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Antidumping 101
The Devilish Details of "Unfair Trade" Law

by Brink Lindsey and Dan Ikenson

Executive Summary

The U.S. antidumping law enjoys broad political support in part because so few people understand how the law actually works. Its rhetoric of "fairness" and "level playing fields" sounds appealing, and its convoluted technical complexities prevent all but a few insiders and experts from understanding the reality that underlies that rhetoric.

In this study we seek to penetrate the fog of complexity that shields the antidumping law from the scrutiny it deserves. Here we offer a detailed, step-by-step guide to how dumping is defined and measured under current rules. In addition, we identify the many methodological quirks and biases that allow normal, healthy competition to be stigmatized as "unfair" and punished with often cripplingly high antidumping duties. The inescapable conclusion that follows from this analysis is that the antidumping law, as it currently stands, has nothing to do with maintaining a "level playing field." Instead, antidumping's primary function is to provide an elaborate excuse for old-fashioned protectionism.

We illustrate the antidumping law's serious methodological flaws in a variety of different ways. First, we use simplified examples to demonstrate how particular steps in the dumping calculation operate to generate phantom dumping findings. Next, we use actual case records from 18 different dumping determinations to quantify the effects of methodological distortions in specific, real-life cases. Finally, we present a detailed hypothetical case study in which each step in the dumping calculation is explained and faithfully recreated. In that case study, we show how a foreign producer that sells widgets in the United States at net prices 13.95 percent higher than in its home market nonetheless winds up with a dumping margin of 7.37 percent.

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Introduction

For many years the U.S. antidumping law has enjoyed strong political support from Republicans and Democrats alike. What accounts for this enduring, bipartisan popularity? In the first place, the law's rhetoric is compelling. After all, which members of Congress would like to stand up and say they favor illegal and unfair dumped imports? Who could be opposed to a "level playing field"?

Meanwhile, the reality behind the rhetoric is obscure. The antidumping law is notoriously complicated, and its inner workings are known only to a select handful of users, targets, bureaucrats, and lawyers. The jargon alone—EP, CEP, POI, POR, CONNUM, FUPDOL, TOTPUDD, model match, cost test, arm's-length test, CV, facts available, DIFMER, and on and on—is enough to make a nonspecialist's eyes glaze over. As a result, most supporters of the law simply take its appealing rhetoric at face value. If it sounds good, it must be good.

The purpose of this paper is to cut through the fog of technical complexity that surrounds the antidumping law—to show how it really operates, and show in particular that its actual operation all too often has nothing to do with its fine-sounding rhetoric.

An earlier Cato Institute study by one of the coauthors of this paper pursued a similar object. That study, titled "The U.S. Antidumping Law: Rhetoric versus Reality," focused on the theoretical justifications that antidumping supporters offer for the law and then examined antidumping practice in light of those justifications.[1] The conclusion: Antidumping measures seldom succeed in targeting "unfair trade" as antidumping supporters define that term.

This paper's focus is more practical and less theoretical. Here the emphasis is on the nuts and bolts of how the U.S. Department of Commerce defines and calculates dumping. In particular, we expose the dirty little secrets of antidumping—the methodological quirks and biases that result in findings of dumping even when the U.S. prices of imported goods are identical to or even higher than the prices charged by the foreign producer of those goods in its own home market. Once those quirks and biases are understood, the illusion that the antidumping law in its current form restricts only "unfair trade" cannot be sustained.

We are not attempting here a comprehensive analysis or critique of the antidumping law. For antidumping measures to be imposed under U.S. law, two major requirements must be satisfied: (1) the DOC must find that imports are being dumped, and (2) the International Trade Commission must find that dumped imports are causing or threatening injury to a domestic industry. In this paper we do not address the ITC's injury analysis. Neither do we address various procedural aspects of antidumping investigations—including standing requirements, initiation standards, use of "facts available," or the distribution of duties to domestic producers under the so-called Byrd amendment.

Although much in these other elements of antidumping practice is ripe for criticism, we choose to home in on the central question of antidumping policy: What constitutes dumping? How that question is answered determines the fundamental character of the antidumping law. If it can be shown that normal, healthy competition is regularly stigmatized as "unfair" dumping because of methodological flaws and biases, then the law itself is fundamentally flawed—not just according to the ivory-tower standards of economists and policy wonks, but according to the very standards upheld by the law's supporters.

Champions of the antidumping status quo argue that the law is not protectionist—that is, it does not discriminate against imports generally in favor of domestic production. Rather, its purpose is merely to clear the way for normal, healthy international competition by discouraging "unfair," market-distorting trade. According to its supporters, the antidumping law acts to preserve a "level playing field" on which domestic and foreign producers can compete on the basis of who makes the best product at the lowest cost—as opposed to the situation in which some foreign producers enjoy an artificial advantage because of government-caused distortions in their home market. But if, in fact,

dumping is defined in such a way that even perfectly innocent import competition is classified as unfair, then the distinction between antidumping measures and garden-variety protectionism collapses—and even antidumping supporters should admit that there is a problem that needs fixing.

The Antidumping Process

Before critiquing the antidumping law's flawed methodologies, it is necessary first to understand, at least in broad outline, how the antidumping process works. Following, therefore, is a basic overview of current antidumping practice, with particular attention to the DOC's rules and procedures for identifying and measuring dumping.

Investigations and Reviews

Dumping is defined as the sale of a commodity in an export market (i.e., the United States under U.S. law) at a price less than "normal value."[2] Normal value is based either on the price of the same or a similar product in a comparison market (normally the foreign producer's home market) or on "constructed value," the cost to produce the product plus some amount for profit.[3] The extent of dumping is called the "dumping margin," which is calculated by subtracting the export price from normal value and dividing the difference (assuming it is positive) by the export price. In other words, if a foreign producer sells widgets for 10 at home and for 8 in the United States, its dumping margin is (10 – 8)/8, or 25 percent.

For antidumping duties to be imposed, it is not enough that dumping be found to exist. In addition, the authorities must determine that the domestic industry is materially injured or threatened with material injury, or else that the development of an industry is materially retarded, by reason of dumped imports.

In the United States, an industry can seek relief under the antidumping law by filing a petition with the ITC and the DOC. Domestic producers joining the petition are thus called "petitioners." Producers accounting for at least 25 percent of domestic production (by volume) must support the petition, and opposition by other producers must constitute less than 50 percent of the total output of all producers expressing an opinion one way or the other. Petitions are required to contain some evidence of dumping and injury in order to initiate an investigation. However, the evidentiary requirements are quite modest.

Once an antidumping investigation is initiated, the ITC has 45 days to determine whether there is reason to believe that dumped imports are causing or threatening injury to a domestic industry. Affirmative preliminary findings are rendered in about 79 percent of cases.[4]

Following an affirmative preliminary finding by the ITC, the DOC issues questionnaires to "mandatory respondents"—the largest known foreign producers and exporters of subject merchandise from the countries in question.[5] Failure to respond to the DOC's questionnaire or failure to cooperate fully in the proceeding typically results in the assignment of an adverse rate of duty, which is usually based on allegations in the domestic industry's petition. If a foreign producer has any hope of maintaining access to the U.S. market, it is forced to respond to the DOC's voluminous requests for information. Responding to an antidumping questionnaire usually requires the diversion of significant company resources and retaining legal, accounting, and economic expertise.

The DOC normally makes its preliminary determination (prelim) within 140 days of the investigation's initiation (although the deadline can be extended by 50 days). If the DOC prelim is affirmative, liquidation (i.e., final determination of duties owed to the Customs Service) is suspended for all future subject imports, and a bond must be posted to cover possible antidumping duties at the rate announced in the prelim. The DOC then makes its final determination (final) within 75 days of the prelim (although, here again, the deadline can be extended—this time by up to 60 days). Between the prelim and the final, the DOC conducts an on-site verification of the respondents' questionnaire data and considers factual and legal arguments submitted by petitioners and respondents. After the final, assuming it is affirmative (an outcome that

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occurs about 94 percent of the time),[6] respondents must pay cash deposits on possible antidumping duties at the rate announced in the final.

Once the DOC issues its final determination, the ITC normally has 45 days to make its final injury finding. If that determination is affirmative (an outcome that occurs about 83 percent of the time),[7] an antidumping order is issued, which subjects prospective imports to antidumping duty deposits equal to the calculated rate of dumping.

The antidumping deposit rate is only an estimate of dumping liability. The rate is based on dumping margins calculated for the period of investigation (POI), normally the four most recently completed calendar quarters before initiation—that is, a period that concludes months before duty liability generally begins. Final liability is determined by administrative reviews conducted later by the DOC. The first period of review (POR) covers imports from the beginning of duty liability to the first anniversary of the antidumping duty order. Subsequent PORs cover imports from one anniversary date to the next. The DOC's final determination in a review settles final dumping liability for imports during the POR. If the amount of dumping found is more than the amount of cash deposits, the respondent owes the difference with interest. If, on the other hand, the amount of dumping is less, the respondent gets a refund with interest. In addition to settling final liability for past imports, the final determination in a review also establishes a new deposit rate for future imports.

Dumping margins can thus be recalculated annually through administrative reviews. The continued existence of injury, on the other hand, is revisited only once every five years in so-called sunset reviews. Under the sunset review provision, an antidumping duty order is terminated automatically after five years unless a sunset review is requested. In this review, the DOC and the ITC determine whether termination of the order would be likely to lead to the continuation or resumption of dumping and injury, respectively. If both make affirmative determinations, the order continues for another five years. Between July 1998 and August 2002, 354 sunset reviews were initiated, of which 265 were contested by petitioners. The outcomes in 2 of these 265 contested cases were still pending. The DOC made affirmative sunset determinations to continue the order in all but 4 of the 263 decided cases, while the ITC voted affirmative 72 percent of the time.[8]

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The DOC Questionnaire

To conduct its dumping investigation, the DOC issues detailed questionnaires to the primary foreign producers of the "subject merchandise," as the investigated imports are known. The questionnaire has four and sometimes five distinct parts—Sections A, B, C, D, and sometimes E. Section A seeks information on the company's corporate structure and affiliations, distribution process, sales process, accounting and financial practices, and the products under investigation generally.

Section B concerns the company's sales of "such or similar" merchandise (i.e., products that are identical or similar to the subject merchandise under investigation) in the comparison market. The comparison market is normally the foreign producer's home market, but a third-country export market may be used instead if the home market is deemed not "viable."[9] The DOC seeks information on products sold, selling prices, quantities sold, customer relationships, customer class (i.e., distributor, wholesaler, retailer), transportation and warehousing expenses, insurance costs, selling expenses, discounts and rebates, warranties, commissions, packing costs, and anything else related to home-market sales. This portion of the response is supplemented by a separate computer data file containing detailed information for each sales transaction made during the period of investigation and is used to calculate the "foreign market value" or normal value—in other words, the benchmark against which U.S. prices are compared.

Section C is analogous to Section B but covers sales made in the United States. Typically, more information is sought with respect to U.S. sales because the process of selling in an export market involves additional transportation and selling processes. Also, in

many cases, the U.S. importer is related to the foreign respondent and therefore the prices to the importer are not used as the basis for the dumping calculation. In these cases—known as constructed export price (CEP) transactions—the U.S. price is based on the price of the resale by the related importer to the first unaffiliated customer. When U.S. sales involve importation by a related company, expenses incurred by that related importer are required to be reported in Section C.

Section D covers the cost of producing the subject merchandise and the foreign such or similar merchandise. This portion of the questionnaire seeks to obtain data on production quantities, labor costs, materials costs, overhead, and general and administrative expenses associated with production. The computer data files supplementing the narrative response to Section D must contain detailed unit cost elements for every product subject to the investigation that was sold in both markets.

In cases where there is further processing of subject merchandise after importation by a related company and before sale to an unaffiliated customer, the DOC issues a Section E, which seeks information on the additional manufacturing processes and costs.

CONNUMs and Product Definition

The first step in comparing U.S. and foreign-market prices consists of determining which prices to compare to each other. If products identical to those sold in the United States are not sold in the home market—which is the case in most antidumping investigations—the DOC compares the average U.S. price to the average home-market price of the "next most similar" product. Among the most important aspects of antidumping calculation methodology, therefore, are product definition and determination of the next most similar products.

The product, as defined by the DOC, will almost always be different from the product as defined by the respondent. That is, the DOC compares prices (and calculates costs) at the DOC-defined product level, not at the company-specific product code level. This departure from a respondent's record-keeping protocol can add significant complications to the preparation of sales and cost records in response to the DOC's questionnaire.

Products are defined for antidumping purposes by the specific product characteristics that the DOC determines are necessary for "model matching"—that is, the characteristics that determine which products are more or less similar to each other and thus which products are compared with each other. For some products, the relevant characteristics are few and the options within each characteristic are limited. For example, widgets may be classified by size (large or small) and material (rubber or plastic). Using these classifications, there are only four possible models (large rubber, large plastic, small rubber, small plastic). And since there are only two possibilities within each characteristic, it is only necessary to determine "rank between" the characteristics, not "rank within" each characteristic. If size is considered a more important matching characteristic than material, then the best match for a large rubber widget in the absence of an identical product in the home market is a large plastic widget. Alternatively, if material is more significant than size, the best match for a large rubber widget would be a small rubber widget.

The DOC creates its own product code, known as the CONNUM, or control number, which reflects the relevant characteristics of the product. The CONNUM is constructed as a series of the relevant product characteristics. So, for example, a small, rubber widget might be assigned a CONNUM of 11, where the first digit corresponds to "size" (small = "1"; large = "2") and the second digit corresponds to "material" (rubber = "1"; plastic = "2"). This construction would reflect the decision that size is more important than material for this particular product because the "next most similar product" to an 11 is a 12, not a 21. Matching across sizes would occur only if there were no match across materials in the same size.

If there were a third type of material (say vinyl) and a third size (say medium), then there would be nine possible products, and it would be necessary to rank the order of similarity "within" each characteristic, as well as

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"between." Here things can get tricky. Which is more similar to medium—large or small? Is rubber more similar to plastic or to vinyl?

In some cases there are only a few characteristics and a few alternatives within each characteristic. But for others, particularly those involving steel, there are 10 to 20 characteristics, each with several or dozens of alternative values. For example, in the recent investigation of cold-rolled carbon steel from Germany, there were 14 relevant product characteristics, including carbon content, tensile strength, thickness, tolerance, surface quality, and hardening process. In this and other steel cases there can be literally hundreds of thousands of actual products.[10]

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Price Adjustments

Dumping calculations are never made on the basis of comparing actual sales prices. Instead, the DOC subjects actual sales prices to a dizzying variety of adjustments. Dumping margins are then determined by comparing adjusted U.S. to adjusted home-market prices.

Selling and delivering products to different markets entail incurring certain expenses that are unique to each market. The DOC addresses these issues by attempting to quantify all expenses incurred after production and through the sale of the product in each market. These expenses are then deducted from the gross selling prices, yielding ex-factory prices (the prices the products would have fetched at the factory door), which presumably permit apples-to-apples comparisons. For example, it may be necessary to advertise in one market, where the product is less known or where greater competition prevails, while it is unnecessary to advertise in another market. The sales operation in one market might involve selling agents, who receive commissions on sales, whereas in another market, customers purchase directly from a catalogue without any sales intermediary.

Selling in different markets, particularly markets at different distances from the point of production, involves differences in transportation costs. Selling in one's home market might involve some trucking fees and other local expenses, but selling in an export market usually entails additional transportation costs such as outbound freight to the port of exit, warehousing fees, ocean shipping, insurance, brokerage and handling fees, customs duties, and inland freight costs.

Some of these expenses are precisely quantifiable; others can be estimated only roughly. The DOC seeks to obtain information on all sorts of expenses, direct and indirect, realized and imputed. Many of the expenses are deducted from gross selling prices, while others are used to offset or limit deductions made from gross prices in a particular market.

Discounts and Rebates. Discounts and rebates are the first class of expenses deducted from gross selling prices. Companies often provide incentives for customers in particular markets to entice early payment or large-volume purchases, or to pass along savings afforded them by their own suppliers. All discounts and rebates are deducted from gross selling prices in both markets.

Movement Expenses. Movement expenses comprise all of the costs incurred by the seller to transport merchandise from the factory to the customer. Depending on the sales and delivery terms specified on the invoice, these expenses could include freight from the factory to a warehouse, warehousing costs, freight from the warehouse to the customer, freight to the port of exit, marine shipping and insurance, brokerage and handling fees, customs duties, and inland freight in the export market. All movement expenses are deducted from gross selling prices in both markets.

Direct Selling Expenses. Direct selling expenses are characterized generally as expenses incurred to facilitate specific sales. These expenses include advertising costs involved in promoting the subject or "such or similar" merchandise, warranty expenses associated with materials and labor to service defective merchandise, and commissions paid on particular sales. Adjustments to gross selling prices are made for all direct selling expenses in both markets.

Indirect Selling Expenses. Indirect selling expenses are costs incurred on behalf of a company's sales operation that are not directly attributable to particular sales. These expenses include sales department overhead such as

rent, salaries, and supplies. They can also include advertising of a general nature, used to promote the company name or brand, but not specific products. The overhead expenses of a technical service department devoted to honoring warranties and to providing customer support may also be considered indirect selling expenses. Unlike each of the previous expense groups described, indirect selling expenses are not given similar treatment in both markets. They are deducted from U.S. prices under certain situations—so-called constructed export price (CEP) transactions—but are not always deducted, at least not entirely, from the prices of the home-market products.

Imputed Expenses. Imputed expenses are implicit costs that do not accrue in an actual accounting sense but are presumed to affect prices. An imputed expense is not actually incurred; it is instead an opportunity cost. In antidumping cases, the DOC calculates imputed credit expenses and inventory carrying costs. Together, these expense adjustments reflect the opportunity cost of not receiving payment immediately after a product is produced. Inventory carrying costs impute the costs associated with the period between production and sale; credit expenses impute the costs associated with the period between sale and receipt of payment. Each is calculated typically by multiplying the number of days in the respective period, divided by 365, times the prevailing local short-term interest rate, times the gross price (in the case of credit) or the cost of production (in the case of inventory carrying costs). Imputed credit expenses are treated as direct selling expenses; inventory carrying costs are treated as indirect expenses.

Level-of-Trade Adjustments. Often, customers in the home market are of a different "class" than those in the U.S. market. For example, U.S. customers may be large wholesalers, while home-market customers are small retailers or even end users. The common commercial practice in many industries is to offer different prices to different classes of customers because their size or function may affect the volume or variety of purchases. Sellers may offer different services or incentives to different classes of customers to attract their business or cement their loyalty. When sales are made to disparate customer classes, any price differences may simply reflect the different nature of the customers' businesses. The DOC addresses this issue by attempting to match prices of U.S. and home-market sales at the same "level of trade." When there are no home-market sales at the same level of trade, and comparisons must be made across such levels, the DOC will consider making a level-of-trade adjustment to account for the difference. If it can be demonstrated that a consistent pattern of price differences prevails between the levels of trade, and that the seller performs distinctly different functions on behalf of the customers in the different levels, and that the home-market level is more remote from the factory, an adjustment will be made to normal value.

Difference-in-Merchandise Adjustments. As the DOC attempts to account for inevitable disparities in prices asked at different levels of trade, it also makes price adjustments when nonidentical products are compared. When products identical to the U.S. product are not sold in the home market, or are sold but deemed ineligible for price comparisons through the various tests and procedures described below, the prices of similar, but not identical, products are compared. An elaborate imagination is not required to appreciate that different products sold in different markets might have different prices.

The DOC makes a difference-in-merchandise (DIFMER) adjustment when prices of nonidentical products are compared. A DIFMER adjustment is calculated as the difference between the variable costs of manufacturing the two distinct products. So, instead of directly comparing the net U.S. price and the net home-market price of different products, the home-market price is adjusted by the difference in variable production costs first, presumably to countervail the price difference arising from the product difference.

CEP Profit and CEP Offset. Sales in the United States fall into one of two classifications. Export price (EP) sales are transactions between the exporter and an unaffiliated importer; constructed export price (CEP) sales are transactions in which the importer is affiliated in some

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manner with the exporter, and thus the transaction is deemed unreliable for purposes of dumping calculations. Rather than use the information in this primary transaction, the DOC uses the U.S. prices of the resales by that affiliated importer to the first unaffiliated customer.

In CEP transactions, the DOC deducts from U.S. prices not only the U.S. indirect selling expenses but also the estimated profit on U.S. operations. The CEP profit is determined by calculating total revenues (quantity times price) in both the U.S. and home markets and subtracting from that figure the total cost of producing, selling, and transporting (quantity times [cost plus selling expenses plus movement expenses]) the merchandise in both markets. This aggregate figure is allocated to each CEP transaction on the basis of the ratio of the sales-specific CEP expenses to the total costs.

When indirect selling expenses are deduced from U.S. prices, the DOC calculates a CEP offset that is deducted from the foreign-market price before the unit margins are calculated. The value of the offset is determined by following a complicated set of computer instructions to ultimately evaluate various expenses in both markets. If certain conditions are met (e.g., commissions are paid in the home market but not in the U.S. market), the offset takes on a certain value. If the conditions are not met but others are, the offset takes on a different value. Although the offset can have a smaller value than the U.S. indirect selling expenses, it can never exceed the amount of U.S. indirect selling expenses. Finally, if the DOC is able to calculate a level-of-trade adjustment, it does not calculate the CEP offset.

Arm's-Length and Cost Tests

After defining the products in both markets, but before matching home-market sales to U.S. sales, the DOC filters out some (or maybe even all) home-market sales with two separate tests: the arm's-length test and the cost test. These filters are used, ostensibly, to eliminate from consideration all home-market sales that may be aberrational, or outside "the ordinary course of trade."

The purpose of the arm's-length test is to determine whether sales to affiliated[11] customers in the home market have been made at prices and on terms comparable with those granted to unaffiliated customers. The test involves comparisons of the average net selling prices per product for *each affiliated* customer to the average net selling prices per product to *all unaffiliated* customers.

A ratio is calculated in which the numerator is the average net price per product per affiliate and the denominator is the average net price of that same product to all unaffiliated customers. A similar ratio is calculated for each unique combination of affiliated customer and product.[12] Finally, a weighted-average ratio is calculated for each affiliate. If that ratio is at least 99.5 percent, then all sales to the affiliate are accepted as having been made at arm's length. Otherwise, all sales to that affiliate are excluded from the calculation of average home-market prices.[13]

The purpose of the cost test is to eliminate from consideration sales made in the home market at prices lower than the full cost of production. Like the arm's-length test, the cost test (and the whole antidumping analysis, for that matter) is conducted at the CONNUM level. The selling price of each home-market transaction, net of all nonimputed expenses, is compared with the full cost of producing the CONNUM sold in the respective transaction. After each transaction is evaluated in this manner, a summary for each CONNUM is generated.

If 80 percent or more, by volume, of the sales of a specific CONNUM are made at net prices at or above the full cost of production, then all sales of that CONNUM are considered to have passed the cost test. Subsequently, all of those sales enter into the pool of potential matches for U.S. sales. If less than 80 percent of the sales of a specific CONNUM are made at net prices at or above the cost of production, then all sales at below-cost prices are considered to have failed the cost test and are excluded from that pool.

Conceivably, exercise of the arm's-length and cost tests could cause all home-market sales to become ineligible as matches for U.S. sales. If no comparable sales are found at arm's-length prices and above the cost of production,

an alternative basis for normal value, known as constructed value (CV), is used.

CV is a cost-based approximation for home-market selling prices. When there are no eligible home-market sales comparisons, the DOC resorts to CV, which is calculated as the cost of producing the particular U.S. CONNUM, plus an average amount for home-market expenses, plus an amount for profit.[14] The value is "constructed" as an estimation of what the product would have sold for if it had been sold in the home market.

Ineligibility of all home-market sales is not the only basis for resorting to constructed value. CV can be used in situations where home-market sales still remain, but none of the eligible home-market CONNUMs are considered appropriate matches for specific U.S. products. Following is a discussion of when and whether a match is appropriate.

Model Matching

After net prices in both markets have been calculated, and the home-market database has been purged to exclude all sales that fail the arm's-length and cost tests, the DOC determines which products to compare. The preference is to compare the prices of identical products. But given the differences in tastes and customer requirements that often exist between markets, identical merchandise is not always sold in each. This problem is compounded by the fact that the pool of eligible matches is only a subset of the merchandise actually sold in the home market, since the arm's-length and cost tests tend to reduce the number of available sales.

In the absence of an identical product match, the next most similar product is sought for comparing prices. That home-market product is the one most similar to the U.S. product according to the relevant product characteristics (as discussed earlier). In some cases, the ultimate match may have characteristics quite different from those of the U.S. CONNUM. As long as that product is the most similar available, and the difference in variable costs of manufacturing between the two does not exceed 20 percent of the total cost of manufacturing the U.S. product (the DIFMER test),[15] it will be the selected match.

It is possible that the most similar match can fail the DIFMER test. When this is the case, the next most similar match is sought, and also subjected to the DIFMER test. If this match fails, the search continues. Ultimately, each U.S. product is compared with the most similar home-market product that passes the DIFMER test. If no matches satisfy the DIFMER test, then the U.S. product is compared with constructed value.

Dumping Calculation

In an antidumping investigation, the dumping margin is based on a comparison of the average net U.S. price for each CONNUM[16] during the period of investigation with its normal value. Normal value is either the average net price of the most similar home-market product during that same period or, in the absence of such or similar merchandise, constructed value. In either case, normal value is converted to U.S. dollars by multiplying its foreign-currency-denominated average by the average exchange rate in place on the dates of all U.S. sales comprising the average U.S. price.

Normal value expressed in dollar terms is known as FUPDOL (foreign unit price in dollars) in the DOC's dumping calcuation computer program. FUPDOL minus the average U.S. price (USPR) equals the unit margin of dumping (UMARGIN). The full impact of the unit margin is determined by the volume of sales of the U.S. product in question (QTYU). The "extended" margin or full-dollar value of the incidence of dumping of that specific U.S. CONNUM, or EMARGIN, is the product of UMARGIN times QTYU.

The calculations just described are undertaken for each unique combination of U.S. CONNUM and sales type. If there are 50 such unique combinations, then 50 unique EMARGINs are calculated. The total amount of dumping, which is also known as the total potentially uncollected dumping duties (TOTPUDD), is the sum of all positive EMARGINs. All price comparisons that generate negative dumping margins because FUPDOL was less than USPR are effectively set equal to zero,

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regardless of the amount of "negative" dumping. In other words, if 25 of the 50 unique combinations generated positive dumping margins of an aggregate of, say, $10,000, and the other 25 generated negative dumping margins of the same aggregate amount, $10,000, the total amount of dumping would be $10,000, not $0. The practice of disregarding negative dumping margins is known as zeroing because the negative dumping amounts are treated as equivalent to zero.

Ultimately, the level of dumping is expressed on an ad valorem basis to determine an antidumping duty rate. This percentage margin, which is identified in the DOC's computer program as PCTMARG, equals the sum of the positive TOTPUDDs divided by the total net value of all U.S. sales (USPR times QTYU). For example, if TOTPUDD equals $10,000, and the total net U.S. sales value is $100,000, then the percentage margin is 10 percent.

Dumping vs. Price Discrimination

The U.S. antidumping law is ostensibly concerned with international price discrimination.[17] In the paradigmatic case, a foreign producer is said to be dumping when it charges lower prices in the United States than it charges at home. This kind of price discrimination supposedly reveals the existence of an unfair market distortion—in particular, a closed or "sanctuary" home market for the foreign producer. In a sanctuary market, trade barriers or other restrictions on competition allow the foreign producer to charge artificially high prices and earn artificially high profits with which it can cross-subsidize artificially low prices abroad. And because competition is restricted in the home market, the profit sanctuary cannot be arbitraged away by reimportation of dumped exports or retaliatory dumping by aggrieved foreign competitors.

The assumption that international price differences must be the result of underlying market distortions in the home market is highly questionable.[18] In fact, such price differences could have many innocent explanations that have nothing to do with "unfair trade" under any plausible definition of that term. Nevertheless, for present purposes, we will take for granted that imports sold at lower-than-home-market prices are indeed worth worrying about. Here, we will limit our analysis to this simple question: How well does the antidumping law actually measure international price discrimination?

The answer, unfortunately, is not well at all. In a depressingly wide variety of circumstances, a foreign producer can charge prices in the United States that are identical to or even higher than its home-market prices and still be found guilty of dumping. All too often, methodological quirks and biases in the U.S. law work to conjure dumping margins out of thin air.

In a depressingly wide variety of circumstances, a foreign producer can charge prices in the United States that are identical to or even higher than its home-market prices and still be found guilty of dumping.

The Effect of Price Fluctuations

Antidumping investigations compare average home-market and U.S. prices over the course of a year-long period of investigation. If prices fluctuate during that year, then differences in sales volumes can generate different average annual prices even if, at any given time, identical prices were charged in the two markets. Consider the hypothetical example shown in Table 1. Here, a foreign company sells widgets from a published price list and offers identical prices to all of its customers, domestic and foreign. For the first six months of the year, the price for a particular widget is $2.00. The price falls to $1.00 during the second half of the year. At both prices, demand is greater in the home market. But because U.S. customers respond more to the price decrease (i.e., U.S. demand is more elastic), the weighted-average price is lower in the United States ($1.33) than in the home market ($1.45). Comparison of these averages leads to a dumping margin (equal to the difference between home-market price and U.S. price divided by U.S. price) of 9.09 percent, even though there is no price discrimination whatsoever.

Sales at identical prices generate dumping margins whenever a relatively larger volume is purchased in the export market at the lower price. If demand surges at different times in different markets, dumping can be found easily. Consider the example in Table 2, again showing sales made from the same price list.

Table 1
Phantom Dumping Margins Arising from Price List Changes

		U.S. Market		Home Market	
Month	Price List ($)	Quantity	Value ($)	Quantity	Value ($)
Jan.	2	5	10	10	20
Feb.	2	5	10	10	20
Mar.	2	5	10	10	20
Apr.	2	5	10	10	20
May.	2	5	10	10	20
June	2	5	10	10	20
July	1	10	10	12	12
Aug.	1	10	10	12	12
Sept.	1	10	10	12	12
Oct.	1	10	10	12	12
Nov.	1	10	10	12	12
Dec.	1	10	10	12	12
Total		90	$120	132	$192
Weighted-average price			$1.33		$1.45
Unit margin					$0.12
Dumping margin					9.09%

Table 2
More Phantom Dumping Margins Arising from Price List Changes

		U.S. Market		Home Market	
Month	Price List ($)	Quantity	Value ($)	Quantity	Value ($)
Jan.	2	50	100	50	100
Feb.	2	50	100	50	100
Mar.	2	50	100	50	100
Apr.	2	50	100	50	100
May.	2	50	100	50	100
June	2	50	100	100	200
July	1	100	100	50	50
Aug.	1	50	50	50	50
Sept.	1	50	50	50	50
Oct.	1	50	50	50	50
Nov.	1	50	50	50	50
Dec.	1	50	50	50	50
Total		650	$950	650	$1,000
Weighted-average price			$1.46		$1.54
Unit margin					$0.08
Dumping margin					5.26%

The asymmetry in the current arm's-length test was found to be inconsistent with the WTO Antidumping Agreement.

Because demand surged in the home market during June and U.S. demand surged in July, dumping margins of 5.26 percent are the result.

In these hypothetical examples the foreign producer does absolutely nothing wrong—it charges the same prices to everybody. But because its customers in the two different markets react to those prices differently, the company is found guilty of dumping. In these cases, then, determinations of dumping have nothing to do with unfair trade; they are simply artifacts of an imperfect methodology.

Arm's-Length Test

In the preceding examples, dumping margins emerge from identical prices simply because of the vagaries of market reactions. In many other instances, however, the DOC actively skews the data to tilt the scale in favor of affirmative dumping determinations.

The arm's-length test is premised on the notion that affiliated customers may receive more favorable sales terms than do unaffiliated customers—thus the need to exclude home-market sales to affiliated customers who have paid lower prices. But what about the just-as-likely possibility that prices to affiliates might be higher than those to unaffiliated customers? If the affiliates are seeking to maximize their combined welfare (which is why sales to affiliates are suspect in the first place), it might be optimal to show higher revenues for the seller (to attract investors, improve the stock value, etc.) and higher costs for the buyer (to avoid tax liabilities, etc.). Yet, only when sales to affiliates are lower than sales to unaffiliated customers are they excluded. This exclusion has the effect of raising average prices in the comparison market, and hence raising dumping margins. Why should sales that are priced slightly lower be perceived as outside "the ordinary course of trade," while those that are priced much higher lead to no such perception?

This asymmetry in the current arm's-length test was found to be inconsistent with the WTO Antidumping Agreement in a dispute settlement case growing out of the antidumping investigation of Japanese hot-rolled steel.[19] In response to the WTO's adverse ruling, the DOC is now proposing to change the test. Under the new approach, all sales under a 98 percent threshold and above a 102 percent threshold would be eliminated.[20]

The proposed new "band" approach eliminates the arm's-length test's asymmetry, but the fixed 98 percent and 102 percent thresholds, like the current 99.5 percent threshold, are simply arbitrary. While in some industries or in some years there may be very little price variation, prices may vary widely in others. What this suggests is that the threshold for deviations from the average price should be more liberal when there is wider price variation.

Consider the example in Table 3, which depicts four different price situations. In each scenario, there are 15 sales to unaffiliated customers of one product for which the average price is $10. Under the current arm's-length test, the threshold of $9.95 prevails under each scenario (99.5 percent of $10). If the average price to an affiliated customer is below $9.95, then all sales to that affiliate are considered to be outside the ordinary course of trade and are subsequently eliminated from further consideration.

Assume the average price to an affiliate is $9.50. Then, under each scenario, all sales to that affiliate would be dropped. Under Scenario 1, that outcome is not necessarily unreasonable. After all, all sales to unaffiliated customers were $10 and there was no price variability whatsoever. Under Scenario 2, though, there was enough price variability that the average price to affiliates was higher than the price to unaffiliated customers 33 percent of the time. Is it reasonable to conclude that affiliated sales are outside the ordinary course of trade on account of unrepresentative pricing when those sales are priced higher than a sizable portion of sales to unaffiliated customers? What if they are priced higher than 40 percent of unaffiliated sales (Scenario 3)? Or 93 percent (Scenario 4)? The point is that a constant benchmark (or constant benchmarks, as in the proposed new test) makes no sense.

In preparing this paper, we were able to gain access to and analyze the proprietary records of actual U.S. antidumping determinations—14 in original investigations and 4 in administra-

Table 3
Arm's-Length Test

	Sales Prices to Nonaffiliates			
	Scenario 1	Scenario 2	Scenario 3	Scenario 4
	$10.00	$9.00	$8.00	$6.00
	$10.00	$9.00	$9.00	$7.00
	$10.00	$9.00	$10.00	$8.00
	$10.00	$9.00	$11.00	$8.00
	$10.00	$9.00	$12.00	$8.00
	$10.00	$10.00	$8.00	$7.00
	$10.00	$10.00	$9.00	$9.00
	$10.00	$10.00	$10.00	$8.00
	$10.00	$10.00	$11.00	$9.00
	$10.00	$10.00	$12.00	$9.00
	$10.00	$11.00	$8.00	$8.00
	$10.00	$11.00	$9.00	$7.00
	$10.00	$11.00	$10.00	$7.00
	$10.00	$11.00	$11.00	$9.00
	$10.00	$11.00	$12.00	$40.00
Mean	$10.00	$10.00	$10.00	$10.00
99.5 %	$9.95	$9.95	$9.95	$9.95
Range	$0.00	$2.00	$4.00	$34.00
Sales < 99.5%	0	33%	40%	93%

tive reviews.[21] For each of these 18 determinations, we were able to recreate the dumping margins determined by the DOC using the DOC's own dumping calculation computer programs. We then were able to alter those programs to gauge the effect of various specific methodological distortions on the ultimate outcomes.

Table 4 reveals the significant effect of the arm's-length test on dumping margins. Eliminating the test from the dumping calculation affected the results in 8 of the 13 cases in which the test was used (affiliated sales were not an issue in 5 of the 18 cases), with an overall average reduction in the dumping margin of 6.95 percent. In each of the 8 cases affected, the margin decreased. In an investigation of hot-rolled steel from Japan, the company's dumping margin decreased by almost 16 percent.[22] And the margin decreased by more than 52 percent for a company in a review concerning stainless steel sheet and strip from Japan.

Excluding Below-Cost Sales

One of the most egregious methodological distortions in contemporary antidumping practice is the so-called cost test. The purpose of the cost test is to eliminate from consideration sales made in the home market at prices lower than the full cost of production. When below-cost sales are eliminated in this way, the result is that all U.S. sales are compared with *only the highest-priced* (that is, above-cost) home-market sales.

What possible purpose could be served by excluding below-cost home-market sales from normal value? Remember that the main theory behind the antidumping law is that the foreign producer is enjoying an artificial advantage because of a sanctuary market at home. According to the theory, trade barriers or other restrictions on competition cause prices (and profits) in the home market to be artificially high, thus allowing the foreign producer to cross-subsidize unfairly cheap export sales.

One of the most egregious methodological distortions in contemporary antidumping practice is the so-called cost test.

Table 4
Actual DOC Determinations: Effects of Methodological Distortions

Country	Case	Company	Proceeding	Sales	Matches	Affiliated Sales	Zeroing	Zeroing*	Arm's-Length Test	Cost Test	CV Profit	CEP Profit	Indirect Selling Expenses
Moldova	Concrete reinforcing bars	1	Investigation	EP	CV	No	0.00%	0.00%	N/A	N/A	-22.80%	N/A	N/A
Japan	Cut-to-length plate	1	Investigation	EP/CEP	Price	Yes	-12.24%	-12.24%	-4.73%	-4.08%	N/A	-0.46%	-0.28%
Taiwan	DRAMs	1	Investigation	CEP	Price/CV	Yes	-1.07%	-1.07%	0.00%	-89.52%	-13.91%	0.00%	-14.67%
Taiwan	DRAMs	2	Investigation	CEP	Price	Yes	-0.07%	-0.07%	0.00%	-100.00%	N/A	0.00%	-12.98%
Taiwan	DRAMs	3	Investigation	CEP	Price/CV	No	-68.45%	-68.45%	N/A	-83.68%	-0.12%	0.00%	-3.05%
Japan	Hot-rolled steel	1	Investigation	EP/CEP	Price	Yes	-0.18%	-0.18%	-15.97%	-0.36%	N/A	-0.04%	-0.21%
Taiwan	Polyester staple fiber	1	Investigation	EP	Price	No	-13.99%	-13.99%	N/A	-64.46%	N/A	N/A	N/A
Taiwan	Polyester staple fiber	2	Investigation	EP	Price	Yes	-8.15%	-8.15%	0.00%	-94.97%	N/A	N/A	N/A
Indonesia	Preserved mushrooms	1	Review	EP	Price	Yes	-411.82%	-100.00%	0.00%	-92.64%	N/A	N/A	N/A
Germany	Stainless steel bar	1	Investigation	EP/CEP	Price	Yes	-29.74%	-29.74%	0.00%	-35.91%	N/A	0.00%	-8.96%
Germany	Stainless steel bar	2	Investigation	EP/CEP	Price	Yes	-3.31%	-3.31%	-0.99%	-54.08%	N/A	-4.21%	-0.90%
Taiwan	Stainless steel plate in coils	1	Investigation	EP	Price	No	-2.60%	-2.60%	N/A	-63.96%	N/A	N/A	N/A
Taiwan	Stainless steel round wire	1	Investigation	EP	Price	Yes	-96.84%	-96.84%	0.42%	-57.05%	N/A	N/A	N/A
Japan	Stainless steel sheet and strip	1	Review	EP	Price	Yes	-153.13%	-100.00%	-52.60%	-100.00%	N/A	N/A	N/A
Taiwan	SRAMs	1	Investigation	CEP	Price/CV	No	-296.83%	-100.00%	N/A	-66.27%	-18.25%	0.00%	-8.20%
India	Steel wire rope	1	Investigation	EP	Price	Yes	-48.32%	-48.32%	-10.02%	-31.35%	N/A	N/A	N/A
Japan	Tapered roller bearings - large	1	Review	CEP	Price/CV	Yes	-231.23%	-100.00%	-0.52%	-68.39%	0.00%	-0.52%	-25.55%
Japan	Tapered roller bearings - small	1	Review	CEP	Price	Yes	-177.47%	-100.00%	-5.90%	-7.95%	N/A	-7.11%	-15.84%
Overall dumping margin changes							-86.41%	-43.61%	-6.95%	-59.69%	-11.02%	-1.23%	-9.06%

*In some cases elimination of zeroing resulted in "negative" dumping margins. In this column the margin change is treated as -100 percent for those cases.

Consequently, price differences between the export market and the home market are supposedly probative of unfair trade because they might indicate the existence of a closed sanctuary market in the foreign producer's home market. Whether those price differences exist, though, cannot be fairly determined if all the lowest home-market prices are excluded from the comparison.

Indeed, the existence of below-cost sales in the home market is actually affirmative evidence of the *absence* of a sanctuary market. A sanctuary market, after all, is supposed to be an island of artificially high prices and profits. If home-market sales at a loss are found in significant quantities, isn't that a fairly compelling indication that there is no sanctuary market? But because of the cost test, it is precisely under these conditions that dumping margins are boosted significantly higher than they otherwise would be.

The cost test is thus fundamentally misconceived. And the way the test is applied only makes matters worse. Specifically, individual net prices are compared to average annual costs. But if unit costs fluctuate over the period of investigation—and they always do, if for no other reason than that varying levels of output continually change the denominator over which fixed costs are distributed—then the comparison of individual prices to average costs can yield perverse results. A company could make every single sale at prices above transaction-specific costs, but still some of those prices could be below average annual costs. Alternatively, a producer could recover all costs and make money over the course of a year, yet still charge below-cost prices on a significant fraction of sales.

The effect of the cost test on the dumping calculation can be dramatic. For example, in Table 5, there are five sales of widget product Code 1 in the U.S. market at different prices ranging from $1.00 to $5.00. Likewise, in the home market there are five sales at the identical prices. Assuming the same volume is sold in each of the 10 transactions, the weighted-average price for Product 1 is $3.00 in both markets. The dumping margin for this comparison is zero. There is no price discrimination whatsoever. However, this is not how the calculation works.

The cost test imposes restrictions on the eligibility of home-market sales that factor into the average price. Sales made at prices below the full cost of production are eliminated from consideration. In Table 5, the two home-market sales at prices below $2.50 are excluded, causing the average home-market price of Product 1 to rise to $4.00. This generates a dumping margin of 33 percent despite the fact that there are no price differences between markets.

Empirically, the cost test is among the most significant causes of inflated dumping margins. In the 17 actual DOC dumping determinations that we examined in which the cost test was applied, the dumping margin decreased

The existence of below-cost sales in the home market is actually affirmative evidence of the absence of a sanctuary market.

Table 5
Cost Test

	Net U.S. Price	Net H.M. Price	Unit Cost	Cost Test	Net H.M. Price (used)
	$1.00	$1.00	$2.50	Fail	—
	$2.00	$2.00	$2.50	Fail	—
	$3.00	$3.00	$2.50	Pass	$3.00
	$4.00	$4.00	$2.50	Pass	$4.00
	$5.00	$5.00	$2.50	Pass	$5.00
Average	$3.00	$3.00	$2.50		$4.00

each and every time—by an average of 60 percent—when the cost test was eliminated from the protocol[23] (see Table 4). In two cases, one involving DRAMs from Taiwan and the other involving stainless steel sheet and strip from Japan, the margins were reduced all the way to zero. Margins in a review of preserved mushrooms from Indonesia and an investigation of polyester staple fiber from Taiwan decreased by more than 90 percent each. All but three cases showed double-digit declines and all but five decreased by more than 50 percent.

Use of Constructed Value

Application of the arm's-length and cost tests systematically eliminates lower-priced sales in the home market, increasing the likelihood of finding positive dumping margins for two reasons. First, the sales remaining in the home-market database comprise only a higher-priced subset of all home-market sales. This translates into higher normal values. Second, the likelihood of matching any given U.S. CONNUM to an identical or similar home-market CONNUM is diminished because the universe of potential matches is smaller. This increases the chances that constructed value—a cost-based approximation of normal value—will be used.

Constructed value is calculated by adding to the cost of producing the U.S. product an estimated amount for home-market selling expenses and profit. Both of these estimates are based on the averages of only those sales that pass both the arm's-length and cost tests. In other words, even though a substantial portion of the home-market sales may have been made at a loss—a fact that obviously tempers or even negates overall home-market profitability—only the expenses and profits of the profitable sales are used to calculate the averages for constructed value.

A comparison of U.S. prices to constructed value cannot indicate anything about the possible existence of price discrimination caused by a sanctuary market because constructed value is not based on price data.

A comparison of U.S. prices to constructed value cannot indicate anything about the possible existence of price discrimination caused by a sanctuary market because constructed value is not based on price data. A cost-based normal value could only be relevant for assessing whether U.S. prices are below cost—but in that case, no profit amount should be included at all. Accordingly, a finding of dumping based on comparing U.S. prices to constructed value does not show that the U.S. sales are below cost; it shows only that they fall below some (arbitrary) benchmark for profitability. Such a finding has no relevance whatsoever to any plausible theory of unfair trade.

Five of the 18 actual DOC dumping determinations examined involved comparing of U.S. sales to constructed value. Four of those five experienced reductions in dumping margins when the profit component was excluded from the calculation of constructed value (see Table 4). Although the overall average reduction was 11 percent, it was 22.8 percent in an investigation involving concrete reinforcing bars from Moldova, 18.25 percent for an investigation of SRAMs from Taiwan, and 13.91 percent in an investigation concerning DRAMs from Taiwan.

Model Matching

Dumping margins can also emerge from the technicalities of product definition and model matching. Specifically, the more potentially price-relevant product characteristics for a given product, the more intractable is the dilemma facing antidumping authorities.

On the one hand, if the DOC were to ignore certain characteristics as irrelevant for product definition, physically different products might be treated as identical. The more broadly identical products are defined, the greater the likelihood that phantom dumping margins could be generated, or real dumping margins could be masked, simply because of differences between the product mix sold in the United States and that sold in the home market. Consider, for example, if the DOC were to ignore material as a matching characteristic for widgets in the example presented earlier—even though material does have some bearing on price. And let's say that only relatively low-priced rubber widgets are sold in the United States, while the mix sold in the home market includes rubber widgets as well as relatively high-priced plastic and vinyl widgets. If large plastic and vinyl widgets sold in the home market are treated as identical to large rubber widgets sold in the United States, and small plastic and vinyl widgets sold in the home market are treated as

identical to small rubber widgets sold in the United States, price comparisons would show dumping simply because rubber widgets are less valuable merchandise. In other words, dumping margins would result simply because apples were compared with oranges.

Two model-match scenarios are presented in Table 6. Each outcome is based on the identical set of sales data. If both size and material are considered relevant product characteristics (Scenario A), there are no dumping margins whatsoever. In this scenario, the average net prices of small rubber widgets sold in the United States are compared to the average net prices of small rubber widgets sold in the home market. Likewise, large rubber widgets in the United States are matched to identical products in the home market. The average net prices of small and large rubber widgets are $1.25 and $2.55, respectively, in both markets, which generates zero dumping margins. All of the nonidentical home-market products were ignored.

Under Scenario B, only the size variable is considered a relevant product characteristic. In this case, the size variable has no effect on the average net prices in the United States because only one material—rubber—is sold, so a small rubber is equivalent to a small, and a large rubber is equivalent to a large. The average net price for small widgets is $1.25, and for large widgets it is $2.55. However, results on the home-market side are much different under the one-characteristic specification. Now, rubber, plastic, and vinyl widgets of the same size group are averaged together. The average net price for small widgets in the home market is $1.38, and for large widgets it is $2.70. Although the data are identical under both scenarios, the mere change in product specification generates an overall dumping margin of 7.46 percent.

This example would seem to argue for making product definitions as specific as possible. But that approach creates problems as well. The more fine-grained the product definition, the higher the likelihood that dumping margins are the product of chance or arbitrary distinctions.

Table 7 demonstrates how subjective determinations about product definition affect the outcomes in dumping calculations. The average net U.S. price of 12 sales of medium rubber widgets is $2.25. In the home market, there are 6 sales of large rubber widgets, averaging $3.25 each, and 6 sales of small rubber widgets, averaging $1.25 each. Whether or not these sales are dumped hinges upon whether medium is deemed to be more similar to large or to small.

In Scenario A, comparing U.S. medium widgets to home-market small widgets generates a negative and therefore zero margin. The normal value (NV) is increased by the difference in merchandise (DIFMER), which is the difference in variable costs of manufacturing the nonidentical products (VCOMU-VCOMH). The result is FUPDOL, from which is subtracted USPR, generating a negative $0.50 unit margin.

In Scenario B, however, large is deemed more similar to medium, and the result is an affirmative dumping margin of 22 percent. In this case, the higher home-market price is slightly mitigated by a negative DIFMER of -$0.50, but the resulting FUPDOL is still $0.50 higher than the U.S. price.

Furthermore, when products are defined very narrowly, the likelihood is greater that U.S. sales will be compared to a very small (and possibly unrepresentative) fraction of home-market sales. Thus, if all U.S. sales are of small rubber widgets, while small rubber widgets comprise only 1 percent of home-market sales, the existence or nonexistence of price discrimination will be determined on the basis of a very small sample of home-market sales. Those sales may have uncharacteristically high or low prices and thus offer a poor measure of overall price levels in the home market. Nevertheless, all other sales in the home market will simply be excluded from the dumping calculation and ignored.[24] The situation gets worse when the sales of the U.S. product are compared to a tiny sample of nonidentical (but next most similar) sales in the home market.

Random chance and unavoidably arbitrary distinctions can thus play a major role in determining the final outcome of a dumping determination. In the preceding examples, the foreign company was not engaging in price discrimination, yet it was found guilty of dumping. The dumping margins reflect, not unfair trade, but methodological shortcomings.

Random chance and unavoidably arbitrary distinctions can thus play a major role in determining the final outcome of a dumping determination.

Table 6
Model Matching: How Dumping Margins Can Result from Product Definition

Scenario A: Abbreviated U.S. Sales List					Scenario B: Abbreviated H.M. Sales List				
OBSU	SIZEU	MATERIALU	QTYU	USPR	OBSH	SIZEH	MATERIALH	QTYH	NV
1	Small	Rubber	10	$1.20	1	Small	Rubber	10	$1.20
2	Small	Rubber	10	$1.20	2	Small	Rubber	10	$1.30
3	Small	Rubber	10	$1.20	3	Small	Plastic	10	$1.35
4	Small	Rubber	10	$1.30	4	Small	Plastic	10	$1.45
5	Small	Rubber	10	$1.30	5	Small	Vinyl	10	$1.45
6	Small	Rubber	10	$1.30	6	Small	Vinyl	10	$1.55
7	Large	Rubber	10	$2.30	7	Large	Rubber	10	$2.50
8	Large	Rubber	10	$2.40	8	Large	Rubber	10	$2.60
9	Large	Rubber	10	$2.50	9	Large	Plastic	10	$2.60
10	Large	Rubber	10	$2.60	10	Large	Plastic	10	$2.70
11	Large	Rubber	10	$2.70	11	Large	Vinyl	10	$2.80
12	Large	Rubber	10	$2.80	12	Large	Vinyl	10	$3.00

Scenario A
If both characteristics are deemed relevant, average net prices and dumping margins are as follows:

SIZEU	MATERIALU	QTYU	USPR	VALUE	SIZEH	MATERIALH	QTYH	NV	UMARGIN	EMARGIN	TOTPUDD	PCTMARG
Small	Rubber	60	$1.25	$75.00	Small	Rubber	20	$1.25	$0.00	$0.00	$0.00	0.00%
Large	Rubber	60	$2.55	$153.00	Large	Rubber	20	$2.55	$0.00	$0.00	$0.00	0.00%
				$228.00							$0.00	0.00%

Conclusion: No dumping.

Scenario B
If only the size characteristic is deemed relevant, average net prices and dumping margins are as follows:

SIZEU	MATERIALU	QTYU	USPR	VALUE	SIZEH	MATERIALH	QTYH	NV	UMARGIN	EMARGIN	TOTPUDD	PCTMARG
Small	N/A	60	$1.25	$75.00	Small	N/A	60	$1.38	$0.13	$8.00	$8.00	10.67%
Large	N/A	60	$2.55	$153.00	Large	N/A	60	$2.70	$0.15	$9.00	$9.00	5.88%
				$228.00							$17.00	7.46%

Conclusion: Dumping margins of 7.46%.

Table 7
Model Matching: How Dumping Margins Can Result from Ranking Hierarchies

Scenario A:Abbreviated U.S. Sales List						Scenario B:Abbreviated H.M. Sales List		
OBSU	SIZEU	MATERIALU	QTYU	USPR	VCOMU	OBSH	SIZEH	MATERI

Scenario A
If medium is deemed more similar to small, average net prices and dumping margins are as follows:

							ALH	QTYH	NV	VCOMH
$2.00	$1.50	Conclusion: No dumping.			10	$1.00	$1.00			
$2.00	$1.50	2	Small	Rubber	10	$1.10	$1.00			
$2.10	$1.50	3	Small	Rubber	10	$1.20	$1.00			
$2.10	$1.50	4	Small	Rubber	10	$1.30	$1.00			
$2.20	$1.50	Scenario B								
$2.20	$1.50	If medium is deemed more similar to large, average net prices and dumping margins are as follows:								
$2.30	$1.50									
$2.30	$1.50	8	Large	Rubber	10	$3.10	$2.00			
$2.40	$1.50	9	Large	Rubber	10	$3.20	$2.00			
$2.40	$1.50	10	Large	Rubber	10	$3.30	$2.00			
$2.50	$1.50	11	Large	Rubber	10	$3.40	$2.00			
$2.50	$1.50	Conclusion: Dumping margins of 22.22%.				$3.50	$2.00			

E	SIZEH	MATERIALH	QTYH	NV	DIFMER	FUPDOL	UMARGIN	EMARGIN	TOTPUDD	PCTMARG
00	Small	Rubber	60	$1.25	$0.50	$1.75	-$0.50	-$60.00	$0.00	0.00%

The assumption that price differences exactly mirror cost differences is totally artificial.

Difference-in-Merchandise Adjustment

The problems caused by comparing prices of nonidentical products are amplified by the shortcomings of the DOC's DIFMER adjustment. When comparing prices of nonidentical products, the DOC adjusts normal value by the difference between the two CONNUMs' variable manufacturing costs (i.e., materials, direct labor, and variable factory overhead). Although the basis for this adjustment is logical enough—products that are more costly to produce generally have higher prices—the assumption that price differences exactly mirror cost differences is nonetheless totally artificial.

In all too many cases, wide variations in prices between products exist alongside little or no differences in costs of production. A case in point from the early 1990s involved fresh cut-roses from Colombia. The CONNUMs in that case reflected stem size, bulb size, and bulb color. Although long-stemmed and large-bulbed red roses commanded the highest prices, there were virtually no differences in the cost of production between this variety and the short-stemmed and small-bulbed yellow roses, which were the lowest priced. Because demand is seasonal and peaks at different times in each market (during Valentine's Day in the United States and Mother's Day in Canada, the third-country comparison market used in this case), identical products were often not available in the comparison pool. As a result, the next most similar product was selected on the basis of the relevant characteristics. But since production of all roses, regardless of variety, entailed the same basic costs for seed, fertilizer, land, and water, the DIFMER adjustment made for nonidentical matches was small and usually zero. As a result, low-priced, short-stemmed, small-bulbed yellow roses in the United States were matched to high-priced, long-stemmed, large-bulbed red roses in Canada during May without any significant adjustment. Although the opposite dynamic prevailed in February, the large negative dumping margins associated with the higher U.S. prices had no impact on the overall margin because they were zeroed out.[25]

The inadequacy of the DIFMER adjustment combines with the unfairness of the cost test to generate large phantom dumping margins whenever second-quality merchandise is sold in the United States. Such flawed or off-spec products sell for a fraction of the price of prime merchandise, but they cost the same to produce. As a result, sales of second-quality merchandise are almost always made at prices below the cost of production. But because the cost test is administered on home-market sales only, the necessarily low-priced U.S. sales of second-quality merchandise must be compared to the higher-priced sales of primary products in the home market, or to constructed value. And because there is no appreciable cost difference between second-quality and prime merchandise, there can be no significant DIFMER adjustment. Accordingly, high-priced prime merchandise sold at home is compared to low-value second-quality merchandise in the United States—with big phantom dumping margins as the result.

Asymmetric Treatment of Indirect Selling Expenses

Calculation and deduction of indirect selling expenses introduce some potentially significant inequities into the process of determining dumping margins. Indirect selling expenses are expenses that do not vary directly with the volume of sales—sales staff salaries, sales department overhead, and so forth. In "export price" situations—that is, when the foreign producer sells directly to an unrelated purchaser in the U.S. market—no adjustment is made to export or home-market prices for such indirect selling expenses. But in "constructed export price" situations—when the foreign producer sells to unrelated U.S. customers through a related reseller in the United States—certain indirect expenses are deducted. Specifically, all indirect selling expenses incurred with respect to U.S. sales are deducted from the export price, but the adjustment to home-market price for home-market-related indirect selling expenses is capped at the amount of the U.S. indirect selling expenses. All home-market-related indirect selling expenses in excess of the cap are simply disregarded.

There is no possible justification for this asymmetry. The policy of deducting U.S. indi-

rect expenses is apparently based on the assumption that resales by the reseller in the export market are on a different level of trade—and therefore that those resale prices include additional expenses—than direct sales by the foreign producer in the home market. That assumption, though, is completely arbitrary. It may be that the reseller's U.S. customers are large national distributors, while the foreign producer sells directly to small local wholesalers at home—in which case the home-market price actually has more of the distribution chain built into it than does the U.S. price. Why then should the adjustment for home-market indirect selling expenses be limited to the amount of similar expenses incurred in the United States?

This asymmetry—known as the CEP offset cap—skews dumping calculations in the direction of higher dumping margins. If U.S. indirect expenses are greater than equivalent home-market expenses, then both are fully taken into account. If, however, the home-market expenses are greater, they are capped. The result in that case is an artificially inflated normal value—and an artificially inflated dumping margin.

Of the 18 actual DOC determinations that were examined, 10 would have had lower dumping margins if the asymmetry of the CEP offset cap had been eliminated (see Table 4). For example, in two reviews involving tapered roller bearings from Japan (one review involved "large" bearings; the other review involved "small" bearings), if no indirect selling expenses had been deducted on either side, the dumping margin in the large bearings case would have been 25.55 percent lower, and the margin in the small bearings case would have been 15.84 percent lower.

In reality it makes no sense to adjust automatically for indirect selling expenses. No reasonable basis exists for assuming that such overhead costs are built directly into the selling price. Stripping them out of the price, rather than creating fairer price comparisons, instead produces price comparisons even more removed from the actual market reality of real sales prices. This artificiality is exacerbated by the asymmetry of always deducting all U.S. indirect selling expenses while only partially deducting equivalent home-market expenses.

CEP Profit

The misguided policy of deducting indirect selling expenses from the U.S. price in CEP situations is exacerbated by the further deduction of so-called CEP profit—the estimated profit attributable to U.S. selling operations.

What is the rationale for deducting such profit? As with the deduction of indirect selling expenses, the assumption apparently is that U.S. sales are on a lower level of trade—that is, closer to the ultimate end user—than the home-market sales to which they are compared. But this is a completely arbitrary assumption that may or may not be valid in any particular case. Accordingly, why deduct profit from U.S. sales without making any corresponding deduction from normal value? This asymmetry can have no effect but to drive up dumping margins artificially.

In 5 of the 10 actual DOC dumping determinations that were reviewed and that contained CEP sales, the margins decreased when the CEP profit deduction was eliminated. For the other 5 there was no impact. Overall, the average decrease was 1.23 percent (see Table 4). In these particular cases, then, the impact was relatively minor. The effect in other cases, though, could be significantly greater and, in any event, further contribute to the serious inflation of dumping margins caused by all the rest of the antidumping law's methodological distortions.

Zeroing

The final step in the dumping calculation includes one of the antidumping law's most egregious distortions: the practice of zeroing. By ignoring "negative" dumping margins (i.e., instances in which U.S. prices are higher than home-market prices), the DOC employs a "heads I win, tails you lose" strategy for maximizing dumping margins.

Consider the simple example in Table 8. Each product in this example is sold at identical net prices in both markets with the exception of Product 1 and Product 5. Product 1 is sold for $0.50 less in the home market than in the U.S. market, and Product 5 is sold for $0.50 more in

By ignoring "negative" dumping margins, the DOC employs a "heads I win, tails you lose" strategy for maximizing dumping margins.

Zeroing has been found to violate the WTO Antidumping Agreement.

the home market than in the U.S. market. The arithmetic sum of the individual dumping margins (Total Margin) is zero because the price differences for Products 1 and 5 cancel each other out. Under U.S. antidumping rules, however, the negative dumping margin on Product 1 is given short shrift by denying it any impact on the overall margin. The total amount of negative dumping is always set equal to zero. Accordingly, in this case the DOC would find a dumping margin of 10 percent despite the lack of any difference in overall price levels between the two markets.

Zeroing, as this practice has come to be known, has been found to violate the WTO Antidumping Agreement in a case involving bed linen brought by the Indian government against the European Union.[26] The EU has since changed its practice, but zeroing remains a controversial and significant component of U.S. antidumping methodology.

In the 18 actual DOC determinations that were examined, zeroing was the most significant cause of dumping margins. It affected the outcomes in 17 of the 18 cases. On average, eliminating the practice of zeroing caused the margins to decrease by 88.65 percent in these 18 cases[27] (see Table 4). The margins would have been entirely eliminated in 5 of the 18 cases had zeroing not been practiced. In a sixth case, the margin was reduced by 96.84 percent.

A Hypothetical Case Study

To put all the methodological issues in context and to show how they interact in practice, we have constructed a detailed, hypothetical case study. What follows is a thorough assessment of the entire dumping calculation process, using a fictitious widget case as an example.

Appendix 1 provides an abbreviated sample of an imaginary Section B home-market sales list. It is abbreviated because many of the expense fields have already been consolidated into aggregate expense groups like movement expenses and indirect selling expenses. This type of aggregation occurs during the course of running the margin program on the itemized database submissions, but to keep these examples relatively simple and compact, identification of each specific field is forgone. The realism of the case study, though, is not compromised by this shortcut.

Appendix 1 is a sample home-market sales database for a fictitious foreign widget producer. Each of the fields ends with the letter H, which indicates that the field is a home-market item. The first field, OBSH, corresponds to the sales observation and is sequential. There are 45 observations.[28]

The second field, CONNUMH, is the DOC control number, the significance of which has

Table 8
Zeroing

Product Code	Net U.S. Price	Net H.M. Price	Unit Margin	U.S. Quantity	Total Margin	Total PUDD	Total Value
1	$1.00	$0.50	-$0.50	100	-$50	$0	$100
2	$1.00	$1.00	$0.00	100	$0	$0	$100
3	$1.00	$1.00	$0.00	100	$0	$0	$100
4	$1.00	$1.00	$0.00	100	$0	$0	$100
5	$1.00	$1.50	$0.50	100	$50	$50	$100
Total					$0	$50	$500
					Dumping margin		10.00%

been discussed previously. In this example, the CONNUMH reflects the product characteristics, SIZEH and MATERIALH. The first digit in the CONNUMH reflects the size of the widget, where a value of "1" corresponds to "small," and "2" corresponds to "large." The second digit reflects the widget's material content, where "1" equals "rubber," "2" equals "plastic," and "3" equals "vinyl." Under this CONNUMH construction, there are six products, each of which is sold in the home market.

The field PRIMEH indicates whether the product sold was "prime" or "secondary" merchandise. As explained earlier, prime merchandise is output that was manufactured without significant deviations from the intended quality specifications. Secondary merchandise is output that, because of a flaw in the production process or in one or more of the input materials, exhibits significant deviations from the intended quality standards. As a result, secondary merchandise is not as desirable to the customer because it usually cannot be used for its intended purpose. Although demand may still exist for the lesser-quality secondary merchandise, it is usually sold at prices well below those for prime.

The field CUSCODH is the customer code. Rather than use actual names, each customer is given a numerical code. CUSRELH indicates whether the customer is affiliated with the foreign producer. A value of "1" indicates no affiliation and a value of "2" indicates that the customer is affiliated. In this example, customer codes 10 and 20 are unaffiliated, and customer codes 30 and 40 are affiliated with the producer.

QTYH represents the number of units sold in the transaction. GRSUPRH is the gross selling price per unit. DISCREBH is the aggregated unit value of all discounts and rebates awarded on the transaction. Companies often grant volume discounts, early payment discounts, or rebate programs to their customers. MOVEH is the aggregated unit value of all transportation expenses incurred to get the merchandise from the factory to the customer. DIRSELH is the aggregated unit direct selling expenses associated with the transaction. It typically reflects commissions, warranties, advertising, technical assistance, and any other expenses associated directly with the sale in question. CREDITH is the unit credit expense associated with the specific transaction. It is an imputed expense, which ostensibly measures the opportunity cost of maintaining accounts receivable. When a sale is made, the merchandise usually leaves the producer's warehouse for the customer's destination. However, payment is often not received for some time. CREDITH attempts to measure the opportunity cost of not having received payment when the merchandise was shipped to the customer. Its value is based on the prevailing short-term interest rate, the number of days between shipment and receipt of payment, and the sales price.

INDSELLH represents the aggregated unit indirect selling expenses, which typically include general and administrative expenses incurred by the sales department that are not associated with any particular sale. Office supplies, managers' salaries, postage, rent incurred by the sales department, and other such items make up indirect selling expenses. INVCARH is another imputed expense, but unlike CREDITH, it is considered an indirect expense. It attempts to measure the opportunity cost of not selling merchandise on a just-in-time basis. Holding inventory is more expensive than selling straight off the production line because there is an opportunity cost of not having the cash available immediately. Like CREDITH, the INVCARH expense is based on the prevailing short-term interest rate, but here the cost of production (rather than sales price) and the days between production and sale (rather than between sale and receipt of payment) are used as the components of the calculation.

PACKH is the cost of packing materials, labor, and overhead. Many products are placed in some sort of packaging before they are shipped to the customer. PACKH measures the aggregated per unit cost of packaging.

VCOMH is the unit variable cost (materials, labor, and variable overhead) of producing the merchandise. It is included in the Section B database because it is relevant to the model-matching procedure, which will be discussed below.

The fields in Appendix 1, although not a complete list of all the data typically reported in

To put all the methodological issues in context and to show how they interact in practice, we have constructed a detailed, hypothetical case study.

a Section B response, suffice to provide realistic examples of dumping calculation methodology.

Appendix 1 also contains some additional fields that are calculated for future reference. NETPRIH is the net home-market sales price, calculated as GRSUPRH-DISCREBH-MOVEH-DIRSELH-CREDITH-PACKH. The home-market net price equals the gross selling price minus discounts and rebates, movement expenses, direct selling expenses, credit, and packing. Indirect selling expenses are not deducted in the DOC's calculation of home-market net price. NETPRIH is the basis for normal value, which is compared to the average export price in the margin calculation.

NPRICOP is a different expression of the net home-market sales price, one which is net of all nonimputed selling expenses, both direct and indirect, and is used for the cost test to be discussed. It is calculated as GRSUPRH-DISCREBH-MOVEH-DIRSELH-INDSELH-PACKH. TOTCOP is the total cost of production (materials + labor + overhead + general and administrative expenses + interest expenses) for each CONNUMH reported in Section D of the questionnaire response. It is merged into the home-market sales database to perform the cost test and to calculate profit rates, as follows. REVENUE is the total net revenue, NPRICOP * QTYH. COST is the total cost, TOTCOP * QTYH. PROFIT is REVENUE – COST.

Note that the overall profit rate on home-market sales (the figure in the bottom right corner of the table in Appendix 2) is a negative 7.36 percent—in other words, a loss of 7.36 percent. The fact that the company lost money on its home-market sales should undercut any reasonable conclusion that it is dumping, since there is evidently no sanctuary market of high prices and high profits. The DOC's antidumping procedures, however, are not designed to reach reasonable conclusions.

The DOC's antidumping procedures are not designed to reach reasonable conclusions.

Appendix 2 provides a summary of the weighted-average net prices per product (where product is a unique combination of CONNUMH and PRIMEH), as well as the revenue, costs, and profit. This table is provided for reference as an unadulterated summary of the home-market sales situation. It is the true picture of average prices, costs, and profits, which ultimately become skewed as a result of the DOC's procedures.

The first such procedure performed on home-market sales is the arm's-length test. Appendix 3 derives from the previous exhibits and lists only the fields necessary to conduct the test, which involves a comparison of net prices between each affiliated customer and all unaffiliated customers. Note that the customer code is relevant only for the affiliated customers, since each affiliate is compared to all unaffiliated customers.

Appendix 4 provides the results of the arm's-length test. Each line represents a unique product and contains an average net price to all unaffiliated customers, and average prices, quantities, and ratios for each of the two affiliated customers, when available. For example, CONNUMH 11 / PRIMEH 1 was sold to Customer 40 and to at least one unaffiliated customer, but was not sold to Customer 30. The ratio of 89.69 percent is the average price to Customer 40 ($3.25) divided by the average price to all unaffiliated customers ($3.62). Individual ratios are calculated whenever there are prices to compare, and then those ratios are weight-averaged by quantity to generate an overall ratio for each affiliate.

On average, the net prices to affiliated Customer 30 exceed the net prices to unaffiliated customers by 17.39 percent. Sales to this customer therefore pass the arm's-length test because the ratio exceeds 99.5 percent. Consequently, all sales to this customer remain in the home-market database—for the time

percent to –4.95 percent. The asymmetric application of the arm's-length test invariably leads to higher average home-market prices.

The cost test is the second systematic review of the usability of home-market sales. Sales at prices below the full cost of production, if they are made in sufficient quantities, are deemed outside the ordinary course of trade and eliminated from further consideration. The net selling price, as defined by NPRICOP, is compared to the cost of production, TOTCOP. If NPRICOP is less than TOTCOP, the selling price is below the cost of production. That sale does not necessarily fail the cost test, however. If the volume of all sales found to be priced below cost comprises less than 20 percent of the volume of all sales of that product (CONNUMH / PRIMEH combination), then despite being priced below cost, those sales pass the cost test.

Appendix 7 shows how the cost test is performed. The field TOTCOP, or total cost of production, comes from the Section D cost database. Typically, the DOC will merge the Sections B and D databases by CONNUMH to extract the unit cost information, which is used for the cost test and to calculate profit rates for constructed value comparisons as well as for the CEP profit deduction.

As shown in Appendix 8, the cost test in this hypothetical case results in the exclusion of yet more home-market sales. Note that even though Observation 11 is priced below cost, the collective volume of above-cost sales of that product (CONNUMH 13 / PRIMEH 1) exceeds 80 percent. Thus, all sales of that product pass the cost test. Nonetheless, a significant portion of the home-market sales database (17 of the remaining 34 sales) fails the cost test and is dropped from further consideration. Appendix 9 shows the bottom line: The average home-market price rises from $5.90 to $6.80, and the profit rate increases from –4.95 percent to 10.75 percent.

The three calculated variables presented at the bottom of Appendix 9, DSELLH, ISELLH, and CVPROF, are used in the calculation of constructed value, which serves as normal value when no viable price comparisons are available. DSELLH is the average amount of home-market direct selling expenses incurred on sales made in the ordinary course of trade. ISELLH is the average amount of indirect selling expenses incurred on sales made in the ordinary course of trade. CVPROF is the profit rate on sales made in the ordinary course of trade.

Together, the arm's-length test and the cost test make a mockery of the presumption that dumping margin calculations reflect a true comparison of U.S. and home-market prices. As has been demonstrated, the home-market data are subjected to procedures that unambiguously cause average net prices on that side of the equation to be exaggerated.

Appendix 10 is an abbreviated sample of the Section C U.S. sales list for the same fictitious foreign widget producer. As in the home-market examples, certain fields have been consolidated to facilitate illustration of the relevant points. In this table, which reflects the company's sales in the United States, there are 45 sales observations of subject merchandise. These observations include sales of a unique product, CONNUMU 34, which is a large aluminum widget.

Most of the fields represent the same variables as in the home-market exhibits (although they each end with a U for U.S., rather than an H for home market). Fields not appearing on the home-market side, which are important to the dumping calculations, include TCOMU and SALEU. In addition, in the U.S. database, when there are CEP sales, indirect expenses are divided into those incurred domestically and accruing to all sales (DINDIRSU and DINVCARU) and those incurred in the United States as well as accruing specifically to U.S. sales (INDIRSU and INVCARU).

TCOMU represents the total cost of manufacturing (not to be confused with the more inclusive TOTCOP or total cost of production). Although a cost variable, TCOMU is relevant to the sales list because it comes into play when selecting the appropriate products to compare. Ideally, identical CONNUMs are available in both markets, which allows for the most reasonable price comparisons. However, because of the product exclusions caused by the arm's-length

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Under U.S. antidumping rules, EP and CEP sales are treated differently in the process of calculating net prices.

and cost tests, as well as the fact that different markets demand different products, U.S. products frequently do not have identical home-market matches. Under these circumstances, the most similar, nonidentical product is selected from the remaining home-market options for price comparison. Under DOC procedures, any product is considered similar provided that the differences in variable costs (VCOMU-VCOMH) do not exceed 20 percent of the total cost (TCOMU). Hence, TCOMU serves as a benchmark in determining whether product comparisons are appropriate.

SALEU indicates whether the sale is an export price (EP) or constructed export price (CEP) transaction. An EP sale is generally defined as an arm's-length transaction between the exporter and an unaffiliated importer with the terms of the sale (price, quantity, etc.) having been agreed on before importation of the merchandise. A CEP sale is generally a sale made after importation to an unaffiliated customer by an importer or reseller that is related to the exporter. The terms of CEP sales are generally agreed upon after importation of the merchandise. Big exporters with subsidiary operations in the United States often conduct business this way. Their U.S. subsidiaries are often the importers of record and maintain warehouse facilities, sales operations, and manufacturing capabilities in the United States. Transactions between the exporter and a related importer are considered to be unreliable benchmarks for export price because the prices may not reflect true market prices.

Under U.S. antidumping rules, EP and CEP sales are treated differently in the process of calculating net prices. Net prices on EP sales are calculated by deducting only discounts, rebates, and movement expenses from the gross selling price. The selling expenses and packing costs that are still reflected in the U.S. net prices are added back to the net prices on the home-market side, which are already net of the home-market selling and packing expenses. Indirect selling expenses are not deducted from either side in the dumping calculations for EP transactions. In CEP transactions, on the other hand, home-market and U.S. movement, packing, and direct selling expenses are deducted from each side, respectively. In addition, indirect selling expenses are deducted from U.S. prices—and also from home-market prices, up to the amount of U.S. indirect expenses (the so-called CEP offset cap). CEP profit is deducted as well.

To calculate CEP profit, the DOC tallies profits on home-market and U.S. sales by calculating the revenues and expenses on all arm's-length transactions, as depicted in Appendix 11. This table shows that the overall CEP profit ratio is 1.45 percent, which is applied to all CEP selling expenses and then deducted from the gross U.S. price.

Appendix 12 is derived from the original U.S. sales database and shows the net prices (NETPRIU) along with total amounts for direct selling expenses (DIREXPU) and packing (PACKINGU). These values are carried forward to conduct the dumping margin calculations. Note that on EP sales, the net price equals the gross price (GRSUPRU) minus discounts and rebates (DISCREBU) and movement expenses (MOVEU). On CEP sales, the net price equals the gross price minus discounts and rebates, movement expenses, direct selling expenses (DIRSELLU), credit expenses (CREDITU), U.S. indirect selling expenses (INDSELU and INVCARU), and CEP profit (CEPPROFIT). As a final step before conducting the margin calculations, the net prices, direct selling expenses, and packing costs are weight-averaged by CONNUMU, PRIMEU, and SALEU. Those figures appear in Appendix 13.

With average prices and expenses calculated in both markets, the DOC determines which prices to compare by following its model-matching procedure. For each U.S. CONNUMU, the most similar home-market CONNUMH is selected as the basis for the comparison. Although identical matches are always the most similar, they are not always available for reasons already discussed. Appendix 14 summarizes the outcome of the model match as well as the calculated dumping margins for this hypothetical example.

Note that most of the U.S. CONNUMUs were matched to identical home-market CONNUMHs. Despite the arm's-length and

cost tests, at least some home-market sales of these products (namely, the higher-priced sales) remained in the database. CONNUMU 34, which was unique to the U.S. market, did not match an identical home-market product. The most similar home-market product was CONNUMH 33, a large vinyl widget. The difference in variable costs, or DIFMER (VCOMU-VCOMH), was less than 20 percent of the total cost to manufacture CONNUMU 34 (TCOMU), so the match passed that requirement.

U.S. CONNUMU 32, however, found no eligible matches from the available pool of home-market CONNUMHs. All home-market sales of the identical CONNUMH were dropped after the arm's-length and cost tests, and none of the remaining CONNUMHs passed the cost requirement. The closest matches physically, CONNUMH 31 and 33, have variable costs of $5.30 and $8.10, respectively (see VCOMH in Appendix 1). With a variable cost of $6.70 and a total cost of $6.90 for CONNUMU 32 (see VCOMU and TCOMU in Appendix 10), the differences in variable costs between the U.S. model and the two home-market models exceed 20 percent of the total cost of CONNUMU 32. As a result, the price of this CONNUMU was matched to constructed value, as indicated by CV in the field CONNUMH.

The dumping margin is calculated by comparing the net U.S. price (NETPRIU) to the foreign unit price in dollars (FUPDOL). For price-to-price comparisons, FUPDOL is based on the net home-market price (NETPRIH). For price–to–constructed value comparisons, FUPDOL is based on cost (TOTCOP). In either case, FUPDOL contains elements in addition to these main components.

For price-to-price comparisons involving EP sales, FUPDOL equals NETPRIH + DIFMER + DIREXPU + PACKU. DIFMER is the difference-in-merchandise adjustment or the difference in variable costs, which is zero for identical matches. DIREXPU refers to the average U.S. direct selling expenses, and PACKU is the average U.S. packing expense. For price-to-price comparisons involving CEP sales, FUPDOL equals NETPRIH + DIFMER + PACKU.

For price–to–constructed value comparisons involving EP sales, FUPDOL equals CV + DIREXPU, and for price–to–constructed value comparisons involving CEP sales, FUPDOL equals CV. In either case, CV equals TOTCOP + HMISEL + PACKU + CVPROF. HMISEL is the average amount of home-market indirect selling expenses on sales made in the ordinary course of trade. CVPROF is the estimated profit, which is based on the profit rate of sales made in the ordinary course of trade, converted to an absolute figure by multiplying by TOTCOP.

Ultimately, the unit margin (UMARGIN) is the difference between FUPDOL and NETPRIU. That unit margin is multiplied by the quantity sold of each U.S. product (CONNUMU / PRIMEU / SALEU combination) to calculate the extended margin, or EMARGIN. If EMARGIN is less than zero, it is set equal to zero in the field TOTPUDD, which stands for total potentially uncollected dumping duties. This practice of zeroing, as discussed previously, contributes, in some cases substantially, to the exaggeration of dumping margins. The summation of TOTPUDD is more than twice as large as the summation of EMARGIN, which is what the amount of dumping would equal if the negative margins were considered. The field VALUE is the total net value of U.S. sales, which equals NETPRIU times QTYU. The bottom-line dumping margin is calculated as the sum of the TOTPUDD field ($184.31) divided by the sum of the VALUE field ($2,500.31), which in this case equals 7.37 percent.

Table 9 shows what the dumping margins would be if various methodological distortions were corrected. If the arm's-length test were eliminated, NETPRIH values would be lower and the margin would drop to 7.19 percent. If there were no cost test, NETPRIH values would be lower, and there would have been no CV comparisons. The dumping margin would fall to zero. (Appendix 15 provides the documentation for these calculations.) If indirect selling expenses were not deducted in CEP transactions, margins would fall to 7.14 percent. If no CEP deduction were made, the dumping margin would decrease to 7.35 percent. If the practice of zeroing were

Findings of dumping under the current U.S. antidumping law are barely worth the pages of the *Federal Register* they are printed on.

Table 9
Hypothetical Case Study: Effect of Methodological Distortions on Dumping Margins

	Dumping Margin
Using DOC methodology	7.37%
Exclude arm's-length test only	7.19%
Exclude cost test only	0.00%
Exclude both "ordinary course" tests	0.00%
Exclude CEP indirect selling expense deduction only	7.14%
Exclude CEP profit deduction only	7.35%
Exclude both CEP asymmetric adjustments	7.13%
Exclude zeroing only	3.21%
Exclude all methodological distortions	-13.95%

The law systematically discriminates against foreign goods with skewed rules that generate dumping margins out of thin air.

eliminated, the dumping margin would fall to 3.21 percent. And if all these methodological flaws were eliminated, this fictitious widget maker would have a dumping margin of –13.95 percent. In other words, it would be cleared of all charges of dumping.

This example illustrates how a fictitious company that sells at significantly higher prices in the United States than in its home market can nonetheless be found to be dumping under U.S. rules. In short, findings of dumping under the current U.S. antidumping law are barely worth the pages of the *Federal Register* they are printed on. All too often they convey no useful information about a company's selling practices for the simple reason that the underlying procedures for evaluating those practices are fatally flawed.

Conclusion

This introduction to the antidumping law's "tricks of the trade" reveals a sharp divergence between the law's inner workings and its wholesome public image. The antidumping law is hailed by supporters across the political spectrum as the guarantor of a "level playing field" for U.S. industry and import competition. In fact, however, the law systematically discriminates against foreign goods with skewed rules that generate dumping margins out of thin air.

The antidumping law imposes trade-restrictive duties, yet its supporters claim that it is not protectionist. They contend that antidumping measures target only "unfair trade"—in particular, artificially low-priced products exported from sanctuary markets where normal competitive forces are suppressed. Because of the underlying distortions of a sanctuary market, prices in the home market are abnormally high, which then allows foreign producers to sell here in the United States at abnormally low prices. The antidumping law, by imposing duties on imports sold at prices lower than those charged in the home market, counteracts the distortions caused by sanctuary markets without interfering in normal, healthy foreign competition.

Or so the story goes. The reality, though, is very different. In this study, we put aside the deeper question of whether price differences between national markets are, in and of themselves, reliable evidence of market distortions. Instead, we examine the more basic issue of whether the antidumping law accurately measures differences between U.S. prices and foreign-market prices. Unfortunately, the law as it

currently stands fails to meet that basic test—and fails badly. Comparisons of average prices can be skewed by something as simple and common as price fluctuations over the period of investigation. The existence or nonexistence of dumping margins can turn on unavoidably arbitrary definitions of the products being compared. Comparisons of nonidentical products, even with difference-in-merchandise adjustments, can easily produce dumping margins that reflect nothing more than different commercial values.

Compounding these problems, the law then proceeds to make matters worse—much worse—with rules that skew the calculation and comparison of net prices in the direction of higher dumping margins. The arm's-length test eliminates low-priced sales to home-market affiliated companies, but not high-priced sales, thus inflating normal value and, consequently, dumping margins. The cost test eliminates low-priced sales in the home market when they are found to be below cost, thus boosting dumping margins in precisely those situations where the evidence for a sanctuary market (which is supposedly highly profitable) is weakest. Indirect selling expenses are fully deducted from U.S. prices in CEP transactions, but not from the home-market prices to which they are compared. CEP profit is also deducted from U.S. prices in these situations, but no corresponding deduction is made on the home-market side. Constructed value, which sometimes serves as the benchmark for judging the fairness of U.S. prices, is inflated by the unjustifiable addition of an amount for profit—an amount that is then exaggerated by being based only on above-cost home-market sales. Finally, the practice of zeroing ensures that dumping margins are routinely much higher than the actual differences in net-price levels.

In sum, the antidumping law does not do what its supporters say it does. It does not accurately measure the differences between U.S. prices and foreign-market prices. It is therefore incapable of distinguishing between "unfair trade" and normal, healthy competition. As a result, normal, healthy competition from abroad is all too often stifled in the name of fighting dumping. In other words, the antidumping law, while pretending to secure a "level playing field," in fact indulges in old-fashioned protectionism. That protectionism is no less real because it is obscured by a fog of technical complexity. Indeed, its complexity makes the law all the more effective as a protectionist vehicle by shielding it from scrutiny. The aim of this study is to penetrate that fog and thereby expose the antidumping law to the critical scrutiny it so richly deserves.

The antidumping law, while pretending to secure a "level playing field," in fact indulges in old-fashioned protectionism.

Appendix 1: Hypothetical Home-Market Sales List

Appendix 2: Hypothetical Home-Market Sales Summary

CONNUMH	PRIMEH	SIZEH	MATERIALH	QTYH	WEIGHTED-AVG. NET PRICE	TOTAL REVENUE	TOTAL COST	PROFIT
11	1	Small	Rubber	25	$3.50	$87.85	$106.25	-$18.40
11	2	Small	Rubber	8	$1.00	$8.40	$34.00	-$25.60
12	1	Small	Plastic	43	$4.47	$188.70	$193.50	-$4.80
13	1	Small	Vinyl	33	$5.73	$189.10	$181.50	$7.60
21	1	Medium	Rubber	43	$6.11	$265.00	$258.00	$7.00
22	1	Medium	Plastic	30	$6.48	$192.10	$187.50	$4.60
22	2	Medium	Plastic	9	$2.20	$19.80	$56.25	-$36.45
23	1	Medium	Vinyl	37	$7.01	$259.40	$240.50	$18.90
31	1	Large	Rubber	39	$5.94	$232.10	$273.00	-$40.90
32	1	Large	Plastic	39	$5.64	$219.90	$292.50	-$72.60
33	1	Large	Vinyl	44	$8.30	$362.70	$363.00	-$0.30
				350	$5.80	$2,025.05	$2,186.00	-$160.95
							Profit Rate	-7.36%

Appendix 3: Arm's-Length Test — Affiliated Sales vs. Unaffiliated Sales

Affiliated Sales

OBSH	CONNUMH	PRIMEH	CUSCODH	CUSRELH	QTYH	NETPRIH
8	12	1	30	2	9	$5.20
9	12	1	30	2	4	$4.45
14	13	1	30	2	8	$5.65
18	21	1	30	2	4	$7.40
28	23	1	30	2	12	$7.95
29	23	1	30	2	8	$6.40
34	31	1	30	2	7	$9.30
38	32	1	30	2	8	$6.40
44	33	1	30	2	7	$8.35
4	11	1	40	2	8	$3.25
10	12	1	40	2	8	$3.85
15	13	1	40	2	7	$5.55
19	21	1	40	2	9	$5.40
20	21	1	40	2	8	$6.40
24	22	1	40	2	5	$5.70
30	23	1	40	2	4	$7.40
35	31	1	40	2	5	$6.30
39	32	1	40	2	7	$3.05
40	32	1	40	2	10	$6.15
45	33	1	40	2	5	$8.50

Unaffiliated Sales

OBSH	CONNUMH	PRIMEH	CUSRELH	QTYH	NETPRIH
1	11	1	1	5	$3.00
2	11	1	1	7	$4.30
3	11	1	1	5	$3.30
5	11	2	1	8	$1.00
6	12	1	1	10	$4.65
7	12	1	1	12	$4.20
11	13	1	1	5	$5.35
12	13	1	1	8	$6.25
13	13	1	1	5	$5.65
16	21	1	1	10	$7.05
17	21	1	1	12	$5.25
21	22	1	1	8	$7.40
22	22	1	1	7	$6.45
23	22	1	1	10	$6.15
25	22	2	1	9	$2.20
26	23	1	1	8	$6.20
27	23	1	1	5	$6.70
31	31	1	1	9	$5.55
32	31	1	1	8	$7.20
33	31	1	1	10	$2.75
36	32	1	1	5	$7.40
37	32	1	1	9	$5.45
41	33	1	1	12	$9.15
42	33	1	1	10	$7.15
43	33	1	1	10	$8.30

Appendix 4: Arm's-Length Test Results

CONNUMH	PRIMEH	Unaffiliated Avg. Price	Customer Code 30 Avg. Price	Customer Code 30 Quantity	Ratio
12	1	$4.40	$4.97	13	112.82%
13	1	$5.83	$5.65	8	96.86%
21	1	$6.07	$7.40	4	121.95%
23	1	$6.39	$7.33	20	114.67%
31	1	$5.00	$9.30	7	185.93%
32	1	$6.15	$6.40	8	104.13%
33	1	$8.26	$8.35	7	101.10%
			Weighted-average ratio:		117.39%

CONNUMH	PRIMEH	Unaffiliated Avg. Price	Customer Code 40 Avg. Price	Customer Code 40 Quantity	Ratio
11	1	$3.62	$3.25	8	89.69%
12	1	$4.40	$3.85	8	87.41%
13	1	$5.83	$5.55	7	95.14%
21	1	$6.07	$5.87	17	96.74%
22	1	$6.63	$5.70	5	85.92%
23	1	$6.39	$7.40	4	115.76%
31	1	$5.00	$6.30	5	125.95%
32	1	$6.15	$4.87	17	79.29%
33	1	$8.26	$8.50	5	102.91%
			Weighted-average ratio:		93.58%

Appendix 5: Hypothetical Home-Market Sales List after Arm's-Length Test

Appendix 6: Hypothetical Home-Market Sales Summary after Arm's-Length Test

CONNUMH	PRIMEH	SIZEH	MATERIALH	QTYH	WEIGHTED-AVG. NET PRICE	TOTAL REVENUE	TOTAL COST	PROFIT
11	1	Small	Rubber	17	$3.62	$61.85	$72.25	-$10.40
11	2	Small	Rubber	8	$1.00	$8.40	$34.00	-$25.60
12	1	Small	Plastic	35	$4.61	$158.70	$157.50	$1.20
13	1	Small	Vinyl	26	$5.78	$149.90	$143.00	$6.90
21	1	Medium	Rubber	26	$6.27	$165.50	$156.00	$9.50
22	1	Medium	Plastic	25	$6.63	$163.60	$156.25	$7.35
22	2	Medium	Plastic	9	$2.20	$19.80	$56.25	-$36.45
23	1	Medium	Vinyl	33	$6.96	$229.60	$214.50	$15.10
31	1	Large	Rubber	34	$5.89	$200.10	$238.00	-$37.90
32	1	Large	Plastic	8	$6.40	$51.60	$60.00	-$8.40
33	1	Large	Vinyl	39	$8.28	$320.70	$321.75	-$1.05
				260	$5.90	$1,529.75	$1,609.50	-$79.75
							Profit rate	-4.95%

Appendix 7: Cost-Test Results

OBSH	CONNUMH	PRIMEH	QTYH	NETPRIH	NPRICOP	TOTCOP	Status	Model-Specific Quantity Above Cost	Result
1	11	1	5	$3.00	$2.95	$4.25	Below	41.18%	Fail
2	11	1	7	$4.30	$4.30	$4.25	Above	41.18%	Pass
3	11	1	5	$3.30	$3.40	$4.25	Below	41.18%	Fail
5	11	2	8	$1.00	$1.05	$4.25	Below	0.00%	Fail
6	12	1	10	$4.65	$4.55	$4.50	Above	54.29%	Pass
7	12	1	12	$4.20	$4.05	$4.50	Below	54.29%	Fail
8	12	1	9	$5.20	$5.20	$4.50	Above	54.29%	Pass
9	12	1	4	$4.45	$4.45	$4.50	Below	54.29%	Fail
11	13	1	5	$5.35	$5.40	$5.50	Below	80.77%	Pass
12	13	1	8	$6.25	$6.25	$5.50	Above	80.77%	Pass
13	13	1	5	$5.65	$5.70	$5.50	Above	80.77%	Pass
14	13	1	8	$5.65	$5.55	$5.50	Above	80.77%	Pass
16	21	1	10	$7.05	$7.15	$6.00	Above	53.85%	Pass
17	21	1	12	$5.25	$5.35	$6.00	Below	53.85%	Fail
18	21	1	4	$7.40	$7.45	$6.00	Above	53.85%	Pass
21	22	1	8	$7.40	$7.25	$6.25	Above	60.00%	Pass
22	22	1	7	$6.45	$6.30	$6.25	Above	60.00%	Pass
23	22	1	10	$6.15	$6.15	$6.25	Below	60.00%	Fail
25	22	2	9	$2.20	$2.20	$6.25	Below	0.00%	Fail
26	23	1	8	$6.20	$6.25	$6.50	Below	51.52%	Fail
27	23	1	5	$6.70	$6.60	$6.50	Above	51.52%	Pass
28	23	1	12	$7.95	$8.05	$6.50	Above	51.52%	Pass
29	23	1	8	$6.40	$6.25	$6.50	Below	51.52%	Fail
31	31	1	9	$5.55	$5.50	$7.00	Below	44.12%	Fail
32	31	1	8	$7.20	$7.25	$7.00	Above	44.12%	Pass
33	31	1	10	$2.75	$2.75	$7.00	Below	44.12%	Fail
34	31	1	7	$9.30	$9.30	$7.00	Above	44.12%	Pass
36	32	1	5	$7.40	$7.40	$7.50	Below	22.73%	Fail
37	32	1	9	$5.45	$5.50	$7.50	Below	22.73%	Fail
38	32	1	8	$6.40	$6.45	$7.50	Below	22.73%	Fail
41	33	1	12	$9.15	$9.05	$8.25	Above	48.72%	Pass
42	33	1	10	$7.15	$7.25	$8.25	Below	48.72%	Fail
43	33	1	10	$8.30	$8.15	$8.25	Below	48.72%	Fail
44	33	1	7	$8.35	$8.30	$8.25	Above	48.72%	Pass

Appendix 8: Hypothetical Home-Market Sales List after Cost Test

Appendix 9: Hypothetical Home-Market Sales Summary after Cost Test

CONNUMH	PRIMEH	SIZEH	MATERIALH	QTYH	WEIGHTED-AVG. NET PRICE	TOTAL REVENUE	TOTAL COST	PROFIT
11	1	Small	Rubber	7	$4.30	$30.10	$29.75	$0.35
12	1	Small	Plastic	19	$4.91	$92.30	$85.50	$6.80
13	1	Small	Vinyl	26	$5.78	$149.90	$143.00	$6.90
21	1	Medium	Rubber	14	$7.15	$101.30	$84.00	$17.30
22	1	Medium	Plastic	15	$6.96	$102.10	$93.75	$8.35
23	1	Medium	Vinyl	17	$7.58	$129.60	$110.50	$19.10
31	1	Large	Rubber	15	$8.18	$123.10	$105.00	$18.10
33	1	Large	Vinyl	19	$8.86	$166.70	$156.75	$9.95
				132	$6.80	$895.10	$808.25	$86.85
							Profit Rate	10.75%

To Be Used for CV Calculation:

Direct Selling Expenses	DSELLH	$0.23
Indirect Selling Expenses	ISELLH	$0.32
Profit	PROFIT	10.75%

Appendix 10: Hypothetical U.S. Sales List

Appendix 11: CEP Profit Calculations

From U.S. Sales List						From Home-market Sales List					
OBSU	CONNUMU	Total Revenue	Total Selling Exp.	Total Move Exp.	Total COP	OBSH	CONNUMH	Total Revenue	Total Selling Exp.	Total Move Exp.	Total COP
1	11	$27.50	$3.60	$2.25	$22.00	1	11	$20.00	$3.50	$1.25	$21.75
2	11	$43.40	$1.75	$3.85	$30.80	2	11	$35.00	$1.75	$2.45	$30.45
3	11	$26.00	$1.25	$2.25	$22.00	3	11	$20.00	$1.25	$1.25	$21.75
4	11	$45.60	$3.20	$5.20	$35.20	5	11	$16.00	$3.60	$3.20	$34.80
5	11	$32.00	$3.76	$4.80	$35.20	6	12	$60.00	$8.50	$5.00	$46.00
6	12	$72.00	$9.70	$7.00	$46.50	7	12	$60.00	$3.00	$7.20	$55.20
7	12	$74.40	$3.00	$9.60	$55.80	8	12	$54.00	$2.25	$4.05	$41.40
8	12	$64.80	$2.25	$5.85	$41.85	9	12	$20.00	$1.00	$0.80	$18.40
9	12	$24.80	$1.00	$1.60	$18.60	11	13	$30.00	$1.25	$1.25	$28.00
10	12	$52.80	$7.76	$5.20	$37.20	12	13	$56.00	$2.00	$3.20	$44.80
11	13	$36.00	$1.25	$2.25	$28.25	13	13	$35.00	$4.75	$1.25	$28.00
12	13	$65.60	$2.00	$4.80	$45.20	14	13	$56.00	$7.60	$3.20	$44.80
13	13	$41.00	$5.35	$2.25	$28.25	16	21	$80.00	$2.50	$5.00	$61.00
14	13	$65.60	$7.76	$4.80	$45.20	17	21	$84.00	$11.40	$7.20	$73.20
15	13	$59.50	$7.49	$4.20	$39.55	18	21	$32.00	$1.00	$0.80	$24.40
16	21	$92.00	$2.50	$7.00	$61.50	21	22	$64.00	$2.00	$3.20	$50.80
17	21	$98.40	$11.64	$9.60	$73.80	22	22	$49.00	$1.75	$2.45	$44.45
18	21	$36.80	$1.40	$1.60	$24.60	23	22	$70.00	$2.50	$5.00	$63.50
19	21	$75.15	$9.63	$6.30	$55.35	25	22	$27.00	$2.25	$4.05	$57.15
20	21	$66.80	$2.80	$5.20	$49.20	26	23	$56.00	$2.00	$3.20	$52.80
21	22	$73.60	$2.00	$4.80	$51.20	27	23	$40.00	$5.25	$1.25	$33.00
22	22	$57.40	$2.45	$3.85	$44.80	28	23	$108.00	$3.00	$7.20	$79.20
23	22	$82.00	$2.50	$7.00	$64.00	29	23	$56.00	$2.00	$3.20	$52.80
24	22	$41.75	$5.35	$2.50	$32.00	31	31	$63.00	$8.55	$4.05	$63.90
25	22	$37.80	$2.25	$5.85	$57.60	32	31	$64.00	$2.00	$3.20	$56.80
26	23	$65.60	$2.80	$4.80	$53.20	33	31	$40.00	$6.50	$5.00	$71.00
27	23	$46.00	$5.35	$2.25	$33.25	34	31	$70.00	$1.75	$2.45	$49.70
28	23	$122.40	$3.00	$9.60	$79.80	36	32	$40.00	$1.25	$1.25	$38.00
29	23	$72.00	$2.00	$4.80	$53.20	37	32	$63.00	$8.55	$4.05	$68.40
30	23	$37.40	$1.40	$1.80	$26.60	38	32	$64.00	$8.40	$3.20	$60.80
31	31	$73.80	$8.73	$5.85	$64.35	41	33	$120.00	$3.00	$7.20	$100.20
32	31	$73.60	$2.00	$4.80	$57.20	42	33	$90.00	$11.50	$5.00	$83.50
33	31	$52.00	$7.70	$7.00	$71.50	43	33	$90.00	$2.50	$5.00	$83.50
34	31	$78.40	$1.75	$3.85	$50.05	44	33	$63.00	$1.75	$2.45	$58.45
35	31	$42.50	$1.75	$2.50	$35.75						
36	32	$46.00	$1.25	$2.25	$38.25						
37	32	$73.80	$8.73	$5.85	$68.85						
38	32	$73.60	$8.56	$4.80	$61.20						
39	32	$42.00	$5.39	$4.20	$53.55						
40	32	$83.50	$3.50	$7.50	$76.50						
41	34	$134.40	$3.00	$9.60	$106.80						
42	34	$102.00	$12.70	$7.00	$89.00						
43	34	$102.00	$2.50	$7.00	$89.00						
44	34	$71.40	$1.75	$3.85	$62.30						
45	34	$51.75	$1.75	$2.50	$44.50						
Total		$2,836.85	$189.25	$221.40	$2,260.50			$1,895.00	$131.85	$119.50	$1,741.90

CEP Profit Summary

	Total Revenue	Total Selling Exp.	Total Move Exp.	Total COP	Total Profit
U.S. total	$2,836.85	$189.25	$221.40	$2,260.50	$165.70
Home-market total	$1,895.00	$131.85	$119.50	$1,741.90	-$98.25
Total	$4,731.85	$321.10	$340.90	$4,002.40	$67.45
CEP profit rate					1.45%

Appendix 12: Hypothetical U.S. Sales – Net Price Calculations

Appendix 13: Average Net U.S. Prices

CONNUMU	PRIMEU	SALEU	QTYU	WEIGHTED AVG. PRICE	WEIGHTED AVG. DIRECT EXP.	WEIGHTED AVG. PACK EXP.
4	1	CEP	8	$4.63	$0.30	$0.15
11	1	EP	17	$5.09	$0.28	$0.15
11	2	EP	8	$3.18	$0.30	$0.15
12	1	CEP	8	$5.06	$0.25	$0.15
12	1	EP	35	$5.88	$0.20	$0.15
13	1	CEP	7	$6.76	$0.30	$0.15
13	1	EP	26	$7.11	$0.26	$0.15
21	1	CEP	17	$6.94	$0.23	$0.15
21	1	EP	26	$7.71	$0.36	$0.15
22	1	CEP	5	$6.76	$0.25	$0.15
22	1	EP	25	$7.89	$0.19	$0.15
22	2	EP	9	$3.55	$0.25	$0.15
23	1	CEP	4	$8.48	$0.30	$0.15
23	1	EP	33	$8.50	$0.27	$0.15
31	1	CEP	5	$7.52	$0.35	$0.15
31	1	EP	34	$7.22	$0.28	$0.15
32	1	CEP	17	$6.21	$0.19	$0.15
32	1	EP	22	$7.61	$0.29	$0.15
34	1	CEP	5	$9.58	$0.15	$0.15
34	1	EP	39	$9.57	$0.22	$0.15

Appendix 14: Hypothetical Dumping Margin Calculations

Appendix 15: Hypothetical Dumping Margin Calculations – Without Arm's-Length and Cost Tests

Notes

1. Brink Lindsey, "The U.S. Antidumping Law: Rhetoric versus Reality," Cato Trade Policy Analysis no. 7, August 16, 1999.

2. The antidumping statute is codified at 19 U.S.C. §§ 1673–1677n. The DOC's antidumping regulations may be found at 19 C.F.R. § 351.

3. In antidumping cases against so-called nonmarket economies, the DOC calculates constructed value, not with the foreign producer's own cost data, but with data from "surrogate" market economies. See Lindsey, p. 5.

4. In the three-year period between April 1999 and March 2002, the ITC rendered 147 preliminary determinations, of which 116 were affirmative. These figures were compiled from data available at the ITC website (www.usitc.gov).

5. Typically, the DOC attempts to send questionnaires to all known foreign producers. If, however, the number of foreign producers is too large, the DOC will send questionnaires to only the largest foreign producers.

6. There were 125 specific final margins assigned in original investigations during 2001. Of those 125, 117 were higher than de minimis—or at least 2 percent. These figures were compiled from public data available in *Federal Register* notices.

7. In the three-year period between April 1999 and March 2002, the ITC rendered 58 final determinations, of which 48 were affirmative. These figures were compiled from data available at the ITC website (www.usitc.gov).

8. These figures were compiled as of August 14, 2002, from data available on the ITC website (www.usitc.gov).

9. Generally, the foreign producer's home market is deemed viable if sales volume in that market of the product under investigation exceeds 5 percent of its sales volume in the United States (although other factors can render a home market not viable). For the remainder of this paper and for the sake of simplicity, the home market is assumed to be the comparison market.

10. Theoretically, there could be hundreds of thousands and even millions of products. The number of possible products, theoretically, equals the product of multiplying the number of options within each characteristic. So, if there are 10 characteristics, each with five alternative values, the number of theoretical products equals 5 x 5 x 5 x 5 x 5 x 5 x 5 x 5 x 5 x 5, or 9,765,625 products.

11. The definition of an affiliated person, as provided in the DOC's standard antidumping questionnaire, is as follows:

> Affiliated persons (affiliates) include (1) members of a family, (2) an officer or director of an organization and that organization, (3) partners, (4) employers and their employees, and (5) any person or organization directly or indirectly owning, controlling, or holding with power to vote, 5 percent or more of the outstanding voting stock or shares of any organization and that organization. In addition, affiliates include (6) any person who controls any other person and that other person, or (7) any two or more persons who directly control, are controlled by, or are under common control with, any person. "Control" exists where one person is legally or operationally in a position to exercise restraint or direction over the other person [section 771(33) of the act].

12. In some cases, there are no sales to unaffiliated customers of products sold to affiliates, so the comparison cannot be made. As long as there is a sufficient basis for comparing prices (normally just one common product), then the arm's-length test is performed. If there are no common products, the affiliated customer generally fails the test.

13. Because of a World Trade Organization ruling that the current U.S. arm's-length test violates the WTO Antidumping Agreement, the DOC is now considering a change in the test. See below for a discussion of the proposed change from the current 99.5 percent standard to a band in which sales below a 98 percent threshold and above a 102 percent threshold are excluded.

14. Average expenses and profit for purposes of CV are normally based on the experience of home-market sales in the ordinary course of trade. However, when there are no such sales because they have all failed the arm's-length or cost test, this information is estimated from other sources.

15. This 20 percent threshold is known as the difference-in-merchandise test.

16. Actually, the averaging process is even more refined. An average price is calculated for each unique combination of U.S. CONNUM and sales type (EP or CEP).

17. Antidumping supporters frequently contend that dumping can take the form of either international price discrimination *or* below-cost export sales. In practice, however, the antidumping law does not attempt to measure whether subject imports are sold below their cost of production. The closest that it ever comes is when U.S. prices are compared with constructed value—which equals cost of production plus some amount for profit. This artificial price is used as

a surrogate for normal value when comparison-market prices are unavailable or have been deemed unusable; it is thus used as a "filler" and seldom serves as the exclusive basis of normal value. And even when all U.S. prices are compared with constructed value, what is measured is not whether the U.S. sales are below cost; what is measured, rather, is whether U.S. sales are below some designated benchmark of profitability. See Lindsey, pp. 2–3, 7.

18. Ibid., pp. 11–15.

19. Appellate Body Report on *United States–Anti-Dumping Measures on Certain Hot-Rolled Steel Products from Japan*, WT/DS184/AB/R, July 24, 2001.

20. See the DOC's request for public comment, 67 *Fed. Reg.* 53339, August 15, 2002.

21. These determinations were made in nine separate original investigations and three separate administrative reviews. In other words, in some cases we were able to obtain determinations for multiple companies in a single investigation or review.

22. This investigation gave rise to the dispute that resulted in the WTO's ruling that the U.S. arm's-length test is WTO-inconsistent.

23. The one DOC determination examined in which the cost test did not inflate margins was a nonmarket economy case. The cost test is not used in nonmarket economy cases because normal value is based on cost, and home-market sales are never considered.

24. In addition, narrower product definitions heighten the distortions caused by the practice of zeroing. See below for a detailed discussion.

25. See below for a discussion of the DOC's practice of zeroing when calculating dumping margins.

26. Appellate Body Report on *European Communities—Anti-Dumping Duties on Imports of Cotton-Type Bed Linen from India*, WT/DS141/AB/R, March 1, 2001.

27. The 88.65 percent figure is based on allowing the full effect of negative dumping margins. In practice, a negative dumping margin is equivalent to a 0 percent margin.

28. Typically, there are hundreds, thousands, or even tens of thousands of individual sales observations in a Section B response.

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