The issues related antidumping are broad and complex. In the following presentation, thus I will try to stay focused on the issues of antidumping that are directly related to WTO, even though all aspects of antidumping are intertwined with each other.

1. Some Facts about Antidumping in the GATT/WTO regime

(a) Changes in provisions of the GATT regarding antidumping prior to WTO

Antidumping was a minor instrument when the GATT was initially negotiated, and the original GATT agreement in 1947 included provisions for the use of AD duties with the insistence of the United States. According to the 1947 GATT agreement, dumping is defined as the practice whereby the “products of one country are introduced into the commerce of another country at less than the normal value of the products,” and permitted dumping duties only if such action caused “material injury” to a domestic industry.

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1 Blonigen and Prusa (2001) provide a comprehensive survey of the literature on antidumping.

2 Most of facts presented in this section come from Blonigen and Prusa (2001) and Finger et al. (2000) without properly citing their works. This is done only because of the convenience of not citing all over the section. I gratefully acknowledge the excellent presentations of facts in these two papers, from which I have made a rather arbitrary rearrangement. If there are any errors in this section, they are all mines.
Since then, a couple of major amendments have been made to the provisions that govern antidumping in the GATT. In response to pressure from a number of developed countries, the Kennedy Round (1963-7) Code had required that the dumped imports be “demonstrably the principal cause of material injury” before duties could be imposed. However, the Tokyo Round (concluded in 1979) had revised this provision to render such a demonstration unnecessary. There was another major change occurred in the Tokyo Round: the definition of “less than fair value” (LTFV) sales was broadened to capture not only price discrimination but also sales below costs.

These changes made in the Tokyo Round had enabled countries to apply antidumping to a much broader range of cases, thus obviously contributed to the rapid increase in the use of antidumping policies in the following years, discussed below.

(b) The emergence of antidumping as the most prominent form of protective trade policy

Prior to the Tokyo Round, the use of antidumping policies was very limited among contracting parties of the GATT. For example, when the member countries canvassed themselves about the use of antidumping in 1958, the resulting tally showed only 37 antidumping decrees in effect across all GATT member countries, 21 of these in South Africa. Studies on the pre-1980 AD activity reveal that almost all AD activity was confined to six major users, the US, the EU, Australia, Canada, South Africa, and New Zealand, with at most 24 – 36 cases filed per year for all these users combined. In addition, less than 5 percent of AD cases resulted in duties until the early 1970s. Until the mid-1970s, thus, only a handful of cases were initiated in many years and in most years no investigation led to duties.
In contrast to the lack of action in antidumping during the pre-Tokyo Round period, the world has observed a dramatic increase in AD activities during the 1980s and the 1990s. For example, 1600 cases were filed worldwide during the 1980s, doubling the filing rate of the 1970s. While AD activities in the 1980s were mainly driven by developed countries, the increase in AD activities in the 1990s can be characterized by developing countries' rapid adoption of AD policies and activities, especially after the Uruguay Round. Since the WTO went into effect in 1995, more than 50 developing countries have informed WTO of their antidumping regulations. During the period of 1995-99, developing countries have initiated 559 AD cases and 463 cases by developed countries.

Through the post Uruguay Round period, thus, the antidumping has become the most commonly used protectionist instrument not only by developed countries but also by developing countries. This pervasive usage of antidumping among the WTO member countries poses a new challenge for WTO with regard to workings of and rising conflicts over AD policies.

2. Changes in AD Provisions in the Uruguay Round and A Proposal for Improvement

According to "Summary of the Uruguay Round Agreements Prepared by GATT Secretariat," the Uruguay Round has achieved the following improvements on implementation of Article VI (antidumping) of the GATT,

"In particular, the revised Agreement provides for greater clarity and more detailed rules in relation to the method of determining that a product is dumped, the criteria to be taken into account in a determination that dumped imports cause injury to a domestic industry, the procedures to be followed in initiating and conducting anti-dumping investigations, and the implementation and duration of anti-dumping measures. In addition, the new agreement clarifies
the role of dispute settlement panels in disputes relating to anti-dumping actions taken by domestic authorities. On the methodology for determining that a product is exported at a dumped price, the new Agreement adds relatively specific provisions on such issues as criteria for allocating costs when the export price is compared with a 'constructed' normal value and rules to ensure that a fair comparison is made between the export prices and the normal value of a product so as not to arbitrarily create or inflate margins of dumping.

Despite this positive self-assessment about the refinements of antidumping related provisions in WTO, it is only easy to find opinions that express concerns about shortcomings of the current WTO provisions on antidumping, like in Baldwin (1999), Finger et al. (2000), Blonigen and Prusa (2001). Because Baldwin (1999) makes most explicit and detailed suggestions as well as criticisms on the current antidumping provisions of WTO, I summarize them as follows:

**Criticisms**

a) No general efficiency basis for opposing the sale of a product at a lower price abroad than a home or at a price below average costs.

   - The case for antidumping provisions on economic efficiency grounds is based on predatory pricing, but such a case is almost impossible to find among AD cases.

b) The modification of existing dumping rules to include the cumulation requirement.

   - Cumulating imports across countries as opposed to a country-by-country basis in determining injury makes affirmative injury findings more likely to happen.

c) Introduction of a standard review for dispute settlement panels in AD cases that makes it very difficult to overturn an AD decision by a national government.

**Suggestions**

a) Introducing the competition policy that eliminates need for AD provisions.

   - The best long-run solution for curbing the misuse of the AD provisions of WTO.
b) *Requiring the level of antidumping duties or price increase under price undertakings be no higher than necessary to remove the injury to the domestic industry and in no case higher than the margin of dumping.* (The current WTO provisions state only that "it is desirable.")

- Since WTO dumping provisions condemn dumping only if it causes material injury, it seems appropriate that any remedial action be sufficient only to remove the injury.

c) *Permitting below-costs sales under certain circumstances.*

- In the presence of strong learning-by-doing effects, below-cost sales should be regarded as a part of normal business practices. For the circumstances where a domestic firm would be allowed to have below-costs sales, thus, foreign firms also should be permitted to do so.

d) *Comparing the "cost margin" with the dumping margin.*

- In the case where the price gap between the foreign and the domestic markets (dumping margin) is greater than the cost margin of shipping the product back to the foreign market, then it may be that the domestic industry is using the antidumping laws to enforce a cartel-like price agreement with foreign producers. If the cost margin is less than the dumping margin, then the corresponding AD measures should only remove the injury related to this cost margin.

e) *Establishing a monitoring system (by the administering authorities) aimed at ensuring that any price increases following the imposition of AD duties or a suspension agreement are no greater than necessary to restore the domestic price to its pre-dumping level.*

The above criticisms and suggestions on the AD provisions of WTO presented by Baldwin (1999) emphasize some fundamental flaws of such provisions, suggesting some ways to minimize the related costs. (a)s under both criticisms and suggestions claim that there is no reasonable economic ground to discourage price discrimination across countries and stresses what matters is "anti-competitive" practices rather than potentially "pro-competitive" dumping behaviors. However, Baldwin (1999) acknowledges that substituting existing AD rules with an effective set of competition rules is not a very likely event in the upcoming negotiating round. Thus, other criticisms and suggestions are designed to mitigate the costs of having AD rules,
accepting the existence of antidumping. For properly assessing the above opinion by Baldwin (1999) on AD provisions, reviewing the following related literature would be helpful.

3. Theoretical and Empirical Studies

(a) Why dumps?

In addition to the (unlikely) predatory pricing and learning-by-doing as potential causes for dumping, various studies have identified alternative causes for dumping behaviors. Brander and Krugman (1983) illustrate that "reciprocal dumping" may occur when symmetric firms from two symmetric countries compete in both countries' markets in the presence of non-negligible transportation costs, stressing how easily dumping may occur without any anti-competitive (actually with pro-competitive) nature. Anderson (1992, 1993) develops a model that demonstrates the possibility of "domino dumping" when dumping may lead to VER agreements. Prusa (1992) focuses on the phenomenon of frequent withdrawals of AD cases during AD investigations and develop a model where foreign and domestic firms will choose a collusive agreement (withdrawal of AD cases) over affirmative AD determination. More recently, Blonigen and Ohno (1998) identify "tariff jumping" as a potential motive for dumping to curtail future competition from other foreign firms incapable of executing "tariff jumping FDI." Chad (2000) uses a somewhat similar argument for another kind of anti-competitive utilization of antidumping policy: a foreign firm supported by its retaliation capable government may discourage competition from another foreign firm of which the government lacks retaliation power against the use of antidumping policy, by promoting a biased (exempting the foreign firm with a retaliation capable government) antidumping determination against such a foreign firm through dumping activities.
The above theories of dumping behavior either emphasize its pro-competitive nature or illustrate various possibilities where anti-dumping laws can be utilized in an attempt to generate anti-competitive outcomes. Thus, these theoretical findings generally support the criticism (a) and suggestion (a) that basically denies the necessity for having antidumping policy as a pro-competitive measure. In addition, suggestion (c), (d) and (e) are about changing the AD rule to mitigate the potential anti-competitive effects associated with antidumping.

(b) How much loss is incurred by antidumping?

Probably the most notable recent study on the cost of antidumping is Gallaway et al. (1999), estimating the welfare cost of overall the U.S. antidumping and countervailing duty activities using a CGE model together with comprehensive data on the U.S. AD/CVD cases. According to this study, the estimated welfare costs can be as high as 5 billions dollars for the year of 1993, placing the AD/CVD laws one of the costliest programs restraining the U.S. trade. Once again, this empirical result strengthens the criticism against antidumping by emphasizing the large welfare cost associated with it.

(c) Curtailing antidumping with antidumping (?) and the potential role for the WTO.

When there exists a threat of retaliation against the use of antidumping policy through initiating counter-acting antidumping cases, as mentioned briefly in explaining the result of Chad

3 One notable exception to relating dumping with anti-competitive behaviors is the model developed by Staiger and Wolak (1992) where a foreign monopoly has an incentive to "really dump" their products into the domestic market in the case of low demand and the antidumping policy may reduce such activities.

4 Antidumping may still have a potential role to play as a safeguard policy. As stressed by Finger et al. (2000), however, antidumping is essentially a unilateral action (not requiring proper compensation) and differs from safeguard policies in the sense that it is conceived as a "just" action against "unfair" trade practices.
(2000), the degree of damages to be caused by excessive uses of antidumping among the WTO member countries can be somewhat reduced. For the countries lacking the credible threat of using retaliatory antidumping cases, however, the use of antidumping can be unfairly biased against those countries. Blonigen (2001) finds some empirical evidences for such biases.

However, promoting antidumping to discourage antidumping can be a dangerous path to achieve more liberal trade among the WTO member countries as it may as well lead to the equilibrium where every country chooses to utilize antidumping duties. In this regard, the introduction of a standard review for dispute settlement panels in AD cases that makes it very difficult to overturn an AD decision by a national government into the WTO AD provisions, criticized by Baldwin (1999), may be damaging the possibility of curtailing antidumping with the alternative punishment methods, thus contributing to the proliferation of antidumping cases over all member countries of WTO.

(d) Optimal antidumping law?

Kohler and Moore (1998 and forthcoming 2001) apply the optimal contract theory to the problem of designing an optimal AD law and propose alternative AD rules to account for the domestic firms' incentives to misrepresent their private information. Kohler and Moore (1998) stress the necessity to have a two-part tariff (providing a payment to the domestic industry even if no injury is found) to induce the domestic industry to truthfully reveal its injury level. Alternatively, Kohler and Moore (2001) explore the possibility of adopting an optimal auditing scheme that leads to truthful announcements by the firm.

The optimal contract approach may be used to properly evaluate suggestion (b) even though the suggestion seems to assume relatively less (or no) uncertainty in injury determination than in
AD duty determination. Designing the optimal (less damaging) antidumping law against various issues described above can be a challenging task, but may worth the trouble given the rising concerns over the use and misuse of antidumping in the WTO regime.

4. Dynamic Pricing in the Presence of Antidumping Policy

Blonigen and Park (2001) explore the issue of dynamic pricing of a foreign firm in the presence of antidumping policy that allows adjustments of AD duties through the administrative review process. Despite the seemingly obvious incentive to raise its export price to replace (at least partially) the AD duty into part of its revenue, the exploitation of this opportunity is not a dominant choice for a typical foreign firm subject to the U.S. antidumping duty; only about 53% of reviewed cases (163 out of 306) out of 430 affirmative AD decision cases filed during 1980-1995 showed such reductions in AD duties.

By focusing on lags in adjusting AD duties in the review process that raise a dynamic pricing issue for the foreign firm, as well as on the nature of static profit maximization problem that generates an incentive to dump more in response to a raised AD duty, the dynamic programming analysis shows that the foreign firm will choose its prices in the review process such that the AD duty rises toward a stationary equilibrium value when enforcement of AD policy is certain. This result adds another reason to the list of theories for dumping activities, yet a distinctively different one from the earlier results in the sense that the structure of AD law itself (the lagged administrative review) can be the primary cause for higher degrees of dumping over time.

Introducing uncertainties into the AD enforcement, reflecting possibilities of both negative determinations and terminated cases based on collusive agreements, generates testable hypotheses: a higher ex ante probability of affirmative AD determination leads to less (likely)
reduction in AD duties through the review process and a higher ex ante probability of a terminated case leads to more (likely) reduction in AD duties.

The empirical study adopts a two-step estimation method: estimating parameters that determine the ex ante probabilities based on a probit model, then running various tests on the proposed hypotheses using the estimated ex ante probabilities. Using a sample of all firm-product combinations subject to U.S. affirmative AD decisions and AD duties for AD investigations filed between 1980 and 1995, the empirical results largely support the hypotheses, finding some evidence for "doming dumping" phenomenon where the degree of dumping increases with a higher ex ante probability of collusive agreements. Notably, the model provides a possible scheme for estimating the impact of regime shifts in AD policy (changes in probabilities for various contingencies of AD cases) on foreign firms' dumping behaviors, by comparing the "initial" price choice of a foreign firm subject to various uncertainties of AD policy with the final price choice in the review process (the choice that the firm would have made under uncertain enforcement).

Toward the discussion of WTO and antidumping, Blonigen and Park (2001) add another reason for improving the current AD rules of WTO. First, the significant impact of uncertainty in getting affirmative AD duties on the degree of dumping (for example, a 10 percentage point increase in the ex ante probability of getting affirmative AD duties means only a 27.9% fall in the dumping duty, rather than the average 33.5% fall in the review process) indicates that the mere existence of antidumping laws will strongly influence dumping behaviors toward less aggressive dumping, meaning reduced competition. Second, the "more-dumping-over-time" result under certain enforcement of AD policy has some implication toward the optimal AD duty

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5 Even though the "domino dumping" incentive may induce foreign firm to dump more aggressively, the prevalence of "domino dumping" itself implies an anti-competitive outcome at the end.
law. If one ignores uncertainty issues associated with AD enforcement, then a faster administrative review will lead to less dumping at the end of the review, reducing the associated AD revenues. Thus, a faster review may be desirable because a smaller AD revenue means a higher cost for utilizing antidumping for the country that uses it, thus possibly reduces the use of antidumping. However, it is also true that a faster review will discourage the initial dumping, strengthening the anti-competitive nature of antidumping with regard to the initial dumping determination.

5. Concluding Remarks with Some Thoughts on Future Research

The above discussion on WTO and antidumping has largely ignored the existence of political forces that have been changing AD provisions of the GATT/WTO toward more protectionist-friendly ones. In devising the optimal (or less damaging) AD provisions, explicitly modeling the political economy behind the legislation/negotiation of such AD provisions can be helpful in understanding the obstacles to improvement of AD provisions for the WTO regime. Given the significant differences between the U.S. antidumping law and that of the EU and the role to be played by these two major members in the future WTO talks, comparing the workings of these competing (?) antidumping laws would also generate valuable information for improvement of AD provisions.
References


