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# Taxes, Market Structure, and International Price Discrimination

*Richard C. Henderson\**

## I. INTRODUCTION

Domestic taxes must be accounted for when goods are traded in international markets. Without any adjustment, imported merchandise would suffer taxes in both the countries of production and consumption. To avoid double taxation, importing countries rebate or exempt taxes imposed in the country of production, allowing imports to compete with domestically produced goods. In essence, taxes are assessed only where the merchandise is consumed. The General Agreement on Tariffs and Trade ("GATT")<sup>1</sup> has adopted this tax adjustment mechanism to prevent countries' internal fiscal decisions from harming their international competitive positions. The mechanism thereby avoids competitive distortions in international trade.

GATT also governs dumping, which is price discrimination between different national markets.<sup>2</sup> Consequently, GATT employs the same tax

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<sup>1</sup> General Agreement on Tariffs and Trade, *opened for signature* Oct. 30, 1947, 61 Stat. A3, T.I.A.S. No. 1700, 55 U.N.T.S. 187 (effective Jan. 1, 1948) [hereinafter GATT].

<sup>2</sup> Most authorities generally agree that the theory of classical price discrimination provides the framework for dumping. See, e.g., J. VINER, *DUMPING: A PROBLEM IN INTERNATIONAL TRADE* (1966) [hereinafter VINER]. Viner states: "The one essential characteristic of dumping, I contend, is price discrimination between purchasers in different national markets." *Id.* at 4. See also Ehrenhaft, *Protection Against International Price Discrimination: United States Countervailing and Antidumping Duties*, 58 COLUM. L. REV. 44 (1958) [hereinafter Ehrenhaft]; Hendrick, *The United States Antidumping Act*, 58 AM. J. INT'L L. 914 (1964); Note, *The Antidumping Act—Tariff or Antitrust Law?*, 74 YALE L.J. 707 (1965). Although price discrimination provides the framework for dump-

adjustment to prevent international price discrimination calculations from distorting international trade patterns.<sup>3</sup>

Firms engage in price discrimination by charging unequal prices to different buyers of goods of "like grade and quality."<sup>4</sup> Margins measure the extent of dumping by comparing the price of imported merchandise with a foreign market value,<sup>5</sup> which is based on the price of equivalent merchandise in the home market or the country of exportation.<sup>6</sup>

Consumption taxes<sup>7</sup> complicate international price-to-price calculations. Because countries generally impose different tax rates on a variety

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ing, authors have noted that the theoretical "fit" is not perfect. Callman quotes Viner as stating that "the Antidumping Act of 1921 has been described as a curious hybrid of traditional ideas and price discrimination theories of the antitrust laws." R. CALLMAN, *UNFAIR COMPETITION, TRADE-MARKS, AND MONOPOLIES* § 7.30 (4th ed. 1981) [hereinafter CALLMAN].

<sup>3</sup> Article VI(1) of the GATT acknowledges the interrelationship between taxes and price comparability. "Due allowance shall be made in each case for differences in conditions and terms of sale, for differences in taxation, and for other differences affecting price comparability." GATT, *supra* note 1, at art. VI, para. 1. GATT, therefore, requires that countries adjust the calculation of dumping margins to account for the difference in tax rates between countries. In recognition of this tax adjustment system, Article VI(4) of the GATT states: "[N]o product . . . shall be subject to antidumping or countervailing duty by reason of the exemption of such product from duties or taxes borne by the like product when destined for consumption in the country of origin or exportation . . ." *Id.* at art. VI, para. 3.

These provisions allow for differences in taxation among countries and disallow the artificial creation of antidumping margins from a simple comparison of tax-inclusive prices in the different countries. Recognizing this, Article 2, paragraph 6, of the GATT Antidumping Code provides: "In order to effect a fair comparison between the export price and the domestic price in the exporting country [in calculating dumping margins] . . . due allowance shall be made . . . for the differences in taxation between the two markets." Article 2(6) of the Agreement on Implementation of Article VI of the General Agreement on Tariffs and Trade, Geneva, 1979. *See also* notes 25 and 26, *supra*.

<sup>4</sup> Robinson-Patman Act, 15 U.S.C. §§ 13-13b, 21a (1982); CALLMAN, *supra* note 2, at 71; *see also* R. POSNER, *ANTITRUST LAW* 62-65 (1976). Price discrimination occurs when the ratio of price to marginal cost is different between markets. If the cost of producing the merchandise is equal and the variation in price is not due to differences in cost, the price is discriminatory. Essentially, price discrimination recognizes that price depends on elasticity. L. SULLIVAN, *HANDBOOK OF THE LAW OF ANTITRUST* 681 (1977) [hereinafter SULLIVAN]; W. NICHOLSON, *MICROECONOMIC THEORY* 350-52 (2d ed. 1978) [hereinafter NICHOLSON].

<sup>5</sup> Absolute margins measure the extent of dumping through a comparison of import price and foreign market value ("FMV"). FMV is the U.S. term of art for home market (or surrogate third-country) price; the European Community, in contrast, uses the term "normal value" for home-market price. *See, e.g.*, C. BELLAMY & G. CHILD, *COMMON MARKET LAW OF COMPETITION* 604-11 (3d ed. 1987).

<sup>6</sup> Margins require adjustments for differences between markets in terms of sale, such as quantity discounts. CALLMAN, *supra* note 2, at 104-06.

<sup>7</sup> Consumption taxes can be defined as taxes that are eligible for border tax adjustments (see discussion *infra*) and include: single-stage taxes (sales taxes); multi-stage non-cumulative taxes (TVA); and multi-stage cumulative taxes (cascade taxes). The term "consumption tax" is preferable to "indirect tax," which can include property taxes and some social security charges. ORGANIZATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT, *BORDER TAX ADJUSTMENTS AND TAX STRUCTURES IN OECD MEMBER COUNTRIES* 17 (1968) [hereinafter OECD BORDER TAX ADJUSTMENTS].

of tax bases, dumping margins must adjust for differences in national taxation policies. The reason is apparent: since ultimate prices to consumers may differ when tax rates are unequal, a simple price-to-price comparison will generate a spurious dumping margin. The problem can be separated into two components. First, tax rates differ between countries. When home-market and export-market tax rates differ, a direct comparison of tax-inclusive (after-tax) prices will magnify or hide dumping margins. Second, even if tax rates are the same, after-tax prices will be different because dumping requires a difference in pre-tax prices between the two countries. Simple, unadjusted calculations made on an after-tax price will bias antidumping calculations, creating or destroying margins. Other countries, including until recently the United States, calculate margins using a tax-exclusive (pre-tax) price.<sup>8</sup> Yet a pre-tax approach is not intuitive; price discrimination is based on prices paid by consumers (not necessarily the ultimate consumer) and taxes are integral to that price.

In enforcing the U.S. antidumping statute,<sup>9</sup> the U.S. Department of Commerce ("Commerce") underestimates price discrimination by foreign firms. This allows importers to undercut the prices charged by U.S. manufacturers. The U.S. antidumping statute requires an after-tax measurement of price discrimination between the export market and the United States. Commerce's interpretation of the statute presumes the existence of perfectly competitive markets, requiring the creation of an artificial tax adjustment and the assumption of 100% pass-through of taxes to consumers. Perfectly competitive markets are, however, inconsistent with the existence of price discrimination. Consequently, to remedy dumping, Commerce must assume the existence of imperfectly competitive markets, eliminate the tax adjustment, and disallow the simple assumption of 100% tax pass-through. This will increase the assessment of antidumping duties on a large variety of imported products.

Commerce's current cost-based calculation methods cannot measure tax pass-through. In one case, however, Commerce has employed a sophisticated econometric model of supply (cost) and demand elasticities to estimate tax pass-through. Because econometric models can do more than simply measure pass-through, the U.S. Government should adopt an econometric approach in all antidumping cases. Econometric models recognize the dependence of prices on market structure. These models thereby allow the U.S. Government to segregate pricing behavior consis-

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<sup>8</sup> See, e.g., C. STANBROOK, *DUMPING: A MANUAL ON THE EEC ANTIDUMPING LAW & PRACTICE* 24 (1980).

<sup>9</sup> 19 U.S.C. § 1673 (1982 & Supp. V 1987).

tent with different market structures from behavior that injures a balanced set of U.S. interests, which includes producers, consumers, and downstream industries.

## II. TAXES AND THE U.S. ANTIDUMPING LAW

Congress designed the tax adjustment clause in the U.S. antidumping statute to adjust for differences in taxation between the United States and other countries.<sup>10</sup> To prevent taxes from creating dumping margins, the U.S. statute requires that the amount of tax rebated or not collected be added to the U.S. price of the exported merchandise.<sup>11</sup> Congress crafted the provision believing that the addition of taxes to the price of imported merchandise would prevent export tax rebates or exemptions from constituting dumping. The relevant section of the 1921 statute, which remained in effect until 1974, required adding to the price of the imported merchandise: “[T]he amount of any taxes [rebated or forgiven on export and] imposed in the country of exportation *upon the manufacturer, producer, or seller, in respect to the manufacture, production, or sale of merchandise to the United States.*”<sup>12</sup> The Trade Act of 1974 changed the italicized words to read “*directly upon the exported merchandise or components thereof.*”<sup>13</sup>

With this change, Congress directed Commerce to focus on the export price—U.S. price (“USP”)—rather than home-market price, as a basis for taxing the exported merchandise.<sup>14</sup> Until recently, the new wording made no difference in calculating dumping margins. Commerce continued to follow its traditional calculation method of stripping taxes from the ultimate price of the home-market merchandise, which is referred to as “foreign market value” (“FMV”). Since the exported mer-

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<sup>10</sup> During the 1919 hearings, it was explained that: “The foreign excise tax levied on the article for domestic use and not levied on the exported article, just as we do here, can have no possible connection with unfair competition or dumping.” See *Hearings on H.R. 9983 and H.R. 10071 Before the House Comm. on Ways and Means*, 66th Cong., 1st Sess. 15 (1919).

<sup>11</sup> The Senate Report on the legislation stated: “In order that . . . any excise tax which is refunded or not collected upon the exportation of the merchandise shall not constitute dumping, it is necessary to add such items to the purchase price [*i.e.*, U.S. price].” See S. REP. NO. 16, 67th Cong., 1st Sess. 12 (1921).

<sup>12</sup> Antidumping Act, ch. 14, § 203, 42 Stat. 11, 12 (1921), *repealed by* Trade Agreements Act of 1979, Pub. L. No. 96-39, § 106(a), 93 Stat. 144, 193 (1979) [emphasis added.].

<sup>13</sup> Trade Act of 1974, Pub. L. No. 93-618, § 321, 88 Stat. 1978, 2048 (1974), *repealed by* Trade Agreements Act of 1979, Pub. L. No. 96-39, § 106(a), 93 Stat. 144, 193 (1979) [emphasis added.].

<sup>14</sup> In 1974, the Treasury Department had the responsibility for administering the antidumping law. Currently, the Department of Commerce/International Trade Administration (Commerce) has the authority to impose import duties on merchandise dumped into the United States. 19 U.S.C. § 1673 (1982).

chandise no longer carried its home-market tax burden, Commerce calculated dumping margins—FMV less USP—based on pre-tax prices.

Figure 1 simulates Commerce's traditional method, assuming a home-market price ("HMPrice") of \$100, a home-market tax ("HMTax") rate of 10%, and an export price ("USP") of \$90.<sup>15</sup> By stripping taxes out of its dumping calculations (*i.e.*, -\$10), Commerce generated a pre-tax margin of \$10.<sup>16</sup>

FIGURE 1

| FMV                                      |                   | USP  |
|--|-------------------|------|
| \$ 100                                   | (HMPrice w/o Tax) |      |
| + \$ 10                                  | (10% HMTax)       |      |
| \$ 110                                   | (Price w/HMTax)   |      |
| - \$ 10                                  | (10% HM Tax)      |      |
| \$ 100                                   |                   | \$90 |
| Margin = FMV - USP = \$100 - \$90 = \$10 |                   |      |

Commerce believes that the calculation in Figure 1—which ignores the existence of taxes—implements Congress' intent that taxes should not cause margins.<sup>17</sup>

In 1986, the Court of International Trade ("CIT") overturned Commerce's practice, mandating the addition of taxes to U.S. price rather than subtraction from foreign market value.<sup>18</sup> Following the CIT's instructions precisely, Commerce applied the HMTax to USP, and thus increased the margin from \$10 in Figure 1 to \$11 in Figure 2.<sup>19</sup>

<sup>15</sup> Implicit in these examples are the harmless simplifying assumptions that U.S. price equals the entered value of the merchandise and that the merchandise sold in the United States is exactly the same as merchandise sold in the home market. In general, these assumptions will not hold.

<sup>16</sup> Commerce usually starts with home-market prices that already include the home-market tax (Price w/HMTax), strips out the home-market tax (10% HMTax), and ends up with FMV, which in Figure 1 is \$100.

<sup>17</sup> The need to adjust for taxes is apparent. If, for example, an unadjusted after-tax calculation had been made, the margin would increase by the amount of the tax forgiven on export to the United States.

| FMV                                      |                 | USP   |
|--|-----------------|-------|
| \$ 100                                   | (Price w/o Tax) |       |
| + \$ 10                                  | (10% Tax)       |       |
| \$ 110                                   | (Price w/Tax)   | \$ 90 |
| Margin = FMV - USP = \$110 - \$90 = \$20 |                 |       |

<sup>18</sup> *Zenith Elecs. Corp. v. United States*, 633 F. Supp. 1382 (Ct. Int'l Trade 1986). The CIT's decision forced Commerce to use the method in Figure 2 to redetermine the administrative proceeding on Television Receiving Sets, Monochrome and Color, from Japan, 50 Fed. Reg. 24,278 (Dep't Comm. 1985) (final admin. review). See *infra* notes 54 & 63.

<sup>19</sup> Commerce used the method in Figure 2 only in the *Zenith* redetermination. See *supra* note 18. The CIT was aware of the margin magnification problem, justifying it as permissible punishment

FIGURE 2

| FMV    |             | USP   |             |
|--------|-------------|-------|-------------|
| \$ 100 |             | \$ 90 |             |
| +\$ 10 | (10% HMTax) | +\$ 9 | (10% HMTax) |
| \$ 110 |             | \$ 99 |             |

Margin = \$110 - \$99 = \$11

In all of its following decisions, however, Commerce decided to equalize the tax burden between the two markets, using a “circumstances-of-sale” (“C-O-S”) adjustment.<sup>20</sup> In Figure 3, the C-O-S adjustment (-\$1) is simply the difference between the tax burden in the United States (\$9) and the tax burden in the home market (\$10).

FIGURE 3

| FMV    |                    | USP   |             |
|--------|--------------------|-------|-------------|
| \$ 100 |                    | \$ 90 |             |
| +\$ 10 | (10% HMTax)        | +\$ 9 | (10% HMTax) |
| \$ 110 | (HMPPrice w/HMTax) | \$ 99 |             |
| -\$ 1  | C-O-S (\$9-\$10)   |       |             |
| \$ 109 |                    |       |             |

Margin = \$109 - \$99 = \$10

In effect, Commerce forced the after-tax margin in Figure 3 to con-

for dumping. Commerce is appealing the decision, based on the belief that Congress designed the antidumping law to be remedial, not penal. *See, e.g., Badger-Powhatan v. United States*, 608 F. Supp. 653 (Ct. Int'l Trade 1985).

<sup>20</sup> Section 773(a)(4) of the Trade Agreements Act of 1979 gives Commerce the authority to make a “circumstances-of-sale” (“C-O-S”) adjustment.

In determining foreign market value, if it is established to the satisfaction of the administering authority that the amount of any difference between the United States price and the foreign market value . . . is wholly due or partly due to . . . (B) . . . differences in circumstances of sale . . . then due allowance shall be made therefore.

19 U.S.C. § 1677b(a)(4) (1982). The legislative history of the amendments to the Antidumping Act of 1921 sheds little additional light on the meaning of the term “circumstances-of-sale.” *See* Act of August 14, 1958, Pub. L. No. 85-630, 72 Stat. 583 (1958) (repealed 1979). The House and Senate Reports give the following identical explanation of the provision:

Under the bill as reported, provision is made . . . for consideration of “other differences in circumstances of sale” in addition to quantity differentials. This is designed to facilitate efficient and fair comparison between foreign market value and price to the United States market. Examples would be differences in terms of sale, credit terms, and advertising and selling costs.

HOUSE COMM. ON WAYS AND MEANS, 85TH CONG., 1ST SESS., REPORT ACCOMPANYING H.R. 6006, H.R. REP. NO. 1261, at 7, *reprinted in* 1958 U.S. CODE CONG. & ADMIN. NEWS 3498, 3503; SENATE COMM. ON FINANCE, 85TH CONG., 2D SESS., REPORT ACCOMPANYING H.R. 6006, S. REP. NO. 1619, at 7, *reprinted in* 1958 U.S. CODE CONG. & ADMIN. NEWS 3498, 3503. Like the above passage, Commerce regulations provide a non-exhaustive list of selling expenses which qualify for a C-O-S adjustment. Commerce believes that the specific terms of the C-O-S provision are broad enough to support a tax-differential adjustment. 19 C.F.R. § 353.15 (1958).

form to the pre-tax margin in Figure 1 of \$10.<sup>21</sup> To do this, Commerce equalized the effective tax burden between the two markets instead of simply equalizing the nominal 10% tax rate. In Figure 3, the tax burden on the U.S. merchandise is \$9, and the effective burden on the home market merchandise is \$10—\$1, or \$9.

Commerce's decision to match pre-tax and after-tax margins in Figure 3 provides two important insights. First, although a nominal 10% home-market tax is applied to both markets, the effective tax rate on the U.S. merchandise is 10%: a \$9 burden imposed upon its \$90 price. In contrast, the effective tax rate applicable to the home market is 9%: a \$9 tax burden imposed upon a \$100 price.<sup>22</sup> Second, for purposes of the tax adjustment calculation, Commerce's method could be alternatively viewed as effectively equalizing the tax base—or price—in both markets. If both foreign market value and U.S. price equal \$90, then the application of a 10% tax rate produces equal tax burdens of \$9 in each market.

The confusion over nominal tax rates, tax burdens, and prices results from the ambiguous and imprecise language of the U.S. antidumping statute's tax clause. The clause states that the addition of taxes to U.S. price shall equal the amount of home-market taxes which have been forgiven "by reason of export."<sup>23</sup> The question is whether the appropriate "U.S. price" is the price of merchandise sold in the home market, in the United States, or, perhaps, somewhere between the two prices.<sup>24</sup> The

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<sup>21</sup> In its final determination, Commerce stated that it made the C-O-S adjustment "[t]o avoid artificially inflating or deflating margins . . ." Television Receiving Sets, Monochrome and Color, from Japan, 53 Fed. Reg. 4051 (Dept Comm. 1988) (final admin. review) [hereinafter Television Receiving Sets, from Japan]. Zenith is currently challenging this adjustment in the CIT. *Zenith Elecs. Corp. v. United States*, No. 88-2-00122 (Ct. Int'l Trade filed 1988).

<sup>22</sup> Commerce's calculation in Figure 3 results in an overbate of taxes on exported merchandise. In other words, exported goods qualify for a 10% rebate, while domestically consumed goods suffer only a 9% tax rate. Commerce considers overrebates of indirect taxes on exported goods to be a countervailable export subsidy under the U.S. countervailing duty statute. Tariff Act of 1930 § 771, Pub. L. No. 71-361, 46 Stat. 590 (codified as amended at 19 U.S.C. §§ 2501-2582 (1982)). See also *infra* note 31.

<sup>23</sup> The statute states:

The purchase price and exporter's sale price shall be adjusted by being—

(1) increased by . . .

(C) the amount of any taxes imposed in the country of exportation directly upon the exported merchandise or components thereof, which have been rebated, or which have not been collected, by reason of the exportation of the merchandise to the United States, but only to the extent that such taxes are added to or included in the price of such or similar merchandise when sold in the country of exportation . . . .

19 U.S.C. § 1677a(d)(1) (1982).

<sup>24</sup> Import valuation has caused recurring problems for international trade officials. Originally, the problem centered on customs valuation difficulties, particularly regarding customs duties. Viner discusses the origin of this problem in some detail and states:

As a matter of fact, however, few tariff laws provide for the assessment of duties on the basis of the export price of foreign commodities, especially if the export price is lower than the foreign



rewording of the antidumping statute in 1974 seems to direct Commerce to focus on U.S. price, rather than home-market price, as a basis for taxation. Commerce believed, however, that an adjustment for unequal tax burdens was necessary for margins to adhere to Congressional intent that taxes should not cause margins. Equally significant, Commerce presumed that its C-O-S tax adjustment would meet the U.S. Government's obligations under GATT. Fortunately, GATT—unlike the U.S. statute—provides certain theoretical tools to help understand the problems created by different domestic tax systems.<sup>25</sup>

### III. THE GATT BORDER TAX ADJUSTMENT MECHANISM

As shown above, countries adopted a simple system of rebating the home-market tax on export to combat double taxation. Merchandise sold in the home market carried a tax burden determined by the home-market tax rate, while merchandise sold for export carried a tax burden based on the tax rate of the importing country. It is unclear whether the drafters of GATT, the GATT Antidumping Code,<sup>26</sup> and the U.S. antidumping law fully understood the principles underlying the tax rebate system. Despite dissimilar treatment of the issue, both GATT and U.S. law have clearly adopted this rebate system to deal with taxes in international trade.<sup>27</sup> Various GATT provisions support this contention.<sup>28</sup> For

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market value. In most countries which make use of ad valorem duties they are levied in theory at least on the foreign market value, or else on an officially determined value which is more or less independent of the export price.

VINER, *supra* note 2, at 156. This is no longer the case because international appraisement rules now rely on export price. Viner also mentions the importance of determining accurate values of U.S. price and FMV for normal Customs purposes and in calculating dumping margins. *Id.* at 265-67. The problems associated with unequal tax bases—*i.e.*, unequal prices—were also explored by the OECD in its study of border tax adjustments and were determined to be of “minor importance.” OECD BORDER TAX ADJUSTMENTS, *supra* note 7, at 57-58 (1968).

<sup>25</sup> An appeal to GATT is the appropriate recourse for the statute's lack of clarity because: “Where fairly possible, a United States statute is to be construed so as to not conflict with international law or with an international agreement of the United States.” RESTATEMENT (THIRD) OF THE FOREIGN RELATIONS LAW OF THE UNITED STATES § 114 (1986).

<sup>26</sup> Agreement No. 103 in App. C; GATT Doc. L/2812 (1967).

<sup>27</sup> “It is interesting to note at the outset that most of the GATT provisions on border tax adjustments appear to be based on proposals drafted by the United States, reflecting United States practice in its bilateral agreements.” Rosendahl, *Border Tax Adjustments: Problems and Proposals*, 2 LAW & POL'Y INT'L BUS. 85, 92 (1970) [hereinafter Rosendahl]. With respect to the tax rebate system: “There was general agreement that the main provisions of the GATT represented the codification of practices which existed at the time the provisions were drafted, re-examined and completed.” Report of the Working Party adopted on 2 December 1970, Border Tax Adjustments, GATT Doc. L/3464, reprinted in THE CONTRACTING PARTIES TO THE GENERAL AGREEMENT ON TARIFFS AND TRADE, BASIC INSTRUMENTS AND SELECTED DOCUMENTS 97, 99 (18th Supp. 1972) [hereinafter WORKING PARTY REPORT]. “The traditional concepts regarding subsidies, border tax adjustments, and countervailing duties are embodied in the GATT.” Feller, *Mutiny Against Bounty: An Exami-*

example, Article III ensures that imported goods do not bear a greater tax than domestic goods, providing that: "The products of the territory of any contracting party imported into the territory of any other contracting party shall not be subject, directly or indirectly, to internal taxes or other internal charges of any kind in excess of those applied, directly or indirectly, to like domestic products . . . ."<sup>29</sup>

Article XVI, which deals with export subsidies, explicitly allows a rebate or forgiveness of consumption taxes.<sup>30</sup> For subsidies, if exports entered the importing country already carrying one consumption tax, the equal application of the importing country's consumption tax would force the imported good to incur two tax burdens.<sup>31</sup> Permitting the forgiveness or rebate of consumption taxes on export thus prevents taxes from distorting international trade.

To ensure that merchandise traded across international borders neither escapes taxes entirely nor suffers double taxes, GATT employs the country-of-origin principle and the destination principle.<sup>32</sup> The

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*nation of Subsidies, Border Tax Adjustments, and the Resurgence of the Countervailing Duty Law*, 1 LAW & POL'Y INT'L BUS. 17, 54 (1969) [hereinafter Feller]. See also OECD BORDER TAX ADJUSTMENTS, *supra* note 7.

<sup>28</sup> There is no unified GATT provision dealing exclusively with border taxes; the GATT rules in this area are scattered through several articles of the Agreement as well as interpretive notes and working party reports. Excluding article VI (antidumping and countervailing duties) . . . the principle GATT articles dealing with border tax adjustments are articles II (tariff concessions), III (internal taxation of imports), and XVI (subsidies). Rosendahl, *supra* note 27, at 92-93. See also *supra* note 25.

<sup>29</sup> Article III of GATT . . . reflects a desire to equalize domestic tax treatment on goods consumed domestically, whether domestically produced or imported, and a desire to relieve other goods (exports) of that burden. . . . This problem has two sides, however: the imposition of an equalizing tax on imported goods, on the one hand, and the revision or exemption from domestic taxes for exported goods, on the other hand.

J. JACKSON, WORLD TRADE AND THE LAW OF GATT 295 (1969) [hereinafter J. JACKSON].

<sup>30</sup> Article XVI states: "The exemption of an exported product from duties or taxes borne by the like product when destined for domestic consumption . . . shall not be deemed to be a subsidy." GATT, *supra* note 1.

<sup>31</sup> The report of the 1960 GATT Working Party On Subsidies, which was adopted by the contracting parties, listed as a subsidy: "The exemption, in respect of exported goods of . . . taxes . . . if amounts exceeding those effectively levied . . . in the form of indirect taxes . . . in connection with importation . . ." Note 22, *supra*, demonstrates that Commerce grants exports a 1% overrebate of indirect taxes. Commerce's creation of an export subsidy in its antidumping margin calculation violates the integrity of U.S. import relief laws. Until recently, most countries had one law covering both countervailing duties and antidumping duties; logically, the countervailing duty and antidumping statutes should fit together precisely, without overlap. Dumping calculations, such as Figure 3, should not create countervailing subsidies. See Rosendahl, *supra* note 27; Feller, *supra* note 27 (for a discussion of the interrelationship between the two statutes).

<sup>32</sup> See OECD BORDER TAX ADJUSTMENTS, *supra* note 7; WORKING PARTY REPORT, *supra* note 27; Latimer, *The Border Tax Adjustment Question*, CANADIAN TAX J., 409-413 [hereinafter Latimer]; Rosendahl, *supra* note 27, at 85-146; Feller, *supra* note 27, at 17-176. Under an international regime of homogeneous tax rates, the origin and destination principles are the same. Neumark Report, 2 Common Mkt. Rep. (CCH) ¶ 3201 (1982).

country-of-origin principle applies to direct taxes (i.e., taxes on profits), such as the corporate income tax. The origin principle requires taxation at the point of production, making it unnecessary to compensate for the distinctive tax structure of each country. GATT assumes that direct taxes fully shift backward onto the producer. Because the producer absorbs the tax, no rebate is necessary at the time of export. Conversely, the destination principle applies to consumption taxes (i.e., taxes on products), such as a sales tax. Consumption taxes shift the burden forward to the consumer, as merchandise is taxed at the point of consumption.<sup>33</sup> Since indirect taxes are fully shifted (100% pass-through) into the price paid by the consumer, the consumer pays the tax, and consumption taxes qualify for rebate on export.<sup>34</sup>

Border tax adjustments “refer to the international treatment of taxes under the rules of . . . (GATT),”<sup>35</sup> and are defined as those adjustments required to make the destination principle function.<sup>36</sup> Although GATT never specifically refers to border tax adjustments or its underlying basic “tax shifting” theory, the border tax adjustment mechanism is undoubtedly GATT’s method of handling taxes.<sup>37</sup> As long as consumption taxes are shifted forward into price, “GATT border tax adjustments prevent distortion of prices regardless of the rate of indirect taxation [i.e., consumption taxes].”<sup>38</sup> The GATT border tax adjustment mechanism therefore ensures fiscal sovereignty *and* “trade neutrality”<sup>39</sup> between

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<sup>33</sup> The distinction between direct taxes and consumption (indirect) taxes has been debated since the early 1960s. Several countries, in particular the United States, have argued that the distinction is arbitrary and should be re-evaluated. Although the debate centered on technical, economic arguments, the debate was truly a political one, brought on by U.S. balance of payments problems, the existence of fixed exchange rates (disallowing exchange rate adjustments for the balance of payments deficit), and the European Communities’ replacement of various indirect tax systems with a value-added system. The heart of the problem was U.S. reliance on direct taxes—which are not eligible for rebate—and the European Communities’ use of consumption taxes—which are eligible for rebate. This Article does not revisit this debate and, at least initially, accepts the artificial distinction between direct taxes and consumption taxes. See WORKING PARTY REPORT, *supra* note 27; OECD BORDER TAX ADJUSTMENTS, *supra* note 7; Feller, *supra* note 27; Latimer, *supra* note 32, at 409-13; Petty, Border Tax Adjustments and GATT 379-89 (Tariffs and Trade, Twenty-First Tax Conference, 1968) [hereinafter Petty]; Rosendahl, *supra* note 27.

<sup>34</sup> See *supra* note 31.

<sup>35</sup> Leontiades, *The Logic Of Border Taxes*, 19 NAT’L TAX J. 173 (1966) [hereinafter Leontiades].

<sup>36</sup> WORKING PARTY REPORT, *supra* note 27, at 97-98.

<sup>37</sup> “[The border tax adjustment] is a problem almost entirely generated by GATT provisions. . . .” J. JACKSON, *supra* note 29, at 294. For further reading on the relationship between tax shifting and the border tax adjustment mechanism, see Feller, *supra* note 27, at 17-76; Latimer, *supra* note 32, at 409-13; Leontiades, *supra* note 35, at 175; Petty, *supra* note 33, at 379-89; Rosendahl, *supra* note 27, at 85-146.

<sup>38</sup> Leontiades, *supra* note 35, at 174.

<sup>39</sup> “[The members of the tax working party] were also of the opinion that the present rules served the purpose of trade neutrality of [border] tax adjustment . . . .” WORKING PARTY REPORT,

countries, preventing one country's tax system from providing it a "competitive edge" over another.<sup>40</sup>

The border tax adjustment mechanism levels effective tax rates, allowing both imported and domestically produced goods to compete on equal terms.<sup>41</sup> The mechanism makes no particular assumption of pass-through, price or tax burden. To calculate margins, Commerce used the border tax adjustment mechanism to equalize *nominal* tax rates. Commerce then employed the C-O-S adjustment to equalize tax burdens between the two markets, generating unequal *effective* tax rates. The creation of unequal tax rates violates the border tax adjustment mechanism's fundamental principle of tax rate equalization. Attempting to eliminate the influence of taxes on price and, consequently, price discrimination, Commerce undercut the mechanism used to compensate for domestic taxation in international trade. As shown below, Commerce's belief in tax burden equalization is derived from the GATT philosophy of comparative advantage, which is inconsistent with the conditions necessary for the existence of price discrimination.

#### IV. COMPARATIVE ADVANTAGE

The guiding philosophy of GATT is the belief that free trade is the best policy.<sup>42</sup> To implement this philosophy, GATT relies on the theory of comparative advantage,<sup>43</sup> which requires that "countries . . . specialize in producing goods of which they are relatively more efficient produ-

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*supra* note 27, at 97, 99. "Trade neutrality" is a shorthand expression for unbiased international trade flows. See, Feller, *supra* note 27, at 17-76; Latimer, *supra* note 32, at 409-13; Leontiades, *supra* note 35, at 175; Rosendahl, *supra* note 27, at 85-146.

<sup>40</sup> "[The border tax adjustment] touches the core of a major question of international trade policy today—*i.e.*, to what degree should international regulation of trade require participating nations to conform their domestic, social, economic, and political institutions and policies." J. JACKSON, *supra* note 29, at 295. There has also been substantial debate on whether the assumptions underpinning consumption and direct taxes and border tax adjustments are trade neutral with respect to balance of payments problems and exchange rate flexibility. See, *e.g.*, Johnson & Krause, *Border Taxes, Border Tax Adjustments, Comparative Advantage, and the Balance of Payments*, 3 CANADIAN J. ECON. 595, 595-602 (1970); Mumeey, *Trade Tax Symmetry*, 3 CANADIAN J. ECON. 80 (1970); OECD, Working Party No. 4 of the Council on Border Tax Adjustments, OECD Doc. C/WP4(66(4)) (Feb. 16, 1966) [hereinafter Working Party No. 4].

<sup>41</sup> The border tax adjustment mechanism equalizes tax rates, which can be either home-market or export-market tax rates.

<sup>42</sup> NICHOLSON, *supra* note 4, at 563 n.3.

<sup>43</sup> "GATT usually presumes that trading enterprises will act on commercial considerations and that the economic theories of comparative advantage will lead these enterprises to extend their international trade in order to reap its benefits . . ." J. JACKSON, *supra* note 29, at 330. The advantages of free and fair international trade are discussed in G. HABERLER, A SURVEY OF INTERNATIONAL TRADE THEORY 52-58 (1961).

cers.”<sup>44</sup> Free and fair trade under GATT therefore requires production efficiency; for production to be efficient, perfect competition must be assumed.<sup>45</sup> Perfectly competitive price systems<sup>46</sup> efficiently allocate resources, forcing each good to trade at the same price regardless of who buys or sells it.<sup>47</sup> As demonstrated below, perfect competition requires 100% tax pass-through and homogeneous prices. Imperfectly competitive markets, on the other hand, disallow such simple assumptions.<sup>48</sup>

### A. Perfect Competition

Under the model of perfect competition, each firm is a price-taker with no control over prices, profits in the long-run are zero, and no incentives encourage one to enter or leave the market.<sup>49</sup> Firms selling in a competitive market will face a price equal to the revenue acquired on the last unit sold—marginal revenue. Because profits are zero, both price and marginal revenue will equal the cost to produce the last unit sold—marginal cost. To maximize profits, each firm will produce so long as marginal revenue, or price, is equal to marginal cost.<sup>50</sup>

If a consumption tax is imposed, firms in a perfectly competitive market will always pass through 100% of the tax to the consumer. Figure 4 shows the standard conditions for perfect competition. The market's supply curve is flat, and the demand curve—faced by the entire market—slopes down and to the right.<sup>51</sup> The imposition of a unit tax pushes the supply curve up by the amount of the tax ( $t$ );  $S$  shifts to  $S'$ ,

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<sup>44</sup> NICHOLSON, *supra* note 4, at 531. For an in-depth treatment of comparative advantage, see D. RICARDO, *THE PRINCIPLES OF POLITICAL ECONOMY AND TAXATION* (1817 & J.M. Dent & Son reprint 1965).

<sup>45</sup> NICHOLSON, *supra* note 4, at 531-37.

<sup>46</sup> Perfectly competitive markets are, of course, an economic abstraction. Few, if any, markets could be classified as perfectly competitive.

<sup>47</sup> Intuitively, perfectly competitive markets transmit accurate cost information by eliminating deviations between prices and costs. Because the price system quickly transmits accurate information, efficiency is ensured and resources are allocated optimally among producers.

<sup>48</sup> See R. MUSGRAVE & P. MUSGRAVE, *PUBLIC FINANCE IN THEORY AND PRACTICE* 268-74 [hereinafter MUSGRAVE]; J. Perloff, *The Bias from Inappropriately Using Competitive Models to Estimate Tax Incidence in Dumping Cases* (Dec. 1986) (unpublished manuscript; available at the Dept. of Commerce Public Reading Room B-099 in the antidumping proceeding Television Receiving Sets, from Japan, *supra* note 20) [hereinafter Perloff].

<sup>49</sup> This is based on an economist's definition of profits.

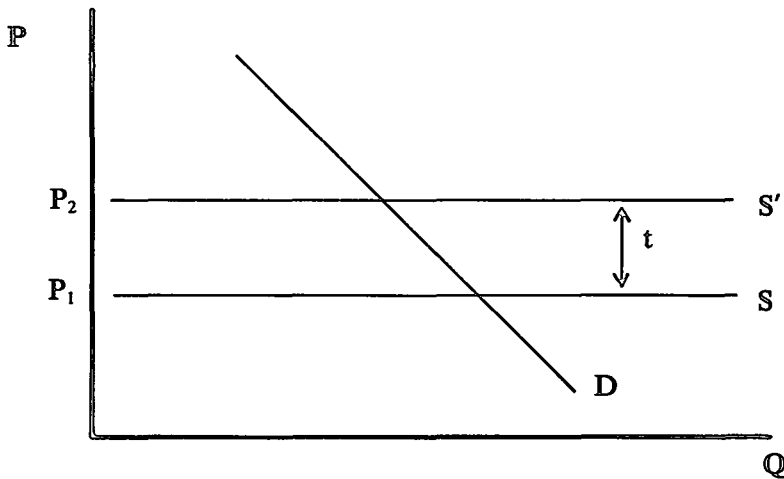
These profits represent a return to the owner of a business in excess of that which is strictly necessary to keep him in the business. Hence, when we talk about a firm earning "zero" profits, we mean that there is no entrepreneurial income being earned in excess of that which could be earned on alternative investments.

NICHOLSON, *supra* note 4, at 326 n.2.

<sup>50</sup> *Id.* at 261-79.

<sup>51</sup> These conditions hold for a long-term analysis of perfectly competitive markets. *Id.* at 325-40.

FIGURE 4



quantity drops, and price increases by the amount of the tax (that is,  $t = P_2 - P_1$ ).<sup>52</sup> Because price increases by the amount of the tax burden, the consumer pays the entire tax. In other words, perfectly competitive markets assure 100% tax pass-through and homogeneous prices.<sup>53</sup> Under the GATT condition of perfect competition, the border tax adjustment mechanism assumes 100% pass-through, equal effective tax rates, and homogeneous prices. The application of equal tax rates to equal prices

<sup>52</sup> The results are applicable to an ad valorem tax as well, but the derivation is more difficult. See MUSGRAVE, *supra* note 48, at 268-74, 474.

<sup>53</sup> See *supra* note 33. The second aspect of the debate on border tax adjustments was the extent to which the actual supply and demand curves deviated from those under perfect competition. The existence of perfectly competitive markets was not formally attacked. Ultimately, the debate ground to a halt, primarily because of the simplicity of the assumption of 100% pass-through. Although it was never explicitly stated, the assumption rests on the intuitive appeal of the theory of comparative advantage. In a sense, the countries arguing against 100% pass-through had to prove the negative—*i.e.*, that 100% pass-through was not taking place. In addition, they would then have to specify the proportion. See Working Party No. 4, *supra* note 40; WORKING PARTY REPORT, *supra* note 27, at 97-109. Dr. Crandall takes this approach in explaining how 100% pass-through can be assumed using a general economic analysis. Crandall, *The Effect of the Japanese Commodity Tax on the Price of Television Receivers in Japan* (submitted on Behalf of Respondents Oct. 1, 1986) (available at the Dept. of Commerce Public Reading Room B-099 in the antidumping proceeding Television Receiving Sets, from Japan, *supra* note 21). See also *supra* note 18; *infra* notes 54 and 63.

generates equal tax burdens in both markets. This is the result Commerce attempted to achieve in Figure 3.

### B. Imperfect Competition

Comparative advantage does not hold in imperfectly competitive markets dominated by monopolies and oligopolies.<sup>54</sup> Because market power allows monopolies to command higher prices and produce lower quantities than competitive firms, imperfect competition impedes allocative efficiency. As shown below, homogeneous prices and 100% pass-through cannot be assumed.<sup>55</sup>

Like firms in perfect competition, a monopolist will set marginal revenue equal to marginal cost in order to maximize profits. In contrast to firms in a competitive market, however, a monopolist is not a price-taker; it instead sets the price in the market, facing a market demand curve that slopes down and to the right. Price will generally be above the point where marginal revenue meets marginal cost.

Unlike firms in a perfectly competitive market, a monopolist does not face a flat supply curve; rather, the supply curve is the point where the marginal revenue and marginal cost curves intersect. In Figure 5, a tax ( $x$ ) is imposed on a monopolist. The marginal cost curve ( $MC$ ) shifts up to  $MC'$ ; quantity produced (at  $MR = MC'$ ) drops from  $Q_1$  to  $Q_2$ ; and price increases from  $P_1$  to  $P_2$ . Therefore, the tax burden is less than the

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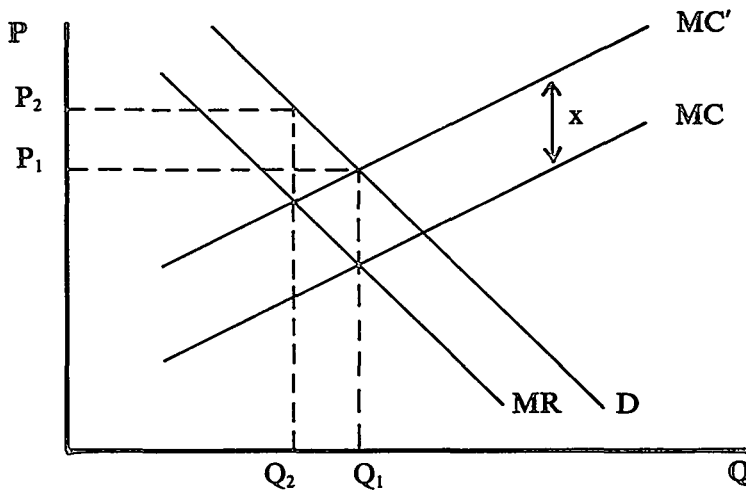
<sup>54</sup> Oligopolistic behavior, which is usually characterized by several large firms in one market, is not amenable to a general theoretical framework. Therefore, price discrimination and dumping theory have usually been couched in an analysis of monopolistic behavior. Imperfect competition is generally oligopolistic, not monopolistic, in nature. True monopolies are rare. NICHOLSON, *supra* note 4, at 283-345. Over the last several years, the theories of monopolistic behavior, price discrimination, and predatory pricing have become more refined and may call into question some assumptions used in this Article; this Article, however, will continue to use classical assumptions concerning monopolies. See, e.g., R. BORK, *THE ANTITRUST PARADOX* (1979) [hereinafter BORK]; Perloff, *supra* note 48. This author and others in the court-ordered remand on Japanese television receivers explained a relatively straight-forward treatment of a conjectural variations theory, which Commerce used to model the interaction between oligopolistic firms.

The conjectural variations theory tries to explain why firms change the amount they produce. For example, as Firm X increases or decreases output, its revenue ( $p * q$ ) will change. In a non-competitive market such as an oligopoly, the other firms in the market will react to Firm X's change in output by increasing or decreasing their output and, accordingly, their revenue. Conjectural variations theory states that this behavioral reaction by the rest of the firms in the market was anticipated and, to a certain extent, incorporated into Firm X's original decision to change its output. In other words, oligopolists vary their behavior to account for their conjectures about the behavior of other suppliers.

Zenith Elecs. Corp. v. United States (on file with the Federal Court, Nos. 88-1259 and 88-1260, 26). See also *supra* notes 18 and 53; *infra* note 63.

<sup>55</sup> See MUSGRAVE, *supra* note 48, at 268-74; Perloff, *supra* note 48; Davidson & Martin, *General Equilibrium Tax Incidence under Imperfect Competition: A Quantity-setting Supergame Analysis*, 93 J. POL. ECON. 1212, 1212-23 (1985).

Figure 5



increase in price ( $t < P_1 - P_2$ ). In general, for a monopolist to continue to maximize profits, it must pass through less than 100% of the tax burden.<sup>56</sup>

The market power of a monopolist may also allow it to set unequal prices in different markets. If markets are separated and the demand curves in each market are different, a monopolist can increase profits through price discrimination. Since the demand and marginal revenue curves are different, prices in each market will also be different. Dumping is simply an extension of price discrimination to the international market, imposing the condition that the price charged in the home market must be greater than the price in the export market.

Imperfectly competitive markets are consistent with dumping and the existence of unequal prices in different markets. In contrast, the blanket GATT assumptions of 100% pass-through, homogeneous prices, and equal tax burdens are inconsistent with the existence of dumping. By using the C-O-S adjustment (Figure 3), Commerce incorporated the GATT assumptions consistent with the conditions associated with perfectly competitive markets, but inconsistent with the existence of dumping. Commerce effectively eliminated a portion of the price discriminatory behavior that it was trying to measure.

<sup>56</sup> A more refined analysis can demonstrate the possibility of pass-through exceeding 100%. See B. Wright, Notes on the Effects of a Commodity Tax on Prices and Profits in a Conjectural Variations Model in a Closed Economy (Mar. 1987) (California Agricultural Experiment Station, Gianini Foundation of Agricultural Economics).



## V. CONCLUSION

The assumption of 100% tax pass-through and homogeneous prices derive from the GATT philosophy that comparative advantage generates free and fair international trade. These two assumptions, used in conjunction with the border tax adjustment mechanism (which equalizes tax rates between two countries), help prevent distortions in international trade flows. This allows domestic and imported products to compete on equal terms. Commerce's original practice of subtracting consumption taxes from home-market price resulted in tax-free dumping margins. Once forced to include taxes in price, Commerce preserved the tax-free result by equalizing tax burdens. By equalizing the burdens, however, Commerce used different effective tax rates in each market, undercutting the foundation of the border tax adjustment mechanism. The dilemma between tax-rate and tax-burden equalization reveals the conflict between the theories of comparative advantage and dumping or international price discrimination.

Comparative advantage presumes perfect competition, requiring homogeneous pricing across markets and 100% pass-through of consumption taxes to consumers. Dumping presumes imperfect competition, implying neither homogeneous pricing nor 100% pass-through. By incorporating the antidumping code in its framework, GATT was also forced to assimilate certain assumptions consistent with imperfectly competitive markets. This is a fundamental conflict. Dumping, which is possible only in imperfectly competitive markets, conflicts with the basic GATT principle of comparative advantage.<sup>57</sup>

GATT incorporated the antidumping code in its framework in an attempt to ensure that dumping margins generate trade-neutral results. If used correctly in imperfectly competitive markets, the border tax adjustment mechanism will prevent biased dumping margins, restoring trade patterns to those that would have existed in the absence of dumping. Trade-neutral margins will neutralize dumping—no more, no less. They are consistent with the premise that antidumping duties are remedial rather than punitive. The appropriate amount of remedy for dumping, however, depends directly on the amount of tax pass-through and the degree to which price discrimination is practiced. Commerce erred in its appeal to GATT principles of comparative advantage to justify the

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<sup>57</sup> In his discussion of GATT provisions on state *monopolies*, Jackson states: "As might be expected for subject matter involving a type of economic behavior that does not fit very well into the basic economic assumptions of trade and market activity that motivated most of the General Agreement on Tariffs and Trade, state trading [monopolies] is a complex subject . . ." J. JACKSON, *supra* note 29, at 336.

equalization of tax burdens between markets. Comparative advantage assumes 100% pass-through and eliminates price differences between markets. Commerce's tax adjustment calculation forced the dumping margin to conform to a market condition that precludes the existence of dumping.

The conflict between tax-burden and tax-rate equalization in dumping calculations cannot be resolved by an appeal to GATT principles.<sup>58</sup> Because comparative advantage conflicts with the theory of imperfect competition, the tax-burden/tax-rate problem must be resolved by the dumping law, which implicitly references the theoretical framework of imperfect competition. For taxes, imperfect competition has three effects: it requires pass-through measurements, it mandates different tax bases, and it generates unequal tax burdens.<sup>59</sup> More importantly, it precludes *ad hoc* adjustments, such as Commerce's C-O-S adjustment, to eliminate differences in tax burdens. Commerce's present method therefore understates dumping margins. Consequently, to properly remedy dumping, Commerce must measure pass-through and apply the home-market tax rate to both markets without adjustment.

## VI. IMPLICATIONS

Commerce confronts tax issues in several cases and, therefore, needs to decide whether to retain the C-O-S tax adjustment and measure pass-through using econometric models.<sup>60</sup> To remedy dumping, Commerce

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<sup>58</sup> This analysis also resolves a long-simmering debate over whether the U.S. dumping law is a price discrimination statute or a profit discrimination statute. Implicitly, Commerce maintains that there is no difference and therefore describes dumping margins as measurements of rates of return to producers, or profit discrimination. The Study of Antidumping Adjustment Methodology Recommendation for Statutory Change (available at the Dept. of Commerce, Room B-099) [hereinafter Antidumping Adjustment Methodology]. Bork also makes this argument, stating that returns must be compared in order to measure price discrimination. BORK, *supra* note 54, at 399. See also *infra* note 68.

Profit discrimination calculations, such as Figure 3, ignore what every savvy businessman knows: dropping pre-tax price by \$10 undercuts a competitor by \$11. Simply put, taxes affect price, driving an additional \$1 tax wedge into the market. Moreover, if 100% pass-through cannot be assumed, then price discrimination and profit discrimination are not the same thing. For more general reasons, Viner also came to the same conclusion: "The relations of particular dumping prices to costs of production, to dumper's profits, and to the prices of rival sellers, are often intricate problems which cannot be solved by mere definition, and which in many cases are not susceptible of exact solution." VINER, *supra* note 2, at 3-4. Viner also discusses tax rebate effects on dumping, *id.* at 14-15, and countervailing duties. *Id.* at 174-77.

<sup>59</sup> One could argue that pass-through measurements of consumption taxes necessitate "pass-back" measurements of direct taxes.

<sup>60</sup> In *Zenith Electronics Corp. v. United States*, Commerce argued that the statute did not require measurement of pass-through. The appeals court, however, ruled that there was no basis for dispute because Commerce's econometric model showed 100% pass-through. 875 F.2d 291 (Fed. Cir.

must drop the C-O-S adjustment and measure pass-through; as a result, antidumping margins will increase in almost every Commerce antidumping case.<sup>61</sup> Either change will have substantial repercussions for foreign producers, importers, and, eventually, consumers in the United States. In addition, across-the-board increases in margins would likely generate substantial opposition from trading partners of the United States.

There are no grounds, except historical precedent, for Commerce to continue applying a C-O-S adjustment for taxes. Just as important, all antidumping calculations should be made on an after-tax basis. At present, Commerce factors taxes into antidumping cases that have viable home-market sales. When home-market sales are insufficient to form a basis for foreign market value, Commerce uses constructed value and third-country surrogates, calculating margins on a pre-tax basis.<sup>62</sup> Because Commerce does not include taxes in these cases, it would also have to incorporate taxes—without a C-O-S adjustment—in calculations based on third-country sales or constructed value.

It is uncertain whether the antidumping statute requires measurement of pass-through. Commerce argues that the language of the tax clause is ambiguous and subject to several interpretations.<sup>63</sup> Leaving

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1989). See also *infra* note 63. In a separate case, Commerce recently agreed to conduct an econometric one-year extension. *Daewoo Elecs. Co. v. United States*, 712 F. Supp. 931 (Ct. Int'l Trade 1989). Commerce's use of the C-O-S adjustment is also a major issue in the antidumping case on *Paver Paris* from Canada, U.S.-Canada Free Trade Panel Article 1904, Panel U.S.A-89-1904-3; and in litigation covering a recent administrative review of the Japanese television case, *Zenith Electronics Corp. v. United States*, No. 88-02-00122 (Ct. Int'l Trade filed 1988).

<sup>61</sup> In mid-1989, Commerce was enforcing approximately 175 antidumping cases. Most of the cases cover manufactured merchandise—such as television sets, brass sheet and strip, tapered roller bearings, and cellular mobile telephones—and many of the cases involve significant import value. For example, over \$250,000,000 of imports are involved in a one-year administrative review of the Brazilian frozen concentrated orange juice case. Frozen Concentrated Orange Juice from Brazil (submissions from respondents in the 1987-1988 administrative review) (available at the Dept. of Commerce Public Reading Room, B099).

<sup>62</sup> A discussion of Commerce's current policy on third-country and constructed value as a surrogate for FMV is outlined in Georgetown Univ. Law Center, Continuing Legal Education Div., Comprehensive Issue Review Under the Antidumping Duty Laws and Countervailing Duty Laws: Commerce, The ITC, The Courts (June 1988) [hereinafter Comprehensive Issue Review] and 3 J. PATTISON, ANTIDUMPING AND COUNTERVAILING DUTY LAWS § 5.05 (1987) [hereinafter PATTISON].

<sup>63</sup> Specifically, the tax clause states that U.S. price should be increased by the amount of any taxes rebated or exempted on export "but only to the extent that such taxes are added to or included in the price of such or similar merchandise when sold in the country of exportation." 19 U.S.C. § 1677a(d)(1)(C) (1989). Commerce has not interpreted the clause in a consistent manner. In several administrative proceedings during the mid-1980s, Commerce stated that:

The differing treatment of direct vs. indirect taxes under GATT and U.S. law arose from the assumptions that indirect taxes were shifted fully forward to purchasers while direct taxes were absorbed by sellers. By the late 1960's, however, academic literature and U.S. government reports cast substantial doubt on the veracity of these assumptions. It is clear that the Congress

aside statutory interpretation, administrative convenience may dictate a blanket assumption of pass-through. Commerce's only attempt at measuring pass-through was expensive, time-consuming, and required a professional econometrician.<sup>64</sup>

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in 1974 was aware of these doubts. In light of the public debate, it is only reasonable to conclude that the Congress, in its addition to section 772(d)(1)(C) of the "but only to the extent" language, intended that we measure absorption and limit the addition of the tax passed through. Commerce, however, went on to say that such measurements were impossible. Antidumping: Final Determination of Sales at Less Than Fair Value; Color Television Receivers from Korea, 49 Fed. Reg. 7620, 7624 (Dep't Comm. 1984); Antidumping: Final Determination of Sales at Less Than Fair Value; Color Television Receivers From Taiwan, 49 Fed. Reg. 7628, 7632 (Dep't Comm. 1984); Color Television Receivers From Korea; Final Results of Administrative Review of Antidumping Order, 49 Fed. Reg. 50420, 50421 (Dep't Comm. 1984). *See also* Brief for Zenith Electronics Corp., Zenith Elecs. Corp. v. United States, No. 88-1259-1260 (Fed. Cir. June 21, 1988).

Commerce now argues that the language of the tax clause could be interpreted in several ways, including Commerce's cost-based interpretation. Moreover, Commerce argues that a cost-based interpretation is consistent with: previous court decisions, such as *Smith-Corona Group v. United States*, 713 F.2d 1568 (Fed. Cir. 1983), *cert. denied*, 465 U.S. 1022 (1984); other statutory provisions, such as the constructed value provisions (*see supra* note 60); and the general intent of GATT. Most important, Commerce contends that measuring pass-through would not only "artificially create and increase dumping margins," but also "impose upon Commerce a task far more burdensome and complex than anything envisioned by Congress." Appellant's Reply Brief, *Zenith Elecs. Corp. v. United States*, No. 88-1259-1260 (Fed. Cir. July 5, 1988).

<sup>64</sup> Despite severe data limitations, the econometric model employed by Commerce in the court redetermination of the Japanese television case supported 100% pass-through for one firm and indicated greater than 100% pass-through for another. These results were generated for manufacturers of television sets sold in Japan. It is unlikely that these results will be generally applicable to the wide range of products and countries that Commerce covers in its administration of the antidumping law.

In the redetermination, this author and others explained the econometric approach in an attempt to convince the court that the difficulties in using econometrics to measure tax pass-through were overwhelming: "Econometrics attempts to produce quantitative measurements of market forces such as supply and demand, which economics deals with in a more qualitative way . . . Econometrics is an interpretive process of analyzing theories, selecting assumptions, building models, running regressions, critiquing results, and then repeating the process over and over again."

Although the model was general in design, its purpose was to measure only the tax incidence on the consumer. Specifically, "Dr. Perloff's [the professional econometrician] econometric study sought to calculate the amount of commodity tax which the Japanese manufacturers passed through to their domestic customers by measuring the relative reactions of the manufacturers' costs and the demand for televisions in Japan to the imposition of the tax." The model relied on the theories of profit maximization (*see supra* note 50) and conjectural variations (*see supra* note 54). The difficulties and complexities of the econometric approach were also highlighted:

Dr. Perloff's theory and restrictive assumptions increased the complexity of the pass-through model in comparison to the standard . . . method of analyzing firm and consumer behavior. Dr. Perloff required increasingly complex specifications and regression techniques because simple theories, models, and techniques would have yielded inaccurate estimations of the tax incidence. However, sophisticated regression techniques (such as the three-stage-least-squares technique used in this case) are extremely sensitive to misspecifications of the model. A better specified dynamic model would better explain the effects of long-term changes in the market, such as cost reductions due to technological change. As Dr. Perloff stated ". . . using a static model is certainly inappropriate." However, dynamic models are exceptionally complex and demanding, in the sense of both econometric expertise and data requirements.

Ultimately, in an attempt to convince the court that econometrics was inconsistent with the intent of

An administrative convenience argument would likely focus on the extreme disparity in the treatment of taxes, which require a complex econometric model, as compared to other adjustments, such as discounts and commissions, which Commerce normally adjusts by deducting or equalizing costs in both markets.<sup>65</sup> Commerce's best argument is that econometrics is too complex to adopt for just one adjustment.<sup>66</sup> A dual-track treatment of taxes—using econometrics—and all other adjustments—using cost—would undermine Commerce's ability to administer the antidumping law effectively.

Taxes, however, create a nearly intractable problem for Commerce. Many factors oppose an easy cost-based solution of 100% pass-through. These factors include: the strong theoretical arguments against 100% pass-through, the relatively explicit wording of the tax clause and Commerce's inconsistent treatment of that clause, the economic and political scrutiny given international tax issues in the past, the current U.S. trade deficit, the number of U.S. industries receiving relief under the antidumping statute, and Commerce's precedent-setting econometric study—and its plan to do a second study.<sup>67</sup>

As long as Commerce continues to follow its present policy of making simple, cost-based adjustments, some assumption of pass-through

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the statute, Commerce argued that ". . . the theoretical and modeling difficulties described above demonstrate the inherently speculative and hypothetical nature of the results of the econometric study." *Zenith Elecs. Corp. v. United States* (Apr. 14, 1987) (corrected determination on remand), *supra* notes 18 and 54. For an excellent treatment of econometrics and econometric model building, see R. PINDYCK & D. RUBINFELD, *ECONOMETRIC MODELS & ECONOMETRIC FORECASTS* (2d ed. 1981).

<sup>65</sup> The U.S. statute calls for both value-based adjustments and cost-based adjustments. In its adjustment study, Commerce explained that it understood that value- (or economic-) based adjustments would take into account the economic conditions in the market (*i.e.*, supply and demand) to measure the actual drop in price resulting from a one dollar rebate. Cost- (or accounting-) based adjustments simply mean that a one dollar rebate drops the market price by one dollar. In an attempt to reach an equalized, ex-factory, tax-inclusive price, Commerce strips out certain expenses and equalizes others. Despite statutory language to the contrary, Commerce has adopted a cost-based approach for all adjustments, particularly the COS tax adjustments, *supra* note 19, which according to the statute should be based on value. See *Antidumping Adjustment Methodology*, *supra* note 58; PATTISON, *supra* note 62.

<sup>66</sup> Commerce has also argued that value-based adjustments rely on hypothetical prices, rather than observed prices. "The Department is required by the statute to make its determinations on the basis of verified information. Estimates of hypothetical prices are virtually impossible to measure in any meaningful sense." *Antidumping Adjustment Methodology*, *supra* note 58, at 11.

This is one interpretation of the econometric approach, essentially requiring that each commission, rebate, etc., separately reflect the appropriate market conditions and therefore generate an appropriate price drop. The resulting price—which will be used in a price to price comparison—was not, in a strict accounting sense, observed. An alternative interpretation of the econometric approach uses observed prices and costs (expenses) and simply compares the ratio of net price to demand elasticity between the two markets. See *infra* note 69.

<sup>67</sup> See *supra* note 60.

will be necessary. On purely theoretical grounds, an assumption of 100% pass-through is inconsistent with the existence of dumping. Alternatively, 0% pass-through is also unlikely. Therefore, Commerce's present policy will prompt U.S. industries suffering from dumping to argue, for example, that Commerce should "split the difference" and pass through only 50% of the tax. To prevent such specious arguments, Commerce should begin using econometric models in all of its cases.

The adoption of econometrics is difficult to justify on administrative grounds if the models provide information on only one dumping adjustment. Econometric models can, however, do much more. Not only can they generate the percentage of tax pass-through, but they also can offer a superior method of assessing injurious dumping. The administrative determination of injurious dumping is currently a two-part process: Commerce measures the extent of sales at less than fair value (or, more colloquially, it calculates "dumping margins"), and the International Trade Commission ("ITC") determines the degree of injury caused by the sales at less than fair value.<sup>68</sup> Econometrics will improve the administrative process, effectively integrating the functions of the two agencies.

Econometric models would measure sales at less than fair value by simply comparing the ratio of net price<sup>69</sup> to the elasticity of demand between the two markets.<sup>70</sup> A static econometric model—which measures price discrimination over a single time period—needs information on the supply (cost) and demand for the merchandise in the home market, and data on the demand for the merchandise in the United States for the period.<sup>71</sup>

Extending the static econometric model will rigorously identify the

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<sup>68</sup> See Comprehensive Issue Review, *supra* note 62.

<sup>69</sup> Commerce's present policy is to calculate cost-based dumping margins on a transaction-by-transaction basis. See Comprehensive Issue Review, *supra* note 62. An econometric approach would build on Commerce's expertise in making cost-based adjustments to calculate net price. The choice of which expenses to allow—e.g., advertising—and the appropriate method to model these expenses within the conjectural variations framework would require careful examination.

<sup>70</sup> Recall that price discrimination occurs when the ratio of price to marginal cost is different between markets. SULLIVAN, *supra* note 4, at 681; NICHOLSON, *supra* note 4, at 350. Note that in perfectly competitive markets, the ratio of price to marginal cost is 1:1. See *supra* note 51.

<sup>71</sup> If Commerce wanted to use econometrics to analyze dumping in the Japanese television case discussed *supra*, the existing econometric model, which was used to determine pass-through, would need to incorporate data on U.S. demand for televisions. One could argue that this information should have been collected and used in Commerce's pass-through calculation. In a sense, by measuring pass-through only in the home market, Commerce did only half of the tax experiment. Because the elasticity in the United States is generally greater than the elasticity in the home market, the tax pass-through in the United States will be less than the tax pass-through in the home market. Commerce's econometric model therefore overestimated the amount of tax pass-through. In other words, the second part of the experiment—modelling home market supply (assuming costs are the same) and U.S. demand—would further decrease the amount of pass-through.

sales at less than fair value that harm U.S. interests. Determinations based on econometric models would replace current ITC injury determinations, which tend to rely on qualitative measures—such as research surveys of manufacturing firms—to measure the extent of injury to U.S. industries.<sup>72</sup> These dynamic models track the behavior of foreign manufacturers over several time periods by stringing together a series of static models. The econometric approach recognizes that injurious price discrimination (injurious dumping) is not simply setting different prices in different markets. To maximize profits<sup>73</sup> in segregated markets, firms set prices depending on the elasticities in each market.<sup>74</sup> In other words, price differences may simply represent rational, profit-maximizing behavior consistent with the economic conditions in each market. Econometrics will identify when prices deviate from the profit-maximizing

<sup>72</sup> See Comprehensive Issue Review, *supra* note 62.

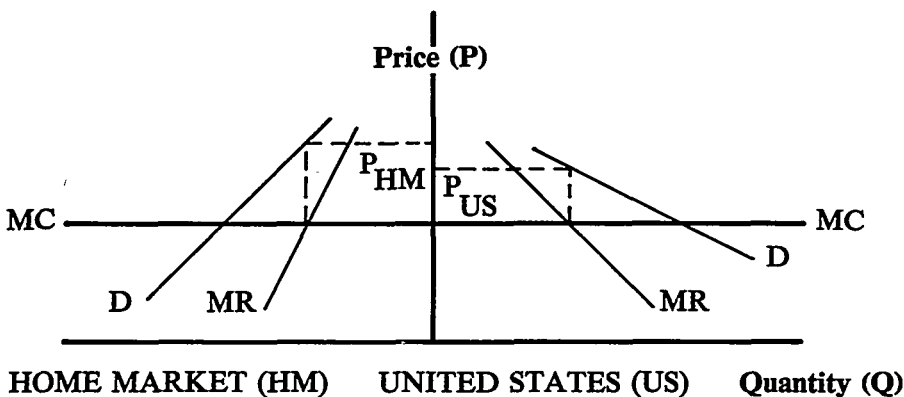
<sup>73</sup> See *supra* note 50.

<sup>74</sup> Elasticity is:

A measure of the percentage change in one variable brought about by a 1 percent change in some other variable . . . This concept is most often used to describe how the quantity of a good demanded responds to a change in its price. For example, if  $E_{Q,P} = -2$  [elasticity of quantity with respect to price], a 1 percent rise in price causes quantity demanded to fall by 2 percent.

NICHOLSON, *supra* note 4, at 680. The figure below demonstrates price discrimination consistent with profit maximization—i.e., marginal revenue (“MR”) equal to marginal cost (“MC”). In this example, the U.S. market has a larger elasticity of demand. Therefore, a rational, profit-maximizing producer sets a lower price in the United States.

**Figure B**



ing position, generating an analysis consistent with an economic definition of injurious dumping.

A proper dumping analysis incorporates a sophisticated design within a simple administrative process. First, the U.S. government prescribes patterns consistent with injurious dumping. Second, dynamic models are used to expose foreign producers' long-term pricing strategies. If the behavior of a foreign manufacturer exhibits a prescribed pattern consistent with injurious dumping, the U.S. government would act.<sup>75</sup> Econometric models would therefore differentiate harmful dumping—*e.g.*, predatory pricing in order to reap monopoly profits at a later

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<sup>75</sup> Dynamic models would track the behavior of foreign manufacturers over time. Several authors have articulated schemes to classify dumping. Viner starts with a simple assumption: "There is a sound economic case against dumping only when it is reasonable to suppose that it will result in injury to domestic industry greater than the gain to consumers." VINER, *supra* note 2, at 23 (1921 ed.). Viner discusses a detailed scheme, classifying dumping as sporadic (non-injurious), intermittent (injurious), and persistent (non-injurious). *Id.* at 23-44 (1966 ed.). Other economists have also put together comprehensive classification schemes. Haberler, for example, states that "[d]umping is harmful only when it occurs in spasms and each spasm lasts long enough to bring about a shifting production in the importing country which must be reversed when the cheap imports cease." G. HABERLER, *THE THEORY OF INTERNATIONAL TRADE* 314 (1968). See also E. TAUSSIG, *SOME ASPECTS OF THE TARIFF QUESTION* (1924); A. KINDLEBERGER, *INTERNATIONAL ECONOMICS* (5th ed. 1973). For a summary of these positions, see Ehrenhaft, *supra* note 2.

In contrast, Bork agrees that harmful price discrimination can be identified, but he disagrees that it can be effectively remedied, stating:

That there now exist no reliable means, and certainly no means suitable for use in litigation, to identify price discrimination is in itself a conclusive argument against adopting a law dealing with the practice. Robinson-Patman's tendency to equate price differentials with price discrimination is, as we have seen, wholly erroneous . . . . If discrimination could be identified and measured accurately, the law would then face the necessity of predicting whether a ban on the practice would increase or decrease output. Accurate estimation is impossible, however, because it requires empirical data concerning the demand schedule of the customers. Nobody will have that data. . . . The prospects of . . . predict[ing] . . . discrimination are therefore bleak, to say the least.

BORK, *supra* note 54, at 382-400.

Others would disagree with Bork. Approximately thirty years ago—before Commerce routinely collected the type of cost information required for econometric models—Peter Ehrenhaft tracked a debate among noted economists on what type of information was needed to appropriately identify injurious dumping.

However, Kindleberger too must admit that it is often difficult to distinguish between predatory and persistent dumping, particularly as the difference does not become apparent until some time has elapsed, during which domestic producers may have suffered irreparable harm. Viner answers this argument with the assertion that since average and marginal costs of dumped goods can be ascertained quite readily, the importing country can also judge whether or not the cheap price of a particular commodity is due to abnormal and predatory, rather than usual and economic reasons. According to this view, only those goods sold for export below marginal cost of production are really suspect and should be made the subject of antidumping duties. However, ascertaining foreign costs of production creates very serious problems. Although the existing Antidumping Act has provisions for determining whether or not dumping is taking place by relating the export price of goods to their cost of production, the recent report by the Secretary of the Treasury asserts that this method presents such difficulties that its use "is generally warranted only as a last result." [Citations omitted].

Ehrenhaft, *supra* note 2, at 48 n.21.



date—from harmless (or helpful) dumping—*e.g.*, liquidating excess inventories during a temporary cyclical downturn. A more objective assessment of injury would also give the U.S. government an opportunity to augment its current injury criteria to include the interests of U.S. consumers and downstream industries.<sup>76</sup>

Econometrics will, at first, introduce new complexities to the administrative process.<sup>77</sup> The U.S. government will overcome these difficulties relatively quickly, and its increasing expertise will allow for rigorous differentiation between harmful and harmless (or helpful) dumping.<sup>78</sup> Econometric models will promote a rapid response to legitimate antidumping complaints, allowing the U.S. government to “separate the wheat from the chaff” and focus on the cases that harm U.S. interests.

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<sup>76</sup> Downstream industries use the dumped product—*e.g.*, semiconductors—to produce a final good—*e.g.*, personal computers.

<sup>77</sup> Assuming that the econometric method is administratively feasible, then the modelling tools and assumptions employed in each antidumping case will, of course, be subject to debate. In correspondence with this author, one noted economist, Dr. Sydney Weintraub, stated that the econometric modelling of pass-through “is a complicated economic issue, one on which competent economists will disagree.” Commerce and ITC decisions are, however, already subject to intense debate within each agency, constant litigation by outside attorneys, and close scrutiny by the courts. It is highly doubtful that attorneys and the courts would extend their current level of microscopic examination into the realm of econometrics.

<sup>78</sup> The U.S. antidumping statute would, of course, require substantial reinterpretation. The econometric approach would likely need a substantial restructuring of the entire antidumping administrative process. For example, after identifying legitimate complaints, negotiations and price settlements could be used. As a last resort to stop predatory pricing—which the present antidumping law cannot stop—an objective, econometric measure of injurious dumping could overcome the stiff, statutory intent provisions of the little-used 1916 Antidumping Act, providing injured producers objective proof of an “intent of destroying or injuring an industry in the United States.” Congress enacted the 1916 law, making it criminal to import merchandise at prices “substantially less than the actual market value.” Ehrenhaft, *supra* note 2, at 45.