**Antidumping** 

Draft prepared for The New Palgrave: A Dictionary of Economics

Bruce A. Blonigen University of Oregon and NBER

> Department of Economics 1285 University of Oregon Eugene, OR 97403

Email: bruceb@uoregon.edu Ph: 541-346-4680 Thomas J. Prusa Rutgers University and NBER

> Department of Economics 75 Hamilton St. Rutgers University New Brunswick, NJ, 08901

Email: prusa@econ.rutgers.edu Ph: 732-932-7670

Antidumping refers to a legal statute that allows for a remedy (typically an import duty) to offset the effects of dumped imports. Under General Agreement on Trade and Tariffs/ World Trade Organization (GATT/WTO) rules, two tests must be satisfied before a country may impose an antidumping duty on subject imports. First, the imports must be shown to be sold at price that is "less than fair value". Second, the dumped imports must be shown to have caused or threaten to cause "material" injury to a domestic industry.

## **History and Institutions**

The first antidumping statutes were established in Canada and the United States in the early 1900s. Ultimately, these statutes have been codified into the GATT/WTO statutes. Until the mid-1980s almost all AD activity was confined to four major countries/regions – the United States, the European Union, Australia, and Canada (Finger, 1993). By the early 1990s countries

- 1 -

with newly adopted antidumping statutes accounted for almost one-quarter of AD cases and, since the mid-1990s, new antidumping countries have accounted for well over half of AD complaints (Miranda, Torres, and Ruiz, 1998; Prusa, 2001). These new antidumping countries are also far more likely to make an affirmative determination and, consequently, now account for far more than half of all measures in place. Since 1980 GATT/WTO members have filed more complaints under the AD statute than under all other trade laws <u>combined</u>. Worldwide more AD duties are now levied in any one year than were levied in the entire period 1947-70. (Prusa, 2005)

An antidumping investigation generally proceeds as follow, though there are differences across countries. First, an investigation is initiated when an interested party (often a domestic industry that competes with the imported product) files a petition with the appropriate government agency contending dumping of a particular product(s) from certain import-source countries. The administering government agency (or agencies) then collects data from petitioners and foreign firms that are alleged to be the source of dumped imports and calculates the extent to which imports have been dumped and have injured the domestic industry. Findings of dumping and material injury lead to the imposition of an antidumping duty, which is often equal to the percent difference between the price of the dumped imports and fair value (i.e., the dumping margin). Under WTO statutes, antidumping cases must be reviewed at least every five years to determine whether an antidumping remedy is still appropriate given recent import activity in the subject product.

It is important to understand that antidumping arises from legal concepts. Thus, the meaning of "less-than-fair-value", causation, and material injury are examined from a legal perspective where previous rulings establish precedence in interpreting the legal definitions.

Legal bodies have been active in adjusting these statutes over time. The GATT/WTO antidumping code has undergone significant revisions in nearly every negotiating round, and most countries with these statutes also make periodic legislative changes to their antidumping codes. Many economists have noted that the increase in antidumping activity after these legislative changes is not coincidental. For example, the Tokyo GATT Round contained numerous amendments to the antidumping statute. Of particular importance was the broadening of the definition of the "lees-than-fair-value" concept to capture not only price discrimination, but also sales below cost. Cost-based allegations now account for between one-half and two-thirds of US AD cases (Clarida, 1996); an even greater share of EU cases is prosecuted using cost-based methodology (Messerlin, 1989).

Given its legal foundation, perhaps it is not surprising that the economic rationale for antidumping statutes is far from clear. A possible economic rationale is to address predatory pricing practices, where foreign firms are pricing low to induce exit by the domestic firms, allowing monopoly prices in future periods. Economists generally agree that predatory pricing will lead to a welfare loss for a country, but are skeptical about how often such a strategy is feasible or successful. More importantly, antidumping statutes and practices do not apply the same stringent standard used by antitrust (or competition) agencies to determine if pricing is predatory; i.e., pricing below marginal cost. Instead, depending on the typical definitions of fair value used by agencies, simple price discrimination across markets or pricing below a level that would return a significant profit to the foreign firm will lead to findings of dumped imports. Such practices are not generally seen as anticompetitive and, in fact, there is often clear tension between antidumping and competition policy. For example, a number of studies have theoretically shown and empirically documented that domestic firms can use AD actions to

punish foreign firms for refusing to join in collusive actions to raise prices, including the enforcement of price-fixing cartels (CITE: battery case article, Staiger and Wolak, 1992). Thus, economists generally believe there is little connection between national welfare considerations and antidumping protection (Stiglitz, 1997).

Instead, most economists find evidence that antidumping activity is motivated by the same political-economy considerations that lead to other forms of trade protection. While the studies documenting this vary in what proxies they construct to measure political pressure, all find that such non-statutory factors are significant in ultimate antidumping decisions. These studies include Moore (1992), DeVault (1993) and Hansen and Prusa (1996,1997). Industries with production facilities in politically important districts fare better. There is also some evidence that financial contributions to politicians by industries seeking antidumping protection improve the chance of an affirmative determination. In a related vein, these studies find that antidumping duties are more likely to be levied against particular trading partners. Blonigen and Bown (2003) argue that this finding does not so much reflect a bias against certain countries, but rather reflects that the inability for certain countries to effectively use the threat of retaliation to deter others from using antidumping against it.

In addition, studies of U.S. antidumping activity have found that changes in legal statutes and agency discretion have led to ever greater dumping margins and likelihood of determining material injury. For example, Hansen and Prusa (1996) show that the U.S. legal change to allow government agencies to consider the all import sources named in an investigation cumulatively (not individually) makes a material injury decision much more likely. This U.S. legal change was later adopted by WTO antidumping statutes in the Uruguay Round and led to both a dramatic increase in the incidence of multi-country cases and also a sharp increase in affirmative

determinations (Hansen and Prusa, 1996; Tharakan, Greenway, and Tharakan, 1998; Irwin, 2005). Another example is the documentation by various studies of how the antidumping statutes allow substantial latitude to agencies in how they practically determine dumping margins. Blonigen's (forthcoming) statistical analysis finds that changes in agency discretionary practices is the primary factor behind the rise in average U.S. dumping margins from around 15% in the early 1980s to 60% by 2000.

## **Direct Economic Effects of Antidumping Statutes and Remedies**

The direct economic result of antidumping remedies is to reduce import flows. Such import declines can happen even once an investigation is begun and antidumping remedies are uncertain. In addition, Staiger and Wolak (1994) emphasize that about half of the trade impact occurs before the final determination. They argue that trade impact is sufficiently large that the benefits accruing during the investigation often exceed the costs of filing the petition. Ethier and Fischer (1987), Fischer (1992), Reitzes (1993), and Prusa (1994) also emphasize the dampening impact on trade created by the threat of AD investigation.

From a welfare perspective, a number of studies have documented that domestic firms can gain from such trade-dampening effects, including Hartigan, Kamma and Perry (1989), Blonigen, Tomlin and Wilson (2004), and Konings and Vandenbussche (2005). However, the latter paper shows that such positive gains are eliminated when foreign firms locate production of the investigated product in country and, thus, avoid the antidumping duties. Prusa (1997) also documents the substantial trade diversion effects that can take place from investigated import sources to non-investigated sources, which provides another reason why such antidumping remedies may not benefit the domestic industry.

Other studies have used computable equilibrium analysis to examine the total welfare consequences of antidumping remedies for a country. As is typical of trade policy welfare analysis, such losses to consumers are typically estimated to outweigh the gains to the protected producers for antidumping protection. For example, using a computable general equilibrium model, Gallaway, Blonigen, and Flynn (1999) estimate that the cumulative effect of all antidumping duties in place leads to an annual \$4 billion welfare loss for the United States. This figure places this form of trade protection as second only to the restrictive and comprehensive quotas on textiles and apparel (Multifiber Arrangement) in terms of welfare costs.

## **Indirect Economic Effects of Antidumping Statutes and Remedies**

Beyond these typical trade and welfare considerations, economists have pointed to a number of features of antidumping programs that likely cause a greater range of ancillary (or indirect) effects that are often unique to this form of trade protection. In fact, this is where the bulk of recent economic literature has centered its attention, and insights often come from thinking about strategic considerations applying game theoretic techniques.

Such issues are pervasive in analyzing the decision to file an antidumping case and its likely chance of success. A foreign industry can almost guarantee it will not be subject to antidumping duties if it charges sufficiently high prices in its export markets. On the other hand, a domestic industry has incentives to look "weak" to make an injury determination more likely, which could lead it to charge higher prices (produce less) than optimal, or lay-off more workers than it otherwise would. Ethier and Fischer (1987), Fischer (1992), and Reitzes (1993) are examples of applied game theory pieces that document these possible strategic decisions by domestic and foreign firms to influence future antidumping outcomes. Anderson (1992; 1993)

examines the potential interdependence of antidumping with another form of trade protection: voluntary export restraints (VERs). The artificial scarcity created by the VERs generates rents for foreign firms that are typically divided up by the market shares of the foreign firms. This perversely gives the foreign firms incentives to "dump" their products to garner larger market shares which makes antidumping investigations and remedies more likely.

The strategic interactions described above are non-cooperative in nature, but a number of papers have examined how antidumping can elicit various cooperative strategic behavior. These studies primarily provide theoretical analysis showing how antidumping law can facilitate or sustain collusive cartel pricing by foreign and domestic firms and include Staiger and Wolak (1989), Prusa (1992), and Veuglers and Vandenbussche (1999). Taylor (2004) and Zanardi (2004) provide empirical examinations of collusive behavior in antidumping activity using U.S. data.

Strategic interactions surrounding antidumping petitions may also occur amongst domestic firms. Cassing and To (2004) show that the decision by a domestic firm to join an antidumping petition can signal one's efficiency to other firms in the market. Thus, for example, some domestic firms may not join a petition to signal to others that they have low costs.

Once antidumping remedies are in place, other strategic reactions are possible too. As mentioned above, a foreign firm can "jump" the antidumping duties and relocate its production to either the domestic market or to a third country that is not subject to the duties. Belderbos (1997) and Blonigen (2002) document significant tariff-jumping of antidumping duties in Europe and the United States. Interestingly, if foreign firms differ in their ability to make such investments, then antidumping might particularly burden firms who cannot make such

adjustments. Ironically, this means the foreign firms who are most able to "jump" the AD duty potentially have an incentive to encourage antidumping actions (Blonigen and Ohno, 1998).

The ability of firms to reduce their antidumping duties in subsequent administrative reviews also provides interesting incentives to firms. Such reviews examine recent data to recalculate antidumping duties which creates a dynamic environment for price setting by the foreign firm. Blonigen and Park (2004) develop a model of dynamic pricing decisions by foreign firms facing the possibility of antidumping duties and subsequent re-calculations in future periods. They first show that if antidumping duties are a certainty when a foreign firm dumps, then the only firms that will dump care very little about the future (high discount rates). Over time the punitive antidumping duties will cause them to dump even more. However, if antidumping remedies are uncertain, foreign firms that have ex ante low expectations of antidumping remedies, will quickly reduce their dumping once they surprisingly become subject to antidumping duties. Blonigen and Park confirm these hypotheses using data on U.S. antidumping investigations. In a related paper, Blonigen and Haynes (2003) find that foreign firms subject to antidumping duties alter their behavior to fully pass-through exchange rate changes and also pass through greater than 100% of the antidumping duty onto the prices in their export market.

Blonigen and Prusa (2003) provide a detailed review of the economics literature on antidumping and also point toward what they consider fruitful areas for future research. These include the treatment of antidumping in competition policy, effects on downstream industries and import/export companies, and comparisons of antidumping statutes across various WTO-member countries. New and detailed online databases are now available on U.S antidumping activity at <a href="http://darkwing.uoregon.edu/~bruceb/adpage.html">http://darkwing.uoregon.edu/~bruceb/adpage.html</a> and for many countries at

http://people.brandeis.edu/~cbown/global\_ad/. These should play an important role in facilitating future research in antidumping.

## References

- Anderson, James E., "Domino Dumping I: Competitive Exporters," American Economic Review 82 (1992):65-83.
- Anderson, James E., "Domino Dumping II: Anti-dumping," Journal of International Economics 35 (1993):133-50.
- Belderbos, Rene A., "Antidumping and Tariff Jumping: Japanese Firms" DFI in the European Union and the United States," Weltwirtschaftliches Archiv 133 (1997): 419-57.
- Blonigen, Bruce A., "Tariff-jumping Antidumping Duties" Journal of International Economics, 57 (2002): 31-50.
- Blonigen, Bruce A., "Evolving Discretionary Practices of U.S. Antidumping Activity" Canadian Journal of Economics, forthcoming.
- Blonigen, Bruce A. and Yuka Ohno, "Endogenous Protection, Foreign Direct Investment, and Protection-building Trade," Journal of International Economics 46 (1998): 205-27.
- Blonigen, Bruce A., and Stephen E. Haynes, "Antidumping Investigations and the Pass-Through of Exchange Rates and Antidumping Duties," American Economic Review, 92 (2002): 1044-1061.
- Blonigen, Bruce A. and Chad P. Bown "Antidumping and Retaliation Threats" Journal of International Economics, 60 (2003): 249-73.
- Blonigen, Bruce A. and Thomas J. Prusa, "Antidumping" in *Handbook of International Economics*, edited by E. Kwan Choi and James Harrigan, (Malden, MA, Blackwell Publishing), 2003
- Blonigen, Bruce A. and Jee-Hyeong Park, "Dynamic Pricing in the Presence of Antidumping Policy: Theory and Evidence," American Economic Review, 94 (2004): 134-154.
- Blonigen, Bruce A., KaSaundra Tomlin, and Wesley W. Wilson., "Tariff-jumping FDI and Domestic Firms' Profits." Canadian Journal of Economics, 37 (2004): 656-77.
- Cassing, James, and Theodore To, "Antidumping, Signaling and Cheap Talk," Mimeo, 2004.
- Clarida, Richard H., "Dumping in Theory, in Policy, and in Practice," in Jagdish Bhagwati and Robert Hudec (eds.), Fair Trade and Harmonization, Cambridge: The MIT Press, 1996.
- DeVault, James M., "Economics and the International Trade Commission," Southern Economic Journal 60 (1993): 463-478.
- Ethier, Wilfred J. and Ronald D. Fischer, "The New Protectionism," Journal of International Economic Integration 2 (1987):1-11.
- Finger, J. Michael (ed.), Antidumping: How It Works and Who Gets Hurt, Ann Arbor, MI: University of Michigan Press, 1993.
- Fischer, Ronald D., "Endogenous Probability of Protection and Firm Behavior," Journal of International Economics 32 (1992):149-63.
- Gallaway, Michael P., Bruce A. Blonigen, and Joseph E. Flynn, "Welfare Costs of US Antidumping and Countervailing Duty Laws," Journal of International Economics 49 (1999): 211-44.
- Hansen, Wendy L. and Thomas J. Prusa, "Cumulation and ITC Decision Making: The Sum of the Parts is Greater than the Whole," Economic Inquiry 34 (1996):746-69.
- Hansen, Wendy L., and Thomas J. Prusa, "The Economics and Politics of Trade Policy: An Empirical Analysis of ITC Decision Making," Review of International Economics 5 (1997):230-45.

- Hartigan, James C., Sreenivas Kamma, and Philip R. Perry, "The Injury Determination Category and the Value of Relief from Dumping," Review of Economics and Statistics 71 (1989): 183-86.
- Irwin, Douglas A. "The Rise of U.S. Antidumping Activity in Historical Perspective." The World Economy 28 (2005): 651-668.
- Konings, Jozef and Hylke Vandenbussche, "Antidumping Protection and Markups of Domestic Firms," Journal of International Economics 65 (2005): 151-65.
- Messerlin, Patrick A., "The EC Antidumping Regulations: A First Economic Appraisal, 1980-85," Weltwirtschaftliches Archiv 125 (1989):563-87.
- Miranda, Jorge, Raul A. Torres, and Mario Ruiz, "The International Use of Antidumping: 1987-1997," Journal of World Trade 32 (1998):5-71.
- Moore, Michael O., "Rules or Politics? An Empirical Analysis of ITC Anti-dumping Decisions," Economic Inquiry 30 (1992):449-66.
- Prusa, Thomas J., Why Are So Many Antidumping Petitions Withdrawn?" Journal of International Economics 33 (1992): 1-20.
- Prusa, Thomas J., "Pricing Behavior in the Presence of Antidumping Law," Journal of Economic Integration 9 (1994):260-89.
- Prusa, Thomas J., "The Trade Effects of US Antidumping Actions," in Robert C. Feenstra (ed.), The Effects of US Trade Protection and Promotion Policies, Chicago: University of Chicago Press, 1997, 191-213.
- Prusa, Thomas J., "On the Spread and Impact of Antidumping," Canadian Journal of Economics 34 (2001): 591-611.
- Prusa, Thomas J., (2005).
- Reitzes, James D., "Antidumping Policy," International Economic Review 34 (1993):745-63.
- Staiger, Robert W. and Frank A. Wolak, "Strategic Use of Antidumping Law to Enforce Tacit International Collusion," NBER Working Paper, No. 3016, 1989.
- Staiger, Robert W. and Frank A. Wolak, "The Effect of Domestic Antidumping Law in the Presence of Foreign Monopoly," Journal of International Economics 32 (1992):265-87.
- Staiger, Robert W. and Frank A. Wolak, "Measuring Industry Specific Protection: Antidumping in the United States," Brookings Papers on Economic Activity: Microeconomics (1994):51-118.
- Stiglitz, Joseph E., "Dumping on Free Trade: The US Import Trade Laws," Southern Economic Journal 64 (1997):402-24.
- Taylor, Christopher T., "The Economic Effects of Withdrawn Antidumping Investigations: Is There Evidence of Collusive Settlements?" Journal of International Economics 62 (2004): 295-312.
- Tharakan, P.K.M., David Greenaway, and Joe Tharakan, "Cumulation and Injury Determination of the European Community in Antidumping Cases," Weltwirtschaftliches Archiv 134 (1998):320-39.
- Veugelers, Reinhilde, and Hylke Vandenbussche, "European Anti-dumping Policy and the Profitability of National and International Collusion," European Economic Review 47 (1999): 1-28.
- Zanardi, Maurizio, "Antidumping Law as a Collusive Device," Canadian Journal of Economics 37 (2004): 95-122.