An Economic Approach to the Determination of Injury Under United States Antidumping and Countervailing Duty Law

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AN ECONOMIC APPROACH TO THE DETERMINATION OF INJURY UNDER UNITED STATES ANTIDUMPING AND COUNTERVAILING DUTY LAW

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I. INTRODUCTION

In the last ten years, representatives of domestic producers, trade associations, and unions filed approximately 800 petitions with the U.S. Department of Commerce ("the Commerce Department") and the U.S. International Trade Commission ("the Commission") alleging that their clients were materially injured by dumped1 or subsidized imports.2 Once a petition is filed, the Commerce Department begins the task of determining whether the imports are in fact being dumped or subsidized, and if so, to what extent.3 The amount of dumping or the size of the subsidy expressed as a percentage of the price of the imported product is called the "dumping margin" or the "subsidy margin." If the imports are being dumped or are receiving a countervailable subsidy,4 the Commission must determine whether the domestic industry, represented by the petitioners, has been thereby injured.5 When the Commission makes its determination, they may not consider any benefits to consumers of the domestic or imported products from lower prices.6 If both the Commerce Department and the Commission make affirmative determinations, the United States Customs Service ("Customs") will impose an antidumping or countervailing

1. See infra note 19 and accompanying text.
4. See infra notes 32-39 and accompanying text.
duty on the imports equal to the dumping or subsidy margin as calculated by the Commerce Department.\(^7\)

These investigations are expensive for the parties and the federal government to litigate.\(^8\) The impact of the Commission's decisions on domestic producers, foreign producers, importers, and consumers is far greater.\(^9\) Nevertheless, in spite of the large number of investigations and the substantial effects the Commission's determinations have around the world, the Commission lacks a consistent, analytically sound framework guiding its determinations. In this Article, I will propose and describe such a framework and argue that this framework is consistent with both the intent of Congress when it enacted the current law and United States international obligations.\(^10\) In contrast to the proposed framework, the framework traditionally used by the Commission is inconsistent with basic economic principles, Congressional intent and United States international obligations.

\(^7\) 19 U.S.C. §§ 1671(a), 1673 (1982). As a matter of terminology, countervailing duties apply to subsidized imports, and antidumping duties apply to dumped imports.

\(^8\) See General Accounting Office, Pursuit of the Trade Law Remedies by Small Business 7-9 (1988) (the cost to petitioners of pursuing antidumping cases generally ranges from $150,000 to $550,000 and is slightly less for a countervailing duty case); Rugman, U.S. Protectionism and Canadian Trade Policy, 20 J. World Trade L. 363, 368, 372 (1986); U.S. Int'l Trade Comm'n, Annual Report '88, at 20 (1989) (the Commission's 1988 budget was $34,750,000).

\(^9\) See generally Elzinga, Antitrust Policy and Trade Policy: An Economist's Perspective, 56 Antitrust L.J. 439, 442 (1987). An individual case can have a large impact. As a result of the Commission's decision in Antifriction Bearings (other than Tapered Roller Bearings) and Parts Thereof from the Federal Republic of Germany, France, Italy, Japan, Romania, Singapore, Sweden, Thailand, and the United Kingdom, USITC Pub. 2185, Inv. Nos. 303-TA-19, -20 and 731-TA-391 through 399 (1989) (final), approximately $500 million in annual imports of antifriction bearings, widely used in the aircraft, automotive, and construction industries will face antidumping and countervailing duties. BNA, Large Dumping Margins Found by ITA on Bearing Imports from 9 Countries, 6 Int'l Trade Rep. 393 (Mar. 29, 1989). Because the average estimated duty exceeds 60 percent, the order will force importers to post cash deposits with Customs of around $300 million a year to cover anticipated duties. BNA, ITC Finds American Industry Materially Injured by Three Classes of Dumped Bearings, 6 Int'l Trade Rep. 553 (May 3, 1989).

\(^10\) Previous drafts of this Article have been circulated within and without the Commission and several commissioners use elements of the proposed approach.
The remainder of this Article is organized as follows: The next section provides a brief introduction into the economics and the law of dumping and subsidies and describes the Commission's traditional approach to injury. The third section introduces the proposed framework, which I call the economic approach to injury. The fourth section provides a mathematical model of the economic approach and derives the relations that exist between the parameters of the model and the injury to the domestic industry from the unfair practice. The fifth section provides the legal argument in support of the economic approach. The sixth section contains a critical discussion of current Commission practice. The seventh section contains a critical discussion of current Commerce Department practice. The eighth section is the conclusion.

II. THE ECONOMICS AND THE LAW OF DUMPING AND SUBSIDIES


11. The issue of whether the United States should have an antidumping and countervailing duty law is beyond the scope of this Article. I will address a narrower question—how should the Commission administer the existing antidumping and countervailing duty law—which is a question of statutory interpretation rather than economic policy. The Commission bears the duty to enforce the law as it was written by Congress. However, this does not preclude a role for economic analysis in administrative law. For one view of the role of economics in agency interpretation and administration of law, see Wald, Judicial Review of Economic Analyses, 1 Yale J. on Reg. 43 (1983).


Code\textsuperscript{14} ("Antidumping Code" and together with the Subsidies Code, the "Codes").\textsuperscript{15} Later that year, in order to bring U.S. law into conformity with the Codes,\textsuperscript{16} Congress passed the Trade Agreements Act of 1979 ("1979 Act"), which repealed the prior statutory scheme for antidumping and countervailing duties and added a new title to the Trade Act of 1930 ("1930 Act").\textsuperscript{17} This new title, Title VII, contains the current law for the imposition of antidumping and countervailing duties.\textsuperscript{18}

A. The Definition of Dumping

Title VII defines dumping as the sale in the United States of a class or kind of foreign merchandise at less than its fair value.\textsuperscript{19} The Commerce Department considers the fair value of imported merchandise to be the foreign market value of merchandise that is the same as or similar to the merchandise that is exported to the United States.\textsuperscript{20} Same or similar merchandise is merchandise produced in the same country by the same person who is exporting to the United States and that is similar in material, purpose, and value to the merchandise exported to the United States.\textsuperscript{21} In order to have a basis to compare prices, the Commerce Department calculates all prices back to the factory door. Thus, the U.S. price is the ex-factory price of merchandise destined for

\begin{itemize}
  \item 15. These Codes are not a treaty, but form part of an international agreement that the United States has entered by executive agreement. The Codes are not controlling law in the United States. 19 U.S.C. §§ 2503, 2504 (1982); H.R. REP. No. 317, 96th Cong., 1st Sess. 41 (1979); S. REP. No. 249, 96th Cong., 1st Sess. 36, reprinted in 1979 U.S. CODE CONG. & ADMIN. NEWS 381, 421.
  \item 18. Sandler, Primer on United States Trade Remedies, 19 INT'L LAW. 761, 763-74 (1985), gives a good introduction to the antidumping and countervailing duties laws.
  \item 20. 19 C.F.R. § 353.42, .46 (1989).
\end{itemize}
sale in the U.S. market. Similarly, the foreign-market value is usually the ex-factory price of merchandise destined for sale in the foreign producer’s home market. Dumping, therefore, occurs when the ex-factory price of the merchandise destined for sale in the United States is less than the ex-factory price of the merchandise destined for sale in the home market. The practice of charging different prices to different customers for the same merchandise is called price discrimination. Consequently, dumping is a form of price discrimination between national markets, in which a higher price is charged at home than in the U.S. market.

Since dumping is a form of price discrimination, the same economic theory applies to both. Thus, a rational firm in long-run equilibrium will engage in dumping if the following three conditions exist:

1) separate national markets prevent the reimportation of the lower-priced exports;
2) the exporter has market power in its home market; and
3) the exporter faces a more elastic demand curve in the United States than in its home market.

Before a firm in long-run equilibrium will dump, all three conditions must be met. If any of the conditions is not met, the exporting firm will charge the same price in the U.S. market that it charges at home.

A rational firm might also temporarily engage in dumping for a variety of reasons. For example, a rational firm might engage in dumping because it is a new entrant into the U.S. market and it is trying to build goodwill. Alternatively, a dumping firm might be engaging in predatory pricing.

25. Id. at 3-4.
charging a very low price in the United States in an attempt to drive its competitors out of the market, so it can later raise its price and earn monopoly profits.\textsuperscript{28}

Title VII covers two kinds of dumping, cost dumping and price dumping. The discussion of dumping so far has dealt with price dumping. Price dumping occurs when the home-market price of merchandise exceeds its U.S. market price. Cost dumping occurs when merchandise is sold in the United States below its full cost of production.\textsuperscript{29} Cost dumping is likely to occur when demand is stochastic and there are substantial fixed costs of production. Under these conditions, when demand is strong, producers will operate at capacity and will charge prices high enough to cover their fixed costs of production. However, when demand is sluggish, producers will not operate at capacity and they will charge only enough to cover their variable costs of production. Thus, when demand is sluggish, producers of products that require large fixed costs of production, such as steel, are likely to engage in dumping.\textsuperscript{30}

As the discussion above shows, dumping can occur for a variety of reasons. However, the only explanation for persistent dumping is price discrimination. Because the other forms of dumping are only temporary phenomena, price discrimination is probably the explanation for most of the dumping that is observed.\textsuperscript{31}

B. \textit{The Definition of Subsidy}

A subsidy is simply a bounty or grant given by a government.\textsuperscript{32} Title VII divides subsidies into two broad classes: domestic subsidies and export subsidies. Domestic subsidies are subsidies that promote the production or sale of merchandise that might or might not be exported. A domestic

\footnotesize
\textsuperscript{28} For a discussion of various explanations for short-run dumping, see J. Viner, \textit{supra} note 24, at 23; W. Wares, \textit{The Theory of Dumping and American Commercial Policy} 7-12 (1977).

\textsuperscript{29} 19 U.S.C. § 1677(b) (1982).

\textsuperscript{30} For a discussion of the economics of cost dumping, see Ethier, \textit{Dumping}, 90 J. Pol. Econ. 487 (1982).

\textsuperscript{31} See G. von Haberler, \textit{The Theory of International Trade with its Application to Commercial Policy} 296-317 (1936); see also W. Wares, \textit{supra} note 28, at 10-12.

subsidy on goods exported to the United States is countervailable by the United States if the subsidy is available only to a specific enterprise or industry or group of enterprises or industries. A subsidy that is available to all enterprises or industries in a country, such as public roads and public schools, is considered to be generally available, and is therefore not countervailable. 33

Included in Title VII's sweep of countervailable domestic subsidies are research and development subsidies, subsidies to factors of production, equity infusions on non-commercial terms, loan guaranties, and loans with below-market interest rates.34 The Commerce Department values a subsidy at the net amount that is received by the producer.35 In calculating the net value of the subsidy, the Commerce Department does not subtract any costs incurred by the recipient in order to be eligible for the subsidy. Thus, for example, the cost to a foreign producer of moving its plant to another region will not be considered in calculating the net subsidy. This cost will be excluded from the calculation even if the subsidy was conditioned on the producer relocating its plant and only covered the recipient's actual relocation expenses.36

In addition to domestic subsidies, Title VII also includes export subsidies within its list of countervailable subsidies.37 The defining characteristic of an export subsidy is that the subsidy gives preferential treatment to goods that are exported as opposed to goods that are sold in the exporter's home market. Export subsidies are countervailable regard-

35. Id. §§ 1303(a)(1), 1677(6). The Commerce Department has recently proposed new regulations codifying its methodology for determining whether subsidy exists, measuring its value, and allocating that value over time. 54 Fed. Reg. 23366 (May 31, 1989).
less of whether they are generally available or not in the country where they were given.\footnote{See 19 U.S.C. § 1677(5)(A) (1982).}

The method used by the Commerce Department to measure a subsidy is the per unit value of the subsidy received by the producer. This is not always equal to the per unit reduction in marginal cost. The per unit value of the subsidy received can be less than, greater than, or equal to the per unit reduction in the marginal cost of producing the good caused by subsidy. In graphic terms, the reduction in the cost of producing the good is depicted as a shift in the import supply curve.\footnote{The phrase “import supply curve” will be used to refer to a foreign producer’s excess supply curve to the United States. From the perspective of the foreign producer, it is an export supply curve. From the perspective of the United States, it is an import supply curve. Either term could have been used; because the antidumping and countervailing duty law is concerned with effects on U.S. markets, I will use the term which represents the U.S. perspective.}

For example, if Lilliput provided Lilliputan widget manufacturers with a subsidy of $1 for each widget they produced, the subsidy would reduce the cost of producing each widget by $1 and shift the import supply curve by $1. Such a subsidy will be referred to as a full pass-through subsidy because the per unit value of the subsidy and the per unit shift in the marginal cost curve are equal.\footnote{See infra p. 59, diagram 1.}

For many subsidies, however, less than the full amount of the subsidy will be passed through to the import supply curve. For example, assume that the Lilliputian government recently decided to subsidize widget production by providing widget manufacturers with a subsidy of $1 for each hour of labor used in the production of widgets. Assume further, before the subsidy was granted one half hour of labor was used along with 3.25 units of capital to produce one widget. The subsidy, by reducing the relative price of labor, caused widget producers to use labor more intensively and capital less intensively; one hour of labor is used along with 2 units of capital to produce one widget. Under these assumptions, the value of the subsidy received by the recipient, as calculated by the Commerce Department, will be $1 a widget. At the pre-subsidy level of labor usage, the subsidy would have reduced the cost of producing a widget by only $.50. The
subsidy, however, by causing an increase in the intensity of labor also caused a decrease in the marginal productivity of labor, thereby leading to a reduction of between $.50 and $1 in the cost of producing a widget as a result of the subsidy.

For example, assume that the unsubsidized wage rate is $3.00 an hour and that the price of capital is $1.00 a unit. Before the subsidy went into effect producers used one half hour of labor, which cost $1.50, and 3.25 units of capital, which cost $3.25, to produce one widget at a total cost of $4.75. Producers did not use 1 hour of labor and 2 units of capital to produce a widget because it would have cost $5.00 to produce a widget. If the producers had stayed with their original factor proportions after the subsidy became available, it would have cost $4.25 to produce a widget, thereby reducing the cost of production by $.50. However, by shifting their factor proportions, producers were able to reduce the cost of production to $4.00, which is a saving of $.75 a widget over the initial cost of production. This $.75 saving is the shift in the import supply curve because of the subsidy. The Commerce Department, however, calculates the subsidy to be $1.00 a widget because the cost of producing a widget using the post-subsidy factor proportions and pre-subsidy prices would be $1.00 more than the cost using the post-subsidy factor proportions and the post-subsidy prices. Although the above example applies to only one special case, the principle, that a subsidy to a factor of production reduces the cost of production by an amount greater than the savings at the old factor proportions but less than the savings at the new factor proportions, is generally true. 41

The rest of this Article will focus primarily on full pass-through subsidies, because, as is shown in Section VII, when the Commission uses the Commerce Department’s calculations of the dumping and subsidy margins to estimate the effect the unfair practice had on the import supply curve, the proposed analysis will work exactly only for a subsidy that is

completely passed through to the import supply curve.42

C. The Domestic Industry and the Determination of Injury

In every investigation, the Commission begins its analysis with the imported product that is allegedly either being dumped or benefitting from a subsidy.43 The Commission's first task is to define the like product: the product that "is like, or in the absence of like, most similar in characteristics and uses with" the imported product.44 The like product determination has proved troublesome for the Commission when the investigated product is part of a continuum of similar products.45 Essentially, the like product is the closest domestically-produced substitute for the imported product.46 The producers of the like product constitute the domestic industry.47 The Commission's injury determination is based on the domestic industry's production of the like product.48

The statutory language of Title VII requires the Commission to make a final determination of whether —

(A) an industry in the United States —
(i) is materially injured, or

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42. See infra notes 195-199 and accompanying text.
43. Although all dumping allegations go to the Commission, not all subsidy allegations go to the Commission. In general, only those countries that have signed the Subsidies Code or have adopted obligations similar to those contained in the Subsidies Code are entitled to an injury test for subsidized imports. Subsidized imports from countries that are not entitled to an injury test are automatically countervailed if Commerce makes an affirmative determination. 19 U.S.C. § 1303(a) (1982).
44. Id. § 1677(10).
46. The like product is generally limited to the closest substitute on the demand side. Substitutes on the supply side for the domestic like product are generally excluded. See Perry, supra note 44, at 393. For a recent criticism of the Commission's definition of like product and industry as being too narrow and technical, see Note, Economically Meaningful Markets: An Alternative Approach to Defining 'Like Product' and 'Domestic Industry' Under The Trade Agreements Act of 1979, 73 Va. L. Rev. 1459 (1987).
48. There are a few instances in which the Commission can use a broader or narrower definition of industry to assess injury. See id. § 1677(4)(B)-(D).
Material injury is present injury and is defined as "harm which is not inconsequential, immaterial, or unimportant." A threat of material injury is prospective injury. For a finding that an industry is threatened with material injury, the threat must be real and the actual injury must be imminent and not based on mere conjecture. The third category of injury, material retardation, requires a finding by the Commission that an industry did not develop in the United States by reason of the unfairly traded imports. Material retardation is rarely an issue before the Commission.

In making its determination, the statute directs the Commission to consider among other factors —

(i) the volume of imports of the merchandise which is the subject of the investigation,
(ii) the effect of imports on that merchandise on prices in the United States for like products, and
(iii) the impact of imports of such merchandise on domestic producers of like products, but only in the context of production operations within the United States.

The statutory directions do not end here as the statute provides further elaboration on each of the three enumerated factors:

(i) Volume.—In evaluating the volume of im-
ports of merchandise, the Commission shall consider whether the volume of imports of the merchandise, or any increase in that volume, either in absolute terms or relative to production or consumption in the United States, is significant.

(ii) Price.—In evaluating the effect of imports of such merchandise on prices, the Commission shall consider whether—

(I) there has been significant price underselling by the imported merchandise as compared with the price of like products of the United States, and

(II) the effect of imports of such merchandise otherwise depresses prices to a significant degree or prevents price increases, which otherwise would have occurred, to a significant degree.

(iii) Impact on affected domestic industry.—In examining the impact required to be considered under subparagraph (B)(iii), the Commission shall evaluate all relevant economic factors which have a bearing on the state of the industry in the United States, including, but not limited to—

(I) actual and potential decline in output, sales, market share, profits, productivity, return on investments, and utilization of capacity;

(II) factors affecting domestic prices,

(III) actual and potential negative effects on cash flow, inventories, employment, wages, growth, ability to raise capital, and investment, and

(IV) actual and potential negative effects on the existing development and production efforts of the domestic industry, including efforts to develop a derivative or more advanced version of the like product.54

Although Title VII provides the Commission with a list of factors to consider in its analysis, the statute does not pro-

vide a method by which such analysis should be conducted. Congress left that choice to the discretion of the Commission: "The determination of the ITC with respect to causation is . . . complex and difficult, and is a matter for the judgment of the ITC." Thus the statute and the accompanying legislative history simply instruct the Commission to "consider" and "evaluate" various factors.

D. The Commission's Traditional Approach to the Determination of Injury

Since the 1979 Act went into effect, fourteen commissioners have served on the Commission and no two have had exactly the same interpretation of Title VII. Nevertheless, there are some common elements that run through a majority of the commissioners' opinions. In the discussion that follows, I refer to these elements as "the traditional approach" to injury.

The traditional approach begins with the bifurcation of injury and causation. The Commission first determines whether the domestic industry is experiencing material injury. Only if the Commission concludes that the domestic industry is in a state of material injury will the Commission consider whether dumped or subsidized imports are a cause

57. A detailed description of the Commission and its antidumping and countervailing duty investigations is given by Perry, supra note 45, at 378-430. Excluded are former Commissioners Liebeler and Stern as well as the two current commissioners who use the economic approach: Commissioner Brunsdale, who calls her version elasticity analysis, and Commissioner Cass, who calls his version the comparative or unitary approach.
of that injury. The first test is referred to as the injury test and the second as the causation test. According to the traditional approach, the Commission makes an affirmative determination only if there are both injury and causation.

1. The Injury Test

The traditional, bifurcated approach to the determination of injury begins with a discussion of the condition of the domestic industry. The Commission assesses this by looking at the industry as it is today, and then comparing the current state of the industry to the state of the industry several years before the petition was filed. In examining the current state of the industry, the Commission looks to see if the firms are unprofitable or if profit levels are low, and it looks to see if firms are either leaving the industry or closing plants. Any of these conditions is considered to be evidence of material injury.

The Commission also compares the conditions in the industry today with that of three years ago. If employment, production, prices, capacity, and returns on equity and assets today are below their levels three years ago, this will also be considered evidence of material injury. Under the tradi-
tional bifurcated approach, the Commission will either determine that the domestic industry is experiencing material injury and then proceed to consider whether the unfair imports are a cause of that injury; or it will determine that the domestic industry is neither experiencing material injury nor is threatened with material injury and will terminate its investigation.

2. *The Causation Test*

The second prong of the traditional bifurcated approach is the causation test. The traditional approach to causation does not include an examination of the effects of the unfair practice, but instead an examination of the effects of the imports. In assessing causation, the Commission includes all imports from the countries under investigation, except imports of the product from companies for which the Commerce Department has made a negative determination. The Commission includes all imports from these companies and not just those imports that the Commerce Department has

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found to be dumped or subsidized. Moreover, those commissioners who use the traditional approach will conclude that the causation element of the bifurcated test is met if they find that the imports have contributed to the condition of the domestic industry. Furthermore, the traditional approach emphasizes three factors in determining whether the imports have made any contribution to the condition of the domestic industry: underselling, lost sales, and import trends.

a. Underselling

The Commission looks for underselling by comparing the price of the imported article in the U.S. market with the price of the like product, which is usually the closest domestic substitute. Underselling occurs when the average price of the imported article in the U.S. market is below the average price of the competing domestic article in the U.S. market. If the domestic article is more expensive than the imported article, there is overselling. Underselling is considered to be evidence of causation; overselling is considered to be evidence against causation.


65. Underselling and dumping are different but related concepts. Underselling involves a comparison of the price of the imported article to the price of the like product in the United States. Dumping involves a comparison of the price of the imported article in the United States to the price of such or similar merchandise at home.

b. **Lost Sales**

Lost sales are sales that domestic producers have allegedly lost to unfairly traded imports. According to the Commission, a lost sale occurs when a U.S. consumer purchased the imported product instead of the domestic product because the imported product was cheaper than the domestic product. To search for lost sales, the Commission asks the petitioners to provide a list of purchasers from whom they have allegedly lost sales to unfairly traded imports. The Commission then has a staff member call these purchasers to ask them which producers' merchandise they bought. If a purchaser bought merchandise produced by any of the producers under investigation, the Commission staff member will ask the purchaser whether the domestic like product was available when it bought the imported product and the reason for the purchase of the imported product. If the purchaser bought the imported product, acknowledges the availability of the like product, and lists as one of the reasons for its purchase of the imported product that it was cheaper than the like product or says that price was an important consideration in making its purchase decision, the Commission will consider this a lost sale. The presence of lost sales is considered to be evidence of causation; their absence is considered to be evidence against causation.


68. Compare Fabric and Expanded Neoprene Laminate from Taiwan, USITC Pub. 2032, Inv. No. 731-TA-371, at 12, 10 I.T.R.D. (BNA) at 1470 (final) (negative because, among other reasons, virtually no lost sales allegations were confirmed by the Commission and volume of confirmed lost sales was quite small), with Cellular Mobile Telephones and Subassemblies Thereof from Japan, USITC Pub. 1786, Inv. No. 751-TA-207, at 788-89, 8 I.T.R.D. (BNA) at 1230-31 (final) (affirmative because, among other reasons, there was a significant number of lost sales). See De Grandis, supra note 56, at 566-67.

c. **Import Trends**

The third factor that the Commission traditionally examines is import trends. When the quantity and market pen-
etration of imports from the countries under investigation are increasing, the Commission is likely to find a causal connection between the unfairly-traded imports and the condition of the industry. The Commission will also look for a negative correlation between the market penetration of the imports and either the market penetration of the domestic product or the profitability of the domestic industry. The existence of such a negative correlation is considered evidence of causation, and the absence of a negative correlation is considered evidence against causation.

III. THE ECONOMIC APPROACH TO INJURY BY REASON OF DUMPED AND SUBSIDIZED IMPORTS

As will be shown in Section VI, the problem with the Commission's traditional analysis of causation is that it is premised on economically unsound assumptions about how dumped and subsidized imports affect competing domestic industries. Consequently, to provide a better framework with which to measure injury, one must understand how an unfair trade practice affects the competing domestic industry. The first part of this section describes how a subsidy to an imported product will affect domestic producers of a com-


peting product and the second part introduces the economic approach to injury.

A. The Effects of a Subsidy on Competing Domestic Producers

The effects of an unfair practice on the competing domestic industry can be illustrated most simply with a subsidy that shifts the import supply curve by the full amount of the subsidy. To put the argument in terms of basic supply-and-demand curve analysis, consider a subsidy on Lilliputian widgets. If there are no U.S. widget producers, but some U.S. firms manufacture gidgets, which are very close substitutes for widgets, gidgets would be the like product and the U.S. gidget producers would be the domestic industry. To simplify the discussion, it will be assumed that the U.S. gidget and Lilliputian widget industries are each made up of many competing producers and that gidgets and widgets are produced only in the United States and Lilliput but consumed only in the United States. The law of demand implies that the U.S. demand for gidgets is a decreasing function of the price of gidgets. Since widgets are a substitute for gidgets, the U.S. demand for gidgets is also an increasing function of the price of widgets. Similarly, the U.S. demand for widgets is a decreasing function of the price of widgets and an increasing function of the price of gidgets. Equilibrium in the U.S. gidget and widget markets exists when the prices and quantities of gidgets and widgets are such that supply and demand are equal in both markets.

Assume that Lilliput has not subsidized widgets in the past and that Lilliput has just introduced a subsidy on all widgets exported to the United States. The subsidy will reduce the cost to Lilliputian widget producers of making widgets for the U.S. market. At any given price for widgets in the U.S. market, the subsidy will cause an increase in the number of widgets exported to the United States. At the old unsubsidized price for widgets in the United States, there will be an influx of widgets as Lilliputian widget producers increase production to take advantage of the subsidy. For importers of widgets to sell their increased stocks, the price of widgets in the United States will have to fall. Since widgets and gidgets are substitutes, the demand for gidgets will decline as the price of widgets drops. As a result of the drop in the demand for gidgets, the price of gidgets will drop and
the production of gidgets will contract. In addition to falling prices and production, U.S. gidget producers will experience increased excess capacity, decreased revenues and reduced profits. Workers in the gidget industry will also be affected by the subsidy on Lilliputian widgets, as their hours and numbers decline. These consequences, which all flow directly from the subsidy, are precisely the kinds of effects that Congress sought to alleviate when it enacted Title VII.

As the above discussion illustrates, there is a direct effect on a competing domestic industry from a subsidy. A subsidy shifts out the import supply curve, which in turn shifts in the demand curve facing the import-competing domestic producers. The net effect of these shifts is to reduce domestic output, prices, revenue, profits, investment, capacity utilization, and employment in the affected industry. This effect is illustrated in diagram 1 for the hypothetical subsidy on Lilliputian widgets. In diagram 1, the subscripts W and G are used to denote widgets and gidgets and the superscripts 0 and 1 are used to denote the world without and with the subsidy. D denotes a demand curve, S a supply curve, P a price, and Q a quantity.

In terms of diagram 1, the initial equilibrium in the U.S. widget market before the subsidy is available is given by the intersection of the demand curve $D_w^0$ and the supply curve $S_w^0$. This produces an equilibrium price for widgets that are sold in the United States of $P_w^0$ and an equilibrium output of $Q_w^0$. In the gidget market, the initial equilibrium before the subsidy is available is given by the intersection of the demand curve $D_g^0$ and the supply curve $S_g$, which yields an equilibrium price for gidgets of $P_g^0$ and an equilibrium output for gidgets of $Q_g^0$. Equilibrium in the gidget and widget markets is determined simultaneously and the interaction between the two markets is through the demand curves for gidgets and widgets. Thus, the demand curve $D_g^0$ is the demand curve for gidgets, assuming that the price of widgets is $P_w^0$, and the demand curve $D_w^0$ is the demand curve for widgets, assuming that the price of gidgets is $P_g^0$. Because gidgets and widgets are substitutes, the demand curve for gidgets is shifted down and to the left as the price of widgets declines.

The subsidy to widgets will shift the widget supply curve down by the amount of the subsidy that is passed through to
the supply curve. At the old unsubsidized price for widgets, the supply of widgets will exceed the demand for widgets, so the price of widgets will fall. The initial demand curve for widgets and the new supply curve for widgets, when the sub-
sidy is available, intersect at price $P_w'$ and output $Q_w'$. This decline in the price of widgets, however, will disturb the equilibrium in the gidget market because the demand curve $D_c^0$ only exists when the price of widgets is $P_w^0$. Because the price of widgets, $P_w'$, is below $P_w^0$, the demand curve for gidgets is shifted in. Because the gidget demand curve and $S_c$ intersect at a price below $P_G^0$ and because the demand curve $D_w^0$ only exists if the price of gidgets is $P_G^0$, the demand curve for widgets is also shifted down, which causes a further shift in the demand for gidgets. The new equilibrium exists with the demand curves $D_w^1$ and $D_G^1$. Thus, the subsidy to widgets affects the gidget market by causing a downward shift in the demand curve for gidgets. Consequently, the subsidy results in a lower price for gidgets, $P_G^1$, is less than $P_G^0$, and a reduction in the output of gidgets, $Q_G^1$, is less than $Q_G^0$.

Diagram 1 can also be used to illustrate the full effect of the importation of widgets on the market for gidgets. The full effect of widgets on the U.S. market for gidgets is not the same as the effect of the subsidy to widgets on the U.S. market for gidgets. The full effect of the imports is given by how much better off the gidget industry would be if no widgets were sold in the United States. In order to assess the full effect of the imports, the state of the gidget industry with an embargo on widgets, superscript 2, must be compared to the current state of the industry. The demand curve for gidgets when there are no widgets for sale, $D_c^2$, is to the right of the initial demand curve for gidgets before the subsidy is available. Therefore, the price, $P_G^2$, and quantity, $Q_G^2$, of gidgets are higher when widgets are excluded from the U.S. market than when widgets are sold in the United States but are not subsidized. Consequently, the reduction in the price and the quantity of gidgets caused by the importation of subsidized widgets will exceed the reduction in price and quantity caused solely by the subsidy to widgets.

B. The Economic Approach to Injury

The above discussion of how a subsidy affects domestic producers of a competing product suggests a simple framework for determining whether a domestic industry is materially injured by a subsidy. Compare the condition of the domestic industry today, faced with competing import subsi-
dies, to the condition that the domestic industry would be in today if the foreign producers had not been given the subsidy. If the differences in such indicia of the state of the industry as domestic output, prices, revenue, profits, investment, capacity utilization, and employment are substantial, the import-competing domestic industry has been materially injured by the subsidy; if these differences are not substantial, the industry has not been so injured.\textsuperscript{71}

Three related aspects of this test differ from the traditional practice of the Commission.\textsuperscript{72} First, under the economic approach, the injury determination is made using a counterfactual starting point. The actual condition of the industry is compared with the condition the industry would be in if the subsidy had not been given to the foreign producers. Since the second half of the comparison is not directly observable, it can only be estimated. Second, there is no temporal dimension to the test. The comparison is at a point in time. It is irrelevant whether the industry is doing better or worse today than it was doing yesterday.\textsuperscript{73} Third, the actual condition of the industry is irrelevant to the determination. All that matters is how much better the import-competing domestic industry would have done if the imports were not subsidized. Thus, under the economic approach, profitable industries as well as unprofitable industries can be injured by reason of subsidized imports.

Two additional aspects of this proposed test, although

\textsuperscript{71.} The proposed approach also applies to the threat-of-material-injury and material-retardation standards. A domestic industry is threatened with material injury if the condition of the domestic industry at some future date would be improved materially by preventing the subsidy or dumping from occurring. The Commission interprets material retardation to mean that an undeveloped domestic industry would otherwise have developed. Thus, the economic approach to causation would require finding a domestic industry that did not develop would have developed if the subsidy had not been granted or if the dumping did not occur. The approach also applies to antidumping investigations: compare the current condition of the industry to the condition the industry would be in but for the dumping.

\textsuperscript{72.} See supra section II.D.

\textsuperscript{73.} Over a period of time one also could make a comparison in which the state the industry was in during the period would be compared with the state the industry would have been in during the same period had the foreign producer not been given a subsidy. The key is that the same period of time be on both sides of the comparison.
not as readily apparent, are important to its implementation. First, in applying the proposed test, the magnitude of the statutorily recognized injury is important. In general, the unfair practice will have an adverse impact on the competing domestic industry. A subsidy that causes a shift in the import supply curve will have no effect on the competing domestic industry only when there is an infinitely elastic supply from third countries of a product that is a perfect substitute for the subsidized good. Thus, in only one set of conditions will a subsidy that causes a shift in the import supply curve have no effect on the prices received or quantities sold by U.S. producers of competing products. Consequently, if material becomes synonymous with de minimis, there will be no injury test because in only one ideal case will the unfair practice have no effect at all. In every other instance the unfair practice has some effect, if only a small one.

Second, in making its injury determination under Title

74. The material injury standard is a low standard. The statute defines material injury to mean “harm which is not inconsequential, immaterial, or unimportant.” 19 U.S.C. § 1677(7)(A) (1982).


76. The Court of International Trade has stated that the imports need contribute only minimally to the condition of the domestic industry. British Steel Corp. v. United States, 593 F. Supp. 405, 413 (Ct. Int’l Trade 1984). Such a pronouncement comes close to reading the injury test out of the law.

77. This argument is perhaps overstated. Any increase in supply from one foreign country will adversely affect domestic producers unless the increase in supply is offset exactly by a decrease in supply from other foreign countries, which will only occur in one ideal case. However, not all dumping and subsidization increases foreign supply. For example, a subsidy to producers to relocate a plant can decrease supply by increasing transportation costs. See Goetz, Granet & Schwartz, The Meaning of ‘Subsidy’ and ‘Injury’ in the Countervailing Duty Law, 6 Int’l Rev. L. & Econ. 17, 22 (1986). Consequently, a de minimis standard for injury could be used without reading the injury test completely out of the law if the Commission viewed its task to be determining whether the unfair practice has caused an increase in exports to the United States. Such an analysis, however, would require the Commission to examine only the foreign industry and would leave it no reason to examine the domestic industry or market, because any increase in foreign supply would be sufficient to injure the domestic industry materially. Furthermore, if the Commission treats the imports, and not the unfair practice, as the causal factor, the injury test is read out of the law when a de minimis standard is used, because except for
VII, it would be impossible for the Commission to compare every aspect of the condition of the industry as it currently is with what it would be had the subsidy not been granted. In addition, for the Commission even to develop both a finely detailed and highly accurate model of the industry and a detailed knowledge of the industry's current conditions would be very time-consuming and expensive, and it probably would not significantly improve the application of the approach. Consequently, in making its statutory determination, the Commission should concentrate on both the decline in the price of the like product and the reduction in the output of the like product brought about by the unfair practice. The proposed approach will be practicable by emphasizing only these two factors. Moreover, the statute directs the Commission to consider both the reduction in price and the reduction in output caused by the unfair practice. 78 Most important, the impact of the subsidy on the other factors that the statute directs the Commission to consider, such as the effects on employment, capacity, and profits, will generally be directly related to the impact of the subsidy on these two factors. 79 By concentrating on the decline in price and output, the Commission can carry out the intent of Congress in an efficient and practical manner.

IV. MODEL OF PROPOSED APPROACH TO INJURY DETERMINATION

The previous section suggested a framework for the Commission to use to make its injury determination under one ideal case the domestic industry would always be better if the imports were excluded from the U.S. market.


79. An unfair trade practice affects the competing domestic through its impact on the price and output of the like product. Accordingly, if the negative impact of the unfair practice on other factors is in general greater, the greater is the impact of the unfair practice on the price and output of the like product. However, when there is a reason to believe that the impact of the unfair practice on the other indicia relates differently to the impact on price and output, the Commission can inquire directly and more fully into these effects.
Title VII. Under the proposed approach, an industry is materially injured by reason of subsidized imports if it is materially worse off due to the unfair trade practice. In this section, a mathematical model of the economic approach to injury is developed and is then used to examine the effect of a subsidy on a competing U.S. industry. Additionally, the mathematical relations that exist between the parameters of the model and the injury to the domestic industry from an unfair practice of a given magnitude are derived. To facilitate the exposition, the example of a subsidy on Lilliputian widgets that was used in the previous section is used again.

This section also describes the mathematical model for the injury caused by a subsidy and how the mathematical relations that are derived from that model can be used. The formal mathematical model can be used by the Commission and the public to arrive at rough estimates of the impact of the subsidy on the price and output of the like product. The Commission can then use the estimates and economic relations derived from the model to make its statutory determination. The public can also use these estimates and relations to assess the likely outcome of a Commission investigation.

A. The Mathematical Model

To simplify the development of the mathematical model of injury, transportation costs, customs duties, middlemen's profits, retailers' profits, and other expenses that usually drive a wedge between the price received by the producer and the price paid by the consumer for the same product will be ignored. Consequently, because of the subsidy, Lilliputian widget producers will be paid more by U.S. consumers and the Lilliputian government together for each widget that they produce than U.S. consumers alone will pay for each widget that they buy. Assuming that the Lilliputian government is providing a subsidy of \( v \) percent for each widget that

Lilliputian producers export to the United States, which subsidy is fully passed through to the import supply curve, the ratio of the total price that Lilliputian producers are paid to the price that U.S. consumers pay for each widget is $1 + v$. Thus, denoting by $P_w$ the price of a widget in the United States, then $P_w(1 + v)$ is the price that Lilliputian producers are paid for each widget they export to the United States.

The following notation will also be used throughout this example. Let $P_G$ be the price of gidgets in the United States, $Q_G$ the quantity of gidgets sold in the United States, and $Q_W$ the quantity of widgets sold in the United States. Thus, the U.S. demand for gidgets can be written as


Denoting the derivatives of the function $G$ with respect to $P_G$ and $P_w$ by $G_1$ and $G_2$, the law of demand implies that $G_1 < 0$. In addition, because gidgets and widgets are substitutes, $G_2 > 0$. Similarly, the U.S. demand for widgets can be written as

2. $W(P_G, P_w) = Q_W$, with $W_1 > 0$ and $W_2 < 0$.

The supply side of the U.S. market for widgets and gidgets is modeled as follows. Assuming that U.S. producers are willing to sell more gidgets the higher the price of gidgets, the supply curve for gidgets can be written as

3. $s(P_G) = Q_G$, with $s' > 0$, where the prime indicates the derivative of the function. Similarly, the Lilliputian inverse supply curve for widgets exported to the United States can be written as

4. $t(P_w(1 + v)) = Q_W$, with $t' > 0$. Equations (1) through (4) describe the U.S. market for widgets and gidgets with an export subsidy of $v$ percent on widgets. The model is complete in the sense that if the four functions are specified, the values of the four unknowns, $P_G, P_w, Q_G$ and $Q_W$, can be found. Theoretically, the injury determination can be made by comparing the price ($P_G$) and quantity ($Q_G$) of gidgets in the U.S. market, characterized by equations (1) through (4) with $v = 0$, to the price and quantity of gidgets in the U.S. market, characterized by equations (1) through (4) with $v$ equal to the actual subsidy.
1. *The Injury Measures*

To formalize the proposed approach to causation further, I suggest using two measures of injury: the relative decline in the price of the domestic like product caused by the subsidy (I) and the relative decline in the output of the domestic like product caused by the subsidy (J). As applied here, these two measures are the relative declines in the price and quantity of gidgets sold in the U.S. market that are caused by the subsidy to widgets. Using the notation that the superscripts 0 and 1 denote the world without and with the subsidy, the two measures are written as follows:

\[ I = \frac{P_G^0 - P_G^1}{P_G^0} \]

and

\[ J = \frac{Q_G^0 - Q_G^1}{Q_G^0}. \]

Because the subsidy reduces both the price and the output of gidgets, the measures I and J are both between zero and one. In addition, the higher the values of I and J, the larger the declines in the price and output of gidgets caused by the subsidy to widgets. Thus, with all other things being equal, the higher the values of I and J, the larger is the injury from the subsidy and the more likely it is that the subsidy has materially injured the domestic industry.

2. *Constant Elasticity Demand and Supply Curves*

In order to derive explicit mathematical formulae for the injury measures, some limitations are placed on the demand and supply curves. Gidgets and widgets are assumed to be imperfect substitutes and to have the following industry-wide, constant-elasticity demand equations:

\[ Q_G = AP_G^{-a}P_w^b \]

and

\[ Q_w = BP_G^cP_w^{-d}. \]

The constants A, B, a, b, c, and d are all positive. The first two constants (A, B) are scale parameters. The last four con-
constants are the own-price elasticity of demand for gidgets (a), the cross elasticity of demand for gidgets with respect to the price of widgets (b), the cross elasticity of demand for widgets with respect to the price of gidgets (c), and the own-price elasticity of demand for widgets (d). The supply equations for gidgets and widgets, assumed to be of constant elasticity and upward sloping, can be written as:

\[ Q_G = C P_G^e \]

and

\[ Q_W = D P_W^f (1+v)^f. \]

The constants \( C, D, e \) and \( f \) are all positive. The first two constants (\( C, D \)) are scale parameters. The last two constants are the elasticity of supply of gidgets (\( e \)) and the elasticity of excess supply of widgets to the U.S. market (\( f \)).

Assuming that the U.S. gidget-widget market is characterized by equations (7) through (10), the two measures of the injury caused by the subsidy, \( I \) and \( J \), can be written as follows:\(^{81}\)

\[ I = 1-(1+v)z \]

and

\[ J = 1-(1+v)^e z, \]

where

\[ z = \frac{-bf}{(a+e)(d+f)-bc}. \]

The two cross-elasticities of demand, \( b \) and \( c \), are not independent of one another. Denoting by \( m_W \) the share by value of the total gidget-widget market held by widgets, the share held by gidgets is \( 1-m_W \). Denoting the quotient of the widget market share and the gidget market share by \( M \), so

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that \( M = m_w/(1-m_w) \), the relation between the two cross-elasticities is given by \( c = M b \). Substituting \( M b \) for \( c \) in equation (13) yields:

\[
(14) \quad Z = \frac{-fb}{(a + e)(d + f) - M b^2}
\]

Equations (11), (12), and (14) describe the effect of a subsidy to widgets on the price and output of gidgets as a function of the size of the subsidy, the market share of gidgets, and the various elasticities of demand and supply.

One way for the Commission to make its injury determination is to use equations (11), (12), and (14) to calculate the percentage decrease in the price and output of gidgets from a given subsidy to widgets. By using estimated values for the parameters in equations (11), (12), and (14), the Commission can estimate the percentage declines in the price and output of the like product. Of course, for the Commission to calculate the precise amount of injury, it will have to be able to measure these parameters precisely. In order for the Commission to base its determination on a mathematical calculation, however, it will not be necessary for the Commission to measure the amount of injury precisely. It will be sufficient if the Commission using reasonable estimates for the parameters, can conclude that the impact of the unfair practice is either likely or unlikely to be substantial enough to constitute material injury. Even though the economic approach to causation is not entirely precise, its use could improve the accuracy and predictability of the Commission’s determinations. This is in accord with congressional intent, and it would benefit the parties, their lawyers, and consumers, who would all be better served by a more transparent and predictable process than the current one.

82. In addition, the Commission will need a more fully developed and complete mathematical model to measure precisely the impact. That the precise impact of the subsidy can be calculated, at least in theory, with the approach I suggest, but not with the approach traditionally used by the Commission, underscores the poor economic foundation upon which the Commission traditionally bases its analysis of causation.

83. Moreover, Title VII does not require such a precise calculation, although it is not prohibited either. H.R. REP. No. 317, 96th Cong., 1st Sess. 47 (1979); S. REP. No. 249, 96th Cong., 1st Sess. 58, reprinted in 1979 U.S. CODE CONG. & ADMIN. NEWS 381, 444.

84. According to the Ways and Means Committee Report, one of the
In order for the Commission to estimate the impact of the unfair practice, it will often be sufficient if the Commission can limit the ranges of the various elasticities. This sort of qualitative information is likely to be readily available to the Commission. For example, properly gathered consumer responses and pricing data should permit the Commission to conclude whether the imported article and the like product are good or poor substitutes for one another. In addition, the elasticities of demand for the imported product and the like product will be large when there are numerous suppliers of competing products. When there are few substitutes available, the demands will be inelastic. Similarly, the elasticities of supply will be large when there is significant idle capacity, when capacity can be easily expanded (such as by converting existing plant and equipment), and when output can easily be diverted between markets. This is the sort of information that the Commission should be able to obtain through its study of the industry. Of course, the dumping and subsidy margins are reported to the Commission by the Commerce Department and the Commission compiles market share data in almost every case.

Even if precise estimates of the impact of the subsidy on the price and output of the like product could be made, the economic approach to causation would still not be exact. There are two reasons for this. First, there is no single measure of injury but instead two measures. These two measures are the decline in price and the decline in output of the like product. Of course, a single measure that is some explicit function of these two measures could be used; but no such measure is proposed in this paper. Second, there is


85. I have considered using producer revenue and the economic con-
no precise definition of material. Even if there were a single measure of injury, it would still be up to each commissioner to determine how much injury is material. Although there can be an arbitrary definition of materiality, there is no theoretical reason for choosing one definition over another. Thus, a commissioner using the economic approach will still have substantial leeway even after the impact of the subsidy on the price and output of the like product is calculated when he makes a determination. However, over time a commissioner’s leeway will contract as the commissioner issues more determinations and thus implicitly defines the relation between the two measures of injury and the standard for materiality.

B. Factors Affecting the Injury from an Unfair Practice

Another reason for using a mathematical model is that the model can be used to derive economic relations between the parameters of the model and the injury to the domestic industry from the unfair trade practice. These relations can be used by the Commission and the general public to improve their understanding of how the proposed approach is applied. By understanding how various market conditions, such as market share, elasticity of demand, and elasticity of supply, relate to the injury to the domestic industry from a given subsidy, the public could more accurately assess what the Commission’s final determination will be using the economic approach and thereby improve the predictability of the Commission’s determinations.86

The relation between any parameter of the model (a, b, d, e, f, M, or v) and the injury to the domestic gidget industry from a subsidy to Lilliputian widgets can be found by differentiating equations (11) and (12), after substituting for Z from equation (14), with respect to the parameter. The relationship between each factor and the injury to the domestic industry is described below.

cept of producer surplus but have not yet been able to conclude that the use of either as the sole measure of injury would be appropriate.

86. Memorandum from the Director, supra note 81, at 29-31, gives a discussion of some of these economic relations.
1. The Unfair Trade Margin

Not surprisingly, the magnitude of the injury to domestic gidget producers from a given subsidy on widgets is related to the size of the subsidy itself. The effect on gidget producers of increasing the subsidy on widgets is found by substituting for \( Z \) in equations (11) and (12) from equation (14) and differentiating the resulting equations with respect to \( v \).\(^{87}\) As intuition suggests, increasing the subsidy will cause a decline in the price and quantity of gidgets sold in the U.S. market. Thus, the larger the subsidy received by widget producers, the greater the injury to the domestic gidget industry, and the more likely is it that the domestic gidget industry has been materially injured as a result of the subsidy to widgets.

2. Own-Price Elasticity of Demand for Gidgets

Another factor that is related to the magnitude of the injury caused by the subsidy is the own-price elasticity of demand for gidgets. The more elastic the demand for gidgets, the smaller the relative declines in the price and quantity of gidgets from a given subsidy to widgets.\(^{88}\) Conversely, the less elastic the U.S. demand for gidgets, the greater the relative declines in price and quantity from the export subsidy to widgets. Therefore, the less elastic the U.S. demand for

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\(^{87}\) The derivatives are as follows:
\[
\frac{dI}{dv} = -Z(1+v)^{2-1} > 0
\]
and
\[
\frac{dJ}{dv} = -eZ(1+v)^{2-1} > 0.
\]

To say that the derivatives of \( I \) and \( J \) with respect to \( v \) are positive means that the relative declines in price and quantity from the subsidy are greater the larger the subsidy is.

\(^{88}\) The derivatives are as follows:
\[
\frac{dI}{da} = -\ln(1+v)k(1+v)^{2}f(b(d+f)) < 0
\]
and
\[
\frac{dJ}{da} = -\ln(1+v)k(1+v)^{2}efb(d+f) < 0,
\]
where \( k = [(a+e)(d+f)-Mb^2]^{-2} \).
gidgets, the greater the injury from a given subsidy to widgets.

3. Own-Price Elasticity of Demand for Widgets

There is a similar relation between the own-price elasticity of demand for widgets and the injury to the domestic gidget industry from a subsidy on widgets. The less elastic the U.S. demand for widgets, the greater the injury to the domestic gidget industry from a given subsidy on widgets.\textsuperscript{89} The economic intuition behind this result is that if demand for widgets is relatively elastic, the subsidy, which increases the supply of widgets, will generally increase U.S. consumption of widgets without causing U.S. widget prices to decline substantially. Consequently, if the subsidy does not cause widget prices to decline by very much, the prices and sales of domestic gidget producers will not decline by very much either.

4. Substitutability of Gidgets and Widgets

The fourth factor that affects the magnitude of the injury experienced by the gidget industry as a result of the subsidy is the substitutability of gidgets and widgets. The higher the degree of substitution between gidgets and widgets, the larger are both the decrease in the price of gidgets and the decrease in the output of gidgets from a given subsidy on widgets.\textsuperscript{90} The economic intuition behind this result is that the higher the degree of substitution between widgets

\textsuperscript{89} The derivatives are as follows:

\[ \frac{dI}{dd} = -\ln(1+v)k(1+v)zfb(a+e) < 0 \]

and

\[ \frac{dJ}{dd} = -\ln(1+v)k(1+v)c^2efb(a+e) < 0. \]

\textsuperscript{90} The only measure of the substitutability of widgets and gidgets in equations (12), (13), and (14) is the elasticity of demand for widgets with respect to the price of widgets, \( b \). Given the market share of gidgets, however, the cross-elasticities (the elasticity of demand for gidgets with respect to the price of widgets and the elasticity of demand for widgets with respect to the price of gidgets) are positive multiples of one another; thus, the larger \( b \) is, the larger \( c \) is. In addition, the larger \( b \) and \( c \) are, the greater is the elasticity of substitution between gidgets and widgets. The derivatives of \( I \) and \( J \) with respect to \( b \) are as follows:
and gadgets, the greater will be the diversion of sales from gadgets to widgets as a result of the subsidy, and the greater will be the pressure on domestic producers to lower prices in order to reduce this diversion brought about by the decrease in the price of widgets.91

5. Market Share of Widgets

The market share of widgets is also related to the magnitude of the injury caused by the subsidy. The larger the market share of widgets, the greater the injury to the domestic gidget industry.92 The economic intuition behind this result is as follows. Since the elasticity of supply of widgets to the U.S. market is assumed constant, then for any given price for widgets, the percentage increase in widget exports caused by the subsidy will be independent of the market share held by widgets. However, although the percentage increase in widget sales is independent of market share, the absolute increase in widget sales as a result of the subsidy is greater the larger the share of the market held by widgets before the subsidy is given. Thus, the larger the market share of widgets, the greater the increase in widgets sold from a given subsidy; and the greater the increase in widgets from the

\[
\frac{dI}{db} = \ln(1+v)k(1+v)^2[(a+e)(d+f)+Mb^2]f > 0
\]

and

\[
\frac{dJ}{db} = \ln(1+v)k(1+v)^2[(a+e)(d+f)+Mb^2]ef > 0.
\]

91. This result is the opposite of the result in antitrust analysis, in which injury is more likely the more differentiated the goods are. See R. Posner, Antitrust Law 125-34 (1976). The reason for this difference is that antitrust law is concerned with injury to consumers from raising prices, whereas the antidumping and countervailing duty law is concerned with injury to competing domestic producers from reducing prices. Producers raise their prices more easily when their merchandise is differentiated in the eyes of consumers, whereas they maintain their prices with more difficulty when competing producers lower their prices and their merchandise is not differentiated in the eyes of consumers.

92. The derivatives are as follows:

\[
\frac{dI}{dM} = \ln(1+v)k(1+v)^2fb^3 > 0
\]

and

\[
\frac{dJ}{dM} = \ln(1+v)k(1+v)^2efb^3 > 0.
\]
subsidy, the greater the injury to the competing domestic industry.

6. Supply Elasticities

The supply elasticities are also related to the size of the injury to the domestic industry from the subsidy. The more elastic the supply of widgets to the United States, the greater the injury to the domestic industry producing gidgets from a given subsidy to widgets. The economic intuition behind this result is that the subsidy will increase imports by a larger amount the more elastic is the supply of imports to the United States. For gidgets, the relationship between the elasticity of supply of gidgets and the injury to the industry producing gidgets is ambiguous. The relative decline in the price of gidgets is larger the less elastic is the supply of gidgets, whereas the relative decline in the quantity of gidgets is larger the more elastic is the supply of gidgets. The intuition here is that the subsidy shifts the demand curve for gidgets and the more elastic the supply of gidgets the more this shift is translated into a reduction in output and the less it is translated into a reduction in price, and conversely.

7. The Role of the Factors in Inferring Injury

The discussion in the last few paragraphs does not apply only to hypothetical widgets and gidgets, nor are the relations likely to change if a more general model were used. The injury to any domestic industry from a subsidy to a competing imported product will depend on the size of the sub-

93. The derivatives are as follows:
\[
\frac{df}{d\beta} = 1 + \frac{v(1 + v)}{k(1 + v)^2(a + e)d - Mb^2}b > 0
\]
and
\[
\frac{df}{de} = 1 + \frac{v(1 + v)}{k(1 + v)^2(a + e)d - Mb^2}eb > 0.
\]

94. The derivatives are as follows:
\[
\frac{df}{de} = -1 + \frac{v(1 + v)}{k(1 + v)^2f(a + f)(d + f)} < 0
\]
and
\[
\frac{df}{de} = 1 + \frac{v(1 + v)}{k(1 + v)^2[a(d + f) - Mb^2]}fb > 0.
\]
sidy, the elasticity of demand for the like product, the elasticity of demand for the imported product, the elasticity of substitution between the like product and the imported product, the market shares of the two products, and the elasticities of supply of the two products to the U.S. market. In general, the injury to the domestic industry will be greater the larger the subsidy, the less elastic the demands for the like product and the imported product, the more substitutable the two products are, the larger the market share held by the imported product, and the more elastic the supply of the imported product.

The above discussion suggests a second method that the Commission can use to make its statutory determination. The Commission can make its determination by looking at the above factors, noting the size of the subsidy and the import penetration ratio, assessing the magnitudes for the various elasticities, and making a judgment as to whether the impact of the subsidy is large enough for it to have materially injured the domestic industry. These factors can also be used by the Commission to check its conclusions if it chooses to make mathematical estimates of the relative declines and by the parties to understand how strong or how weak a particular case is before the Commission makes its determination.

Finally, it must be emphasized that the Commission should use these factors to assist it in making a reasoned judgment about the impact of the subsidy on the price and quantity of the like product. These factors are not substitutes for the statutory factors. The statutory factors, which are mostly various effects that the unfair practice has had, are rarely directly observable. In most investigations, it will not be possible for the Commission to observe directly the de-

95. The same analysis with some modifications could be used if imports were the statutory cause. The only changes are that if imports are the statutory cause, the two factors that relate the effect of the unfair practice to the level of imports, the unfair trade margin and the elasticity of supply of imports to the United States, would not be used.

96. It should be emphasized that the two methods of implementing the economic approach, the mathematical equation and the factors, are not different approaches but different ways of implementing the same approach. Moreover, the factors were derived from the equations, such that the two methods are consistent.
clines in price, output, and employment that domestic producers suffer because of a subsidy. In those cases where the impact of the subsidy cannot be observed directly, the factors discussed in this section can be used to indirectly assess the effects that the statute requires the Commission to consider when it makes its determination. Thus, the economic approach to causation would not supplant the statute; rather, its use permits the Commission to fulfill its statutory obligation.

V. Justification of the Economic Approach to Injury

This section makes three broad arguments on the proper interpretation of Title VII: (1) that a single determination of injury and causation should be made; (2) that the causal factor is the unfair trade practice, and not the imports that benefit from the unfair trade practice; and (3) that the causal factor must materially injure the competing domestic industry. In order for the Commission to use the economic approach to injury suggested in this Article, these three interpretations must be reasonable interpretations of the law. As is shown below, there is authority for all three interpretations.

A. Material Injury—Unitary v. Bifurcated Approaches

Title VII directs the Commission to determine whether the domestic industry has been materially injured by reason of the unfairly traded imports. In making its determination, the Commission is to consider, in addition to any other factors it considers relevant, the quantity of the imports, the effect of the imports on prices, and the impact of the imports on the domestic industry. It is this last direction, to consider the impact on the domestic industry, that is usually cited by the Commission to justify its practice of bifurcating the injury and causation tests. Furthermore, the Commis-

97. It will be just as impossible for the Commission to observe directly the effects of the imports.
98. See supra notes 52-57 and accompanying text.
sion's bifurcated approach to material injury and its weak causation standard, which require(s) that the imports only contribute to the condition of the industry, are related.

The Commission has justified its use of a weak causation standard by the legislative directive that the imports be a cause of material injury, and not the cause. The Commission has justified its use of a weak causation standard by the legislative directive that the imports be a cause of material injury, and not the cause. Several commissioners have argued, and the Court of International Trade (CIT) has held, that by not requiring the imports to be the cause of material injury, Congress intended for the Commission to make an affirmative determination whenever the imports contribute to the state of the industry. The proponents of this position read the phrase "material injury" to modify the state of the domestic industry, not the effect of the unfair practice on the domestic industry, leaving no additional statutory guidance to describe the impact of the unfair practice. Thus, the CIT has reasoned that because material injury describes the state of the industry and the legislative history instructs the Commission not to compare the impact of the unfair imports with the impact of other causes, only the slightest impact by the imports is required to satisfy the causation requirement.

This interpretation, however, misconstrues the statutory language and the legislative history. Nowhere does the statute contain an injury test separate and apart from the causation test. Although the statute instructs the Commission to consider the impact of the unfair imports on the domestic industry, this does not mean that the Commission should inquire into the state of the industry independently of the effect of the imports. The statute only requires that the Commission determine whether the domestic industry has been


100. See H.R. REP. No. 317, 96th Cong., 1st Sess. 46-47 (1979); S. REP. No. 249, 96th Cong., 1st Sess. 57, reprinted in 1979 U.S. CODE CONG. & ADMIN. NEWS 381, 443 (the issue is not whether subsidized or less-than-fair-value "imports are the principal, a substantial, or a significant cause of material injury").


102. See British Steel, 593 F. Supp. at 413.
materially injured by reason of certain imports and that the Commission, in making this determination, should examine factors that indicate the health of the industry. Instructing the Commission to examine factors that relate to the health of the domestic industry does not mean that these factors should be looked at in a vacuum independently of the effect of the unfair trade practice, nor does it mean the Commission should make a determination whether or not the industry is healthy. Furthermore, requiring that the imports be a cause of material injury only implies that there can be other causes of material injury. When Congress directed the Commission not to weigh the injury from the imports against the impact of any other causes, 103 Congress was simply telling the Commission to determine whether the imports have caused material injury. It stretches both the statutory language and the legislative history to read the congressional directive that the Commission should not weigh causes to imply that the Commission should use a separate injury test and require only a small contributing effect. 104

Conceptually, a bifurcated approach makes no sense. Whether the domestic industry is doing well or not is not the issue; the issue is whether the domestic industry would be doing better but for the unfair practice. 105 A growing, highly profitable industry can be adversely affected by unfair imports as can a declining, unprofitable industry. 106


104. It is especially troublesome for the Commission to rely on legislative history that instructs it not to weigh causes to justify an approach in which the outcome of any investigation largely depends on other causes.

105. See Republic Steel Corp. v. United States, 591 F. Supp. 640, 649 (Ct. Int'l Trade 1984) (purpose of Commission investigation is not to determine whether the domestic industry is healthy but to determine what effect the imports have had on the domestic industry), vacated by American Lamb Co. v. United States, 785 F.2d 994 (Fed. Cir. 1986); but see American Spring Wire Corp. v. United States, 590 F. Supp. 1273, 1276 (Ct. Int'l Trade 1984) (the industry must be in a state of injury and the imports must be a cause of that injury), aff'd sub nom. Armco Inc. v. United States, 760 F.2d 249 (Fed. Cir. 1985).

106. There could be a policy reason for granting relief more easily to declining industries than to growing industries. Harm by unfair imports to a declining industry exacerbates the decline and produces more idle capital and more unemployed workers. If one assumes that adjustment
There is one more point to make about the bifurcated approach traditionally used by the Commission. Because an absolute standard for injury is coupled with a weak causation test, the Commission's determination might depend primarily on the state of the industry. The state of the industry, however, can depend on a multitude of factors that are unrelated to the unfair imports, such as exchange rate fluctuations or where the economy is in the current business cycle.\textsuperscript{107}

An examination of the case law does not require a different conclusion. \textit{American Spring Wire Corp. v. United States} \textsuperscript{108} is frequently cited as the leading case supporting the bifurcated approach.\textsuperscript{109} In \textit{American Spring Wire}, the CIT, in upholding a negative injury determination by the Commission, held that the Commission must find both injury and causation. The CIT reasoned that the statute requires both that the injury be material and that it be by reason of the imports. In other words, the Commission cannot make an affirmative determination unless there is both injury and causation. Therefore, the CIT concluded that it was proper for the Commission to base its negative determination on the absence of material costs are lower for firms that are expanding than for firms that are contracting, then, other things being equal, the harm to a declining industry from unfair imports in general will exceed the harm to a growing industry. This effect, however, can be taken into account when measuring the impact of the practice without bifurcating the determination.

There could be a political reason for granting relief only to declining industries. Congress may desire to protect workers and investors in declining industries but not workers and investors in growing industries, because their suffering, though not their injury from unfair trade practices, can be observed in declining industries, but neither their suffering nor their injury from unfair trade practices can be observed in growing industries. Such an approach to protecting domestic industries may be politically expedient, but the antidumping and countervailing duty laws would be a poor means of implementing such a policy, because the relief is unrelated to the suffering. However, there is no indication that this approach is what Congress intended when it passed the 1979 Act.

107. This problem is exacerbated by allowing the petitioner to choose when to file its petition. \textit{See} E. Easton, \textit{supra} note 56, at 19.
injury using a bifurcated approach.\textsuperscript{110} 

The CIT's reasoning is not persuasive. It makes no sense to read the statutory language "material injury . . . by reason of" to permit a bifurcated approach, because it would not be sufficient if the "by reason of" standard was met but the "material injury" standard was not.

Moreover, even by its own terms, the CIT's opinion in \textit{American Spring Wire} does not preclude a unitary approach. Certainly, there must be both injury and causation, and both the unitary and bifurcated approaches require injury and causation. The difference is that the unitary approach views "material injury . . . by reason of" as both effect and cause, whereas the bifurcated approach views "by reason of" as both effect and cause and material injury as a separate inquiry. Thus, with the unitary approach it is impossible to have injury without causation, or vice versa, but with the bifurcated approach it is possible to have only injury or causation. Consequently, the CIT's opinion upholding a determination that the CIT admits was not explicitly bifurcated\textsuperscript{111} should not be read to preclude a unitary approach on the grounds that the statute requires both injury and causation.

**B. The Statutory Cause—The Unfair Practice v. The Imports**

The statute requires that the domestic industry be materially injured "by reason of" dumped and subsidized imports. The commissioners who adhere to the traditional approach interpret this language to mean that the Commission should determine whether the imports, and not the unfair practice, have caused material injury to the domestic industry.\textsuperscript{112} The advocates of this position argue that the above

\textsuperscript{110} \textit{American Spring Wire}, 590 F. Supp. at 1276-77.

\textsuperscript{111} Id. at 1277.

statutory language is clear and unambiguous, and thus, resort to the legislative history is inappropriate; however, their arguments are unsound.

1. **Statutory Language**

The statute requires that the Commission determine whether the domestic industry is materially injured "by reason of imports of the merchandise with respect to which [the Commerce Department] has made an affirmative determination." Both the term "imports" and the phrase "by reason of" are ambiguous. For example, the term "imports" could refer to any of three classes of imports: (1) the additional imports that result from the dumping or subsidization; (2) the imports that the Commerce Department has found to be dumped or subsidized; or (3) the imports over which the Commerce Department calculates the weighted-average margin of dumping or subsidization, including those that were neither dumped nor subsidized.

The phrase "by reason of" is also ambiguous, as it could refer to either the full effect of the imports or the effect


As a matter of statutory interpretation, a statute clear and unambiguous on its face must be interpreted according to its facial meaning without resorting to the statute's legislative history. A statute that is not clear and unambiguous should only be interpreted after considering its legislative history. 2 A. Singer, SUTHERLAND STATUTORY CONSTRUCTION § 45.02 (4th ed. 1972).

114. It is interesting that some of the Commissioners who have argued that the phrase "by reason of" is clear and unambiguous have adopted the broadest and perhaps least obvious definition of imports. See, e.g., Heavy-Walled Rectangular Welded Pipes and Tubes from Canada, USITC Pub. 1808, Inv. No. 731-TA-254, at 27-28, 8 I.T.R.D. (BNA) at 1786-88 (Eckes, Comm'r, dissenting) (final) (Commission should consider neither the dumping margin nor the portion of imports found to be dumped).
of the imports through the dumping or subsidization. To see why the injury caused by the unfair practice is "by reason of" the imports, assume that the Lilliputian widget subsidy applies only to widgets from one region of Lilliput, so that only a portion of the widgets sold in the United States will benefit from the subsidy. However, because all widgets are identical, all will sell for a lower price in the United States as a result of the subsidy to some of them. Thus, a subsidy to some widgets affects U.S. gadget producers through all widgets, subsidized and unsubsidized. More generally, the effects of dumping and subsidization on the domestic industry are transmitted through both fairly and unfairly traded imports. Thus, when the unfair practice is the statutory cause, the injury is still "by reason of" the imports.

In addition, the language of the statute suggests that the causal factor is the unfair practice. Congress has provided the Commission with the following direction for making its determination of threat of material injury in countervailing duty investigations:

Nature of subsidy. In determining whether there is a threat of material injury, the Commission shall consider such information as may be presented to it by [the Commerce Department] as to the nature of the subsidy (particularly as to whether the subsidy is an export subsidy inconsistent with the Agreement) provided by a foreign country and the effects likely to be caused by the subsidy.115

In a Title VII case, if the causal factor is not the unfair practice, it is not clear why the likely effects of the subsidy would be relevant for a determination in a countervailing duty case. In addition, if Congress wanted the Commission to make its causation determination by assessing how much better off the domestic industry would be if all the imports under investigation were excluded from the U.S. market, Congress could have clearly told the Commission to do so. The statute, however, does not direct the Commission to ascertain whether the condition of the domestic industry would be materially improved if all the merchandise of the class or

kind that the Commerce Department has found to be unfairly traded were excluded from the U.S. market. Such a formulation would be unambiguous and would require the Commission to use an all-imports standard. Yet this is not how Congress drafted the statute, and it is inappropriate for the Commission to interpret it in this way based on the language of only one portion of the statute and without considering the legislative history.

2. Legislative History

The legislative history provides some guidance for what Congress meant by the phrase "by reason of imports of the merchandise with respect to which [the Commerce Department] has made an affirmative determination." On several occasions Congress instructed the Commission to examine the effect of the dumping or subsidy on the domestic industry. The Senate Report specifically directed the Commission to consider the effect of the dumping or subsidy:

[F]or one type of product, price may be the key factor in making a decision as to which product to purchase and a small price differential resulting from the amount of the subsidy or the margin of dumping can be decisive; for others, the size of the differential may be of lesser significance.\textsuperscript{116}

Moreover, in 1979, President Carter submitted a trade bill to Congress accompanied by Statements of Administrative Action describing how the proposed legislation was to be ad-


The following are additional examples of Congress' direction to the Commission to consider the effect of the unfair trade practice: "Section 705 [19 U.S.C. § 1671d] provides for final determinations on investigations by [Commerce] and the [Commission] on the question of whether or not imported merchandise is receiving a subsidy which is causing material injury to a domestic industry." H.R. REP. No. 317, 96th Cong., 1st Sess. 55 (1979). The Commission "considers, among other factors, . . . how the effects of the net bounty or grant relate to the injury, if any, to the domestic industry." S. REP. No. 249, 96th Cong., 1st Sess. 57, \textit{reprinted in} 1979 U.S. \textit{Code Cong.} \& \textit{Admin. News} 381, 443. "[T]he Commission must satisfy itself that, in light of all the information presented, there is a sufficient causal link between the subsidization and the requisite injury." \textit{Id.} at 58.
ministered. With respect to material injury, the Statements declared:

It is expected that in its investigation the Commission will continue to focus on the conditions of trade and development within the industry concerned. For one industry, an apparently small volume of imports may have a significant impact on the market; for another the same volume might not be significant. Similarly, for one type of product, price may be the key factor in determining sales elasticity, and a small price differential resulting from the amount of the subsidy or the margin of dumping can be decisive; in others the size of the margin may be of lesser significance.

The petitioner must demonstrate, and the Commission must satisfy itself that, in light of all the information presented, there is the requisite causal link between the subsidization or dumping and material injury.\textsuperscript{117}

Congress approved these Statements as submitted to it by the President as part of the 1979 Act.\textsuperscript{118} Thus, the language of the Statements and the legislative history of the 1979 Act strongly support the unfair practice interpretation.

It must be conceded that the legislative history speaks of the effects of the dumped or subsidized imports with about the same frequency that it speaks of the effects of the dumping or subsidization. For example, the House Report states: "In determining whether such injury is 'by reason of' such imports, the [Commission] looks at the effects of such imports on the domestic industry."\textsuperscript{119} However, it would be inappropriate to conclude that the legislative history is con-


\textsuperscript{118} \textit{Trade Agreements Act of 1979, § 2(a), 19 U.S.C. § 2503(a) (1982).}

tradictory and provides no indication of Congressional intent. The apparent shifting back and forth between the effects of the imports and the effects of the unfair practice suggests that Congress intended for the Commission to assess the effects of the imports through the unfair practice and that the phrase "by reason of the imports" means the effect of the imports through the unfair practice.

3. *The GATT*

Congress passed the Trade Agreements Act of 1979 in order to bring U.S. law into conformity with the international obligations of the United States. The language of the GATT agreements provides further support for the use of an unfair-practice standard. In addition, by adopting an all-import standard over an unfair-practice standard, the Commission has unnecessarily put the United States in violation of the GATT, since the GATT requires that the unfair practice be the cause of material injury before an antidumping or countervailing duty can be imposed. Article VI of the GATT, which covers antidumping and countervailing duties, contains the following language:

No contracting party shall levy an antidumping or countervailing duty on the importations of any product of the territory of another contracting party unless it determines that the effect of the dumping or subsidization, as the case may be, is such as to cause or threaten material injury to an established domestic industry, or is such as to retard materially the establishment of a domestic industry.

Thus, the Commission's practice is contrary to Article VI of the GATT.

The Codes support this interpretation of Title VII. The Codes contain language about the effects of the imports from which the language of Title VII was derived. For example, Article 6 of the Subsidies Code contains the following directions for making injury determinations:

1. A determination of injury for purposes of Article VI of the General Agreement shall involve an

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121. GATT, supra note 12, art. VI, § 5.
objective examination of both (a) the volume of subsidized imports and their effect on prices in the domestic market for like products and (b) the consequent impact of these imports on domestic producers of such products.

2. With regard to volume of subsidized imports the investigating authorities shall consider whether there has been a significant increase in subsidized imports, either in absolute terms or relative to production or consumption in the importing signatory. With regard to the effect of the subsidized imports on prices, the investigating authorities shall consider whether there has been a significant price undercutting by the subsidized imports as compared with the price of a like product of the importing signatory, or whether the effect of such imports is otherwise to depress prices to a significant degree or prevent price increases, which otherwise would have occurred, to a significant degree. No one or several of these factors can necessarily give decisive guidance.

3. The examination of the impact on the domestic industry concerned shall include an evaluation of all relevant economic factors and indices having a bearing on the state of the industry such as actual and potential decline in output, sales, market share, profits, productivity, return on investments, or utilization of capacity; factors affecting domestic prices; actual and potential negative effects on cash flow, inventories, employment, wages, growth, ability to raise capital or investment and, in the case of agriculture, whether there has been an increased burden on Government support programmes. This list is not exhaustive, nor can one or several of these factors necessarily give decisive guidance.122

The Subsidy Code then goes on to explain what is meant by the phrase “the impact of these imports” by requiring that

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122. Subsidies Code, supra note 13, art. VI, paras. 1-3 (footnotes omitted). See also Antidumping Code, supra note 14, art. III, paras. 1-3 (containing almost identical language).
the impact of the imports be through the effects of the unfair practice:

4. It must be demonstrated that the subsidized imports are, through the effects of the subsidy, causing injury within the meaning of this [Code]. There may be other factors which at the same time are injuring the domestic industry, and the injuries caused by other factors must not be attributed to the subsidized imports.

19. As set forth in paras. 2 and 3 of this Article.\textsuperscript{123}

The argument that the Subsidies Code does not require that the subsidy cause injury to the domestic industry rests on footnote 19 in paragraph 4. According to the proponents of this view, injury does not have to be caused by the subsidy because the effects of the subsidy are assessed by the impact of the imports.\textsuperscript{124} There are several problems with this interpretation of the Subsidies Code. First, this interpretation reads the phrase “through the effects of the subsidy” out of the Subsidies Code entirely. Second, footnote 19 only refers to certain factors to be considered in assessing the effects of the subsidy. These factors—increased imports, price undercutting by the imports, and price suppression—can all be traced to the subsidy. As discussed previously, the effects of the subsidy are transmitted to the domestic industry by means of the price and quantity of the imports. Thus, footnote 19, which says that the impact of the unfair practice requires consideration of the price and quantity of the imports, should not be read to require that the imports cause the injury.

When using the GATT Codes as an aid for interpreting Title VII, it is important to decide what weight should be given to the Codes. The Codes are not self-implementing, and the 1979 Act states that conflicts between U.S. law and

\textsuperscript{123} Subsidies Code, supra note 13, art. VI, para. 4 (footnote omitted). See also Antidumping Code, supra note 14, art. III, para. 4 (containing almost identical language).

\textsuperscript{124} See Easton & Perry, supra note 112, at 47-48 (arguing that footnote 4 of the Antidumping Code, supra note 14, art. III, para. 4, and footnote 19 of the Subsidies Code, supra note 13, art. VI, para. 4, which refer to language about the dumped and subsidized imports, indicate that the effects of the dumping or subsidy are assessed by the effects of the imports).
the Codes should be resolved in favor of U.S. law. Nevertheless, Congress enacted the 1979 Act to bring U.S. law into conformity with the Codes, and there is no indication in the legislative history that Congress was enacting a law so seriously at odds with the Codes.

4. Statutory Remedies

The applicable statutory remedies provide further support for the position that the Commission should concentrate on the effects of the unfair practice. The Title VII remedies do not eliminate the harm from the imports entirely, but only the harm from the unfair practice. The statute imposes a duty equal to the magnitude of the unfair practice, which is intended to raise the price of the imports, not eliminate them. Moreover, Congress has granted the Commerce Department the authority to settle a case by accepting an agreement to eliminate the dumping or subsidization and, in extraordinary circumstances, to accept agreements that only eliminate the resultant injurious effects. Thus, it is not necessary for an importer to cease importing entirely to settle a case.

5. Statutory Purposes

Intuitively, it makes no sense to use an all-import standard. The impact of the imports on the competing domestic producers is measured by the difference between the state the industry is in today and the state the industry would be in today if the unfairly-traded imports were excluded from the U.S. market. Only when there would be no imports but for the dumping or subsidy would the injury from the imports be as large as the injury from the unfair practice. There is, however, no suggestion that Title VII is intended to prevent imports. Title VII is aimed at two practices—dumping and subsidization, which Congress believes can injure domestic

127. But see infra notes 205-207 and accompanying text.
129. 19 U.S.C. §§ 1671c(b)-(c), 1673c(b)-(c) (1982).
producers. Therefore, for the purpose of the antidumping and countervailing duty laws, the Commission should carry out its statutory directive by assessing whether the dumping or the subsidy has materially injured the domestic industry, and not by inquiring into the full effect of the imports.\textsuperscript{130}

6. \textit{Case Law}

The CIT has stated that the Commission is neither required to use the unfair trade margin reported by the Commerce Department in its determinations, nor is it prohibited from doing so. In two recent cases, \textit{Copperweld Corp. v. United States}\textsuperscript{131} and \textit{Hyundai Pipe Co., Ltd. v. U.S. International Trade Commission},\textsuperscript{132} the CIT held that the Commission may, but need not, consider the unfair trade margin in assessing causation. In neither of these cases did the CIT rule that Congress intended for the Commission to determine whether the

\textsuperscript{130} It should be pointed out that the Commission in its review investigations examines the effect of the unfair trade practice. When reviewing an outstanding order, the Commission predicts how the producers that are covered by the outstanding antidumping or countervailing duty order would respond to the order's revocation. It then inquires whether the foreign producers' resulting lower prices and increased exports would materially injure the domestic producers. The Commission's use of this standard was upheld in \textit{American Permac, Inc. v. United States}, 831 F.2d 269, 271-72 (Fed. Cir. 1987). The Commission's approach to causation in review investigations is the mirror image of the economic approach. Consequently, the approach the Commission uses in its review investigations is inconsistent with the approach it traditionally uses in its final investigations. Thus, on the same facts the Commission could reach both an affirmative determination in a final antidumping or countervailing duty investigation and revoke the order in a review investigation. Such a result is possible when the imports hold a large share of the market and the margin of dumping or subsidization is small. In such a case, the imports will have a large effect on the domestic industry while the unfair practice will have a small effect.

Of course, the Commission's own procedures cannot take precedence over the statutory language enacted by Congress. \textit{See Cubanski v. Heckler}, 794 F.2d 540, 543-44 (9th Cir. 1986) (Kozinski, J., dissenting from rejection of suggestion for rehearing en banc). The lesson to be learned from the Commission's review investigations is that the unfair practice standard is intuitively appealing, whereas the alternative approach of looking at the effects of all imports is not.

\textsuperscript{131} 682 F. Supp. 552, 558-64 (Ct. Int'l Trade 1988).

\textsuperscript{132} 670 F. Supp. 357, 360 (Ct. Int'l Trade 1987).
unfair practice injured the domestic industry. Instead, the CIT reasoned that Title VII directs the Commission to consider certain specific factors, such as price suppression, in addition to other factors, and that the Commerce Department's unfair trade margins are such an other factor. Consequently, the reasoning underlying these decisions is faulty. The unfair trade margin is not one of the effects that the unfair practice or the imports have on the domestic industry. The answer to the question should the Commission consider the unfair practice depends on what the statutory cause is. The statutory cause is either the imports, in which case the margin should not be used, or the unfair practice, in which case it should be used.

On three occasions the CIT explicitly stated that the Commission is not required to consider the unfair trade practice. Although the CIT addressed the proper question in all of these cases—whether the imports or the unfair practice is the proper statutory cause—its reasoning is not persuasive. In the earliest of the three cases, the CIT merely stated in dicta that Title VII does not require that the subsidy cause injury. The second case, Maine Potato Council v. United States, was the first case to address, and reject, a claim that the Commission must determine whether the unfair practice has caused injury. The reasoning in Maine Potato Council is not convincing because the court's opinion ignores most authority. According to the CIT, the Commission had looked at the unfair trade margin in only one prior investigation. The opinion thus ignores a substantial prior practice by the Commission of looking at unfair trade margins.

135. It may be possible for the CIT to conclude that either interpretation of the statute is reasonable. Such a judgment, however, should not be made by treating margins as another factor but by concluding that either interpretation is a reasonable interpretation of what statutory cause is.
138. Cf. id. at 1242-43.
139. For a discussion of Commission investigations that consider unfair
The CIT also incorrectly claims that the legislative history of the 1979 Act was silent on the question of whether the Commission should look at the unfair trade margin. The only support for the CIT’s holding, other than deference to an agency’s interpretation, is a 1984 House colloquy discussing the rejection of an amendment, by a Congress subsequent to the one that enacted Title VII, that would have allowed the Commission to base its determination [solely] on the size of the unfair trade margin. The amendment was introduced to bolster an analytical framework called margins analysis, whereby the Commission would base its determination solely on the size of the unfair trade margin relative to the underselling margin. Congress’s refusal to endorse margins analysis, however, does not imply its endorsement of an all-imports standard.

Recently, in Alberta Pork Producers’ Marketing Board v. United States, the CIT reaffirmed its holding that the Commission is not required to determine that the subsidy injured the domestic industry. The CIT’s holding in Alberta Pork is based on three grounds: (1) the language of the statute, which does not require that the Commission find a causal connection between the subsidy and injury, (2) the CIT’s interpretation in Hyundai Pipe that the Subsidies Code does not require a causal connection between the subsidy and injury, and (3) the legislative history. The first two grounds are discussed above. The CIT’s argument with respect to the legislative history is that there is a sufficient link between the subsidization and the injury when the subsidized imports cause material injury.

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140. Maine Potato Council, 613 F. Supp. at 1243. For a discussion of the legislative history, see supra notes 115-116 and accompanying text.
143. Id. at 465.
144. Id. at 466. In both Hyundai Pipe and Alberta Pork the CIT argued that the Subsidies Code does not require that the unfair practice cause injury because of footnote 4 of the Subsidies Code. Cf. supra notes 120-126 and accompanying text.
146. Id.
cording to the CIT, the legislative history can be read to imply that it is sufficient if either the imports or the practice causes injury. Essentially, the CIT reads the legislative history to set up a two-prong test and to require that only one of the two prongs be met for the Commission to reach an affirmative determination. However, the effect of the imports is always at least as great as the effect of the unfair practice. Thus, such an interpretation of the legislative history renders irrelevant all references to the practice causing injury.

C. The Role of Economics in Assessing Causation

The statute requires causation: the unfair practice must cause injury. To satisfy this test there must be an actual connection, which is a question of economics. Congress did not have to require a causal connection. Congress could have passed a law requiring that an antidumping duty or countervailing duty be imposed wherever certain criteria were met. For example, Congress could have passed a law requiring that an antidumping or countervailing duty be im-

147. See supra text accompanying note 71.
posed if the Commerce Department finds that dumped or subsidized goods are being imported into the United States, and the Commission finds that the mean price of the imports is below the mean price of the domestic like product and that the market share of the imports has increased by at least 5 percentage points in the last 3 years. Congress, however, did not pass such a law, or any similar law, but passed instead a law requiring a causal connection. Once the statute is interpreted to require a causal connection, an interpretation apparently no one has contested, the Commission must perform an economic analysis to satisfy the statutory directive.

The importance of economic analysis in reaching economic conclusions was recently underscored by the Supreme Court in an antitrust case, *Matsushita Electric Industrial Co. v. Zenith Radio Corp.*, in which the Court held that the petitioners' claim of a conspiracy to monopolize the U.S. consumer electronics market through predatory pricing in violation of Section 1 of the Sherman Act could not survive a motion for summary judgment because the claim was implausible. In recognizing the important role that economic analysis plays in antitrust law, the Court stated:

It follows from these settled principles that if the factual context renders respondent's claim implausible—if the claim is one that simply makes no economic sense—respondents must come forward with more persuasive evidence to support their claim than would otherwise be necessary. [*First National Bank of Arizona v. Cities Service Co.*, 391 U.S. 253 (1968)] is instructive. The issue in that case was whether proof of the defendant's refusal to deal with the plaintiff supported an inference that the defendant willingly had joined an illegal boycott. Economic factors strongly suggested that the defendant had no motive to join the alleged conspiracy. The Court acknowledged that, in isolation, the defendant's refusal to deal might well have sufficed to create a triable issue. But the refusal to deal had to be evaluated in its factual context. Since the defendant lacked any rational motive to join the al-

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150. 475 U.S. 574 (1986).
leged boycott, and since its refusal to deal was consistent with the defendant's independent interest, the refusal to deal could not by itself support a finding of antitrust liability.\textsuperscript{151}

The legal importance of economic analysis to a case brought under the antidumping and countervailing duty laws, which directly call for an economic analysis, should be at least as great as that for a case brought under the Sherman Act, with its less specific directive.

Moreover, once the Commission embarks on an economic analysis of the impact of the unfairly traded imports, it must perform this analysis properly otherwise it would be acting arbitrarily and capriciously. As Judge Wald of the U.S. Court of Appeals for the District of Columbia Circuit has observed:

[W]hatever their differences over the soundness of particular policies, economists substantially agree on certain fundamentals of microeconomic theory. In the long run, supply must equal demand; in a competitive market, an efficient operator will earn a reasonable return on invested capital but no more; investors will seek to maximize profits; and so on. If, after [a] careful factual inquiry ... a judge determines that the agency's analysis is inconsistent with basic microeconomics and that the agency has not explained (perhaps because it has not noticed) the discrepancy, the judge may properly conclude that the agency action is arbitrary and capricious. This is not to say that an agency cannot reject the prevailing economic wisdom, but courts can properly insist that the agency do so consciously and explain why it chose to rely on an unorthodox theory.\textsuperscript{152}

The proposed economic approach to causation is the

\textsuperscript{151} Id. at 587.

\textsuperscript{152} Wald, supra note 11, at 51-52 (footnotes omitted). Judge Wald's statement addresses the standard of review a court should use in reviewing an agency's choice of policy. As Judge Wald admits, an agency has less discretion when the statute requires specific findings of certain economic facts. Id. at 49. As a consequence, an agency may never appropriately reject fundamental economic theory when it is making a finding of an economic fact.
proper way to assess causation because it phrases the question the Commission must address in every investigation in a way that is capable of satisfying the statutory standard and because it uses basic microeconomics to answer that question. The economic approach to causation is capable of determining whether the unfair practice has injured the domestic industry because it uses counterfactuals, assessing causation by comparing the state the industry is in now with the state the industry would be in but for the unfair practice. If the domestic industry would be materially better off but for the unfair practice, then the unfair practice has materially injured the domestic industry. In addition to posing the proper question, the economic approach can answer this question because it explicitly uses economic theory to estimate the economic impact of the unfair practice on the domestic industry.\(^{153}\)

In the last few years several commissioners have unfortunately tended to reject economic analysis in favor of a so-called examination of the facts.\(^{154}\) The Commission is required to make an economic inquiry about cause and effect. In any investigation, the parties present arguments to the Commission, marshal facts, and interpret these facts to support their positions. The critical step in any investigation is

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154. See, e.g., Sewn Cloth Headwear from the People's Republic of China, USITC Pub. 2096, Inv. No. 731-TA-405, at 17-38 (July 1988) (Eckes, Comm'r) (preliminary); Live Swine and Pork from Canada, USITC Pub. 2108, Inv. No. 701-TA-224, at 10-13 (Aug. 1988) (Rohr, Comm'r) (final, remand); Certain Ethyl Alcohol from Brazil, USITC Pub. 1818, Inv. Nos. 701-TA-239 and 731-TA-248, at 52, 8 I.T.R.D. (BNA) at 1949 (1986) (Eckes, Comm'r, dissenting) ("The statute is generally clear, and those of us charged with administering it have no business substituting academic fictions for the factual record and our own judgment.") (final); id. at 15 n.58 ("Commissioner Rohr disassociates himself from this analysis of elasticity. He has based his analysis on the actual facts of these investigations with respect to prices rather than what theory states might or should be occurring.").
Some theories or concepts must underlie this analysis, even if in aggregate they go by the name of common sense. The trouble, and cause for concern, is that an "examination of facts" and "common sense interpretations" often mask nonsensical assumptions and invalid concepts. As scientists and philosophers of science have long realized, a correct theory is of substantial practical value, whereas isolated facts or anecdotes are of little use:

The plain man—I do not think this is an overstatement—calls a "theory" anything he does not understand, especially if the conclusions it is used to support are distasteful to him. . . . It is only because he does not understand "theory" that the plain man is apt to compare it unfavorably with "practice," by which he means what he can understand. . . .

The practical man is apt to sneer at the theorist; but an examination of any of his most firmly-rooted prejudices would show at once that he himself is as much a theorist as the purest and most academic student; theory is a necessary instrument of thought in disentangling the amazingly complex re-


156. The response that the statute requires a legal conclusion that there is a causal connection rather than an economic conclusion begs the question. Title VII requires a causal connection, which is fundamentally an economic issue. To say, however, that a legal cause is a broader notion than an economic cause is inconsistent with the notion of causation. An analogy to tort law is instructive. In torts, with very few exceptions, the set of legal causes is a subset of the set of causes-in-fact. See W. Prosser, Law of Torts 236-41 (4th ed. 1971). By analogy, causation for the purposes of Title VII cannot extend beyond actual causation. To my knowledge, no one has suggested that Title VII does not require an actual causal connection.
lations of the external world. But while his theories are false because he never tests them properly, the theories of science are continually under constant test and only survive if they are true. It is the practical man and not the student of pure science who is guilty of relying on extravagant speculation, unchecked by comparison with solid fact. 157

As is shown in the next section, the traditional approach is based on theories that are inconsistent with basic microeconomics and that are without empirical support.

D. Summary

This section has advanced three broad arguments: (1) that the Commission should make a unitary determination; (2) that the unfair practice is the proper causal factor; and (3) that there must be a causal connection. There is authority supporting all three arguments. The first two are purely arguments of statutory interpretation. The authority supporting the first argument is overwhelming. There is no support for bifurcating the determination, and such an approach should never have been upheld on review. The second argument is more problematic. Although the unfair practice interpretation is the stronger, there is authority for both interpretations. Given the deference usually granted to an agency's interpretation of a statute it is charged with administering, a commissioner's choice of either causal factor should probably be upheld on review, as the CIT has done, albeit on questionable grounds. The crucial third argument, like the first two, concerns the interpretation of a statute. However, its ramifications extend beyond the statute and its interpretation. Since the statute requires a causal connection, the use of economic analysis to assess causation is a valid exercise of a commissioner's discretion.

VI. CRITICISM OF THE TRADITIONAL APPROACH TO CAUSATION

Because Congress has charged the Commission with interpreting Title VII, the CIT, in reviewing the Commission's opinions, will accord substantial weight to the Commission's interpretation of the statute. The Commission's interpretation will be upheld if it is sufficiently reasonable and not inconsistent with clear legislative intent. The Commission's interpretation need not be the best or the one that the court would have chosen, as long as it is reasonable. The Commission's finding that a particular domestic industry is or is not materially injured, however, will be upheld if it is supported by substantial evidence on the record. Moreover, for its determination to be upheld, the Commission must supply an analysis of how the factors it relied on support its determination. The Commission must articulate the rational connection between the factors it is relying on and its ultimate determination. Thus, to be properly upheld, the Commission's traditional analysis of causation must be consistent with basic microeconomic principles. If it is not, the Commission cannot be said to have provided a rational basis for its conclusion.

This section will demonstrate that the Commission's traditional three-factor analysis of causation is inconsistent


159. American Lamb, 785 F.2d at 1001.


with basic principles of elementary economic analysis. Moreover, the statutory language does not save the traditional analysis of causation. Thus, the traditional analysis should be struck down by the Commission’s reviewing courts.

A. Underselling

Underselling is the first factor on which the Commission traditionally relies. Underselling, which is considered to be evidence of causation, occurs when the mean price of the imported product is below the mean price of the domestic like product. The unstated assumption underlying the Commission’s analysis of underselling is that consumers facing a choice between two substitutes will always purchase the less expensive product. A simple comparison of market prices would be useful for assessing causation only if consumers behaved this way. But the Commission’s use of underselling is inconsistent with the notion of market equilibrium and with the observation that imperfect substitutes often sell for different prices. For two substitutes to sell in the same market at different prices, any differences in quality or in the terms of sale must equal the difference in the price of the two products for the marginal consumer. If this were not true, only one of the goods would sell in the market.

Commission investigations have involved many different kinds of products. In some cases there are important physical differences between the imported and domestic products, in other cases there are quality differences, and in still other cases there are differences in the terms of sale. Comparing the price of the imported product to the price of the dom-

164. If one assumes that the domestic like product is more expensive than the imported product such that there would be underselling, the purchasers of the imported product would be those who find the imported product to be the better value, while the purchasers of the domestic like product would be those who find the like product to be the better value.

national like product, without accounting for such differences, is meaningless. Admittedly, prices are important to the Commission's causation analysis. By reducing the relative price of the imported article, a subsidy will cause some consumers to shift to the imported product. It will also cause domestic producers to reduce the price of the competing domestic like product. Thus, a subsidy will cause both a reduction in the output of the competing domestic industry and a decline in the price of the like product. These effects, however, are wholly unrelated to which product undersells the other.

The Commission has attempted to justify its underselling analysis by relying on the statutory reference to price undercutting. As a matter of pure statutory interpretation, the traditional underselling analysis would be unobjectionable. The shortcoming is that the Commission has never explained how its use of underselling is helpful in assessing causation.

The Commission's traditional use of underselling is not saved by a provision in the Trade Bill that replaces the phrase "price undercutting" with the phrase "price underselling." The legislative history states that the statute was amended to make clear that evidence of predatory pricing is not required; there is no suggestion that Congress was approving any particular approach when it passed this amendment.

Congress provided little guidance as to what it meant by the phrase "significant price undercutting." On the other hand, Congress provided the Commission with substantial discretion to make its determinations. This discretion, however, is not unlimited. The Commission must assess whether there is injury by reason of the unfairly traded imports and not simply whether the imports undersell the domestic like product. Any consideration of underselling must assist the Commission in assessing causation. In addition,

166. Trade Bill, supra note 53, § 1328.
the Commission must articulate how the factors it relies on, including underselling, support its determination.\(^{170}\)

Two CIT cases involving underselling are informative. In *British Steel Corp. v. United States*,\(^ {171}\) plaintiff, British Steel, argued that the Commission failed to consider that the costs incurred by its customers because of long lead times offset the effect of British Steel's lower prices. The CIT held that the Commission's analysis was appropriate because the statute does not authorize the Commission to make adjustments for cost factors. In *Maine Potato Council v. United States*,\(^ {172}\) plaintiff, Maine Potato Council, argued that the Commission in reaching its negative determination did not account for the higher quality of Canadian potatoes in evaluating underselling, price suppression, and lost sales. In remanding the case, the CIT directed the Commission to take into account quality differences.\(^ {173}\) The two cases represent different approaches. *British Steel* is a mechanical approach to the factors listed by the statute. *Maine Potato Council* is a less mechanical, more analytical approach, but it does not go far enough.

More recently, in *Maverick Tube Corp. v. United States*,\(^ {174}\) the CIT, in upholding the negative determinations of two commissioners who adhered to the traditional approach, stated that it was proper for the commissioners "to go beyond merely identifying the presence of underselling to consider whether that underselling is significant in determining whether there is a causal nexus between imports and injury."\(^ {175}\) The CIT should take a hard look at the Commission's use of underselling. It should address the question whether a simple comparison of mean prices is probative of causation. Because such a simple comparison is not proof of causation, the CIT should reverse decisions that rely on simple comparisons because such comparisons are not in accordance with the law.

In dealing with underselling, the CIT should recognize that dumping and subsidization injure the domestic industry


\(^{173}\) *Id.* at 1246.


\(^{175}\) *Id.* at 1579.
by lowering the price of the imported product and that competing domestic producers will react to a lower price for the imported product either by lowering their prices or by making fewer sales, or both. That the average price of the imported product is below the average price of the domestic like product suggests that producers of the like product may not have responded to the unfair practice by lowering their prices. If domestic producers have not reduced their prices by as much as the importers have, they may be losing sales to imports because the unfair trade practice has resulted in a fall in the relative price of the imported article. If the Commission chooses to use underselling instead of directly addressing the question whether the unfair practice has led to a reduction in sales by the domestic industry, the CIT should require that the Commission still assess whether the domestic producers have actually had a reduction in sales because of a fall in the relative price of the imported product. The CIT should not allow the Commission to base an affirmative determination on the mere existence of underselling. Such an approach raises evidence of underselling from its proper role as a signpost in the investigation beyond the role of an indicium of injury to the level of the ultimate statutory finding.\textsuperscript{176}

In contrast to the above use of evidence of underselling, the Commission’s analysis of underselling is inconsistent with basic microeconomics. This inconsistency has been brought to its attention many times,\textsuperscript{177} yet the Commission

\textsuperscript{176}Worth noting is that the commissioners who use the traditional underselling analysis also advocate an all-imports standard, while those who are critical of the traditional use of underselling advocate an unfair-practice standard. Interestingly, the pricing of the imports is irrelevant if an all-imports standard is used. If the causal factor is the imports, then the question is how much better the domestic industry would be if the unfair imports were excluded. How any information about the price of the imports relative to the price of the like product would help to answer this question is unclear.

Alternatively, if the causal factor is the unfair trade practice, the proper question is how much better the domestic industry would be if the imports were fairly priced. In this case, because the counterfactual does not exclude the imports but simply raises their prices, information about the relative price of the imports would be useful. Consequently, the price of the imports is relevant when the unfair practice standard is used, but not when the all-imports standard is used.

\textsuperscript{177}See, e.g., Certain Welded Carbon Steel Pipes and Tubes from Thai-
continues to base its determination on the presence or absence of underselling, merely referring to the language on price undercutting. Such reliance on underselling should therefore amount to reversible error.

B. Lost Sales

The second factor that the Commission traditionally emphasizes is lost sales. The sales lost as a result of the unfair practice are an important element of the injury caused by the unfair practice. The total sales that would have been made but for the unfair practice are calculated by taking the difference between the reduction in domestic sales resulting from the decline in the price of the imports given the price of the like product and the increase in domestic sales resulting from the decline in the price of the like product. In addition, the number of lost sales cannot be greater than the additional imports resulting from the unfair practice.

To assess the number of lost sales through a survey would be extremely difficult. To make such an assessment, the Commission would have to obtain a random sample of purchasers and ask each purchaser the following question: Would you have purchased the imported product or the domestic like product if the price of the imported product were its unsubsidized price and the price of the like product were its fairly-traded price? Assuming that the two unobserved prices were known to the questioner when he asked the question and that the respondents’ answers were reliable, then the total sales lost as a result of the unfair practice could be calculated using the survey and current market-share data.


179. See supra notes 147-56 and 158-63, and accompanying text.
There is no reason to expect that the anecdotal lost sales information collected by the Commission should approximate the number of lost sales. One reason to be skeptical about the Commission's lost-sales data is that the Commission asks the wrong questions. It is not clear what it means when a consumer responds affirmatively to the question of whether price was an important consideration in choosing which product to purchase. An affirmative answer probably means that the goods are close substitutes, so the purchase decision can be affected by small changes in relative price. Whether two goods are close substitutes, however, is not the same as saying that a subsidy caused a consumer to shift his purchase from the domestic product to the imported product.\footnote{180}

There are two more reasons to be skeptical about the Commission's use of lost sales data. First, the Commission does not use proper sampling and statistical techniques.\footnote{181} Thus, there is no way to generalize from the Commission's sample about the entire market. Second, there are problems with using interviews to elicit how consumers really would have acted in the marketplace had different prices prevailed.\footnote{182}

The CIT does not require that the traditional lost-sales analysis be used. There is no statutory language that suggests that the Commission perform such an analysis,\footnote{183} and on several occasions the CIT has explicitly held that there is no such requirement.\footnote{184} In addition, the CIT has actually

\footnote{180. The Commission's traditional lost-sales analysis is even more troublesome in connection with an all-imports standard. When the imports are the causal factor, the proper question is how much better off the domestic industry would be if all the imports were excluded from the market. The reasons a consumer gave for purchasing the imported product would matter little to answer this question. Whether the consumer would buy the domestic article if the imported article were not available is the only relevant question.}

\footnote{181. See E. Easton, supra note 56, at 15.}

\footnote{182. See Jameson, supra note 67, at 534 (consumers have an economic incentive to say that their purchases were not lost sales because they are harmed by duties); E. Easton, supra note 56, at 25-26 (results of surveys sensitive to how interviewer phrases the questions).}

\footnote{183. See Gifford-Hill Cement Co. v. United States, 615 F. Supp. 577, 586 (Ct. Int'l Trade 1985).}

\footnote{184. See, e.g., Copperweld Corp. v. United States, 682 F. Supp. 552, 572}
been critical of the Commission's use of lost-sales data where fungible goods are involved, noting that in such an instance volume may be a better indicator of the sales actually lost. Thus, for the Commission's lost-sales analysis to be upheld, it must be rationally related to causation, which it is not. To the contrary, the Commission frequently has been apprised of the weaknesses of its lost-sales analysis. Yet the Commission continues to use this analysis. Consequently, the CIT should reject the Commission's traditional lost-sales analysis.

C. Trends and Correlations

The third factor that the Commission traditionally emphasizes is import trends. The Commission has looked for trends in the volume and market penetration of the imports under investigation and correlations between those trends and various indicia of the health of the industry. The existence of a trend in the quantity and market penetration of the imports over time is of questionable relevance. That imports are increasing says nothing about the effect of the unfair practice because imports may be increasing for a variety of reasons that have nothing to do with the unfair practice. Alternatively, treating the imports as the causal factor, it is not clear why the trend in imports, and not the level of imports,
would be relevant. For under this formulation of the statutory test, it is the imports and not the increase in imports that is the statutory cause.\(^{190}\)

The Commission's use of correlation analysis is also on a shaky foundation. Any decline in the fortunes of an industry over time can be attributable to a single unfair practice only if two conditions hold. First, the imports must not have been dumped or subsidized at the benchmark date. Second, since the benchmark date there must have been no changes other than the introduction of the dumping or the subsidy that have affected the industry. If these two conditions do not hold, there would be no reason to expect that any decline in the condition of the industry could be attributed to the unfair practice and not to any other cause. Unfortunately, the Commission looks for a correlation between imports and various indicia of the condition of the industry in just about every case, without any attempt to ensure that these two conditions are met.\(^{191}\)

When the Commission relies on correlation analysis to make its determination, there is a chance that it will make a negative determination even though the impact of the unfair practice is material, because the adverse impact of the unfair practice may be outweighed by the positive impact of other causes, such as a decline in input prices or an increase in demand. Alternatively, the Commission might make an affirmative determination even when the impact of the unfair practice is not material, because other causes may have had a materially adverse impact on the domestic industry. An additional problem with the use of import trends and correla-

\(^{190}\) Section 201 of the Trade Act of 1974 (19 U.S.C. §§ 2251-2253 (1982)), which implements the GATT Escape Clause, empowers the Commission to make a recommendation to the President for relief if an increase in imports is a substantial cause of serious injury to a competing domestic industry. Title VII, however, is concerned with dumping and subsidies, not increased imports.

\(^{191}\) Treating the imports as the causal factor, correlation analysis is appropriate only if there were, first, no imports at the benchmark date, and second, no changes affecting the domestic industry after the benchmark date that could be attributed to causes other than the imports. The first condition can be corrected by extrapolation if the level of imports at the benchmark date is known. The second condition, however, cannot be ignored, nor can it be corrected by simple extrapolation. It undermines any determination based on correlations, regardless of the causal factor.
tion analysis is that they implicitly assume that the domestic industry was not materially injured by reason of unfair imports at the benchmark date. For example, the industry might have been materially injured by reason of unfair imports at the benchmark date, and there might have been no change in the condition of the industry or the market penetration of the imports since that date. In such a case, the Commission should make an affirmative determination, but an examination of trends or correlation analysis would suggest otherwise.

The statute does not support the Commission's traditional use of trends and correlations. Although the statute suggests that the Commission look at various trends, this does not imply that a trend or correlation by itself is evidence of a causal connection. For the Commission's use of trends and correlations to be upheld, it still must be rationally related to causation. This it is not. The shortcomings of the Commission's analysis of trends have been brought to its attention, yet the Commission's reliance on trends continues. Consequently, the CIT should reject the Commission's traditional analysis of trends.

D. Summary

The Commission has traditionally emphasized three kinds of data in assessing causation, each one of which is based on economic misconceptions. The Commission's analysis of causation is thus seriously flawed, and its conclusions are probably often wrong. Moreover, the traditional approach cannot be saved by an appeal to the statutory language. Therefore, because the Commission's traditional approach to causation cannot assess the economic impact that either the unfair practice or the imports have had on the domestic industry, the Commissioners who use it do not have a proper base on which to render a judgment whether the domestic industry has been materially injured by reason of the


193. See supra notes 147-56 and 158-63, and accompanying text.

194. In addition to the conceptual problems with the Commission's causation analysis, there are serious problems with the data that the Commission collects and analyzes. For a critique of the Commission's data collection procedures, see E. Easton, supra note 56, at 14-26.
imports. Therefore, the traditional approach should be struck down by the Commission's reviewing courts.

VII. THE MEASUREMENT OF THE UNFAIR PRACTICE

Even if the Commission wanted to, it would be difficult for it to apply precisely the proposed economic approach to injury in every investigation. This is because there are substantial problems with the Commerce Department's measurement of the dumping and subsidy margins that would make it difficult to implement an analytically correct framework for determining injury. As calculated by the Commerce Department, the dumping and subsidy margins contain biases that generally, but not always, overestimate the size of the unfair practice. Therefore, if the Commission were to use the Commerce Department's calculations of the dumping and subsidy margins in its own investigations as estimates of the shifts in the import supply curves, the Commission would generally be led to overestimate the injury caused by the unfair practice. A discussion of the biases in the Commerce Department's calculation of subsidy and dumping margins follows.

A. Subsidy Margins

A subsidy injures competing domestic producers by driving down the import supply curve; the injury to U.S. producers from a subsidy depends, in part, on the size of this shift. The purpose of the countervailing duty law is to protect competing domestic producers from the adverse effects of the subsidy, and the impact of the subsidy depends not on the size of the subsidy but on the size of the shift in the import supply curve. Thus, the theoretically correct way to measure a subsidy is by the shift in the import supply curve...
curve.196 The Commerce Department, however, does not measure a subsidy by the shift in the import supply curve, but by the value of the subsidy to the recipient.197 In the case of a subsidy that is fully passed through, these two measures will be the same, but with other subsidies they will differ. For example, for a subsidy to a factor of production, which induces substitution in favor of that factor, the amount of the subsidy exceeds the shift in the import supply curve.198 For a nonrecurring subsidy, such as a loan guarantee, it would be very difficult to determine what, if any, effect the subsidy has had on the import supply curve. In such cases, Congress has directed that the Commerce Department allocate the value of the net subsidy over time on the basis of the commercial and competitive benefit to the recipient.199 Nonetheless, the value of the net subsidy, however allocated over time, may have no relation to the impact of the subsidy on the import supply curve.

There is a practical reason for measuring a subsidy by its value to the recipient. In many cases it would be very difficult for the Commerce Department to ascertain how the subsidy has affected the import supply curve. Such an assessment would be especially difficult with subsidized imports from countries where there is so close a relationship between government and industry that government policies are carried out through consensus and persuasion instead of through regulation and litigation. In such an instance, it would be difficult to know how the subsidy affected the recip-

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196. See Goetz, Granet & Schwartz, supra note 77, at 21-25. See also supra notes 39-40 and accompanying text.


198. Memorandum from Industry Economist, supra note 41, at 2-3. See also supra notes 40-41 and accompanying text.

ient's production and exports to the United States. In addition, such an approach would encourage foreign governments and producers to claim that the subsidy did not shift the recipient's excess supply curve to the United States, but instead was used to defray the recipient's fixed costs of production. In conclusion, other than for practical reasons of measurement, it is difficult to find a theoretical reason for measuring a subsidy by its size instead of by its effect on the import supply curve. Nonetheless, in spite of the logically weak foundation on which it is based, the Commerce Department measures a subsidy not by its effect on the import supply curve, but by its value to the recipient.

B. Dumping Margins

There are also substantial problems with the measurement of dumping margins. However, unlike with subsidies, where an analytically incorrect definition of the magnitude of the subsidy is called for by Congress, the calculation of dumping margins is filled with computational biases introduced by the Commerce Department that tend to increase the margins.

The statute and legislative history provide little guidance on how to measure dumping, thereby leaving the Commerce Department largely on its own. The method developed by the Commerce Department to calculate a dumping margin is as follows. The Commerce Department begins its calculation of the dumping margin with the foreign producer's cost of production. Sales at prices above the foreign producer's total cost of production are used to determine the fair value of the product, which is just the mean of

\[ \text{Fair Value} = \frac{\text{Sales at Prices Above Cost}}{\text{Sales Volume}} \]

The statute directs Commerce to exclude sales made at prices that would not permit the recovery of all costs within a reasonable time in the ordinary course of trade if such sales have been made over an extended period of time and in substantial quantities. 19 U.S.C. § 1677b(b) (1982); 19 C.F.R. § 353.51(a) (1989). If there are insufficient sales above the producer's full cost of production, then Commerce will calculate fair value by using third country sales or a constructed value. For a discussion of the different methods Commerce uses to calculate fair value, see Kaplan, Kamarack, & Parker, Cost Analysis Under the Antidumping Law, 3 G.W. J. Int'l L. & Econ. 357 (1988); Bryan & Boursereau, Antidumping Law in the European Communities and the United States: A Comparative Analysis, 18 J. Int'l L. & Econ. 631, 670-76 (1985).
such sales. Each individual U.S. sale is compared to this mean. Sales at prices below this mean are assessed an amount less than fair value ("LTFV"). Sales at prices above the mean are assessed an amount LTFV of zero. The mean value of the resulting LTFV amounts expressed as a percentage of the mean price of all U.S. sales constitutes the dumping margin.\textsuperscript{201} The dumping margin as so calculated overstates the amount of price discrimination between the exporter's home market and the U.S. market because of the exclusion of some home market sales and because of the unusual averaging technique.\textsuperscript{202}

Furthermore, putting to one side the computational difficulties in the calculation of dumping margins, injury to an industry caused by dumping remains very difficult to define. Unlike a subsidy, where there is generally a direct relationship between the size of the subsidy and the size of the injury, no such relationship exists between dumping and injury. Dumping, as previously described, most commonly takes the form of price discrimination,\textsuperscript{203} and a higher home-market price may have no effect on the competing U.S. industry.\textsuperscript{204} Even so, the statutory directive—that the Commission determine whether the domestic industry is injured by the dumping—requires that the Commission use some kind of injury test.

Title VII defines dumping as sales in the United States of merchandise at less than fair value. Fair value is the price in the home market of merchandise that is similar to the merchandise alleged to be dumped in the United States. Thus, one way for the Commission to carry out the Congressional directive would be to measure the injury from dumping by how much better off the domestic industry would be if the

\begin{footnotesize}
\begin{enumerate}
\item[201.] See Applebaum & Grace, \textit{supra} note 6, at 506; Sandler, \textit{supra} note 18, at 763-65.
\item[202.] Although Title VII authorizes Commerce to use statistically proper averaging and sampling techniques, Commerce has generally declined to use proper statistical techniques in its calculation of dumping margins. It has also mechanically excluded sales made at less than the cost of production from the calculation of foreign market value without properly considering product development cycles or demand cycles.
\item[203.] See \textit{supra} notes 19-31 and accompanying text.
\end{enumerate}
\end{footnotesize}
foreign producers were constrained to sell their product in the United States at the then prevailing fair value. Using such an injury test, and ignoring the Commerce Department's computational errors, is equivalent to asking how much better off the domestic industry would be if the U.S. price of the dumped imports were increased to eliminate the price discrimination.

It is worth noting that an antidumping duty may not entirely eliminate the effect of selling at less than fair value when the foreign producers under investigation are engaging in price discrimination. The remedy afforded by Title VII is an antidumping duty equal to the margin of dumping. 205 The amount of the duty is calculated at the end of the year for all of the sales made in the preceding year. 206 Thus, a foreign manufacturer can reduce the duty it will pay either by increasing its U.S. price or by decreasing its home-market price. In general, an antidumping duty will completely integrate the two markets and will cause each affected foreign producer engaging in price discrimination to raise its U.S. price and lower its home-market price. Each producer's resulting after-tariff price will lie between the producer's initial U.S. and home-market prices. Thus, the imposition of an antidumping duty will not cause the affected foreign producer to raise its U.S. price to the original "fair value," but to raise its U.S. price to a lesser amount and lower its home-market price to that same amount. Thus, a second way to measure the injury from dumping is by comparing the current state of the industry to the state the industry would be in if relief were granted and the U.S. and home markets were integrated. 207 When such an approach is used (and ignoring the statistical biases inherent in the Commerce Department's method of calculating dumping margins), the amount of

207. See Boltuck, supra note 26, at 48-50. This is the comparison that the Comparative Analysis of the Domestic Industry Condition or CADIC model makes. This model was developed by Richard Boltuck of the Commission's Office of Economics, and its results are reported to the Commission in every antidumping and countervailing duty investigation.
price discrimination will exceed the effect an antidumping duty would have on the U.S. price of the imported product.

C. Estimating the Effect of the Unfair Practice on the Import Supply Curve

In Section II.B., I said that this Article would concentrate on full pass-through subsidies because the proposed economic approach to causation works exactly only for such subsidies, assuming that the Commission is constrained to use the Commerce Department's calculation of the magnitude of the unfair practice for its estimate of the effect the unfair practice has had on the import supply curve. This is because only the Commerce Department's calculation of the size of such a subsidy is an economically correct calculation of the effect of the unfair practice on the import supply curve. Although the Commerce Department's calculation of a dumping or subsidy margin will be used to calculate any offsetting duty, it is less clear that the Commission is constrained to use the Commerce Department's margin calculation without modification in its injury determination as an estimate of the effect the unfair practice has had on the import supply curve. Historically, the Commission has been unwilling to modify the Commerce Department's calculations to estimate the effect of the unfair trade practice on the import supply curve. Even so, there are arguments to be made that the Commission should not blindly accept the Commerce Department's margins calculations as an estimate of the shift caused by the unfair trade practice.

Congress requires the Commission to assess the impact of the dumping or subsidy. To comply with this directive, the Commission will have to calculate the effect of the unfair practice on the import supply curve. Nowhere is the Commission told that it cannot make this calculation simply because a separate agency, the Commerce Department, must calculate the antidumping and countervailing duty margins.


209. See supra notes 116-119 and accompanying text.
To the contrary, the legislative history from the Customs Simplification Act of 1954 indicates that the antidumping injury determination was transferred from the Treasury, which at the time also calculated dumping margins, because such determinations were similar to those made by the Commission under another statute and because Treasury was not staffed to make such determinations.\textsuperscript{210} Moreover, Title VII provides that the Commerce Department is to make available to the Commission the information that it has gathered.\textsuperscript{211} If the Commission can calculate the effect the unfair practice has had on the import supply curve, then the ability of the Commission to carry out the proposed analysis would only be limited by the quality of the data, the attention and time given the matter, and the power of the available statistical and econometric techniques.\textsuperscript{212}

Although it may be argued that the Commission can, and perhaps should, in each case estimate the shift in the import supply curve, if the Commission is unwilling or unable to make this estimate itself, it should use the Commerce Department’s margin calculations as an estimate of this shift. Critics of the Commission’s use of margins argue, \textit{inter alia}, that the Commission should not consider margins at all since the Commerce Department’s calculations are wrong. These critics argue that the Commission should instead consider whether the imports and not the unfair trade practice has injured the domestic industry.\textsuperscript{213} Such an argument implicitly assumes that there would be no imports but for the unfair trade practice. However, estimating the shift of the import


\textsuperscript{211} 19 U.S.C. §§ 1671a(d), 1673a(d) (1982).

\textsuperscript{212} The argument that the Commission should look beyond Commerce’s margins and estimate the impact of the unfair practice on the import supply curve might be stronger for antidumping duty investigations than for countervailing duty investigations. The biases in Commerce’s dumping margins result from Commerce’s method of calculating the margins, whereas the biases in Commerce’s subsidy margins result from the method intended by Congress.

\textsuperscript{213} \textit{E.g.}, Heavy-Walled Rectangular Welded Carbon Steel Pipes and Tubes from Canada, USITC Pub. 1808, Inv. No. 731-TA-254, at 28-29, 8 I.T.R.D. (BNA) at 1786-87 (Eckes, Comm’r, dissenting) (final); Easton \& Perry, \textit{supra} note 112, at 39-47.
supply curve according to the Commerce Department's margins would be more accurate than simply assuming that but for the unfair trade practice there would have been no imports. Consequently, because the Commission should assess the impact of the unfair practice as best it can, given the constraints it faces, the Commission, if it is unwilling or unable to estimate the effect that the unfair practice has had on the import supply curve, should use the Commerce Department's calculations of margins as an estimate of this shift.

VIII. Conclusion

The antidumping and countervailing duty laws are aimed at two practices that Congress believes can injure domestic producers: dumping by foreign companies of merchandise in the United States and subsidies provided by foreign governments to producers that export merchandise to the United States. In enacting the antidumping and countervailing duty laws, Congress walked a narrow path between the interests of consumers, importers, and foreign producers on the one hand and domestic producers on the other hand. Congress neither chose to allow unrestricted importation of dumped and subsidized goods, nor did it choose to exclude all dumped and subsidized goods from the United States. Instead, Congress attempted to tailor a remedy to fit a definite perceived evil. In carrying out the congressional directive to grant relief to domestic producers who are injured, the Commission should determine whether the unfair practice has injured the domestic industry. In order to protect domestic producers from the effects of dumping and subsidization as Congress intended, it is unnecessary for the Commission to consider the full impact of the unfairly traded imports, yet alone the full impact of fairly and unfairly traded imports together. On the other hand, by requiring that the domestic industry be in an absolute state of injury, the Commission has added a requirement for relief that is not in the

215. See H.R. REP. No. 317, 96th Cong., 1st Sess. 46 (1979) (“[Title VII] is a remedy targeted at a specific type of injury caused by unfair import competition, and the Committee expects it to be administered in that context.”).
statute and that is inconsistent with the statute’s purpose of protecting competing domestic industries from the adverse effects of dumping and subsidies.

Furthermore, in order to grant relief to domestic industries that are injured by reason of dumped and subsidized imports (and only to such industries), the Commission must find a causal connection. Whatever causal factor the Commission uses when it makes its statutory determination, either the imports or the unfair practice, and regardless of whether the Commission also uses an absolute standard of injury, a causal connection must exist between the causal factor and the condition of the domestic industry. Causation is not a matter of statutory interpretation, as are the decisions whether or not to bifurcate the determination and what cause to consider, but is a matter of economics.\textsuperscript{216} The law requires causation, and this requires an economic analysis—an analysis that the Commission has traditionally refused to apply and that its reviewing courts have generally failed to require.

\textsuperscript{216} Questions of interpretation involving causation still remain. There are several, such as how much injury is required, who has the burden of proof, and how the Commission should measure injury. \textit{See, e.g., supra} notes 112-147 and accompanying text (argument that the unfair practice is the appropriate causal factor). The point is that once these and any other questions of interpretation are resolved, there remains a core economic question: is the Commission sufficiently sure that the appropriate causal factor has had a substantial enough adverse effect on the relevant parties?