Northwestern Journal of International Law & Business

Volume 25
Issue 1 *Fall*

Fall 2004

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Prakash Narayanan

INJURY INVESTIGATIONS IN "MATERIAL RETARDATION" ANTIDUMPING CASES

Prakash Narayanan[*]

I. INTRODUCTION

Antidumping measures have proven resilient to numerous objections raised by academics and economists,[1] and have entered into their centennial year in 2004.[2] Indeed, ever since the inclusion of trade remedy or administered protection measures in the General Agreement on Tariff and Trade ("GATT"),[3] the use of antidumping measures—which permit a country whose domestic industry has been injured by a sale of imported products at a price that undercuts the like domestic products to impose an additional duty—has increased in both developed and developing countries.[4] Imposition of antidumping duties requires the fulfillment of two criteria: (i) a positive finding of "dumping;" and (ii) a positive finding of

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[*] PhD candidate, LL.M., Osgoode Hall Law School, Toronto; B.A. LL.B. (Hons.), NLSIU, India; Student-at-law, Blake, Cassels & Graydon LLP, Toronto. This article is derived from the dissertation submitted as part of the requirements for the LL.M. The author would like to thank Prof. Robert S. Wai for his guidance and support, and the editors for their painstaking review. The author remains responsible for all errors and can be contacted at prakashnarayanan@osgoode.yorku.ca.

[1] *See, e.g.*, ANTIDUMPING: HOW IT WORKS AND WHO GETS HURT (J. Michael Finger ed., 1993); RAINER M. BIERWAGEN, GATT ARTICLE VI AND THE PROTECTIONIST BIAS IN ANTI-DUMPING LAWS (1990); RICHARD DALE, ANTI-DUMPING LAW IN A LIBERAL TRADE ORDER (1980); BARNARD HOEKMAN & MICHEL KOSTECKI, THE POLITICAL ECONOMY OF THE WORLD TRADING SYSTEM: THE WTO AND BEYOND (1995); MICHAEL J. TREBILCOCK & ROBERT HOWSE, THE REGULATION OF INTERNATIONAL TRADE (1995).

[2] Canada introduced the world's first antidumping legislation in 1904.

[3] Antidumping and Countervailing measures were introduced in Art. VI and Safeguard measures in Art. XIX of the General Agreement on Tariff and Trade, 1947. *See* General Agreement on Tariffs and Trade, Oct. 30, 1947, 61 Stat. A-11, T.I.A.S. 1700, 55 U.N.T.S. 194.

[4] *See* WTO Statistics on Anti-dumping, *at* http://www.wto.org/english/tratop_e/adp_e/adp_e.htm (last visited Oct. 27, 2004) (listing antidumping statistics under WTO and *Basic Instruments and Selected Documents (BISD)* Supplements for statistics under GATT).

injury. The injury finding can take the form of either a) "material injury;" b) "threat of material injury" to established domestic industry; or c) "material retardation" to the establishment of domestic industry.[5]

While numerous scholars have studied injury to domestic industry,[6] the material retardation standard of injury has been generally ignored, perhaps because there are very few international trade cases in which antidumping authorities rely on material retardation to impose antidumping duties.[7]

Recently, however, there has been an increased, though still numerically small, usage of the material retardation standard.[8] At first

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[5] Agreement on Implementation of Article VI of the General Agreement on Tariffs and Trade 1994, Dec. 15, 1993, Hein's No. KAV 3778, *available at* http://www.wto.org/english/docs_e/legal_e/19-adp.pdf [hereinafter Antidumping Agreement].

[6] Charles J. Goetz et al., *The Meaning of 'Subsidy' and 'Injury' in the Countervailing Duty Law*, 6 INT'L REV. L. & ECON. 17 (1986); John D. Greenwald, *U.S. Antidumping and Countervailing Duty Laws: Material Injury*, 29 FED. B. NEWS & J. 38 (1982); Paul W. Jameson, *Recent International Trade Commission Practice Regarding the Material Injury Standard: A Critique*, 18 LAW & POL'Y INT'L BUS. 517 (1986); Edwin J. Madaj, *Agency Investigation: Adjudication or Rulemaking?—The ITC's Material Injury Determinations Under the Antidumping and Countervailing Duty Laws*, 15 N.C. J. INT'L L. & COM. REG. 441 (1990); M. Stuart Madden, *The Threat of Material Injury Standard in Countervailing Duty Enforcement*, 16 LAW & POL'Y INT'L BUS. 373 (1984); Tracy Murray & Donald J. Rousslang, *A Method for Estimating Injury Caused by Unfair Trade Practices*, 9 INT'L REV. L. & ECON. 149 (1989); Robert S. Pindyck & Julio Rotemberg, *Are Imports to Blame? Attribution of Injury Under the 1974 Trade Act*, 30 J.L. & ECON. 101 (1987); Edwin A. Vermulst, *Injury Determinations in Antidumping Investigations in the United States and the European Community*, 7 N.Y.L. SCH. J. INT'L & COMP. L. 301 (1986); A. Paul Victor, *Injury Determinations by the United States International Trade Commission in Antidumping and Countervailing Duty Proceedings*, 16 N.Y.U. J. INT'L L. & POL. 749 (1984); Note, *An Analysis of "Material Injury" Under the 1979 Trade Agreements Act*, 4 LOY. L.A. INT'L & COMP. L. REV. 87 (1981); Note, *ITC Injury Determination in Countervailing Duty Investigations*, 15 LAW & POL'Y INT'L BUS. 987 (1983).

[7] For data up to 1993 in the United States, *see* Dong Woo Seo, *Material Retardation Standard in the U.S. Antidumping Law*, 24 LAW & POL'Y INT'L BUS. 835 (1993).

[8] WTO members are not required to identify which injury standard an antidumping measure was based upon in their semi-annual antidumping reports. From a study of some developed country and developing country frequent users of antidumping measures in recent years (1995-2002), *i.e.*, Argentina, Brazil, Canada, the European Union, India, the United States, only India appears to have invoked the standard under the WTO regime. India has invoked the standard three times: in *D (-) Para Hydroxy Phenyl Glycine Methyl Potassium Dane Salt Originating from China PR and Singapore,* Gazette of India (Extraordinary), Part I, Section I, June 24, 2003; in *D (-) Para Hydroxy Phenyl Glycine Base (PHPG Base) from EC,* Gazette of India (Extraordinary), Part I, Section I, Mar. 7, 2003; and in *Fused Magnesia Originating in, or Exported from, the People's Republic of China,* Gazette of India (Extraordinary), Part I, Section I, Feb. 2, 1999. In addition, a preliminary determination has been issued in *D (-) Para Hydroxy Phenyl Glycine Base (PHPG Base) from China PR and Singapore*, Gazette of India (Extraordinary), Part I, Section I, 31 December 2001. In all the cases except *Fused Magnesia*, the antidumping authority found material retardation to the establishment of domestic industry in conjunction with material injury and threat of material injury to established domestic industry. The legal issues raised by such conjunction are

glance, the standard appears to be more suitable for invocation by developing countries because these countries are more likely to be heavily reliant on imported products, therefore increasing the possibility of dumping. If this use of antidumping measures is indicative of a trend, the material retardation standard might find increased popularity with developing countries, which are currently more prolific users of antidumping than developed countries.[9] The material retardation standard is the subject of only limited elaboration in the Antidumping Agreement,[10] which is echoed in the domestic legislation passed to implement the Antidumping Agreement commitments.

The United States International Trade Commission ("USITC") is the authority in the United States in charge of making domestic industry injury determinations. It has adopted different approaches when examining whether the domestic industry has suffered one of the three possible kinds of injury.[11] Examining the approaches adopted by the USITC illustrates the various factors antidumping authorities consider relevant in identifying injury. Economic and non-economic approaches to injury analysis have previously been well evaluated.[12] However, here too the material retardation standard has been ignored or excluded.[13] This article examines

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beyond the scope of this article, though a subject of another study by the author.

[9] In the period from 1995 to 2002, developing countries initiated 1144 investigations while developed countries initiated 819. *See* J. Michael Finger & Andrei Zlate, *WTO Rules That Allow New Trade Restrictions: The Public Interest is a Bastard Child* (Apr. 16, 2003), *at* http://www.fordschool.umich.edu/rsie/acit/TopicsDocuments/Finger030421.pdf.

[10] Antidumping Agreement; Summary of Agreement on Implementation of Article VI of the General Agreement on Tariffs and Trade 1994, *available at* http://www.wto.org/English/tratop_e/adp_e/antidum2_e.htm (last visited Mar. 17, 2004). In n.9 of the Antidumping Agreement, the sole specific reference to material retardation is: "Under this Agreement the term 'injury' shall, unless otherwise specified, be taken to mean material injury to a domestic industry, threat of material injury to a domestic industry or material retardation of the establishment of such an industry and shall be interpreted in accordance with the provisions of this Article."

[11] *See* Seth Kaplan, *Injury and Causation in USIC Antidumping Determinations: Five Recent Approaches, in* POL'Y IMPLICATIONS OF ANTIDUMPING MEASURES 143 (P.M. Tharakan ed., 1991).

[12] *Id.*; Richard D. Boltuck, *An Economic Analysis of Dumping*, 21 J. WORLD TRADE 45 (1987); James R. Cannon, Jr., *Material Injury and the Business Cycle in Antidumping and Countervailing Duty Cases*, 14 B.C. INT'L & COMP. L. REV. 53 (1991); W.K. Hastings, *International Trade And Material Injury: An Economic and Comparative Study of Anti-Dumping Legislation*, 16 VICTORIA U. WELLINGTON L. REV. 213 (1986); Michael S. Knoll, *An Economic Approach to the Determination of Injury Under United States Antidumping and Countervailing Duty Law*, 22 N.Y.U. J. INT'L L. & POL. 37 (1989); Murray & Rousslang, *supra* note 6; Alan O. Sykes, *The Economics of Injury in Antidumping and Countervailing Duty Cases*, 16 INT'L REV. L. & ECON. 5 (1996); M.K. Suhrada, *Determining Causation: The Applicability of "Elasticity Analysis" to Injury Determinations by the International Trade Commission*, 56 ALB. L. REV. 979 (1993).

[13] *See, e.g.*, Alan O. Sykes, *The Economics of 'Injury' in Antidumping and*

the various stages in determining the existence of "material retardation." Section II briefly describes the analysis conducted by authorities investigating an antidumping dispute. Section III examines the "non-establishment of a domestic industry" criterion, a required element for the application of the material retardation standard. Section IV discusses WTO jurisprudence relating to determining "material injury" and "threat of material" and how such jurisprudence bears on the material retardation standard. Section V discusses the causal link between the injury and the dumped imports. Section VI describes the different approaches to injury analysis that may be adopted by antidumping authorities. Section VII examines the suitability of these approaches to material retardation and finds that the unitary approach provides many advantages. The subsequent section examines empirical data relating to the use of the unitary approach in material retardation cases. Finally, the conclusion summarizes the arguments in the article and contends that the material retardation standard deserves closer scrutiny, as there is a possibility of its excessive use without sufficient safeguards.

II. STAGES IN AN ANTIDUMPING INVESTIGATION

In all antidumping cases, the first stage of analysis is to determine whether the imported product under investigation is being dumped. The Antidumping Agreement is part of the WTO package of agreements to which all WTO member nations are held accountable. The Antidumping Agreement sets forth the criteria for a factual finding that dumping has occurred.[14] While some countries have separate procedural bodies to determine dumping and to determine injury,[15] others have a single authority that performs both tasks.[16] In some countries where different bodies perform the dumping and injury investigations, the investigations are typically conducted simultaneously. However, in other such countries, the investigation into injury to domestic commerce begins only after a positive determination of dumping has been reached.[17]

The second aspect of an antidumping investigation is determining whether injury has been caused to the "domestic industry"[18] by virtue of the

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Countervailing Duty Cases, in ECONOMIC DIMENSIONS IN INTERNATIONAL LAW 88 n.12 (Jagdeep S. Bhandari and Alan O. Sykes eds., 1997).

[14] Antidumping Agreement, *supra* note 10, Art. 2.

[15] E.g., the United States and Canada.

[16] E.g., Argentina, Brazil, the European Union and India.

[17] In countries with a separate injury investigation authority, once the authority examining dumping reaches a negative result, the entire antidumping investigation stops.

[18] Art. 4 of the Antidumping Agreement defines "domestic industry" as a major proportion of the domestic producers of the "like products." Arts. 2.1 and 2.6 clarify that "like product" refers to products that are either identical or closely resembling the product that is alleged to have been dumped.

dumping. When examining the existence and extent of the injury to domestic industry, authorities must initially determine which of the following categories is relevant: "material injury to domestic industry;" "threat of material injury to domestic industry;" or "material retardation to the establishment of domestic industry." If the third category is used, the authority must also determine whether the industry is "established," as the material retardation standard is only relevant to unestablished industries. Next, the authority must examine whether the unestablished industry is being materially retarded. If the finding is positive, there has been an injury to domestic industry.

III. DETERMINING "ESTABLISHMENT" OF A DOMESTIC INDUSTRY

To determine whether the effects of dumping fall within the material retardation category, an authority must look to whether the industry is "established."[19] Before the material retardation standard was incorporated into U.S. domestic law, the equivalent terminology was "prevention of establishment of domestic industry." Under the United States Tariff Act, the USITC categorized "unestablished" industries as either "embryonic," i.e., industries that have not commenced production, or "nascent," i.e., industries that have commenced production but have not stabilized.[20] The USITC carried over the embryonic versus nascent distinction into the material retardation standard, even when the United States Trade Agreements Act of 1979 replaced "prevention of establishment" with "material retardation in the establishment of domestic industry" in accordance with the Antidumping Agreement.[21] Thus, an industry may be unestablished and obtain antidumping protection under the material retardation standard of injury when it has not commenced production or even if it has commenced production but not yet stabilized its operations.[22]

The USITC has further clarified that, to obtain protection, an embryonic industry must not only be unestablished, but also show a "substantial commitment to commence production."[23] By imposing this

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[19] Established industries may seek protection under either the material injury or threat of material injury standards. *See, Korea – Anti-Dumping Duties On Imports Of Polyacetal Resins From The United States*, ADP/92, 1993 GATTPD LEXIS 10 (Apr. 2, 1993) (unpublished GATT panel report).

[20] Certain Ultra-Microtome Freezing Attachments, USITC Pub. 771, Inv. No. 337-TA-10 (Apr. 1976) (final).

[21] Salmon Gill Fish Netting of Manmade Fibers from Japan, USITC Pub. 1234, Inv. No. 751-TA-5 (Mar. 1982) (final).

[22] BMT Commodity Corp. v. United States, 11 Ct. Int'l Trade 524, 525-26 (1987), *aff'd*, 825 F.2d 1285 (Fed. Cir. 1988).

[23] *See*, Motorcycle Batteries from Taiwan, USITC Pub. 1228, Inv. No. 731-TA-42, at 11-12 (Mar. 1982) (final determination); *see also*, Dong Woo Seo, *Material Retardation*

requirement, the USITC aimed to avoid a situation in which any vaguely stated intent to undertake production in a domestic industry would receive antidumping protection based on material retardation.[24] Whether an industry has made the required "substantial commitment" must be considered on a case-by-case basis.[25]

With regard to nascent industries, the following factors are used to determine whether production has stabilized: when the industry began production;[26] the nature of the production, i.e., whether it has been erratic or continuous;[27] the size of production relative to size of the domestic market;[28] and whether the break-even point has been reached.[29] In addition, factors such as level of sales, levels of production, capacity utilization and extent of distribution network may provide indications of the degree of industry stabilization.[30] Authorities in foreign countries appear to have also adopted this "substantial commitment" test.

Once the authority determines that the industry is unestablished by virtue of being in a pre-production phase or by being unstable, it proceeds to examine whether material retardation has occurred. Because this is essentially an examination of whether injury has been caused to the domestic industry, Article 3 of the Antidumping Agreement is implicated.

Standard in the U.S. Antidumping Law, 24 LAW & POL'Y INT'L BUS. 835, 913 (1993).

[24] Thin Sheet Glass from Switzerland, Belgium, and the Federal Republic of Germany, USITC Pub. 1376, Inv. Nos. 731-TA-127, 128 and 129 (May 1983) (prelim.).

[25] *BMT Commodity Corp.*, 11 Ct. Int'l Trade at 525-26.

[26] The longer the industry has been in production, the more likely it is that it will be considered established. Certain Dried Salted Codfish from Canada, USITC Pub. 1571, Inv. No. 731-TA-199 (Sept. 1984) (prelim.).

[27] If the production has been steadily increasing and not erratic, it is likely that the industry is established. Lime Oil from Peru, USITC Pub. 1723, Inv. No. 303-TA-16 (July 1985) (prelim.).

[28] If the domestic production is able to meet a large proportion of the domestic demand for the product, the industry will likely be considered established. Pressure Sensitive PVC Battery Covers from West Germany, USITC Pub. 2265, Inv. No. 731-TA-452 (Mar. 1990) (prelim.).

[29] If an industry has absorbed its start-up costs and started to become profitable, it is generally considered to have stabilized its production and become established. Certain All-Terrain Vehicles from Japan, USITC Pub. 2163, Inv. No. 731-TA-388 (March 1989) (final). *But see* Certain Dried Salted Codfish from Canada, *supra* note 26.

[30] In the European Union, *see*, Imports of Certain Types of Electronic Microcircuits known as DRAMS, Commission Regulation (EEC) No. 165/90 of 23 January 1990 (prelim.). In Canada, *see*, *Stainless Steel Plate*, Inquiry No. ADT-18-82, [1983] C.I.T. No. 6 (final).

IV. INJURY DETERMINATIONS UNDER A "MATERIAL RETARDATION" THEORY

A. Injury in General

Article 3 of the Antidumping Agreement lists the general factors used to determine whether an industry has suffered injury.[31] A determination of injury must be based on positive evidence, and an objective examination of:

1. The volume of the dumped imports – comprising of an examination of whether there has been a significant increase in dumped imports, either in absolute terms or relative to production or consumption in the importing Member.
2. The effect of the dumped imports on the prices of like products in the domestic market – comprising of an examination of whether there has been significant price undercutting by the dumped imports, compared with the price of a like product of the importing Member, 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.
3. The impact of the imports on the domestic producers of like products – including an evaluation of all relevant economic factors and indices that bear on the state of the industry, including the actual and potential decline in sales, profits, output, market share, productivity, return on investments, or utilization of capacity; factors affecting domestic prices; the magnitude of the margin of dumping; actual and potential negative effects on cash flow, inventories, employment, wages, growth, ability to raise capital or investments.[32]

The injury determination is not confined to consideration of the above factors alone.[33] Domestic antidumping authorities of WTO member countries are required to examine, at a minimum, all the factors enumerated in Article 3 of the Antidumping Agreement, and must incorporate these factors into their domestic antidumping laws.[34] While the above factors

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[31] As mentioned previously, fn. 9 to Article 3 of the Agreement, *supra* note 10, states that "injury" encompasses all three standards.

[32] Antidumping Agreement, Arts. 3.1, 3.2 & 3.4

[33] For an analysis of the USITC practice in using these factors, *see, e.g.*, Jameson, *supra* note 6; David N. Palmeter, *Injury Determinations in Antidumping and Countervailing Duty Cases – A Commentary on U.S. Practice*, 21 J. WORLD TRADE 7 (1987). For a comparative analysis of USITC and EC usage of the factors, *see* Vermulst, *supra* note 6.

[34] For WTO Appellate Body decisions, *see* Mexico—High Fructose Corn Syrup from the United States, WT/DS132/AB/RW (Oct. 22, 2001); Thailand—Anti-Dumping Duties on Angles, Shapes and Sections of Iron or Non-Alloy Steel and H-beams from Poland, WT/DS122/AB/R (Mar. 12, 2001). For some of the criticisms, *see* Konstantinos Adamantopoulos & Diego De Notaris, *The Future of the WTO and the Reform of the Anti-*

have been criticized for insufficiently capturing the effect of imports on the domestic industry,[35] WTO members are required to incorporate them in their domestic antidumping laws.

The Uruguay Round of WTO negotiations included an additional set of economic factors to be considered particularly in "threat of material injury" cases:[36]

1. A significant rate of increase of dumped imports indicating the likelihood of a substantial increase in future importation.
2. Availability of production capacity or potential to increase capacity of the exporter, indicating the likelihood of increased dumped exports.
3. Imports entering at prices that will have significant depressing or suppressing effects on domestic prices, resulting in a likelihood of increased domestic demand for dumped imports.
4. Existence of inventories of the dumped imports that could meet any increase or future demand for the imports.

Under the material retardation standard, there is no such separate elaboration of factors. Based on footnote 9 to Article 3, authorities must therefore rely on the factors in Articles 3.1 to 3.4, enumerated above.[37] However, the two factors appearing in Article 3.1—volume of dumped imports and impact of the imports on domestic products—are not well suited for material retardation situations. Data on these factors is only reliably available in cases where the allegedly injured domestic industry has been involved in production for a significant period of time and has succeeded in stabilizing its production operations.

B. The Difficulty of Ascertaining "Material Retardation" to a Nascent Industry

In material injury determinations, the economic indicators of the domestic industry examined, per Article 3, gauge the level of stabilization

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Dumping Agreement: A Legal Perspective, 24 FORDHAM INT'L L.J. 30 (2000); Kwaku E. Andoh, *Countervailing Duties in a Not Quite Perfect World: An Economic Analysis*, 44 STAN. L. REV. 1515 (1992); William D. DeGrandis, *Proving Causation in Antidumping Cases*, 20 INT'L LAW 563 (1986); Alan O. Sykes, *Countervailing Duty Law: An Economic Perspective*, 89 COLUM. L. REV. 199 (1989).

[35] *See, e.g.*, Adamantopoulos & De Notaris, *supra* note 34; Andoh, *supra* note 34; DeGrandis, *supra* note 34; Sykes, *supra* note 34.

[36] Antidumping Agreement, Art. 3.7. In Mexico—High Fructose Corn Syrup from the U.S., WT/DS132/R (Jan. 28, 2000), the WTO panel held that the Article 3.7 factors are in addition to those in Article 3.4, and therefore must still be considered by the domestic antidumping authority.

[37] *See supra*, note 32.

an industry has reached in terms of its operations and the length of time over which like products have been produced in the industry. Stabilization of operations, according to the USITC, occurs when the industry reaches break-even point,[38] i.e., when the firm's short-run total revenue equals its short-run total cost,[39] taken in conjunction with other factors such as market share, capacity utilization, and establishment of product distribution channels. The economic indicators mentioned in Article 3 measure the injury caused to a domestic industry that has already reached a significant level of stabilization in its operations, and has been operating for a significant period.

In contrast, in material retardation investigations, collecting data on the economic factors mentioned in Article 3.1 may be appropriate and indeed possible only in a limited number of investigations. In material retardation investigations involving a nascent industry, such data may be obtainable only if the industry has been in production for at least a brief period of time. This data, therefore, frequently fails to provide a sufficient basis for accurate analysis of material retardation to domestic industry.

First, the dumping of the imports may have begun prior to the commencement of production by the domestic industry, and continued on after the production began. In that case, the economic indicators mentioned in Article 3 would provide an inaccurate description of the status of the domestic industry, as the dumped imports would have adversely affected the industry's performance in terms of lower price, capacity utilization, production, and so on, before the economic indicators could be measured. Indeed, any projections the industry's promoters made—data that the antidumping authority has in previous cases relied on,[40] may have been altered prior to production but subsequent to dumping. Second, dumping of the imports may have begun only subsequent to commencement of production by the domestic industry. While an examination of the economic indicators may demonstrate that *injury* is being caused to the nascent domestic industry, it does not reflect the *retardation* that may be being caused due to the dumped imports. The USITC has itself observed (in a case involving a nascent domestic industry) that factors relevant to a causation analysis, such as volume and market penetration of imports, can be misleading when considering material retardation cases.[41] The short period of time for which the industry has been in operation generates data that is less likely to be accurate or sufficiently descriptive of the state of the

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[38] Pressure Sensitive PVC Battery Covers from West Germany, *supra* note 28.

[39] Biz/ed Glossary of Economic Terms, *at* http://www.bized.ac.uk/glossary/econglos.htm (last visited Sept. 23, 2004).

[40] Certain Copier Toner from Japan, USITC Pub. No. 1960, Inv. No. 731-TA-373 (Mar. 1987) (prelim.).

[41] *Id.*

industry.

Attempting to overcome this drawback, the USITC, in a case involving a nascent industry, obtained data such as domestic sales, lost sales, capacity utilization, and employment levels of the domestic industry that had just commenced production of the like product.[42] This data was compared with the projected figures in the feasibility study prepared by the industry promoter prior to actual commencement of production. In another case involving a nascent industry, the USITC examined whether the performance of the industry reflected normal start-up conditions and considered economic indicators such as total shipments, inventories of the good, and financial performance.[43]

C. The Corresponding Challenge of Proving Injury to Embryonic Industries

In cases involving an embryonic industry, the economic indicators specified in the Antidumping Agreement will be largely inapposite. There are no mature economic indicators to measure. Data on factors such as sales, sale price, capacity utilization, employment of workers, or wages paid, if production itself had not yet begun, would be limited to a patchwork of sources. In such situations, there is no guidance in the Antidumping Agreement on what indicators the authority may rely upon to determine whether material retardation occurred. Due to the unavailability of relevant data, adopting the economic indicators enumerated in Article 3 of the Antidumping Agreement does not assist the authorities in any manner.

D. Use of Economic Projections to Generate Usable Data on Infant Industries

In light of the limited data available in investigations involving embryonic or nascent industries, authorities should develop the law to accommodate a greater use of economic projections. This would enable trade regulators to enforce the antidumping laws while maintaining the quantum of speculation required to prove up an antidumping case. Venezuela has adopted such an approach, requiring a comparison between projected performance and actual performance as a factor specific to material retardation, in addition to requiring inquiries into utilization of production capacity, orders and deliveries, and the financial conditions.[44] In

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[42] Certain Dried Salted Codfish from Canada, USITC Pub. No. 1711, Inv. No. 731-TA-199 (July 1985) (final).

[43] Certain Copier Toner from Japan, *supra* note 40.

[44] Art. 52, Regulations on Unfair International Trade Practices, Decreto 2,883 of 5 Apr. 1993 in *Gaceta Oficial of the Republic of Venezuela,* No. 4.567 Extraordinary (Apr. 26, 1993); *cf.* Compendium of Antidumping and Countervailing Legislation in the Western Hemisphere, Free Trade Area of the Americas, *available at* http://www.alca-ftaa.oas.org/

Argentina, the domestic legislation requires the implementing authority to consider, *inter alia*, such factors as the effective capacity under construction, the certainty of financing for the capacity under construction, the status of orders and dispatches, and the general financial situation.[45] The effect of introducing factors into their domestic law beyond those required under the Antidumping Agreement, is that the antidumping authorities of these countries can follow a more flexible approach in gathering and examining data that would more accurately reflect the condition of a nascent industry. Examining the state of pending orders for products and the quantum delivered, for instance, would be a good indicator of the demand for the product produced domestically even in the short period that the local industry has been in existence, despite the alleged dumping—this in turn indicates whether the alleged dumping is indeed injurious. Similarly, a comparison of the actual production, for which data would be available only for a short period of time, with the performance projections would demonstrate how much production has been affected in the period when the industry was nascent. At the same time, the data from these projections ought to be used with caution and in a manner that provides the analysis with a sufficient degree of accuracy and reality, as projections have the inherent risk of inaccuracy. Thus, in assisting their determinations, authorities should use economic projections more often, while remaining cautious of the drawbacks. One way to achieve this would be to compare the data from projections with results obtained from the use of economic models in the "but for" test discussed below.

V. IDENTIFYING THE CAUSAL LINK

While Article 3.5 of the Antidumping Agreement requires proof that a causal link exists between the dumped imports and the domestic injury, it does not provide a list of factors considered in evaluating such a proof. It merely states that the determination should be "based on an examination of all relevant evidence." The provision does, however, specify that the authority is to isolate and exclude any factors other than the dumped imports which may be contributing to the injury, including, *inter alia*, the volume and prices of imports not sold at dumping prices, changes in patterns of consumption, developments in technology, and the export performance and productivity of domestic producers.

In material retardation cases, the USITC has adopted a "but-for" test to fulfill the requirements of Article 3.5 injury causation. The "but for" test

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ngroups/ngsu/publications/english/tocup.asp (last visited Sept. 23, 2004).

[45] Art. 10, Decreto 2,121 of 30 Nov 1994 in Boletín Oficial (Dec. 5, 1994); *cf.* Compendium of Antidumping and Countervailing Legislation in the Western Hemisphere, Free Trade Area of the Americas, *available at* http://www.alca-ftaa.oas.org/ngroups/ngsu/publications/english/tocup.asp (last visited Sept. 23, 2004).

considers whether the nascent industry would be viable but for the alleged dumping.[46] The elements to determine viability examined under the USITC test are as follows: the ability to produce a marketable product; the product being qualitatively acceptable to purchasers; and the ability to sell the product at a price that is competitive with fairly traded imports.[47]

While an economic analysis of industry viability may be sensible from a national or global welfare perspective, such a test is not without pitfalls. First, antidumping authorities are not in a good position to undertake a detailed examination of whether a given industry is viable. Unlike entrepreneurs who regularly make calculated speculations on the wherewithal of an industry, an antidumping authority is not an agency capable of determining the best allocation of an individual's or a nation's resources, nor is it charged with doing so by governmental mandate.

Second, a domestic industry claiming injury due to illegal dumping could fail even in the absence of any dumping. While denying antidumping protection on the basis that an industry was independently bound for failure would be beneficial from the perspective of efficient allocation of natural resources, Article 11.1 would operate to achieve the same no-protection result, even if such a test is not undertaken and antidumping duties imposed.[48] That provision requires countries to lift antidumping duties when the injury can no longer be said to harm the domestic industry. If a domestic industry fails due to reasons other than dumping, there would be no domestic industry and no injury, and any duties cease and the importing may continue. Thus, economic analysis of an industry's viability pursuant to the USITC test would be duplicative and unnecessary.

Third, avoiding perpetual or excessively long antidumping protections for industries that are ultimately not viable can be achieved through the existing causation analysis used for material injury and threat of material injury determinations. The causation analysis for cases involving material injury and threat of material injury looks to whether the injury to the domestic industry is caused by the dumped imports, or whether other factors are responsible for the injury. Similarly, causation analysis for material retardation investigations already distinguishes between whether the dumped imports are causing the retardation or some other external factors, such as poor conceptualization of the project, mismanagement, and weak sales efforts. That is, if factors other than the dumping are causing the

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[46] Certain Dried Salted Codfish from Canada, *supra* note 26, *aff'd sub nom.* B.M.T. Commodity Corp. v. United States, 11 Ct. Int'l Trade 524 (1987), *aff'd*, 825 F.2d 1285 (Fed. Cir. 1988).

[47] Certain Dried Salted Codfish from Canada, *supra* note 26.

[48] Article 11.1 of the Antidumping Agreement reads, "[a]n anti-dumping duty shall remain in force only as long as and to the extent necessary to counteract dumping which is causing injury." Antidumping Agreement, *supra* note 10.

retardation, they are taken into account in the determination of material retardation. These are the other factors that would determine the viability of the industry.

It may be argued that introducing additional tests, such as viability of the industry would be helpful in suggesting the kinds of evidence that would specifically demonstrate a case for material retardation protection, just as the additional factors in Article 3.7 of the Antidumping Agreement assist in gathering evidence for a "threat of material injury" situation. However, even without any elaboration, material retardation cases require no lesser evidence of injury than threat of material injury or material injury cases. For an industry alleging material retardation that has not commenced production or has recently commenced production, limited data relating to the performance of the domestic industry is available as it has been in existence for only a short period of time. However, a shorter time frame from which to gather data does not automatically imply that there is lesser *evidence* of injury to the domestic industry being caused by the dumped imports. Unavailability of data for material *injury* determinations does not translate into unavailability of data for material *retardation* determinations, and certainly would not justify a conclusion that there is less evidence of retardation *caused* by dumped imports. A method that effectively uses the limited data available in a material retardation investigation would permit the authorities to make an accurate determination as to injury to the domestic industry. The unitary approach to injury analysis, discussed in the next section is one such method.

Second, the "threat of material injury" standard is subject to the same availability problems for factors listed in the Agreement. However, apart from the caution in Article 3.7 of the Antidumping Agreement that a "threat" determination must be based on facts and not merely on allegations, conjectures or remote possibilities, and the further requirement of evidence of foreseeability, there are no tests such as examining the viability of the industry, mentioned in the Agreement or adopted by the investigating authorities. Article 3.7 merely mentions an additional list of factors to be taken into account for a finding of threat of material injury. This list is not based on an assumption that lesser evidence is available in investigations of threat of material injury cases, but rather requires consideration of certain additional types of data and evidence, especially in "threat" cases, that may or may not be considered in material injury investigations.[49]

Thus, incorporating a viability test fails to recognize that the antidumping authority is not the appropriate body to determine how

[49] In Mexico–High Fructose Corn Syrup from the U.S., *supra* note 36, the WTO Panel clarified, and the Appellate Body affirmed, that for a threat of material injury determination, the Article 3.7 requirements are in addition to the Article 3.1 requirements.

resources, whether private or public, are allocated; that an industry may be 'unviable' even if the dumping were absent; and the existing legal regime can have the effect of stopping antidumping protection to an unviable industry. Rather, as examined below, to provide industry protection if and only if dumping is demonstrably the cause of injury, the most appropriate safeguard against abuse of the standard would likely be a causation analysis which simultaneously fulfils the objectives of the viability test.

VI. APPROACHES TO INJURY ANALYSIS

In cases involving an industry alleging material retardation, while the determination of dumping and the causation analysis may dispose of the case, the main threshold to be overcome is demonstrating injury. There are three primary approaches adopted by antidumping authorities examining injury:

A. The "Common Sense Causation" Approach

Authorities employing the "common sense causation" approach look to data fluctuations in order to determine whether injury has occurred.[50] Thus, the authorities are required by Article 3.4 to examine the decline in sales, profits, output, market share, productivity, return on investments, or utilization of capacity; factors affecting domestic prices; the magnitude of the margin of dumping; actual and potential negative effects on cash flow, inventories, employment, wages, growth, ability to raise capital or investments.

This approach, also known as "comparative statics" analysis, focuses on comparing economic data representing the condition of a domestic industry with and without the presence of the allegedly dumped imports.[51] Using only hard economic data oversimplifies the process of discovering whether a given industry has suffered injury due to the dumped imports.

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[50] Ronald A. Cass & Michael S. Knoll, *The Economics of 'Injury' in Antidumping and Countervailing Duty Cases: A Reply to Professor Sykes*, *in* ECONOMIC DIMENSIONS IN INTERNATIONAL LAW: COMPARATIVE AND EMPIRICAL PERSPECTIVES 126 (Jagdeep S. Bhandari & Alan O. Sykes eds., 1997). While the authors list this and other approaches towards the determination of injury as those adopted by the USITC, given the fact that the U.S. antidumping legislation is based on the GATT and the Antidumping Agreement and largely reproduces its wording, and that the USITC has the most experience among all investigating authorities in the world in investigating antidumping cases, the methods adopted by the USITC represent to some extent the approaches adopted by all investigating authorities. Of course, different investigating authorities around the world, being in different stages of evolution, may not all adopt the USITC's approach at the present time. Since the largest number of material retardation questions have been brought before the USITC, it is even more likely that other authorities will look to the USITC for guidance.

[51] Richard D. Boltuck & Seth Kaplan, *Conflicting Entitlements: Can Antidumping and Antitrust Regulation be Reconciled?*, 61 U. CIN. L. REV. 903, 906-7 (1993).

While a direct correlation exists between the change in values and a positive or negative injury finding in general,[52] there is no clear framework to dictate the authority's approach when a cumulative economic analysis is inconclusive due to the various factors moving in different directions.[53]

B. The "Bifurcated" or "Trends" Approach

A second approach divides the determination of injury into two parts: a finding of injury to an industry[54] and a subsequent finding of whether the dumped imports have caused that injury. While the unitary approach described below—where a commissioner assesses both the current state of the domestic industry and whether that state is materially injured by reason of subsidized imports—may be increasingly used in the United States,[55] the prevailing approach in the European Union and India is the bifurcated approach.[56] To determine whether the industry is injured, the authority looks at the trends in financial circumstances and other indicators of the domestic industry over the period of investigation. The authority then determines whether the domestic industry producing the like product is in poor or worsening condition. This fulfills the "injury" test. At this stage, under the "common sense" approach a direct correlation would be drawn between the condition of the industry and dumping as the cause of injury. However, in the bifurcated approach, a further step is involved. If the "poor health/injury" test is satisfied, the bifurcated approach then asks whether imports have contributed even minimally to the industry's poor or worsening condition. If they have, then the causation test is said to have

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[52] Higher levels of unfair imports, greater similarity between the imported and "like" goods, and higher dumping margins militate towards a positive finding. *See, e.g.*, Anhydrous Sodium Metasilicate from France, USITC Pub. 1118, Inv. No. 731-TA-25 (Dec. 1980) (final); Certain Electric Motors from Japan, USITC Pub. 1116, Inv. No 731-TA-7 (Dec. 1980) (final); Melamine in Crystal Form from Austria and Italy, USITC Pub. 1065, Inv. Nos. 731-TA-13 and 14 (May 1980) (final); *cf.* Cass & Knoll, *supra* note 50, at 130.

[53] Cass & Knoll, *supra* note 50, at 130.

[54] It must be remembered, however, that the function of the investigative authorities is divided into determining dumping and determining injury. This second aspect in its entirety is also therefore referred to as the injury test.

[55] Raj Bhala, *Rethinking Antidumping Law*, 29 GEO. WASH. J. INT'L L. & ECON. 1 (1995).

[56] While there does not appear to be any detailed study on injury approaches adopted by the European Union and India, on an brief examination of decisions by both the European Commission, which is the antidumping authority for the European Union, and the Directorate General of Antidumping and Allied Duties, which is the authority for India, it can be noted that they examine injury and causation under distinct headings. Perhaps the fact that a single authority examines all aspects of an antidumping examination in the European Union and India – as opposed to the specialization of the Department of Commerce in examining dumping and the USITC in examining injury in the case of the United States – explains the USITC's more nuanced approach.

been fulfilled, and a positive injury determination will be rendered.[57]

The investigating authority examines injury under the bifurcated approach by an analysis of the domestic industry's condition over the relevant period for which data is available.[58] The factors considered parallel those in other aspects of the Antidumping Agreement, and include: profitability, sales, production, shipments, prices, capacity and capacity utilization. The observable trends in these factors relating to the performance of the domestic industry lead the authority to determine whether the domestic industry has been injured. Next, the authority goes on to consider whether the injury caused qualifies as "material." In most instances, if an authority following the bifurcated approach has concluded that injury has occurred, it also concludes that this injury is material.[59]

The further step of examining causation becomes relatively straightforward once material injury has been found. The Antidumping Agreement does not require the dumped imports to be the "principal" or "sole" cause of the injury to the domestic industry.[60] For example, a tribunal adopting the bifurcated approach would interpret an apparent correlation between import volume and industry health to prove the requisite causal nexus.[61] "Correlation" can be proved by evidence of anticompetitive behavior, such as underselling and lost sales. Underselling involves a comparison of average prices of domestic goods and unfair imports, to determine whether the unfair goods are being sold at a lower price than the domestic goods, providing evidence that they are contributing to the injury.[62] "Lost sales" are sales that domestic producers claim they have lost due to the dumped imports.[63] This is typically ascertained through evidence that consumers of the domestic like product preferred the imports over the domestic product due largely to price considerations.[64] Apart from these two particular factors, investigating authorities adopting the bifurcated approach also analyze the correlation between import penetration and the condition of the domestic industry in a manner similar to the common

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[57] *See* Cass & Knoll, *supra* note 50.

[58] Typically in the United States this period is three years prior, as the USITC usually collects data for the current calendar year and for the three prior calendar years. *Cf.* Cass & Knoll, *supra* note 50, at 132.

[59] Cass & Knoll, *supra* note 50, at 133.

[60] Antidumping Agreement Art. 3.5. In a previous version of the Agreement, the dumped imports had to be the "principal cause" of the injury. *See* Antidumping Code, 1967. The amendment of this condition removing the requirement of "principal cause" expressly indicated that the dumped imports now only needed to be a cause of injury.

[61] Boltuck & Kaplan, *supra* note 51, at 907.

[62] *Id.*

[63] *Id.*

[64] Jameson, *supra* note 6.

causation approach to further support their conclusion.[65]

Criticism of the bifurcated approach focuses on its weak causation requirements. Many objections to its use have arisen over the years, primarily from economists.[66] Such writers have argued that the bifurcated approach examines the wrong issue: whether the domestic industry has been materially injured and whether the dumped imports have at least in some way contributed to this injury. Rather, it has been suggested that investigating authorities should emphasize the inquiry into whether the dumped imports, *through the effects of dumping*, cause material injury.[67] The difference lies in the degree of correlation between the dumped imports and the injury. While the bifurcated approach permits the dumped imports to merely be a contributory cause for injury, the Antidumping Agreement seems to require a closer link between dumping and a determination of injury, especially since it specifies that all other factors contributing to the injury must be identified and not attributed to the injury.[68]

Other critics have noted a lack of analytical rigorousness in the bifurcated approach. It has been suggested that a stronger examination of causation may lead to discovery of other factors affecting an industry, and that the emphasis on comparing import volumes and domestic industry health is inconclusive.[69] Authorities applying the bifurcated approach typically do not use economic principles to demonstrate the effect of dumped imports on the domestic industry, but rather rely on observations of distinct factors to draw causal conclusions.

C. The "Unitary" or "But For" Approach

The unitary approach, that was developed by some of the USITC Commissioners, unlike the bifurcated method, only requires a determination of whether the import dumping has had a material impact on the domestic industry.[70] The chief inquiry, therefore, looks to the effect of dumping on the domestic industry with the necessary question being whether the dumping materially injures the industry. Analysis focuses on what would have happened to the domestic industry but for the existence of the dumped imports. Framing the issue in this manner identifies the dumping and not

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[65] Cass & Knoll, *supra* note 50, at 134-35.

[66] *See, e.g.*, Ronald A. Cass, *International Trade and Unfair Imports: Price Discrimination and Predations Analysis in Antitrust and International Trade: A Comment*, 61 U. CIN. L. REV. 877 (1993); Sykes, *supra* note 13, at 83.

[67] Antidumping Agreement Art. 3.5 (emphasis added). *See* Cass & Knoll, *supra* note 50, at 135.

[68] Antidumping Agreement Art. 3.5, *supra* note 10.

[69] Boltuck & Kaplan, *supra* note 51.

[70] It is Cass and Knoll who, however, gave this approach its name. Cass & Knoll, *supra* note 50, at 136.

the imports themselves (as in the case of the bifurcated approach) as the target of the causal factor analysis.

The "but for" test is also unlike the bifurcated approach in its focus on the materiality of the injury, rather than requiring a mere threshold finding of "correlation" between the unfair practice and the condition of the industry.[71] To arrive at a finding of materiality, the conditions of the domestic industry in the presence of "unfair" imports are compared with a hypothetical estimate of the industry's condition absent such dumping.[72]

Because the "but for" approach employs specialized econometric analysis, some argue it is more accurate and predictable. Over the past few decades, econometric modeling has grown highly sophisticated. For example, the Comparative Analysis of Domestic Industry Condition ("CADIC"), the first version of which was released in 1987, is a "comparative static price-theoretic economic model"[73] that generates estimates of the impact of dumping on the domestic industry. CADIC is mathematical computer software that is designed so that on inputting certain economic parameters related to the condition of the domestic industry and the imports,[74] it can calculate certain other parameters that indicate the condition of the domestic industry had the imports not occurred.[75] A later econometric model that improved on CADIC is the Commercial Policy Analysis System ("COMPAS").[76] The calculated values of CADIC/COMPAS system are based on mathematical equations and minimum subjective interpretation by the investigating authorities. An econometric approach therefore provides an analytical foundation for the unitary approach. Also, because it is based on economic calculations and

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[71] *Id.*

[72] Murray & Rousslang, *supra* note 6.

[73] Richard S. Boltuck, *Innovations in Support of the Unitary Injury Test in U.S. Unfair Trade Cases, in* ECONOMIC DIMENSIONS IN INTERNATIONAL LAW: COMPARATIVE AND EMPIRICAL PERSPECTIVES 166, 170 (Jagdeep S. Bhandari and Alan O. Sykes eds., 1997).

[74] The required parameters are: share of less than fair value exporter's combined domestic (investigating country) sales and home country sales made at home (fractional), dumping margin (fractional), and elasticity of supply of like product. If the price of the fairly-traded imports depends on the volume purchased in the investigating country market, the elasticity of supply of the fairly trade import must also be provided. In addition, if the user wants the model to calculate other estimates, accordingly, additional data is required. For an excellent, detailed explanation of CADIC *see* Richard S. Boltuck, *Assessing the Effects on the Domestic Industry of Price Dumping, in* POLICY IMPLICATIONS OF ANTIDUMPING MEASURES 99 (P.K.M. Tharakan ed., 1991).

[75] The resultant (calculated) parameters are: proportion of the exporter's combined sales in both its home market and its investigating market, augmented elasticity of demand for the unfair imports, and elasticity of demand for aggregate imports; other economic parameters provide estimates depending on the extent of data inputted.

[76] While this system was initially developed for use in countervailing investigations, it was then also adapted for antidumping investigations.

not general inferences, it is a more accurate, predictable, and objective approach for reaching a determination. At the same time, realizing that the data relied on for the models comes from a short period of time, some discretion needs to be provided to the authority to permit them to account for this. The unitary approach achieves this objective because the input parameters are in the form of ranges, and the authorities have an opportunity to determine if the ranges being inputted are appropriate.

By examining what the condition of the domestic industry would have been had the alleged dumping not have occurred, the authority focuses on the effect of the dumping on the industry, rather than merely the effect of importation as the bifurcated approach does. Further, the use of statistical modeling tolls makes this comparison more accurate while still providing the authority with some discretion that can be exercised to account for special circumstances. Thus, the unitary approach affords a more accurate and appropriate analysis for material retardation cases. Since the USITC staff already prepares a CADIC/COMPAS analysis for all appropriate dumping cases before the Commission,[77] adopting this approach ought to be simple in material retardation cases.

VII. USE OF INJURY DETERMINATION APPROACHES IN MATERIAL RETARDATION CASES - EMPIRICAL DATA

While there is no evidence of any dramatic increase in the use of the material retardation standard, it should be noted that among the six countries (three developed, three developing) that frequently allege injury under the standard, the only country to have actually imposed antidumping measures under the WTO is India, a developing country.

As was argued above, the unitary approach to injury determination may be a viable option by which to limit the use of antidumping duties involving material retardation. However, an examination that elaborates upon the material retardation standard demonstrates that the unitary approach has not been widely adopted by investigating authorities. While individual Commissioners of the USITC have the liberty to adopt one approach to injury analysis over the other since the law does not mandate any particular approach, almost all USITC investigations dealing with the issue of material retardation have used the bifurcated approach to injury analysis.[78] Thus, established precedent would suggest that USITC commissioners are likely to first determine whether the industry was being retarded, and then proceed to an examination of whether the dumped imports contributed to the retardation.[79]

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[77] Boltuck & Kaplan, *supra* note 51, at 907.

[78] *Id.*

[79] Wheel Inserts from Taiwan, USITC Pub. 2824, Inv. No. 731-TA-721 (Oct. 1994) (prelim.); Certain Gene Amplification Thermal Cyclers and Subassemblies Thereof, USITC

One significant exception arose in *Certain High-Info Content Flat Panel Displays and Display Glass Thereof*, where, in her dissenting view, Commissioner Anne E. Brunsdale seemed to adopt the unitary approach in preference to the bifurcated approach adopted by the majority, without expressly referring to it.[80] Like the majority, Brunsdale concluded that the producers of the domestic like product were not being materially retarded by the dumped imports.[81] The majority did not examine the material retardation allegation as, based on their definition of the like product and the domestic industry, the domestic industry was considered "established."[82] Commissioner Brunsdale followed the two-step approach of the "but for" test: she first examined the condition of the domestic industry in the presence of the dumped products, and next she compared this with an estimate of how the complainant would have performed had the dumping not have occurred.[83] The Commissioner framed the question as whether the industry would have been established but for the dumped imports, then proceeded to examine whether the buyers of the imports would have purchased the domestic like product but for its higher price. On concluding negatively on this aspect and concluding that the domestic industry had not suffered any lost sales or lost revenues due to the dumped imports, the Commissioner reached the determination that the domestic producers had not been materially retarded by reason of the dumped imports.

A significant difference between the approach used by Commissioner Brunsdale and the model described earlier as the "but for" test lies in the fact that, while the latter contemplates the use of economic models to arrive at the estimate of the industry's condition absent dumping, Commissioner Brunsdale simply used oral and documentary evidence gathered by the USITC during the course of its investigation. Perhaps in this particular case the Commissioner found that this evidence standing alone was strong enough to suggest what the condition of the industry would have been without the alleged dumping activity (that absence of dumping would have made no difference to the consumers who chose the dumped product over the complainants' products). More typical antidumping authorities might

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Pub. No. 2346, Inv. No 731-TA-485 (Dec. 1990) (prelim.); Fresh and Chilled Atlantic Salmon from Norway, USITC Pub. 2272, Inv. Nos. 701-TA-302 and 731-TA-454 (Apr. 1990) (prelim.); Pressure Sensitive PVC Battery Covers from West Germany, *supra* note 28; Certain Copier Toner from Japan, *supra* note 40; Certain Dried Salted Codfish from Canada, *supra* note 26; *Benzyl Paraben from Japan,* ITC Pub 2355, Inv. No. 731-TA-462 (Feb. 1991) (final).

[80] *See* Certain High-Info Content Flat Panel Display Glass Thereof, USITC Pub. 2413, Inv. No. 731-TA-469 (Aug. 1991) (final).

[81] *Id.* at 29.

[82] *Id.* at 18.

[83] *Id.* at 36-37.

have found that such a conclusion is not easily drawn, or that there is insufficient proof, and may then resort to economic tools such as the CADIC/COMPAS system.

Indeed, incorporating the use of oral and documentary evidence obtained during the course of investigations could be one way of avoiding the pitfalls of an econometric model, while still availing itself of the benefits of the unitary approach. The Commission gathers considerable evidence in the form of replies to questionnaires that it sends out to all the industries named in the complaint as the importers of the dumped product, the foreign producers if different from the importer, and the companies forming the domestic complainant industry. In addition, end-users of the product (which, if the product alleged to be dumped is an intermediary product used by other industries, would be a company) may also intervene in the investigation process and provide evidence. All the data so gathered by the Commission staff is then submitted in an organized manner along with any analysis in the form of a report to the USITC. The Commissioners are then able to use this data along with the arguments of the complainant and respondent to arrive at its findings. Since the raw data is available to the Commissioners, in cases where this data is adequate and provides a clear picture without the need for econometric modeling, it may be possible to adopt a unitary approach relying simply on the oral and documentary evidence. It would however, be in the rare case relating to material retardation that ample data is available.

The USITC employed a bifurcated analysis in *In Certain Gene Amplification Thermal Cyclers and Subassemblies Thereof.*[84] The case involved a complaint against the United Kingdom of dumping of biochemical reaction controllers ("GATCs") into the United States. The USITC accepted that there were a limited number of producers of GATCs in the United States and that they had commenced production less than two years prior to the decision.[85] While a majority of the Commissioners found the domestic industry "established," and therefore not subject to the material retardation standard, Commissioner Rohr, in minority, considered the material retardation standard as part of his determination based on his differing view on the definition of the domestic "like product" and therefore the "domestic industry."[86] Following a bifurcated approach, Commissioner

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[84] Certain Gene Amplification Thermal Cyclers and Subassemblies Thereof from the United Kingdom, Inv. No. 731-TA-485, USITC Pub. 2412, 1991 ITC LEXIS 960 (U.S.I.T.C. Aug. 1991) (antidumping duty proceeding terminated with a final negative injury determination).

[85] Certain Gene Amplification Thermal Cyclers and Subassemblies Thereof from the United Kingdom, Inv. Pub. No. 2346, USITC Inv. No. 731-TA-485, 1990 ITC LEXIS 413, at *3 (Dec. 1990) (prelim.).

[86] *Id.* at 36. It should be noted that in the final determination, the Commission, which at that stage gave a unanimous decision, considered the material retardation standard.

Rohr concluded that no material retardation occurred as the domestic industry was performing better than could be expected for a nascent industry.[87]

Given that Commissioner Rohr found that the industry had only recently come into existence, that there were a very limited number of domestic producers, and that limited data was available regarding the operation of the domestic industry,[88] the Commissioner could have effectively used the unitary approach over the bifurcated approach that he did use. In most cases, data for the past three years of the operation of the domestic industry are available, but in *Gene Amplification*, comparable data was available only for parts of two separate years and for one complete year.[89] Commissioner Rohr noted that the alternative to a present injury analysis to avoid the limited data would be a material retardation analysis.[90]

Gene Amplification was typical of most antidumping cases in that it alleged material retardation, but the availability of data was highly limited. A unitary approach, incorporating economic methods, but taking a "totality of the circumstances" perspective could make injury analysis in material retardation cases more objective by relying on econometric tools and provide greater analytical precision. At the same time, as was the case in *High-Info Content Flat Panels*, if some quantum of evidence that is not based on economic tools is available, using such evidence, especially in conjunction with tools such as the CADIC/COMPAS model would provide an effective safeguard against straying into subjectivity using the unitary approach.

Although most antidumping authorities have employed the bifurcated approach to injury determination,[91] some exceptions exist. For example, the antidumping statute in Latvia that came into force on July 1, 2000 opens the door to using the unitary approach to material retardation.[92] It defines

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However, it found that the domestic industry had already stabilized itself, and was therefore established and not eligible for protection based on material retardation.

[87] *Id.* at 39.

[88] *Id.* at 37.

[89] *Id.*

[90] *Id.* at 51.

[91] The Canadian International Trade Tribunal (CITT) in *Stainless Steel Plate*, ADT-18-82, [1983] CIT No. 6; Certain *Power Conversion Systems & Rectifiers*, ADT-13-84, [1985] CIT no. 2; *Single Use Hypodermic Needles*, A-14-85, A-14A-85, A-14B-85, [1988] CIT No. 1; *Venetian Blinds*, NQ-91-004, [1992] CITT No. 15; *Preformed Fibreglass Pipe Insulation with a Vapour Barrier*, NQ-93-002, [1993] CITT No. 137; *Portable File Cases with Handle, Closing Divide & Side Walls Capable of Expansion or Contraction*, NQ-95-005, [1995] CITT No. 121; *Fresh Garlic*, NQ-96-002, [1997] CITT No. 38; the E.U. antidumping authority (Commissioner of the European Communities) in *DRAMS*, *supra* note 30; the Indian authority (the Directorate General of Antidumping and Allied Duties) in its three cases, Bhala, *supra* note 8.

[92] *See* Ursula O'Dwyer & Astrida Tjusa, *Anti-Dumping Law in Latvia*, 7 INT'L TRADE L.

material retardation as "infliction of injury upon domestic manufacturers when a production sector is not yet established but there is evidence regarding its potential establishment and the import at dumped prices renders unprofitable the establishment of such a production sector, *which would otherwise have occurred under the circumstances of fair competition.*"[93] This last part of the provision suggests a counterfactual analysis that accords with the unitary approach. As under the unitary approach to injury analysis discussed above, the Latvian law suggests that the approach to determining injury would be to examine what the condition of the industry would have been absent dumping, rather than the traditional bifurcated approach of examining whether there is any correlation between the injury and the importation. At present, the Latvian authorities have not heard a material retardation case, thus it will be a question for the future whether it will adopt a unitary or a bifurcated approach.

Despite detractors, the general trend appears to be away from the use of the unitary approach. Though a unitary approach may be better suited to investigations involving material retardation than a bifurcated approach, antidumping investigating authorities around the world have continued to use the bifurcated approach just as they have for investigations involving allegations of material injury and threat of material injury. The use of economic models probably requires further development[94] before it becomes clear that they can take into account the more complex situations reflecting economic realities to provide a more accurate result. Due to its advantages described above, amendments to the Antidumping Agreement elaborating the material retardation standard of injury should include provisions guiding investigating authorities to use a unitary approach to injury determination.

VII. UNITARY APPROACH AND MATERIAL RETARDATION

I submit that a unitary approach involving an econometric analysis is the most appropriate approach in all investigations involving an allegation of material retardation to the establishment of domestic industry. The central question the unitary approach poses is as follows: Would the industry have been established sooner but for the dumping, i.e., if the imports were priced so as to eliminate the margin of dumping? Such an inquiry depends on a comparison between the contemporary conditions of the infant domestic industry and a projection of the condition of the industry had there not been any dumped imports. An econometric analysis

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REV. 19 (2001).

[93] *Id.* (emphasis added).

[94] The first version of CADIC was introduced in 1987. Since then newer versions have been released allowing for a more sophisticated analysis. *See* Cass & Knoll, *supra* note 50, at 128.

will be necessary to provide such a projection.[95] The unitary approach has its advantages and disadvantages, as discussed further below.

A. Advantages of the Unitary Approach

The unitary approach's econometric modeling methods rely on easily procurable data regarding a limited set of parameters,[96] including market shares, behavioral elasticities and dumping margins.[97] In contrast, the bifurcated approach would require data on a large number of economic factors for the investigating authority to draw a correlation between the dumped imports and the condition of the industry to come to a conclusion about the material retardation allegation.[98] As noted above, in material retardation investigations based on a bifurcated approach, significant quantities of data regarding a domestic industry's performance will be unavailable to an investigating antidumping authority. Further, in material retardation cases, data relating to the domestic industry is either unavailable or covers only a short period of time.[99] Because CADIC/COMPAS bases its analysis not on data collected over a long period, but rather on data collected at a particular point in time, it is uniquely suited for use in

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[95] A further improvement on CADIC/COMPAS has been the recent use of simultaneous equations for supply and demand model. Overcoming the drawback of CADIC/COMPAS models to use educated guesses of the parameters needed for the model, the simultaneous equations model incorporates empirically derived supply and demand parameters. *See id.* (discussing this model in detail).

[96] It has also been argued that the but-for approach requires sufficient information to estimate the actual injury caused by the unfair trade practices. A fully developed model to precisely calculate the injury would require a great deal of information, including the elasticities of supply and demand for the unfair product, the competing fair imports, and competing domestic goods. It would also require the cross-price elasticities of demand among these competing goods. Unfortunately, reliable estimates of many of these parameters are not available, nor can they be constructed from the available data. *See* Tracy Murray & Donald J. Rousslang, *A Method for Estimating Injury Caused by Unfair Trade Practices*, 9 INT'L REV. LAW & ECON. 149, 150 (1989). However, the majority of the proponents of the but-for approach noted above, appear to agree that sufficient data can be collected for an effective use of the approach, and that even in instances where detailed data is not available (as would be the case in material retardation investigations) sufficiently accurate predictions can be made based on the limited available data.

[97] "Dumping margin" refers to the difference between the price at which the dumped product is sold in its country of production, and the price at which it is dumped. *See* Boltuck, *supra* note 74, at 174.

[98] For a non-exhaustive list of relevant factors *see* Cass & Knoll, *supra* note 50, at 129.

[99] It is for this reason of being able to be employed effectively even when only limited data is available, that CADIC or COMPAS are more useful for material retardation investigations than even the more recent econometric model of simultaneous equations. It is recognised even by the main proponent of the simultaneous equations model that in situations where there is a dearth of data, the COMPAS model provides a valuable and more effective tool. *See* , Thomas J. Prusa & David Sharp, *A Simultaneous Equations Approach to Antidumping Injury Investigations*, 14 J. FORENSIC ECON. 63, 77.

material retardation investigations that adopt the unitary approach to material injury analysis.

In addition, the investigative process involved in a unitary analysis is less vulnerable to non-economic pressures such as political influence,[100] thereby diminishing the possibility of antidumping being used as a tool of domestic protectionism by certain limited influential industries—one of the major criticisms of the current antidumping regime.[101] The past protection afforded to the US steel industry through the use of trade remedy measures including antidumping and safeguard measures, thus preserving steel industry jobs that would have otherwise gone abroad, is one example of the political use to which antidumping can be put. A unitary approach to injury analysis, by relying more on objective economic modeling tools would remove a great amount of discretion available to the USITC in interpreting the available data.

Further, under the unitary approach, the analytical focus is not on the overall health of the domestic industry, but rather on what impact unfair imports have had on that industry. This would allow a positive injury finding in the case of anticompetitive imports affecting an infant industry that has seen its output, employment, and profits all grow but is nevertheless injured by the dumping activity.[102] Not only is such interpretation in line with the plain meaning of the phrase "material retardation" that is used in the text of GATT Art. VI and the Agreement, but it is also more just toward nascent and embryonic industries that would not be able to demonstrate their viability in the market.

For industries that have existed for a more significant period of time, and have grown through that period, the likelihood of succeeding on an allegation of material retardation injury on the basis of a reduction of an industry's growth would be greatly diminished. Firstly, the industry must demonstrate that it has not in fact been "established," and then prove that despite its opportunity to grow, such growth has been at a reduced pace, and further that such reduction was caused by the dumped imports. Proving that an industry is not "established" would obviously be more difficult for an industry that has been in existence for any significant period of time, especially if any of the analytical factors indicate that the industry is performing well. A finding of material retardation based on the reduction of growth due to dumping would most likely occur in situations where the industry had only recently commenced production and could demonstrate that its growth was dramatically stunted, perhaps even stopped, though a coterie of firms manage to stay in business. On the other hand, in the case

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[100] *See* Boltuck, *supra* note 74, at n. 27.

[101] *See supra*, note 1.

[102] Kenneth Kelly, *Empirical Analysis for Antitrust and International Trade Law*, 61 U. CIN. L. REV. 889 (1993).

of an embryonic industry, there is no profitable company at all yet since, by definition, production would not yet have commenced. Demonstrating reduction in the growth of the industry and obtaining antidumping protection on that basis is therefore more about minimizing further delay in commencement of production.

Further, it has been previously submitted that the future strength of the industry ought not to be of any concern in a material retardation analysis, and that causation analysis could, standing alone, ensure that material retardation not be too broadly construed or industry protections be too readily available.[103] A proper causation analysis will sustain industry protections only for those that demonstrate the dumped imports contributed to the retardation. Since the unitary approach examines the direct impact of the imports on the domestic industry, even a reduction in growth of the industry during times of overall financial well-being would be cognizable as an injury to the domestic industry, which would be consonant with the intentions of GATT's drafters. This stands in contrast to the bifurcated approach, under which injury to the domestic industry would be overshadowed by factors demonstrating economic prosperity.

Theoretically, adopting an exclusively economics-oriented approach to injury and causation analysis in material retardation investigations could make the investigations more accurate and less susceptible to subjective interpretations. This would therefore meet some of the main objections of developing countries against the current antidumping regime, namely, that the Antidumping Agreement provides sufficient scope for interpretation by antidumping authorities which results in the authorities of developed countries adopting interpretations that result in a relatively easy finding of dumping. However, in practical application, the relatively low use of the approach by antidumping authorities is indicative of its drawbacks. Using econometric models in situations where there is low availability of data reduces the opportunity for allowances to be made for the small data sample. An econometric model may not permit authorities to take into consideration aspects that they believe are relevant, merely because the program does not contain input parameters relating to those aspects. In other words, flexibility that the bifurcated approach provides may be useful in some situations. Therefore, WTO member states may want to carefully examine the benefit of using econometric models in material retardation situations.

B. Disadvantages of the Use of Econometric Modeling in the Unitary Approach

There are several significant disadvantages to overdependence on

[103] *See infra* Section V.

econometric modeling, even when the unitary approach is being applied. First, analytical parameters examined in econometric models cannot be limited to data that may be obtained at a single moment in time. Since such data is unavailable, the accuracy of the unitary approach may be compromised.[104] For example, elasticity, one of the parameters used in a CADIC/COMPAS analysis, generally requires data collected over a considerable period of time.[105] As advocated elsewhere in this paper, a combination of available contemporary data and reliable projections made by the complainant as part of setting up the domestic industry should be adopted.[106] Since nascent industries would have commenced production, some data relating to their operations and production will be available, and this may be used for further projections. However, for embryonic industries, such econometric techniques could potentially yield a faulty result. Due to the requirement of long-term data collection, embryonic industries may be incapable of generating reliable data.

A second potential disadvantage of the unitary approach is diminishment of discretion allowed to an antidumping tribunal that uses econometric modeling.[107] A large portion of judicial judgment will be based on the opinions of expert economists, who may or may not agree on the results of the relevant tests, and who may or may not be disinterested in the outcome. Furthermore, what constitutes a material retardation to domestic industry injury will be less readily understandable by laypeople, making it potentially less transparent as well.

The Canadian antidumping injury authority, the Canadian International Trade Tribunal (CITT), has been persuaded of the disadvantages of using the COMPAS model which forms an integral part of the unitary approach. In the case of *In re Refined Sugar,* the CITT refused to rely on the COMPAS model.[108] The reason for its refusal, however, was that the dumping margin and countervailing duties on refined sugar were not reflected in the pricing of refined sugar that was used for calculating results from the COPMAS model study presented as evidence in the case.[109] Further it was argued that the model's market structure assumptions did not reflect the reality of the Canadian refined sugar market.[110] Considering all

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[104] Alan O. Sykes, *The Economics of "Injury" in Antidumping and Countervailing Duty Cases in* POLICY IMPLICATIONS OF ANTIDUMPING MEASURES, 96-97 (P.K.M. Tharakan ed., 1991).

[105] *Id.*

[106] *See infra* Section VI.

[107] Sykes, *supra* note 104, at 112.

[108] In Re Refined Sugar, [1995] CITT, In Inquiry No. NQ-95-002, [1995] CITT no. 71 *available at* http://www.citt-tcce.gc.ca/dumping/inquirie/findings/nqin95_e.asp (last visited Oct. 8, 2004).

[109] *Id.*

[110] *Id.*

these factors, the authority was forced to ignore the COMPAS findings because its parameters were inaccurate, though it did not disfavor COMPAS *per se*. This suggests that the COMPAS model relied upon in the unitary approach may have to be used with caution to determine its adaptability to the situation under consideration. At the same time, it also suggests that the COMPAS model is flexible enough to incorporate the particularities of each investigation.

It is likely that the Canadian and other authorities, especially those in developing countries that are likely to encounter more situations of material retardation, will be faced with having to determine the usefulness of the unitary approach to injury determination. A careful analysis of the advantages and the disadvantages would have to be performed in each circumstance.

IX. CONCLUSIONS

Material retardation to the establishment of domestic industry is the lesser-known and lesser-used of the three forms of injury complainants may allege. The infrequent application of this standard in the United States could be expected from a country that is among the most innovative in the world and therefore can nurture its industries into maturity from an embryonic or nascent stage before threats arise.[111] While this explanation may be extended to other developed economies, it would imply that developing economies are likely to be frequent users of the standard. Embryonic and nascent industries that parallel the established industries of developed countries are common in developing countries. In addition, developing countries are more likely to have product markets wholly or largely supplied by imports. If unestablished domestic producers face market retardation due to dumped imports, a case for antidumping duties based on the material retardation standard of injury can plausibly be made. However, developing countries have been slow to invoke this standard to justify antidumping duties.[112] While there is no evidence of a dramatic increase in the use of the material retardation standard, it is significant to note that among the three frequent developed country and three frequent developing country users studied, the only country to have imposed antidumping measures under the WTO regime based on the material retardation standard is India, a developing country.

The Antidumping Agreement is silent as to the particulars of its

[111] *See* David N. Palmeter, *Injury Determinations in Antidumping and Countervailing Duty Cases-A Commentary on U.S. Practice*, 21 J. WORLD TRADE 7 (1987).

[112] For example, Argentina signed the Antidumping Agreement only in 1994, and imposed its first antidumping measure in 1995; Brazil signed the agreement in 1980 and imposed its first measure in 1992 and India which also became a signatory in 1980 imposed its first determinative measure in 1994.

intended definition of the term "material retardation to the establishment of domestic industry," in contrast to the material injury and threat of material injury standards, which are more fully explained.[113] A fairly elaborate set of rules governing the application of antidumping measures was developed over a period of time in order to limit its abuse.[114] While the limited applicability of material retardation perhaps did not previously justify further elaboration of the phrase, the trend towards it increasing use strains the current legislative and jurisprudential guidance. The interpretative freedom offered by the material retardation standard also exposes a potential for abuse, and a definition should be developed to preempt such abuse.

A further argument in favor of developing restraints on the use of the material retardation standard is the perceived weakness of its theoretical underpinnings. The economic rationale behind antidumping measures has been subject to probing inquiries, and its continued existence has largely been based on non-economic policy rationales.[115] Among the strongest non-economic rationale is that antidumping laws act as a legal safety valve—governments persuade domestic industries to go along with economic liberalization programs by pointing to measures such as antidumping that exist to protect industries that may suffer from intensified foreign competition.[116] In the case of the material retardation injury standard, this justification also loses its potency. The safety valve theory is based on the premise that opposition to international trade arises from workers and management of already existing domestic industries.[117] In the case of industries not yet in existence, these constituencies are absent. Thus, there remains little justification to permit antidumping measures based on material retardation. However, the WTO regime clearly permits a finding of material retardation to the establishment of domestic industry and a consequent imposition of antidumping measures.[118]

Limiting the use of the material retardation standard could be achieved by different approaches that target the various stages of an antidumping investigation: at the stage of defining the domestic and imported products to be compared; by defining the scope of the domestic industry; at the stage of examining the claim of dumping; at the stage of examining the causal link between the dumping and injury; and at the stage of determining the

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[113] *See* Antidumping Agreement, *supra* note 10, Art. 3.

[114] *See* John W. Evans, U.S. TRADE POLICY: NEW LEGISLATION FOR THE NEXT ROUND 67 (1967).

[115] *See* Finger, *supra* note 1; Richard Boltuck & Robert E. Litan, eds., DOWN IN THE DUMPS: ADMINISTRATION OF THE UNFAIR TRADE LAWS (1991); BIERWAGEN, *supra* note 1; DALE, *supra* note 1.

[116] *See* Boltuck , *supra* note 74.

[117] *Id.*

[118] GATT Art. VI (1994); Antidumping Agreement, *supra* note 10.

existence of injury itself. For instance, at the preliminary stage of identifying the products under investigation, the term "like product" used in Art. 3.1[119] could be narrowly interpreted so as to limit the scope of domestic products considered 'like' the imported products under investigation. A narrower definition of products that are eligible for protection under the material retardation standard would mean that domestic consumers continue to have access to cheaper foreign imports especially when there is no established domestic industry producing competing goods. Such an approach would protect domestic industries that are being injured by dumped imports, and yet minimize the harm to domestic consumers by not eliminating their access to products that are not, other than for imports, available in the domestic market. WTO panels and appellate bodies have previously approved such a flexible approach to the definition of "like products."[120]

Another possibility for curtailing the use of the standard is to make the allegation of material retardation available only to developing countries. Given that the standard is structurally better suited for their use, and developing countries have far more vulnerable infant industries, this might make sense. However, such an approach may be strategically unwise, as developed countries are likely to view such a restriction as a concession that would not only attract opposition from domestic protectionist forces, but also opposition from developing countries that may wish to negotiate a different type of 'concession' which they view as more advantageous.

Adopting the unitary approach to injury analysis presents a viable alternative. Given the limited quantities of economic data regarding embryonic or nascent industries, using a counterfactual analysis of where the industry would have been "but for" the imports is more likely to provide better results than an approach that depends more heavily on established economic data. Further, in circumstances of low data availability, using tools for economic modeling would better predict the relationship between the imports and the retardation than the trends approach. The possibility of comparing the results of such modeling with projections for growth of the industry could act as a check. More faithful to Article VI and the

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[119] "A determination of injury for the purposes of Article VI of GATT 1994 shall be based on positive evidence and involve an objective examination of both (a) the volume of the dumped imports and the effect of the dumped imports on prices in the domestic market for *like products*; and (b) the consequent impact of these imports on domestic producers of *such products*." Antidumping Agreement, *supra* note 10, Art. 3.1.

[120] *Japan-Taxes on Alcoholic Beverages*, WT/DS8/R, WT/DS10/R, WT/DS11/R (July 11, 1996), 1996 WTO DS LEXIS 6; *Japan-Taxes on Alcoholic Beverages*, AB-1996-2 (Oct. 4, 1996), 1996 WTO DS LEXIS 5; *European Communities – Measures Affecting Asbestos and Asbestos-Containing Products*, WT/DS135/R, (Sept. 18, 2000), 2000 WTO DS LEXIS 30; *European Communities – Measures Affecting Asbestos and Asbestos-Containing Products*, AB-2000-11 (Mar. 12, 2001), 2001 WTO DS LEXIS 12.

Antidumping Agreement, the unitary approach also allows a finding of injury even when an industry that has seen its output, employment, and profits grow in an absolute sense while suffering retardation. The approach also eliminates the need to adopt a separate 'future viability' test or an examination of the health of the industry, as the object of not affording protection to industries that ultimately turn unviable is already achieved through the existing approach of eliminating all factors that might be contributing to the retardation other than the dumped imports. However, empirical data suggests that the unitary approach has rarely been used in material retardation cases, even when difficulties relating to the traditional bifurcated approach have been acknowledged. This underuse might well be the result of the neglect of the standard in material retardation cases by the USITC and other antidumping authorities.

It remains to be seen whether countries have truly rediscovered the material retardation standard and are willing to use it more often than before. Given the lack of elaboration of the standard in the WTO agreements, it would be more prudent to develop consensus at this early stage on ways in which its use can be restricted to genuine cases rather than waiting for countries to evolve different interpretations, at which point reaching any agreement would be a much more difficult task.