculture Bias in Antidumping

The statistical tests discussed above may be unable to capture some of the unique aspects of antidumping investigations involving agriculture products that could result in higher levels of protection against the agriculture sector in general and against U.S. food producers more specifically than other investigations. The discussion below presents results from a comprehensive case study analysis of the 36 antidumping investigations involving U.S. food producers between 1995 and 2003. The discussion focuses on a selection of noticeable similarities in the initiation and outcome of these antidumping investigations. It also specifically studies whether agriculture-related antidumping investigations conducted by foreign governments result in more protection than those conducted by the United States. More extensive information about each investigation is available in Reynolds (2005).

5.1 Initiation: Retaliation and Politics

Feinberg and Reynolds (2005) finds evidence that retaliation is a strong motivation for filing antidumping petitions. In other words, there is significant evidence that industries in importing countries may file antidumping petitions against a particular country in order to retaliate against that country for previous antidumping petitions against the importing country. It is interesting to note that an analysis of antidumping investigations involving North American agricultural producers suggests that retaliation is often a motivating factor in the decision to file these petitions. For example, U.S. growers of greenhouse tomatoes filed an antidumping petition against Canadian growers in March of 2001. Six months later, just days before the United States imposed preliminary antidumping duties against Canadian tomato imports, the Canadian tomato growers filed a retaliatory antidumping petition against all U.S. tomato growers. The two antidumping investigations continued simultaneously until the United States made a final determination that there was no evidence that Canadian imports were causing injury to the domestic industry, thus terminating the investigation without the imposition of antidumping duties. Canadian growers requested the Canadian government terminate its antidumping investigation against U.S. tomatoes less than one month after the U.S. decision.

Other examples suggest that antidumping petitions may be filed not in retaliation for other antidumping actions, but rather to impose pressure on the exporting government to change other trade regulations. For example, Canadian producers of refined sugar filed an antidumping petition against U.S. producers in 1995, shortly after the United States increased restrictions on Canadian sugar imports. U.S. producers claimed that Canada was simply retaliating against the recent restrictions, and a Canadian adviser to the sugar industry noted that they hoped the antidumping petition would put pressure on the U.S. government to relax the restrictions.¹¹ Similarly, U.S. pork producers argued that the 2003 antidumping petition filed by Mexican producers was an attempt to compel the United States to agree to reverse NAFTA's market access provisions for Mexican pork. According to U.S. pork producers, Mexican Foreign Secretary Ernesto Derbez stated at a conference just two days before the initiation of the antidumping investigation that the agricultural aspects of NAFTA "need to be corrected, will be corrected."¹²

5.2 The Injury Determination

As noted in Section [2], in order to impose antidumping duties governments must prove that the imports under investigation have *caused* injury to the domestic industry by conducting an objective examination of the volume of dumped imports and the effect these imports have had on domestic prices and producers. In this analysis, governments must consider a wide range of economic factors, including decline in sales, profits, output, and market share. Some analysts have argued that government investigators may be slightly more likely to find evidence that dumped imports have caused injury to producers of agricultural goods compared to manufactured goods because production and returns for many agricultural goods fluctuate in cycles. Therefore, if the investigation period takes place during a period of low returns, the agency may be more likely to make an affirmative injury decision and impose

¹¹John Urquhart, "Canada imposes stiff levies on imports of refined sugar from U.S., others," *Wall Street Journal*, July 10, 1995.

¹²National Pork Producers Council, "Mexico's Antidumping Case Against U.S. Pork Exports is Unwarranted and Must Immediately be Terminated," http://nppc.org/public_policy/brief_summary.pdf, downloaded October 4, 2005.

antidumping duties.¹³ However, U.S. investigators typically account for cyclical price and production behavior in their analysis. A case study analysis, however, reveals two common factors that could put U.S. agricultural producers at a distinct disadvantage in antidumping investigations compared to manufacturers and foreign agricultural producers. First, U.S. producers of raw agricultural goods are often prevented from taking part in antidumping investigations involving processed food products. Second, U.S. investigators appear to be less likely to cumulate imports from multiple countries when making injury determinations involving raw agricultural products.

5.2.1 Definition of “Like” Product and Industry

The agency charged with determining whether or not the domestic industry has been injured must define the domestic industry. For investigations involving processed food products, the agency must specifically determine whether to include growers in the definition of the industry. In the United States this decision is made by the International Trade Commission (ITC), which includes growers only if the processed product is produced from the raw product in a single continuous line of production and there is a “substantial coincidence” of economic interests between growers and processors. As a result of this definition, growers are typically excluded from the definition of the domestic industry and these producers are prevented from participating in the antidumping investigations. Of the 16 antidumping investigations involving processed food products in the United States between 1995 and 2003, the ITC included growers, or the producers of the raw agricultural input, in only two—honey in which the domestic industry was defined as beekeepers and honey packers and frozen raspberries. Surprisingly, the list of investigations where growers were excluded includes many products that undergo seemingly limited processing including hazelnuts, many fresh seafood products, and preserved mushrooms.¹⁴

It appears, however, that other countries are not as restrictive when defining the like

¹³For example, the cattle cycle in the United States lasts approximately 10 to 12 years; the liquidation phase of the cycle, which is characterized by low prices and a glut in the supply of cattle, lasts approximately three to four years of the cycle.

¹⁴It should be noted that in some of these cases a subset of processors in the industry also happen to be the producer of the raw agricultural product.

product and industry, at least based on the limited sample of countries that filed agriculture-related antidumping petitions against the United States during the period. For example, in an investigation involving frozen whole chickens and chicken pieces, South Africa defined the domestic industry to include poultry producers. Similarly, Mexico included cattle producers in the definition of the domestic industry producing beef products, and allowed hog producers to file an antidumping petition against U.S. imports of pork products. In comparison, the United States excluded producers of crawfish, for example, in the definition of domestic industry for crawfish tail meat.

In an even broader definition of domestic industry, Mexico allowed its domestic sugar industry to file an antidumping petition against U.S. imports of high-fructose corn syrup (HFCS), a corn-based sweetener. As noted above, the WTO Antidumping Agreement does allow the definition of the domestic industry to include producers of “similar” products when no identical product is produced in the country. However, U.S. producers of HFCS argued during the investigation that (1) Mexico produced HFCS, therefore the correct definition of the domestic industry should be producers of HFCS and (2) HFCS and refined sugar were not similar products. In the subsequent dispute surrounding the investigation, the WTO ruled that sugar producers should be allowed to request antidumping protection from HFCS imports. Based on these examples, it appears that U.S. regulations governing the definition of the domestic industry put U.S. producers of raw agricultural goods at a distinct disadvantage to foreign producers.

5.2.2 Cumulation of Imports

As noted in Section [2], the WTO Antidumping Agreement allows countries to cumulate imports from multiple countries in order to make injury determinations when the antidumping investigation involves multiple countries as long as this cumulation is appropriate under the conditions of competition in the industry. U.S. antidumping law has allowed for cumulation of the value of imports since 1984. Under the U.S. law, the ITC is required to add together all subject imports when determining whether dumped imports have materially injured the domestic industry as long as imports from each country compete with each other and with the domestic product. Hansen and Prusa (1996) found that cumulation increased

the probability of an affirmative injury determination in the United States by 20 to 30 percent, and changed the ITC decision from negative to affirmative for approximately one-third of the cumulated cases.

Because of the seasonal nature of production and imports, the ITC usually forgoes cumulation of imports in investigations involving raw agricultural products. For example, the ITC opted not to cumulate imports from Mexico and Chile in the investigation into the impact of dumped imports of spring table grapes because Chilean imports enter the United States almost entirely in April while those from Mexico enter between May and June. Therefore, imports from the two countries did not compete with one another. The ITC also opted not to cumulate imports from Canada and Mexico during the 1998 antidumping investigation of imports of live cattle because Mexican imports primarily consisted of calves while those from Canada primarily consisted of cattle ready for slaughter. The ITC failed to find evidence that imports were causing injury in both the grape and cattle investigation, thus terminating the investigations without the imposition of dumping duties. It appears from this small sample, therefore, that it is nearly impossible for producers of raw agricultural products to take advantage of the increased probability of success of investigations involving multiple countries that results from the cumulation of imports. In contrast, the ITC chose to cumulate imports in the three antidumping investigations involving processed food products from multiple countries, and subsequently made affirmative injury determinations in all three cases.¹⁵

5.3 The Dumping Margin Calculation

As described above, the WTO Antidumping Agreement directs investigating authorities to calculate the dumping margin, or the degree of protection that results from successful antidumping investigations, using the difference between the export price and the normal value of the product produced by the country under investigation. Although the definition of the export price is self-explanatory, governments can choose one of several methods to define the normal value.

¹⁵The three investigations involving processed food products from multiple countries included pasta, honey and preserved mushrooms.

Antidumping investigations typically result in the imposition of firm-specific duties because the export price and normal value of products differ by firm. However, because it is often impossible to collect data from all firms within an industry, governments typically set firm-specific margins for only the largest producers in the industry and an “all others” rate that can be imposed upon firms not specifically considered. Most countries, including the United States, define this all others rate as the weighted average of the margins imposed on individual firms specifically considered in the investigation. However, this is not always the case. For example, Mexico determined that one U.S. firm was not cooperating in the 2003 antidumping investigation involving U.S. imports of rice. As a result, the government imposed the margin suggested by Mexican rice producers against this firm and all other firms not specifically investigated. South Africa calculated the all others rate using the difference between the highest normal value assigned to the U.S. chicken producers specifically investigated and the average unit price of imports by all other firms. To the extent that there tend to be many more producers of a given raw agricultural good than a manufactured good, it is more likely that agricultural producers will be subject to an “all others” duty because it becomes next to impossible for governments to impose producer-specific tariffs the more firms exist within an industry.

The methods used to calculate normal value in the antidumping investigations involving U.S. food producers between 1995 and 2003, as well as the average “all others” final antidumping duties imposed in these investigations, are presented in Table [3].¹⁶ U.S. investigators used the primary method recommended under the WTO Antidumping Agreement, the prices charged by firms under investigation in their domestic market, to calculate the normal value in nearly 40 percent of all antidumping investigations involving food products. Note, however, that under this method all sales made below the firm’s average cost of production are excluded from the calculation, thus the United States supplemented the home market prices with constructed values in all of these investigations.¹⁷ The United States used

¹⁶Note that this table excludes those investigations that were terminated or suspended prior to the determination of the final dumping margin.

¹⁷For example, in the 2001 investigation into the dumping of greenhouse tomatoes by Canadian producers, the United States used constructed value to calculate the normal value for specific grades and sizes of tomatoes when there were insufficient quantities of sales of these products made above the firm’s average

prices set by the firms under investigation in a third-country market to calculate normal value in slightly over 16 percent of these investigations, and constructed value in an additional 16 percent of investigations. Finally, U.S. antidumping regulations include special provisions to calculate normal value in investigations involving non-market economies such as China and Vietnam. Under these provisions, the United States calculates a constructed value for each firm using the factors of production reported by the firms under investigation, but the factors of production are valued in a surrogate market economy that produces the product in question and is at a similar level of development to the non-market economy. Nearly 30 percent of the U.S. antidumping investigations under consideration in this research reaching a final dumping margin determination involved non-market economies.

The primary methods used by foreign governments to calculate the normal value of food products produced by the United States differ slightly from those methods described above. For example, foreign investigators determining the normal value of U.S. food products never used the prices set by U.S. producers in a third-country market. This is likely due to the fact that the size of the U.S. market is relatively large, therefore there are almost always sufficient domestic sales to calculate normal value using the prices set by producers in the United States. Instead, foreign investigators utilized home market sales to calculate normal value in 40 percent of all investigations involving U.S. food producers, and constructed value in an additional 40 percent of investigations.

Under the WTO Agreement, if firms under investigation refuse or fail to provide information requested by government investigators within a “reasonable” period of time then governments may make dumping margin determinations on the basis of “facts available.” Often the facts available are the dumping margins requested by domestic firms in their initial petition for antidumping protection, although investigators may also use other outside information. Facts available are often used to set dumping margins for specific firms, but these (typically higher) dumping margins are not used to calculate the “all others” dumping margin rate. However, in other cases facts available are used to determine dumping margins for all or most producers under investigation. For example, the United States relied on facts available to calculate the dumping margins in all of the investigations involving

cost of production to calculate the normal value using the prices set in the Canadian market.

non-market economy food producers. In the 1997 investigation of apple imports from the United States, Mexico initially dismissed all information provided by U.S. producers because the information did not match the information provided by Mexican importers. The preliminary dumping margin was determined based on the margin requested by Mexican apple growers.¹⁸ Finally, in the 2001 investigation of U.S. rice imports, Mexico investigators ruled that one U.S. firm was not cooperating in the investigation based on the fact that the firm reported that they did not ship any rice to Mexico during the period in question. Mexico investigators thus used adverse facts available to determine the dumping margin for this firm and all other firms not specifically included in the initial investigation.

The fact that different countries appear to rely on different methods to calculate normal value may be cause for concern for some agricultural producers given that summary statistics suggest that some methods result in higher dumping margins than others. For example, the average final dumping margin determination in investigations involving U.S. food processors was 29.4 percent in those investigations which used domestic prices to calculate normal value, but 87.3 percent in those investigations that used constructed value.¹⁹ Moreover, dumping margins are statistically significantly higher in investigations that used adverse facts to calculate the normal value; the average dumping margin in investigations using facts available was 119.1 compared to 33.0 in all other investigations.²⁰

The average dumping margin set by the United States in investigations involving non-market economies is statistically significantly higher than other investigations; the average dumping margin in a non-market economy case was 139.9 percent compared to 27.1 percent in other investigations. This may be due to the method of calculation, although recall that the U.S. investigators used adverse facts available in all of these investigations. Moreover, the United States uses a shorter period of investigation—six months compared to one year—in investigations involving non-market economies, which may also impact the dumping margin calculations. However, the bias may also be due to the calculation method itself, which is

¹⁸Further investigation revealed that Mexican importers routinely generated false invoices in order to avoid import duties. Thus, Mexico later included data from U.S. producers to calculate the normal value.

¹⁹Note, however, that this difference in means is not statistically significant.

²⁰These statistical results may be biased by the fact that the United States used facts available in all investigations involving non-market economies, which tend to have higher dumping margins.

often controversial.²¹

5.4 Outcome of Investigations

The sections above discuss various aspects of antidumping regulations that may influence antidumping investigation initiations and well as the injury and dumping margin determinations by government investigators. However, the total impact of the antidumping investigation on the agriculture sector depends on a number of other factors, including whether preliminary dumping margins are imposed and the total length of the investigation, as discussed below.

5.4.1 Provisional Dumping Duties

Recall that the WTO Agreement allows governments to impose provisional tariffs after they make a preliminary determination that dumped imports from the country under investigation have caused material injury to the domestic industry. No country passes upon this opportunity, therefore 30 of the 36 cases considered in this research resulted in the imposition of at the very least provisional tariffs during the course of the investigation. The United States imposed provisional duties in 20 investigations for an average of 157 days; these provisional duties averaged 54.5 percent. Similarly, in the 10 investigations undertaken by foreign countries against U.S. food producers, provisional duties averaging 65.6 percent were imposed for an average of 229 days.

Provisional duties may be particularly problematic for U.S. food producers given that provisional duties were imposed against the United States for an average of 72 days longer than the U.S. provisional duties imposed against foreign producers. Moreover, the provisional duties are perhaps more frustrating when governments make subsequent final decisions that

²¹For example, the Department of Commerce chose to use Bangladesh as the surrogate economy to price the cost of fish in Vietnam during the 2002 antidumping investigation into imports of frozen fish fillets from Vietnam, despite the fact that Vietnamese producers argued throughout the investigation that prices were much higher in Bangladesh than in Vietnam. The Department of Commerce chose Spain as the surrogate market economy to evaluate the cost of crawfish in China in a 1996 investigation because Spain is one of the few countries in the world that produces crawfish although few would argue that Spain and China are at a similar level of development.

there is not actually enough evidence to impose antidumping duties against a particular country. Of the investigations in which provisional duties were imposed, 30 percent of foreign investigations and 25 percent of U.S. investigation were later dismissed.

5.4.2 Settlement Agreements

As noted in Table [1], 4 percent of antidumping petitions filed by U.S. agricultural producers and nine percent of petitions filed against U.S. growers were suspended prior to governments reaching final determinations in the investigations. Recall from above that the WTO Antidumping Agreement allows governments to suspend an antidumping investigation if they reach an agreement with the exporting country, typically known as a suspension agreement or a price undertaking, to revise its prices or limit its exports so that the injurious effect of the dumping is eliminated. This is the method that the United States used to resolve the antidumping petition filed by U.S. tomato growers against Mexican imports, and the method that the Mexican government used to resolve the antidumping petition filed by Mexican apple growers against U.S. imports. In both cases, the exporting country agreed to set prices above an agreed upon reference price. Suspension agreements are periodically renegotiated under threat of the re-imposition of antidumping duties.²² Petitions involving agricultural products appear to be slightly more likely to be suspended than those involving other industries; only 3 percent of cases filed by other U.S. industries were suspended, and the U.S.-Mexican suspension agreement involving apples was the only petition filed by Canada, Mexico and South Africa that resulted in a suspension agreement.

In addition to the suspended investigations, 8 percent of petitions filed by U.S. agricultural producers were terminated by the industry prior to the government reaching a final determination. Industries sometimes choose to withdraw their petition or request that the investigation be terminated, although unlike the clear benefits from a suspension agreement it is often less clear why industries would choose to terminate an investigation. In the case of one of the two antidumping petitions terminated by U.S. agricultural industries, the hazelnut industry reached a private agreement with Turkish hazelnut producers that included funding

²²In fact, both the tomato and apple suspension agreements were temporarily lifted and antidumping duties imposed before new suspension agreements could be negotiated.

for a U.S./Turkey hazelnut marketing program and access to the Turkish gene repository for hazelnut trees. U.S. mussel producers also withdrew their petition after domestic mussel prices began to increase shortly after the preliminary imposition of antidumping duties. Based on this small sample, it also appears that antidumping petitions involving agricultural industries are also more likely to be terminated by the industries; only 3.7 percent of petitions filed by other industries were terminated prior to a government determination.²³

5.4.3 Length of Investigation

Staiger and Wolak (1994) find that antidumping investigations have a negative impact on imports and import-competing output, even when these investigations fail to result in the imposition of duties. Specifically, their research finds that petitioning firms may enjoy import relief during the investigation period equal to as much as half of what they might get from the imposition of permanent antidumping duties. A logical conclusion to make, therefore, would be that producers under investigation suffer more damage from antidumping investigations that last longer, regardless of the final outcome.

The average length of the U.S. antidumping investigations that resulted in a preliminary negative determination of injury and, thus, early dismissal was only 34.2 days. In comparison, the single antidumping investigation targeting U.S. food producers that resulted in a preliminary negative injury determination, Mexico's 2003 investigation of U.S. pork products, lasted an astounding 510 days. Although Mexico could not impose provisional duties during this time period, uncertainty surrounding the future outcome of the case could have impacted U.S. pork exports during this time.

The average length of those agriculture-related investigations reaching a final government determination was 356 days in the United States compared to 343 days in those cases filed against U.S. producers. As might be expected, this average length of investigation varied considerably by country. Canada's investigation length is relative short at an average of 220 days. In comparison the average length of an investigation in Mexico was 447 days and the single investigation undertaken by South Africa lasted 418 days.

²³These statistics exclude those petitions that were withdrawn only to be re-filed a short time later with additional information.

5.4.4 Dispute Settlement

Of the 36 antidumping investigations considered in this research, one-quarter were appealed in one way or another. Foreign producers may appeal the outcome of U.S. antidumping investigations to the U.S. Court of International Trade (CIT). The CIT ordered that the Department of Commerce review the antidumping margins in two investigations: imports of crawfish and frozen apple juice from China. The Court also directed the International Trade Commission to reconsider the injury determination in the investigation into salmon imports from Chile. None of the outcomes of these investigations changed dramatically following reconsideration of the case.

All WTO members have the ability to appeal the results of antidumping investigations to the WTO, and Canada, Mexico and the United States can appeal antidumping outcomes to the NAFTA dispute settlement resolution process. The United States appealed all four antidumping investigations conducted by Mexico that resulted in the imposition of antidumping duties to either the WTO, NAFTA or both organizations. The United States was successful in securing the elimination of antidumping duties in all four cases. However, the dispute settlement process is extremely lengthy and antidumping duties continued to be imposed during the entire process. For example, following Mexico's imposition of antidumping duties on U.S. live hogs in October 1999, the United States filed a complaint with the WTO which eventually resulted in the voluntary elimination of duties in May 2003. Similarly, Mexican antidumping duties on U.S. exports of high fructose corn syrup remained in place from January 1998 to April 2002 when Mexico lifted the duties in compliance with a NAFTA panel ruling. Mexico revised its antidumping duties on U.S. imports of beef that had been in place for over four years in October 2004 following a NAFTA panel ruling. Finally, Mexico continues to impose antidumping duties on U.S. imports of rice after over four years, despite a WTO ruling that Mexico's determination did not comply with the WTO Antidumping Agreement. On the other hand, the United States repealed antidumping duties on imports of hard red spring wheat from Canada after a NAFTA dispute settlement panel questioned some of the ITC's procedures in its injury investigation.

6 Conclusion

The explosion of antidumping activity over the past 10 years has raised concern among agriculture analysts that antidumping regulations are biased toward imposing more protection on agricultural goods than others. This bias may be particularly problematic for U.S. food producers because U.S. government officials have suggested that developing countries tend to impose higher antidumping duties than the United States due to faulty legal institutions. This research fails to find a statistically significant bias in the outcomes of antidumping investigations involving agricultural goods compared to other products, nor does it find significant evidence that foreign antidumping investigations into imports of food products have resulted in higher levels of protection than U.S. investigations. Nevertheless, summary statistics do suggest that investigations involving food products may be slightly more successful than other investigations in the United States. Specifically, 60 percent of antidumping investigations involving food products resulted in the permanent imposition of antidumping duties in the United States compared to 46 percent of other U.S. antidumping investigations.

Moreover, the results from a comprehensive case study analysis suggest that despite the lack of statistical evidence of bias, U.S. agricultural producers have reason to question the fairness of global antidumping regulations. For example, producers of raw agriculture inputs are typically excluded from participating in antidumping investigations involving processed food products in the United States; similar restrictions have not prohibited the participation of agriculture producers in other countries. Moreover, U.S. antidumping regulations tend to prevent investigating authorities from cumulating agricultural imports from more than one country when determining whether dumped imports have caused injury to the domestic producers or raw agricultural goods, which often results in the termination of investigations without the imposition of duties. Foreign countries also tend to rely on calculation methods that result in higher levels of protection than the United States.

I also find that a significant share of the antidumping cases filed against U.S. food producers between 1995 and 2003 were politically motivated and related to other U.S. trade actions. U.S. producers experience negative consequences from these investigations regardless of the final outcome. For example, provisional antidumping duties averaging 65 percent

were imposed in ten foreign antidumping investigations targeting U.S. producers; of these investigations, 30 percent were later terminated. The United States has also successfully challenged the imposition of antidumping duties in four cases filed in Mexico. However, antidumping duties were imposed for up to four years before antidumping duties in these cases were finally lifted. Given these results, government officials should consider whether U.S. food producers could be better served by changes to U.S. antidumping regulations or the WTO Antidumping Agreement, which could be revised during the Doha Round of WTO trade negotiations.

References

- [1] Barichello, Rick (2002). “Antidumping in Agriculture between Canada and the U.S.: Two Cases of Tomatoes.” Paper presented to the Eighth Agricultural and Food Policy Information Workshop *Keeping Borders Open*.
- [2] Carter, Colin A. and Caroline Gunning-Trant (2003). “Trade Remedy Laws and NAFTA Agricultural Trade.” Department of Agricultural and Resource Economics University of California Davis Working Paper 03001.
- [3] Coleman, Jonathan R., John Fry and Warren S. Payne (2003). “Use of Antidumping Measures by Developing Countries: The Impact on U.S. Exports of Agricultural Products.” Contributed paper presented at the International Conference *Agricultural policy reform and the WTO: where are we heading?*”
- [4] Feinberg, Robert M. and Kara M. Reynolds (2005). “The Spread of Antidumping Regimes and the Role of Retaliation in Filings.” forthcoming in the *Southern Economic Journal*.
- [5] Hansen, Wendy L. and Thomas J. Prusa (2005). “Cumulation and ITC Decision Making: The Sum of the Parts is Greater than the Whole.” *Economic Inquiry* 34 (4): 746-769.
- [6] National Food and Agricultural Policy Project (NFAPP) (2000). “Antidumping Legislation: Issues for the Produce Industry.” NFAPP #00-1.
- [7] Reynolds, Kara M. (2005). *Dumping on Agriculture: Case Studies in Antidumping*. Unpublished manuscript.
- [8] Staiger, Robert W. and Frank A. Wolak (1994). “Measuring Industry Specific Protection: Antidumping in the United States.” *Brookings Papers on Economic Activity: Microeconomics* vol. 4.
- [9] Sumner, Daniel A., Richard C. Barichello, Mechel S. Paggi (2003). “Economic Analysis in Disputes over Trade Remedy and Related Measures in Agriculture, with Examples from Recent Cases.” Contributed paper presented at the International Conference *Agricultural policy reform and the WTO: where are we heading?*”

Figure 1:
Number of Antidumping Cases Filed in the U.S. Food and Fiber Industry, 1995-2003

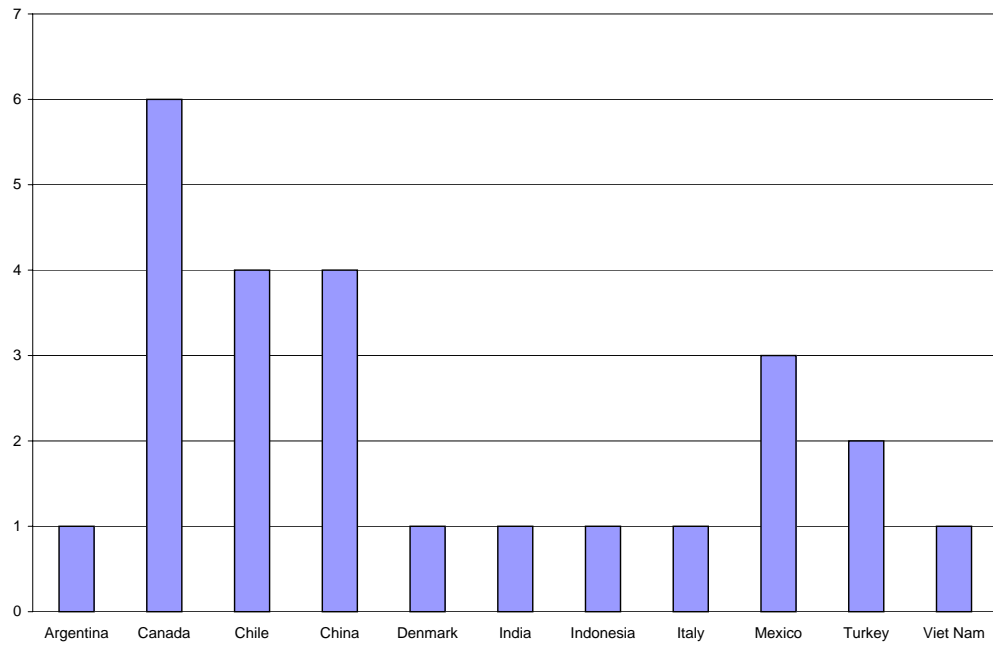


Figure 2:
Number of Antidumping Cases Filed Against the U.S. Food and Fiber Industry, 1995-2003

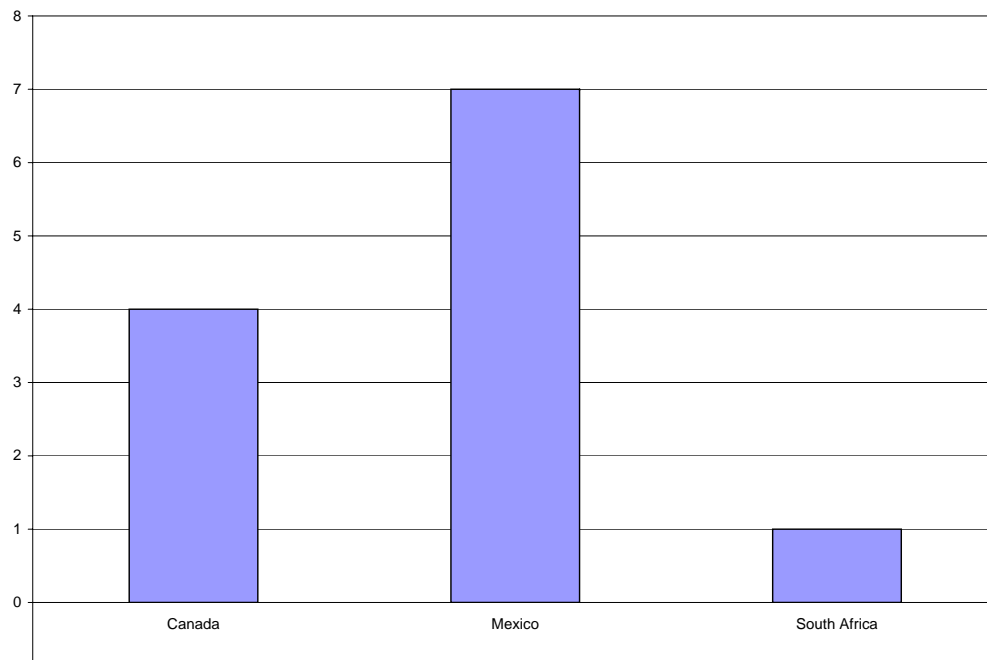


Figure 3:
Distribution of Final Antidumping Duties: U.S. Agriculture Investigations

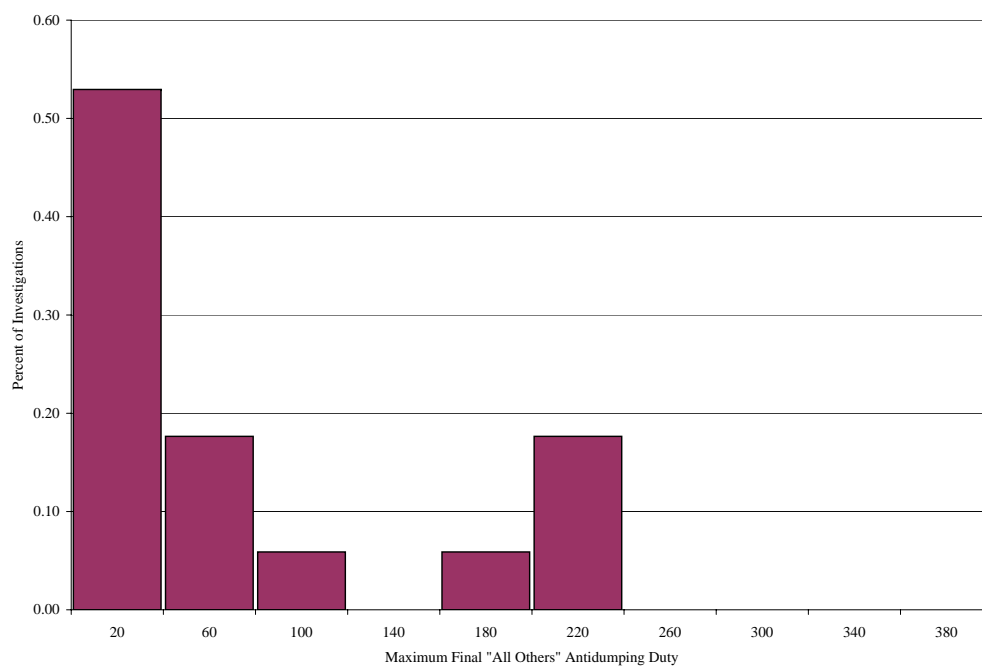


Figure 4:
Distribution of Final Antidumping Duties: U.S. Non-Agriculture Investigations

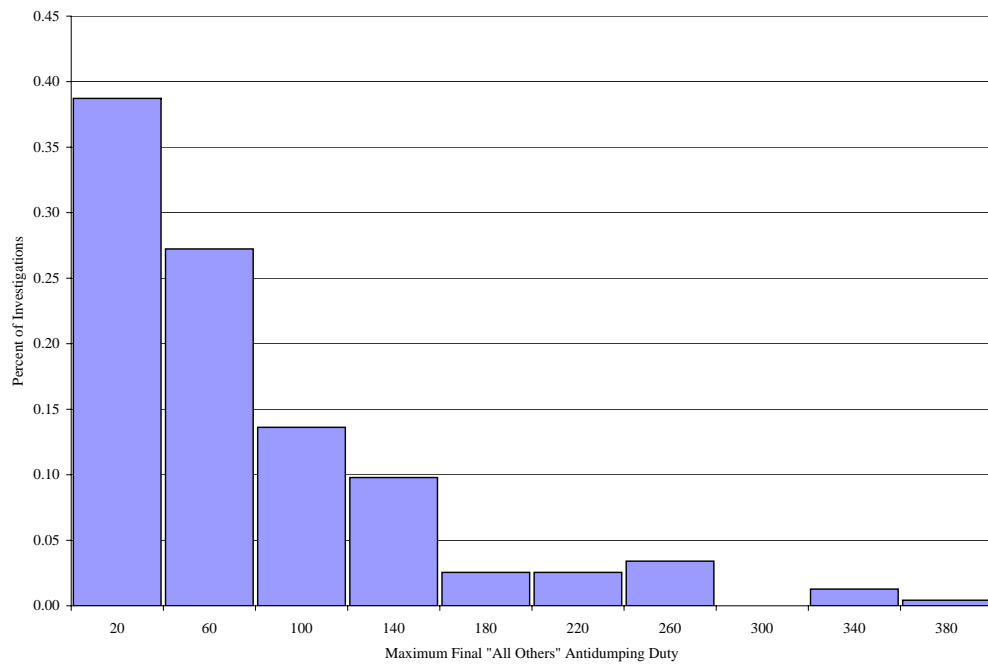


Table 1:

Outcome of Antidumping Cases Involving U.S. Food Industries, 1995-2003

	Cases Filed by the U.S.		Cases Filed Against the U.S.	
	Number	Share	Number	Share
Affirmative	15	60.0	7	63.6
Negative	7	28.0	3	27.3
Suspended	1	4.0	1	9.1
Terminated	2	8.0	0	0.0
Total	25	100.0	11	100.0

Table 2:

Outcome of Antidumping Cases Involving the United States, 1995-2003

	Cases Filed by the U.S.		Cases Filed Against the U.S. ¹	
	Number	Share	Number	Share
Affirmative	152	46.2	22	66.6
Negative	154	46.8	9	27.2
Suspended	10	3.0	1	3.0
Terminated	13	3.9	1	3.0
Total	329	100.0	33	100.0

¹Antidumping cases filed against the United States by those countries filing antidumping cases against U.S. agricultural producers: Canada, Mexico and South Africa.

Table 3:
Method of Normal Value Calculation and Final Dumping Margin, 1995-2003

Method of Calculation	Cases Filed by the U.S.		Cases Filed Against the U.S.	
	Number	Average Margin	Number	Average Margin
Home Market	7	17.85	4	46.65
with Constructed Value	7	17.85	2	52.5
Third-Country Market	3	7.46	0	N.A.
Non-Market Economy	5	139.9	0	N.A.
Constructed Value	3	65.4	4	103.7
with Adverse Facts Available	0	N.A.	3	122.2
Adverse Facts Available	0	N.A.	1	10.18
All	18	60.22	10	62.50