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ANTIDUMPING AND COMPETITION POLICY

CHAPTER 2: CENSUS AND ANALYSIS OF ANTIDUMPING ACTIONS IN THE UNITED STATES

The attached document contains a first revision of the Census and Analysis of Antidumping Actions in the United States. It is part of the study on antidumping and competition policy. The chapter was drafted by Mrs. Hyun Ja Shin and Prof. Robert Willig was also involved in its revision. It is now submitted to Working Party No. 1 for FINAL CONSIDERATION.

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FOR TECHNICAL REASONS, GRAPHS, TABLES AND FACSIMILES ARE NOT AVAILABLE ON OLIS

The Nature of U.S. Antidumping Cases in the 1980s

Hyun Ja Shin
Yale University

1. This chapter examines the nature of recent U.S. antidumping policy through two interrelated lenses. It begins with an overview of the provisions of U.S. antidumping law, and a census of the cases brought under it during the 1980s. The chapter then proceeds to apply to data on the cases a number of criteria that are pertinent to the question of whether the dumping cited in the cases might have been instances of international predation that carried the danger of monopolising U.S. markets. The criteria attempt, within the limitations of the available data, to reflect such factors as concentration among domestic producers, concentration among challenged exporters, the relative magnitude of the challenged exports, and the height of entry barriers into the market.

I. U.S. Antidumping Law

2. The United States government has adhered to the guidelines established in Article VI of the GATT in formulating its own antidumping law. Since 1979, U.S. antidumping law has divided the responsibility for administering antidumping petitions between two government agencies: the International Trade Commission (ITC), which investigates the degree of injury to U.S. industry caused by the allegedly dumped imports, and the Department of Commerce (Commerce), which determines whether or not a foreign firm is dumping, and calculates the dumping margin, if any.[1] An antidumping proceeding may be initiated by the Department of Commerce itself, following the acquisition of information warranting an investigation, or through a petition filed by an "interested party" on behalf of a U.S. industry.[2] If Commerce decides that the petition contains adequate information to warrant an investigation, Commerce and the ITC begin their preliminary investigations.

A. The International Trade Commission's Injury Determination

3. The International Trade Commission has 45 days to reach its preliminary injury decision. In this preliminary investigation, the ITC must ascertain whether or not there is a "reasonable indication" of material injury by examining data collected through questionnaires, material submitted by interested parties, and a public conference in which interested parties can

present relevant testimony. At the end of the 45 days, the Commission votes on a preliminary determination of injury. If the preliminary injury determination is negative, the entire proceeding is terminated.

4. In its injury investigation, the International Trade Commission must ascertain whether the challenged imports are causing or threatening material injury to an U.S. industry, or are retarding the establishment of an U.S. industry.[3] By law, the ITC must consider, among other relevant economic factors, the volume of imports and whether or not the level or change in this volume is significant, the effect of the imports on prices, and the imports' effect on the U.S. industry. The 1984 Act requires the ITC to cumulate imports from all subject countries. In examining the price effects of the imports, the ITC must consider if import prices are significantly below the U.S. prices for like products, and if the U.S. firms' prices have been significantly depressed or prevented from rising as a result of the imports. In addition, the ITC's evaluation of the impact of imports on the domestic industry must include (but is not restricted to) the evaluation of the following factors: output, sales, market share, profits, productivity, return on investments, utilisation of capacity, cash flow, inventories, employment, wages, growth, ability to raise capital, investment, and any factors affecting the U.S. price.

5. Once the ITC establishes that a domestic industry is being injured, it must determine if a causal link exists between the injury and imports. The law imposes no conditions on the ITC's decision concerning the magnitude of the injurious effect of imports, either in absolute terms or relative to other factors which may be contributing to the injury to the domestic industry; it states only that the ITC is to examine if a domestic injury is being materially injured "by reason of imports of that merchandise." While the law gives the ITC a considerable degree of freedom, certain factors have been important in its evaluation of the causality between imports and injury. For example, the ITC has rejected causality in its investigations because:

1. imports were competitive only with a small fraction of the U.S. market due to product differentiation or different distribution methods,
2. demand shifts were caused by quality and not price differences,
3. imports were not underselling or suppressing the price of the U.S. good,
4. import volume was small, or
5. imports and U.S. industry performance were not found to be negatively correlated.[4]

6. If the ITC's decision on injury is affirmative, the Department of Commerce continues with its preliminary investigation to determine the existence of dumping.

B. The Commerce Department's Less-Than-Fair-Value Determination

7. The Department of Commerce is required to determine the existence of dumping by comparing the U.S. price of the target import to the foreign market value of an identical or like product. As a rule, Commerce investigates at least sixty percent of all sales of the target merchandise to the U.S. and

typically chooses to analyse those firms which account for the larger import shares.[5]

8. The U.S. price is either the purchase price or the exporter's sales price. The purchase price equals the price at which the foreign manufacturer sells the merchandise to an unrelated reseller in the foreign country before the importation of the merchandise into the U.S. In contrast, the exporter's sales price is the price at which the good is sold in the United States after importation by a party related to the manufacturer.

9. Foreign market value is represented either by the home market price of the same or similar merchandise, the price of the good when exported to third-country markets, or by a constructed value. If sufficient quantities of the good in question are sold in the home market at prices above cost, then the home market price is employed. If there are inadequate sales in the home market to allow a fair comparison of prices, Commerce will employ the price of sales made to third countries. It may also use a constructed value,[6] which by law must include an estimation of production costs, general expenses and profit.[7] Even if the home market price is available, home market sales are to be disregarded in the calculation of foreign market value if they have been made at prices below average total cost. If the remaining above-cost sales are insufficiently large in number for use in the price comparison, Commerce again resorts to the use of a constructed value. Lastly, in the case where the target country has a non-market economy, Commerce approximates foreign market value by using surrogate, market-economy country, input prices to value the non-market economy producer's factors of production.

10. The law allows for adjustments in the U.S. price and foreign market value for differences in transportation costs, including insurance, delivery and packing costs; in sales costs, such as advertising, credit, or warranty costs; and in tax treatments. In addition, adjustments are made to account for quantity discounts, differences in the level of trade, and differences in the physical characteristics of the goods. Once these modifications are made, Commerce typically calculates foreign market value as a weighted-average price over each product type covered in the investigation; it then compares this weighted average foreign market value to the price of every sale made to the U.S.

11. Commerce has a total of 160 days, or 210 days in complicated cases, to complete its preliminary determination. At this stage, Commerce may negotiate an agreement with the foreign respondent to suspend the investigation; under a suspension agreement, foreign respondent must agree to eliminate all sales at less than fair value or to cease all exports within six months of the suspension date. In rare cases, the suspension agreement would allow the foreign respondent to eliminate the injurious effect of its imports on the U.S. industry.

C. Antidumping Duty Orders

12. If the preliminary dumping finding is positive, then Commerce orders the Customs Service to suspend the final assessment of duties (or "liquidation")[8] of all merchandise subject to the investigation entered for consumption on or after the publication date of Commerce's finding. In this case, all foreign

firms from the challenged exporting country must post a cash deposit or bond for each entry based on a weighted average dumping margin.[9] Finally, Commerce must respond to any allegation of "critical circumstances" by the domestic petitioner by determining whether (1) the foreign industry under investigation has a history of dumping the product either in the U.S. or elsewhere, or (2) the importer should have known the exporter was dumping;[10] and(3) massive imports have occurred in a relatively short period of time. If either condition (1) or (2) and condition (3) hold, then Commerce postpones the final assessment of duties on all unliquidated entries of the target merchandise made in the 90 days prior to the preliminary determination.

13. Regardless of the outcome of its preliminary determination, the Department of Commerce (DOC) proceeds with its final investigation. The final determination typically is completed within 75 days after the preliminary results are published, but this deadline may be extended to 135 days. If DOC finds no evidence of sales at less than fair value in its final determination, the investigation is terminated with any cash deposits or bonds returned and suspensions of liquidation lifted. If it does find more than a de minimis dumping margin,[11] then the ITC continues with its final injury investigation. If DOC's preliminary dumping finding is positive, then the ITC has to complete its final investigation before the later of 120 days after DOC's preliminary determination or 45 days after DOC's final determination; otherwise, it has 75 days from the date of DOC's final determination. An antidumping duty order is imposed against imports from the country involved if both Commerce and the ITC make affirmative final decisions. Depending on the time extensions and determinations made, the entire antidumping investigation lasts from 280 days to 420 days.

14. Upon the announcement of an antidumping duty order, the liquidation of all imports from the involved country is suspended, except for imports from those firms, if any, found to have zero dumping margins. Before their goods are released by the Customs Service, importers must post a cash deposit equal to the estimated amount of dumping duties, provide the information needed by the Commerce Department to assess the actual duties, and agree to pay Customs the actual duty amount on demand. The actual assessment of the duties generally occurs on an annual basis. Between 1980 and 1984, the Department of Commerce conducted annual administrative reviews to calculate the duty actually owed on each import. Since the Trade and Tariff Act of 1984, however, administrative reviews have been initiated only at the request of a foreign manufacturer or exporter, or a U.S. manufacturer or importer. If an administrative review is not requested, then the antidumping duties will be assessed at the rates determined in the original antidumping duty order or calculated in the most recent administrative review (e.g., at the rate of the cash deposits required with the entries). If an administrative review is requested, the newly calculated dumping margins become the basis for future cash deposits.[12]

15. The Department of Commerce may revoke an antidumping duty order if it determines that sales are no longer being made at less than fair value and that there is no likelihood that sales at less than fair value will be resumed in the future, or if changed circumstances warrant a revocation.[13] In addition, Commerce may revoke an order if the ITC determines that the domestic industry would not be materially injured or threatened with material injury if the duty were revoked. Since 1989, Commerce also has been empowered to revoke an

antidumping duty order if it has not received a request for an administrative review by an interested party for four consecutive years and there are no objections to the revocation by interested parties. A foreign producer may also initiate a review for revocation by showing that it has not made sales at less than fair value for at least three consecutive years.[14]

II. Antidumping Cases in the 1980s

16. This section provides a census of antidumping investigations in the United States between 1979 and 1989, and their outcomes. By the end of 1989, 433 antidumping cases had been initiated and 451 investigations had been performed since the Trade Agreements Act of 1979 went into effect on January 1, 1980.[15] As illustrated in **Figure 1**, the number of antidumping cases surged in the mid-1980s, with over seventy cases in both 1984 and 1986. By 1989, however, the number of case initiations had dropped almost to its 1980 level. The sharp rise in investigations following 1981 was driven largely by a spate of cases initiated by the steel industry; over 40 per cent of all antidumping investigations pertained to the primary metals industry.

17. **Table 1** provides a complete list of the outcomes of all the cases in the sample, and **Figure 2** summarises the outcome data. The International Trade Commission and the Department of Commerce made affirmative decisions, and therefore issued antidumping duty orders, in 169 or 37.5 per cent of the 451 completed cases. Suspension agreements with the exporting countries to eliminate their dumping margins or shipments were much less frequently employed as a means of providing relief from dumping to the U.S. industry; during the 10-year period, only seven investigations (or 1.5 per cent of all cases) were suspended. Negative determinations were issued in 37.5 per cent of the investigations.

18. The remaining 106 cases, or 23.5 per cent of the total, were terminated, primarily because the domestic parties withdrew their petitions. Most of these case terminations occurred when the U.S. steel industry withdrew its antidumping petitions. In 1980, the industry obtained favourable revisions in the Trigger Price Mechanism monitoring steel imports,[16] and a few years later the government negotiated voluntary restraint agreements in steel products with the exporting countries. Another case, involving polyester fabric from Japan, was terminated following the negotiation of quantitative restrictions on textiles imports. The remaining 6 per cent of the cases were terminated for miscellaneous reasons; for example, one case was terminated because the petition was found to contain insufficient information, while another case was terminated because it was determined that the petition was not filed on behalf of the domestic industry.

19. **Tables 2** and **3** present the antidumping cases and outcomes by major industry group and exporting country, respectively. Because so many steel cases were withdrawn or terminated due to other relief provisions, calculations of the probability of a favourable decision might be misleading if the number of all cases were used as a base. It would make sense to consider terminated cases to be negative outcomes for the complaining industries in these calculations if the domestic parties terminated their cases because they re-

evaluated their chances of winning a duty order to be lower than originally thought. However, the steel cases were terminated because substitutes for dumping protection (raised trigger prices and VRAs) were granted. Consequently, results are provided for non-terminated (completed and suspended) cases.

20. Table 2 divides the U.S. industries initiating the antidumping investigations into twenty-two aggregated industry groups. (See **Table 2.A.** for a full list of the investigations by industry group.) The primary metals industry, with 185 (41 per cent) of the 451 cases in the sample, initiated more cases than any other industry group, followed by the chemicals and allied products industry with 69 or 15 per cent of all cases. Four other industries, the fabricated metal products industry, the non-electrical machinery industry, the electrical and electronic equipment industry, and the stone, clay and glass products industry, each initiated more than 20 cases during the ten-year period. The remaining industry groups each initiated fewer than 5 per cent of all cases in the period. The lumber and wood products industry, the leather and leather products industry and the tobacco manufactures industry did not initiate any antidumping investigations at all between 1979 and 1989.

21. The percentage of non-terminated cases resulting in duty orders varied widely across industry groups. The printing and publishing industry, the fabricated metal products industry, the non-electrical machinery industry and the miscellaneous manufacturing industry all obtained duties in at least 70 per cent of their cases. The agriculture industry, textile mill products industry, the apparel and other textiles industry, the chemical and allied products industry, and the electrical and electronic equipment industry also received duty orders following more than one-half of their cases. The primary metals industry was only slightly less successful than these industries, obtaining affirmative decisions in 47.5 per cent of its non-terminated cases. The food and kindred products, rubber and miscellaneous plastic products, and instruments and related product industries had relatively low success rates of 23 per cent, 35 per cent and 14 per cent respectively. The stone, clay, and glass products industry was awarded a duty order in only one of its 23 investigations, while the non-metallic minerals mining industry, furniture and fixtures industry, the paper and allied products industry, the petroleum and coal products industry, and the transportation equipment industry did not receive any duty orders at all following their antidumping investigations.

22. Between 1979 and 1989, U.S. antidumping cases addressed imports from the 52 different countries listed in **Table 3**. The 451 investigations in the sample are organised by exporting country in **Table 3A**. Japan was by far the most frequently involved country, with 57 or 13 per cent of all cases, followed by Taiwan and West Germany, with 29 cases each, and Korea, with 27 cases. Only nine other countries, Italy, Canada, Brazil, France, the United Kingdom, the People’s Republic of China, Spain, Venezuela, and Belgium, were the focus in ten or more U.S. antidumping investigations. Imports from these 13 countries, which accounted for 71 per cent of world exports into the U.S. in 1987, were the subject of 69 per cent of all cases initiated by U.S. industries.

23. As shown in part A of Table 3, at least one antidumping duty order was imposed against 37 of the 52 named countries. The remaining 15 countries involved in antidumping investigations, listed in part B of Table 3, were the subject of negative outcomes in all cases against them. The country subject to

the greatest number of antidumping duty orders was Japan, with 33 or 20 per cent of the 169 duty orders imposed during the time period. Japan, Korea, the People's Republic of China, and Taiwan collectively accounted for 42 per cent of all antidumping duty orders imposed. Of the 13 countries listed above that were most frequently cited in antidumping investigations, domestic industries obtained antidumping duty orders in at least 50 per cent of their non-terminated cases against Japan, Korea, Brazil, the People's Republic of China, and Spain. In contrast, Belgium and the United Kingdom faced antidumping duty orders following only 20 per cent and 25 per cent respectively of the non-terminated cases involving them.

24. Looking across exporting countries and industries simultaneously for the pairings that were involved in the most cases, there were 18 exporting countries each involved in more than 5 cases in the primary metals industry. Chemicals and allied products from Japan, France, the Peoples' Republic of China, West Germany, and Canada were each involved in five or more cases. Fabricated metal products from Japan, Taiwan, and Brazil each were involved in five or more cases. Non-electrical machinery from Japan was the focus in eight cases. Electric and electronic equipment from Japan, Korea and Taiwan were each involved in five or more cases. No other pairing of exporting country and industry accounted for five or more cases during the studied period.

III. Empirical Indicators of the Nature of the Cases

25. We now apply a variety of empirical measures to the available data pertaining to the cases for the purpose of assessing their nature. These measures are listed in the provided tables for the reader to use in the drawing of conclusions. However, to aid in the interpretation of the data, we follow a particular sequence of analytic steps designed to assess the consistency of the data with the hypothesis that antidumping cases protect competition from the monopolisation that could result from predatory-pricing dumping.

26. As our data set for this analysis, we employ those 169 antidumping cases in which an antidumping order eventually was imposed. The rationale is that predatory-pricing behaviour by the challenged exporters almost certainly would lead to affirmative decisions by both the Department of Commerce in its less-than-fair-value determination and by the International Trade Commission in its determination of injury.[17] In addition, we include the cases that were suspended or terminated, since it is possible that these cases represented instances of predatory-pricing dumping that were redressed with protective agreements other than antidumping duty orders. Therefore, our sample includes all 282 investigations with non-negative outcomes.

27. We first search the sample for antidumping cases in industries where there is a relatively high level of concentration among U.S. producers, since injury from dumping might result in a significant increase in the market power held by the dumpers in these industries. After limiting the sample to the antidumping cases in such industries, we next search for cases where the U.S. imports from the challenged country are sold with concentrated shares by that country's exporting firms. If the imports from the challenged country were spread diffusely among many export suppliers, predatory-pricing would be a

relatively unlikely interpretation of the dumping. Similarly, after limiting the sample to cases in industries with concentrated U.S. production and concentrated imports from the challenged country, we next eliminate cases pertaining to products whose exports to the U.S. from several countries were simultaneously challenged. For predation to work, the many exporters from one country, or the exporters from several countries, would have to overcome the impediments to successful co-ordination in bearing the losses from the predatory campaign, and the impediments to later recoupment of these losses in a market where they all would be active.[18]

28. The remaining sample of cases is then searched for instances where the challenged exports constitute a considerable share of the total U.S. consumption of the product, or where the share of the challenged exports is very rapidly growing. It is unlikely that foreign exporters could foreseeably obtain monopoly power by disabling domestic suppliers in markets where the imports do not have a considerable share of the U.S. market or where their growth rate fails to indicate that their share will soon become considerable. Finally, we attempt to assess whether the cases that have passed through these screens apply to markets that are protected from potential competition by significant entry barriers. Successful monopolisation from predatory-pricing dumping is unlikely in markets where potential entry is a powerful force, and predation is likely to be deterred by such conditions.

A. Concentration in Domestic Production

29. Our first pass at measuring concentration among U.S. suppliers employs the Herfindahl concentration index for 1982 published in the U.S. Census of Manufactures for four and some five digit SIC manufacturing industries.[19] These concentration measures do not include imports. **Table 4A** provides summary statistics for all industries, for industries with at least one antidumping duty order, and for industries with no antidumping duties at all. The mean value of the Herfindahl concentration ratio for industries which received antidumping duty orders is slightly smaller than that for industries with no duty orders at all.

30. We take .18 as the threshold value of the Herfindahl index for highly concentrated industries.[20] This category includes 24 industries, or 5 per cent of the total sample. As listed in **Table 4B**, four of these highly concentrated industries initiated at least one antidumping investigation leading to a non-negative outcome. The 10 such investigations and the products involved are also listed in Table 4B.

31. Groupings defined at the level of 4 and 5 digit SIC’s are often treated as industries in empirical studies of competition and market power. However, many such groupings include a wide variety of products with different characteristics of production, marketing, and demand. Consequently, it has been observed that these groupings do not in general coincide with the delineations of markets that are relevant for the assessment of competition and monopolisation. Nevertheless, the firms included in a 4 or 5 digit SIC grouping may often possess the facilities and organisation that enable them to produce most or all of the disparate products included in the grouping. Also, the disparate products in particular groupings may be close substitutes for one another in the view of their buyers.

32. To the extent these regularities are valid for much of the sample, measurement of concentration in the groupings is informative about the degrees of active and potential competition. As such, there would be significance to the finding reported in Table 4B that only 10 of the 282 cases with non-negative outcomes applied to industries with a high degree of concentration at the 4 or 5 digit SIC level. One might conclude that the dumping attacked by the cases only rarely could have been likely to create significant market power in the U.S.

33. In order to be conservative, and due to the availability of additional pertinent data, we have proceeded to a second pass at the assessment of concentration among domestic suppliers of the goods involved in the studied antidumping cases. Most of the International Trade Commission final investigation reports provide data on the number of major U.S. producers of the particular product involved in the case, and on the percentage of domestic production supplied by these firms together. For example, an ITC report might note that two U.S. firms were responsible for 80 per cent of domestic production. The ITC reports do not provide more complete data for confidentiality reasons.

34. We have employed these data to construct a minimum Herfindahl index of the concentration of domestic production by dividing the reported production share evenly among the reported firms, and assuming that the remaining production share is spread diffusely among many suppliers. (Thus, in the example of two firms accounting for 80 per cent of production, the calculated index is $.32 = [.4]^2 + [.4]^2 + 0$). Arithmetically, this measure is a minimum index, or lower bound, for two reasons: (i) any actual inequality in market share among the reported domestic producers would lead to a greater value of the Herfindahl index; and (ii) any significant concentration among the unreported domestic producers would cause the Herfindahl index to be larger. Nevertheless, the measure does consistently reflect all the information on domestic firms' shares that are available in the ITC reports.[21]

35. It should be recognised that, from the perspective of economics, this measure may overstate the pertinent level of concentration because it omits consideration of any producers of different but closely substitutable products and any firms who could readily shift into production of the particular product. In this respect, our constructed measure may err by neglecting some of the firms that are included in the Herfindahl index based on the 4 or 5 digit SIC grouping.

36. **Table 5** provides a summary of the constructed minimum Herfindahl values for the U.S. industries covered by all but 4 of the cases from 1979 to 1989, and **Appendix A** gives a complete list of the measures by individual case. Almost one-third of all the investigations concerned products in industries with highly concentrated U.S. production, as indicated by a minimum Herfindahl value of at least 0.18. Thirty-five cases, or 8 per cent of the total sample, concerned products in industries with only one domestic producer, and consequently with a Herfindahl measure of 1.00. Another 18 per cent of all cases concerned products with moderately concentrated U.S. production, as indicated by a minimum Herfindahl index between .10 and .18. More than 50 per cent of the cases concerned products with unconcentrated domestic production, as measured by minimum Herfindahl values of less than 0.1.

37. These results are considerably different than those obtained through application of the Herfindahl measures calculated for the 4 or 5 digit SIC groupings. Our second pass, using the minimum Herfindahl index values constructed from the ITC reports, indicates that 80 cases with non-negative outcomes concerned products with highly concentrated domestic production, while the first pass identified only 10 cases with non-negative outcomes in highly concentrated U.S. industries. Thus, despite the fact that Herfindahl measures based on ITC data establish only a minimum value consistent with these data, they identify a much broader set of cases as having been initiated by concentrated domestic industries than the set of cases identified through use of Herfindahl indices calculated for SIC groupings. To be even further conservative, we proceed to subsequent analysis with the sample of 80 identified in the second pass, plus the 6 cases in highly concentrated SIC groupings that were not included in the set of 80. Our sample consequently contains a total of 86 cases involving industries with highly concentrated U.S. production out of the 282 with non-negative outcomes.

B. Concentration Among Exporters of the Challenged Product

38. The ITC investigation reports usually include a figure for the total share of the exports of the dumped product from the challenged country originating from a particular set of exporting firms, along with the number of firms in that set. These data permit the construction of a minimum Herfindahl index, by the same arithmetic method described above in section III.A, to indicate the concentration among exporters from the challenged country to the U.S. These constructed Herfindahl values are summarised for the entire sample in **Table 6**, and listed for each case in **Appendix B**.

39. More than 75 per cent of the antidumping investigations involved countries whose exporters to the U.S. were highly concentrated, as indicated by minimum Herfindahl index values of 0.18 or more. Combining the results of this analysis with the results of the analysis described above yields 75 cases with non-negative outcomes for which the exports from the challenged country are highly concentrated and for which domestic production is also highly concentrated.

40. In many instances there were simultaneous awards of antidumping duty orders against exports of the same product from more than one country to the U.S. For example, antidumping duty orders were imposed concurrently against the imports of colour picture tubes from Canada, Japan, Korea, and Singapore. The next analytic step eliminates from the sample of 75 cases the 13 cases for which there was a simultaneous challenge of exports of the same product from five or more countries. We regard the threshold of five countries to be very conservative, in general, but employ it here to make sure that the criteria are over-inclusive.[22] Another 19 cases would be eliminated if the threshold were taken to be three countries with simultaneous cases or four countries with cases covering the same product at some point during the decade.

41. In sum, a total of 62 (22 per cent) of the 282 cases with non-negative outcomes in the sample arose in industries meeting our conservative criteria for concentration among U.S. producers and foreign exporters to the U.S. These

cases are listed in **Table 7.A** and are summarised by industry group in **Table 7.B**. More than one-half of these cases involved the chemicals and primary metals industries.

C. Import Penetration

42. The ITC investigation reports provide data on imports by principal sources, and data on U.S. apparent consumption, for the three years prior to the investigation, where this information is not suppressed for confidentiality reasons. Concern about confidentiality arises especially often when the industry is highly concentrated, because aggregate data are then revealing about the operations of specific firms. Import penetration data from the ITC reports were available for only 15 of the 62 cases listed in Table 7.A.

43. These data show that import penetration levels of titanium sponge from Japan (ITC no. 731-TA-161), malleable pipe fittings from Brazil (ITC no. 731-TA-278) and colour picture tubes from Japan (ITC no. 731-TA-368) actually decreased in the year preceding the investigation. The total penetration of imports was less than 20 per cent in the cases involving tool steel, colour picture tubes, staples, anhydrous sodium matasilicate, malleable pipe fittings, and aspirin. Consequently, these cases are eliminated from the sample.

44. Another source of information about import penetration is provided by the reported results of "critical circumstances" investigations. As discussed in section I above, to determine that critical circumstances exist, Commerce must show, among other things, that massive imports have occurred in a relatively short period of time. Apart from assessments of the level of import penetration, Commerce may find imports to be massive if they have increased by at least 15 per cent over the previous period. Of the 62 cases that remained in our sample after the analyses of concentration, 15 antidumping investigations included claims of critical circumstances by the domestic petitioners. Only one of these investigations, potassium permanganate from the People’s Republic of China (731-TA-125), resulted in an affirmative critical circumstances finding. Commerce made a negative determination of critical circumstances specifically because imports were not massive in eight cases.[23] While such a determination tests only for short term movements around the time of DOC’s investigation, rather than for long term growth trends in import volumes, the movements in each producer’s import volumes are assessed separately. On the view that a predating exporter would likely be increasing its volume at a rapid rate of growth, it may be reasonable to infer that the cases without affirmation of claims of critical circumstances are unlikely to be instances of predation. Elimination of these 14 cases from the sample, too, leaves a total of 39 cases.

D. Barriers to Entry

45. Our last analytic step entails an attempt to assess the degree to which the U.S. markets containing the challenged imports were subject to significant barriers to entry. It is generally recognised in the economics literature that barriers to entry and concentration are somewhat independent characteristics of markets, so that particular markets with high concentration may or may not be subject to significant potential competition. We utilise for the assessment of

entry barriers the best empirical measure that is available in the literature for a wide range of U.S. industries. Kessides (1990) provides strong empirical evidence that the need to expend sunk costs in the form of long-lived machines and equipment erects a significant impediment to entry by new firms, in response to otherwise profitable opportunities.[24] He shows in contrast that the need to invest in buildings and structures is not an impediment to entry, presumably because these investments are not specific to the particular application and hence do not constitute sunk costs. He also shows that rental and lease expenditures for machines and equipment do not contribute to entry barriers, presumably because these costs are generally not sunk and entail far less risk for the entrant than do costs for the purchase and construction of machinery and equipment.[25]

46. We employ Kessides' measure of sunk machine and equipment costs that was constructed as a ratio on industry sales.[26] The sunk cost measure was calculated for 4-digit SIC industry groups from data obtained from the 1982 Census of Manufactures.[27] These figures are displayed in **Table 8** for the SIC industries that contain the products involved in the 39 cases that remain in our sample. Perspective on the scaling of the figures may be obtained by comparing them with the mean value of the sunk-cost-to-total-sales ratio among all 430 4-digit SIC industries: 0.25. Thus, it can be said that the 12 cases with sunk-cost ratios equal to or below the threshold value of 0.25 involve products in 4-digit SIC industries with average or lower than average levels of barriers to entry.[28]

E. Summary of Empirical Evidence

47. We have applied empirical criteria to the initial sample of 282 cases with non-negative outcomes in order to identify only those the cases that seem consistent with the hypothesis that the attacked dumping threatened to create significant new market power over U.S. buyers. Rather conservative criteria were applied pertaining to concentration among U.S. producers of the specific product involved in the case, concentration among the firms exporting the specific product to the U.S. from the challenged country, the number of countries challenged for their exports of identical products, and the level and growth rate of the level of penetration of imports of the specific product. These screens reduced the sample to 39 cases.

48. Of these cases, seven involved products with imports that were challenged during the period from three countries (industrial belts) and four countries (steel rails). Thus, a less conservative, but still reasonable screen on the number of countries challenged for their exports of identical products would reduce the sample further to 32 cases. Finally, the sample would drop to 20 cases by application of the criterion that entry barriers be greater than average in the industry containing the challenged product.

49. It is important to recognise that each of the screens that was utilised rested on approximations and on inferences drawn from highly incomplete data. Thus, no specific classification of any particular case should be viewed as reliable, and the particular numbers of cases that survived the various screens should not be viewed as anything other than roughly indicative.

50. It can be reasonably concluded that only a small portion of the U.S. antidumping cases that were initiated in the 1980s and had non-negative outcomes are consistent with the viewpoint that the attacked dumping posed a foreseeable threat to competition. This conclusion seems to be robust to reasonable alterations in the thresholds and criteria that were applied to the data. While the methodology applied cannot be expected accurately to identify every case that did or did not aim to restrain a threat to competition, the methodology utilises the available data in a fashion that is likely to yield a meaningful overall picture of the nature of the antidumping cases that were analysed.[29]

IV. Conclusion

51. This paper set out to accomplish two tasks -- providing a summary of the laws and procedures that apply to U.S. antidumping policy, and empirically studying the antidumping cases brought during the 1980s to gain insight into their nature. The empirical analysis found that most of the cases were initiated by industries characterised by low levels of concentration among U.S. producers and foreign exporters to the U.S., low foreseeable levels of import penetration, and possibly low barriers to entry. The empirical evidence consequently indicates that only a small fraction of the cases with non-negative outcomes are likely to have protected competition from the threat of monopolisation. Nevertheless, the sample of 282 cases with non-negative outcomes led to 169 antidumping duty orders, and a variety of other protective measures (such as suspension agreements, VRAs, and revisions of the steel Trigger Price Mechanism) that resolved most of the other 113 cases in the sample. During the same period, 169 cases received negative dispositions by the government authorities.

52. Our summary of the laws and procedures that apply to U.S. antidumping policy indicates that the empirical evidence should not be entirely surprising. The determination of material injury utilises methods and criteria that overlap to some degree with those used in analyses of the lessening of competition, but there is considerable room for the two methods of analysis to diverge considerably. Furthermore, the methods and criteria used in the less-than-fair-value determination could coincide with methods employed to identify instances of international price-predation, but again it is possible for the two sets of analytical standards to be substantially different.

53. Thus, one cannot discern from the U.S. antidumping laws and procedures themselves the extent to which their applications coincide or diverge with the conclusions that would be reached by methods of analysis that focus on the impact to competition or threat of monopolisation. That is why it is a worthwhile endeavour to perform the kind of empirical study of the cases that we have attempted here.

Notes and References

1. Prior to 1979, dumping margins were calculated by the Treasury Department.

2. An interested party is defined by law to be: (i) a manufacturer or wholesaler of a like product in the U.S.; (ii) a union representative of workers in the domestic industry manufacturing a like product; or (iii) a trade or business association with a majority of members involved in the production of a like product.

3. The Trade Agreements Act of 1979 defines material injury as "harm which is not inconsequential, immaterial, or unimportant."

4. Vakerics, Thomas V., Wilson, David I., and Weigel, Kenneth G. Antidumping, Countervailing Duty, and other Trade Actions. New York: Practicing Law Institute, 1987, p.156-160.

5. This system is difficult and costly for small foreign exporters. The only way a firm from the target country can be excluded from an antidumping duty order is if it is investigated by Commerce and is found not to be dumping. If an antidumping duty order is issued, an uninvestigated firm will be subject to an "all others" dumping margin determined by Commerce using data for the investigated firms. Therefore, to avoid the full duty, an uninvestigated firm must submit information to Commerce on its own initiative showing that its dumping margin is zero or otherwise below that of the investigated firms. Smaller firms consequently have the burden of closely monitoring trade proceedings in the U.S. that involve its industry.

6. The third country sales criterion is generally preferred to a constructed value. (Code of Federal Regulations, Title 19, section 353.4)

7. Specifically, U.S. trade law stipulates that Commerce should calculate general expenses to be at least ten percent of production costs, and profits to be at least eight percent of the sum of production costs and general expenses.

8. Consequently, a suspension of liquidation means that antidumping duties can be assessed on the entries in the future.

9. A foreign firm may be exempt from posting a cash deposit or bond, and later from the antidumping order, if Commerce investigates its imports and finds a zero dumping margin for that particular firm.

10. Patrick Macrory states, "The Department [of Commerce] has held that the fact that less-than-fair-value margins were high (ranging from 54 to 75 percent) was enough to satisfy the requirement that the importer should have known that the merchandise was being sold at less than fair value." See Patrick F. J. Macrory, "Fair Value Investigations and Administrative Reviews under the Antidumping Statute," in United States Import Relief Laws: Current Developments in Law and Policy, edited by Harvey M. Applebaum and A. Paul Victor, New York: Practicing Law Institute, 1985, p.16.

11. According to the law, any margin less than .5 per cent is considered de minimis. Imports found to have de minimis margins are excluded from the antidumping duty order.

12. If a foreign firm did not ship any merchandise to the U.S. during the last review period, its cash deposit rate does not become zero but remains at the rate last evaluated for that firm. In some cases, a foreign firm does not respond to the Department of Commerce's request for information during an administrative review; this firm's duties are assessed at the maximum of the highest calculated margins in the investigation or previous reviews.

13. Changed circumstances include, for example, a declaration by the domestic petitioners of a lack of interest in the antidumping duty order. Such declarations were a necessary condition in the voluntary restraint agreements negotiated for the steel industry.

14. These rules were somewhat different prior to 1989. A foreign firm could apply for revocation of the order if it could show that sales at less than fair value had been eliminated for at least two years, that no shipments of the targeted imports had occurred for four years, or that there had been a combination of no shipments and no sales at less than fair value for three years. Note that fulfilment of one of these conditions did not guarantee revocation of the antidumping order; the Department of Commerce had to be satisfied that the foreign firm would not resume dumping after the order were lifted.

15. Although the Trade Agreements Act went into effect at the beginning of 1980, some cases initiated but not completed in 1979 were administered according to the 1979 Act. In addition, one case had an original petition date in 1978 but was re-evaluated by court remand in 1982.

16. Introduced in 1977, the Trigger Price Mechanism (TPM) allowed Commerce to monitor import prices and to proceed towards an antidumping investigation if the price of imports fell below the trigger price. One purpose of the TPM was to prevent the steel industry from initiating a large number of antidumping cases. If the industry did file a petition, the TPM was suspended. An upward revision of the trigger price clearly aided the U.S. industry by increasing the probability that Commerce would itself initiate an antidumping case.

17. It is the validity of the converse proposition that the subsequent analytic steps are designed to assess.

18. A possibly important caveat is that the inconsistency between predatory-pricing dumping and unconcentrated imports from the challenged country, or challenged imports from several countries, would be eliminated if the exporting firms were commonly controlled, were members of a stable cartel, or were reliant on a common monopoly source of supply for an essential input. Such circumstances would not be revealed by the data utilised here.

19. This index is calculated as the sum of the squares of the market shares of all market participants. When market shares are given as decimal fractions (as they are represented here), the index approaches zero for an industry populated by many small participants, it equals one for a pure monopoly, and it takes the value of 1/N for an industry populated by N participants with equal shares. The Herfindahl index is the most widely applied measure of concentration in U.S. antitrust analysis today, as a result of the key role it has played since 1982 in the merger guidelines of the U.S. Department of Justice and the Federal Trade Commission. In these guidelines, market shares are represented as percentages, so the Herfindahl index there is scaled up from that employed here by a factor of 10,000.

20. This follows the lead of the aforementioned merger guidelines, which denote, in our scaling, a market as unconcentrated if its Herfindahl index is below .1, moderately concentrated if its Herfindahl index is between .1 and .18, and highly concentrated if its Herfindahl index is greater than .18. An industry with 6 or 5 equally sized participants has a Herfindahl index of .167 or .20 respectively.

21. It is somewhat reassuring about the reliability of this constructed measure that it takes on a high value in almost all the instances that the ITC report mentions that the industry is highly concentrated. In some cases, the ITC reports did not provide market share data for the domestic firms, perhaps due to confidentiality concerns. These case may nevertheless be retained in our sample if the industries covered by the cases are associated with a highly concentrated SIC grouping.

22. On the other hand, the caveats articulated in n.18 above should be recalled here.

23. These cases involve: barium chloride from the People’s Republic of China (731-TA-149), choline chloride from Canada (731-TA-155), porcelain-on-steel cookware from the People’s Republic of China 731-TA-298), nitrile rubber from Japan (731-TA-384), manganese dioxide from Greece and Japan (731-TA-406 and -408), industrial belts from Singapore (731-TA-415), cyanuric acid from Japan (731-TA-136), and sodium nitrate from Chile (731-TA-91).

24. While a series of papers establishes this finding from a variety of perspectives, the study that is most directly applicable for our purposes is Ioannis Kessides, "Towards a Testable Model of Entry: A Study of the U.S. Manufacturing Industries," Economica, 57 1990, p. 219-238. These empirical papers are consistent with a body of theory that shows that the need to commit to sunk costs raises the risk of entry relative to that borne by incumbents, and thus constitutes an entry

barrier. See Baumol, Panzar and Willig, Contestable Markets and the Theory of Industry Structure, Harcourt Brace Jovanovich, 1988 (Revised Edition). For the role played by sunk costs in the assessment of entry barriers in antitrust analysis by the U.S. Federal government, see Department of Justice and Federal Trade Commission Horizontal Merger Guidelines, April 2, 1992, reprinted in 4 Trade Reg. Report (CCH), ¶13,104; or R. Willig, "The Role of Sunk Costs in the 1992 Guidelines' Entry Analysis," Antitrust, v. 6, No. 3, (Summer 1992), pp. 23-26.

25. Costs that an entrant needs to expend on advertising are likely to be sunk, in substantial part, and therefore also contribute to entry barriers. See Kessides, "Advertising, Sunk Costs, and Barriers to Entry," Review of Economics and Statistics, 2/1986, pp. 84-95. However this effect is unlikely to be important outside of markets for consumers' goods.

26. Specifically, Kessides calculates for each industry the cost of machines and equipment that must be sunk by an entrant to be equal to: where M equals the fixed assets in machines and equipment, Λ_D and Λ_R are the depreciation and rental rates for machines and equipment, respectively, and MES_e equals the market share for the estimated minimum efficient scale of entry. This figure is divided by the sales associated with the minimum efficient scale of entry to obtain the variable, indicating the relative risk of entry, that exhibits high statistical significance as the measure of entry barriers in the study of entry reported in Kessides 1990, op. cit. The variable measuring entry barriers can thus be described as the industry sunk costs divided by the industry sales.

27. This data set was generously provided by Ioannis Kessides.

28. As was discussed earlier, 4-digit SIC groupings generally include a variety of different products, so that the importance of sunk costs and entry barriers may vary within the grouping, and any measurement at the level of the 4-digit SIC grouping may not accurately apply to a particular product within the grouping. Nevertheless, Kessides' empirical studies show that the sunk cost measure is significantly related to entry at the level of 4-digit SIC groupings, and so the measure does apply on average to the products included in the grouping. Moreover, to the extent that the 4-digit SIC grouping includes other products that are significant demand or supply substitutes for the specific product involved in the antidumping case, the grouping is the relevant domain for the assessment of entry barriers as part of an inquiry into monopolisation.

29. Important and complementary conclusions are reached in a recent draft Report of the Bureau of Economics to the Federal Trade Commission, "Effects of Unfair Imports on Domestic Industries: U.S. Antidumping and Countervailing Duty Cases, 1980 to 1988," Morris E. Morkre and Kenneth H. Kelly, July 1992. This draft report utilises the data on import penetration that are available for a subset of the cases, along with

data on dumping margins and on pertinent elasticities of supply and demand, to estimate by means of an economic model the extent of the injury to domestic industries resulting from unfairly traded imports. The draft report shows that for only one-third of its studied antidumping cases was the injury likely to be greater than 10 percent of industry revenues.