Second-Best Countervailing Duty Policy: A Critique of the Entitlement Approach

Alan O. Sykes

Follow this and additional works at: https://chicagounbound.uchicago.edu/journal_articles

Part of the Law Commons

Recommended Citation

This Article is brought to you for free and open access by the Faculty Scholarship at Chicago Unbound. It has been accepted for inclusion in Journal Articles by an authorized administrator of Chicago Unbound. For more information, please contact unbound@law.uchicago.edu.
SECOND-BEST COUNTERVAILING DUTY POLICY: A CRITIQUE OF THE ENTITLEMENT APPROACH

ALAN O. SYKES*

A number of writers have inquired whether countervailing duty law serves any useful purpose.¹ One conjecture is that the imposition of countervailing duties by trading nations will increase worldwide economic welfare by discouraging market-distorting subsidy practices. If so, on the average, all nations will stand to gain. This conjecture is incorrect for at least two reasons. First, international consensus is wholly lacking as to the proper distinction between “inefficient” or market-distorting subsidy programs and other government activities, and it is thus unclear what practices the countervailing duty law should seek to deter.² Existing national laws (and U.S. law in particular) thus make no effort to distinguish efficient from inefficient subsidies, even by some set of controversial, unilaterally announced criteria. Second, even if a theoretically sound and administratively workable consensus regarding impermissible subsidy practices could be reached in the future, the haphazard and uncoordinated imposition of countervailing duties by some countries and not others will have little systematic deterrent effect.³ Therefore, existing countervailing duty law cannot be understood as part of the enforcement mechanism for a mutually advantageous multilateral covenant, and it is questionable whether present law could serve that purpose satisfactorily even with considerable reform.⁴ Likewise, existing law cannot be justified as a calcu-

* Professor of Law, University of Chicago Law School.


² Of course, if all “subsidies” corrected market failures efficiently, countervailing duties would simply introduce economic distortions into an otherwise efficient trading system (putting aside the usual second-best caveat). The trading community could then increase its economic welfare, with gains to each nation on average, through a prohibition upon countervailing duties.


⁴ Id.
lated move intended to nudge the trading community toward a cooperative optimum in a repeat-play game.\(^5\)

An alternative conjecture is that countervailing duty law can promote the self-interest of nations acting non-cooperatively. Perhaps, for example, duties will deter or counteract subsidies that facilitate foreign monopolization of domestic markets, that shift economic rents from domestic to foreign firms through "strategic trade policy,"\(^6\) that disadvantage domestic exporters overseas, that cause undue domestic unemployment, or that have an unacceptable impact on the domestic wealth distribution. Alternatively, perhaps the existence of foreign subsidization is simply a self-regarding pretense for the "optimal tariff"—the exercise of monopsony power by large importing nations (such as the United States). In another recent paper, the author considers these arguments and others, and rejects all of them, at least as a basis for the sweeping protection against subsidized imports provided by existing U.S. law.\(^7\) Further, given the error costs and rent-seeking behavior inherent in any protective policy, the author's suggestion for "first-best" reform of U.S. countervailing duty law is quite simple: abolish it.

Yet, we do not live in a "first-best" world. Political forces ensure that countervailing duty law will survive for the time being, and administrative agencies must enforce it. Thus, options for "second-best" reform warrant serious consideration—taking the existing statute as a constraint, how might the agencies best administer it to promote the national interest?

Professor Richard Diamond addresses this question,\(^8\) drawing upon a proposal advanced by Goetz, Granet and Schwartz.\(^9\) These writers develop an "entitlement model" of countervailing duty policy, positing that the objective of U.S. law is to insulate domestic firms from the effects of certain foreign government practices upon the U.S. market.\(^10\) They draw

---

5. On the ability of repeat-play, non-cooperative games to converge on the cooperative solution absent express cooperation, see, e.g., R. AXELROD, THE EVOLUTION OF COOPERATION (1984); Kreps, Milgrom, Roberts & Wilson, Rational Cooperation in the Finitely Repeated Prisoner’s Dilemma, 27 J. Econ. Theory 245 (1982).


7. Sykes, supra note 3.


10. See, e.g., Diamond, Search for Principles, supra note 8, at 534-35.
SECOND-BEST POLICY

upon that model to suggest a variety of reforms to existing agency practices.

Oddly, however, the proponents of the entitlement model omit any systematic normative defense. Goetz, Granet and Schwartz observe that existing law cannot be understood as promoting the efficiency of global resource allocation, "postulate an 'entitlement' rationale", and proceed to explore its implications. Diamond makes much the same move, suggesting that one must choose between the entitlement rationale and a "global efficiency" or "distortion" model. After he rejects the latter, he embraces the entitlement model with little ado. But the fact that existing U.S. law cannot be understood as a device for enhancing global efficiency does not establish that the entitlement model charts an appropriate course for second-best reform. Rather, the necessary showing is that by some appealing normative criterion, the reforms suggested by the entitlement model dominate existing agency practices and dominate feasible alternatives that do not violate the statutory constraint.

This article explores the reforms suggested by the entitlement approach from one important normative perspective—that of economic efficiency. The economic perspective yields a decidedly mixed review.

The entitlement approach offers one advantage over current practice from an economic standpoint—properly applied, it reduces the size of countervailing duties with some regularity. However, the mere fact that the entitlement approach would reduce the level of duties is not enough to establish its ultimate desirability. The cases in which the level of duty will likely decline the most (or in which the International Trade Commission (ITC) is most likely to find an absence of material injury) will often be the cases in which duties at current levels are least detrimental to national economic welfare. On the assumption that reforms to reduce the average rate of duty are politically feasible, therefore, greater welfare gains might be realized by targeting those reductions to the cases in which duties under current practice are most damaging.

Further, the entitlement approach requires an extraordinary amount of information to implement correctly, well beyond that presently required in

---

11. Goetz, Granet & Schwartz, supra note 9, at 18-19.
12. See Diamond, Search for Principles, supra note 8, at 532-33, 533.
13. Indeed, the observation that U.S. law does not promote global efficiency has a "straw man" character about it—absent some international obligation requiring the United States to pursue global interests at the possible expense of its own interests, why should the United States ever enact laws to promote global welfare? The more interesting question is whether U.S. law promotes the national interest.
14. For the argument that efficiency should serve as the sole criterion for evaluating the wisdom of trade policy and, in particular, countervailing duty policy, see Sykes, supra note 3, at 209-13.
International Trade Administration (ITA) investigations. The cost of gathering that information and evaluating it, for the government and parties to the proceedings, is potentially staggering.

Finally, the entitlement approach has potentially unfortunate implications for the administration of the injury test. It might well produce an increase in the number of countervailing duty petitions. Further, it would tend to result in affirmative injury determinations precisely when the welfare loss from countervailing duties was the largest.

The discussion to follow first provides some background on the welfare economics of countervailing duties, extending prior work to suggest some possible directions for second-best reform. It then evaluates the entitlement approach as a proposed second-best policy.

**The Welfare Economics of Countervailing Duties**

The measure of national interest upon which economists most frequently rely is "national economic welfare"—a measure of the aggregate wealth of all domestic consumers and producers. The assumption that national economic welfare provides a useful criterion for assessing the wisdom of trade policy yields a number of implications about the merits of alternative countervailing duty regimes.

**First-Best Policy**

Figure I is a familiar diagram, found in one form or another in many elementary international economics textbooks. Initially, consumers in a "small" importing country can purchase as much as they want at the world price $p$—hence, the horizontal import supply curve $I$. Domestic producers of the product at issue obey the assumptions of the competitive model, with supply curve $S$. Domestic consumer demand for the product is represented by $D$. At the price $p$, domestic consumers demand $d$, domestic suppliers produce $s$, and imports fill the gap $d-s$. An approximate measure of consumer surplus at price $p$ is the triangle $abp$, while producer surplus is given by the triangle $pcj$.

---

15. Formally, a change in national economic welfare consists of a change in the sum of consumer surplus (the excess of consumer willingness to pay for goods and services over the price actually paid) and producer surplus (the sum of economic profits and rents earned by suppliers). See Sykes, supra note 3, at 210 & n.58. In "partial equilibrium" models of trade policy where government tariff revenue is earned but not distributed, a change in government revenue is also part of the change in welfare. Id. at 210.

16. The reasons why $abp$ is only an approximation are discussed in H. Varian, Microeconomic Analysis 207-13 (1978).
Now suppose that the government imposes a tariff in the amount $t$. Because foreign suppliers can always sell elsewhere at the world price, the tariff passes through in full to domestic consumers. The new domestic price is thus $p + t$; domestic consumers demand $d$ and domestic suppliers produce $3$; consumer surplus declines to $ah(p+t)$, while producer surplus increases to $(p+t)g$. In addition, government revenue from the tariff $t$ on imports of $d-3$ is equal to the area of the rectangle $ghfe$.

National economic welfare declines as a result of the tariff. Because of the increase in price, some consumers are priced out of the market, and their surplus is lost—triangle $hjb$ captures this loss of surplus. In addition, domestic resources are used to produce additional units of output $3-s$, and the marginal cost of those units of output exceeds the cost of the imports that they replace (the supply curve $S$ lies above $I$ over that range of domestic output). Triangle $cge$ captures the attendant loss of surplus.

This "partial equilibrium" analysis of protection considers only the effects of the tariff in the market in question. The economy-wide effects of the tariff—the effects in "general equilibrium"—are more complicated but nonetheless adverse.¹⁷ One adverse effect of the tariff that partial

equilibrium analysis omits is the effect on exporters. The tariff reduces the demand for imports, and thus for the foreign exchange necessary to buy imports. Foreign currencies depreciate relative to the home market currency, and home market exports become more expensive to foreign buyers. Consequently, the producer surplus earned by home market exporters declines.

For these reasons, a policy of free trade maximizes national economic welfare for a small country with internal markets that obey the assumptions of the competitive model.\footnote{Id.} This result does not depend in any way upon an assumption that markets abroad are competitive or undistorted by government subsidies.

Of course, the United States is not a small country, and the assumptions of the competitive model do not always hold. These observations motivate much of the author's earlier paper on the welfare economics of U.S. countervailing duty law, which begins with the small country, competitive case, but then relaxes the small country assumption and the assumptions about competitive input and product markets.\footnote{Sykes, supra note 3.} The reader is referred to that paper for the details, but its principal conclusion may be stated quite simply: No set of plausible assumptions yields a convincing "first-best" rationale for unilaterally administered countervailing duties.\footnote{Id. at 263.} Although duties may in theory enhance national economic welfare in special cases, those cases are likely uncommon, and in any event, impossible to identify in practice with any confidence.

Even if countervailing duties are never a first-best policy, however, it does not follow that they are equally detrimental in all cases. By examining the basic competitive case, relaxing the small country assumption, analyzing cases of imperfect competition in product or input markets, and so on, one might hope to isolate classes of cases in which the welfare consequences of countervailing duties are less unfavorable. Such an exercise is useful as a guide to second-best reform if the criteria for the identification and measurement of subsidies by the ITA, or the criteria for the analysis of injury by the ITC, can then be interpreted to confine countervailing duties to circumstances in which they are less damaging. And, if such interpretations would encounter insurmountable legal impediments, the exercise is still useful as an aid to the evaluation of any proposed alternative to current practice, such as the entitlement approach.

\footnotesize{18. \textit{Id.}}
\footnotesize{19. Sykes, \textit{supra} note 3.}
\footnotesize{20. \textit{Id.} at 263.}
SECOND-BEST POLICY

Second-Best Policy: When Are Duties Least Damaging?

A comprehensive analysis of options for "second-best" reform and their consistency or inconsistency with existing law is beyond the scope of this article. Nevertheless, the economic perspective immediately suggests several possible directions for welfare-enhancing reforms as well as several observations about the circumstances in which duties are less harmful.

The proposition that countervailing duties are usually detrimental to national economic welfare implies that reforms to reduce the rate of duty will tend to enhance welfare. Similarly, reforms that reduce the number of affirmative injury determinations will also tend to enhance welfare.

An analysis of the competitive case also suggests some useful insights. Holding constant the size of duties and the number of affirmative injury determinations, the welfare consequences of duties in competitive markets will depend significantly upon the elasticity of import supply (relaxing the small country assumption). When import supply is perfectly elastic, as in Figure I, any duty passes through in full to domestic consumers. Other things being equal, therefore, the size of the deadweight loss triangles $hfb$ and $cge$ is maximized.

When the import supply curve is imperfectly elastic, however—a common situation for a large country such as the United States—the analysis changes. A duty reduces the demand for imports in the United States, causing a movement downward and to the left along the import supply curve. The price of imports at the border (not including the duty) declines, and foreign sellers absorb part of the duty on the units that they continue to sell after the duty is in place. Likewise, the increase in the price paid by the U.S. consumer is less than the full amount of the duty. This observation has two implications. First, the deadweight loss triangles are smaller, other things being equal, because the increase in consumer prices is smaller. Second, some of the duty revenue collected by the U.S. government represents an extraction of surplus from foreign suppliers, in contrast to Figure I where all of the duty revenue comes out of U.S. consumer surplus. Conceivably, this increment in national economic welfare at the expense of foreigners may be large enough to outweigh the familiar deadweight loss triangles and the other adverse effects of the tariff on the economy. Even if not, the overall effect on national economic welfare is

21. This observation underlies "optimal tariff" theory, a well-known qualification to the proposition that free trade maximizes the welfare of importing nations. See, e.g., J. Bhagwati & T. Srinivasan, supra note 17, at 175-79. The "optimality" of a non-zero tariff arises because the importing nation is large enough to influence the price of imports that it purchases, and thereby possesses a degree of monopsony power. When a large country exploits that power optimally through its tariff structure, national economic welfare will rise as long as the gains are not offset by retaliation.
surely less adverse when the import supply curve slopes upward, other things being equal, than when it is horizontal. More generally, the less elastic the import supply curve, the less adverse the effect upon national economic welfare of a duty of a given size.\textsuperscript{22}

The elasticity of import supply also relates to the so-called "deterrence" model of countervailing duty policy which Diamond and others criticize.\textsuperscript{23} Plainly, the greater the extent to which a countervailing duty extracts surplus from foreign suppliers rather than domestic consumers, the more likely that the imposition of the duty will induce foreign suppliers to abandon their participation in subsidy programs, or induce their governments to abolish the subsidy programs. Thus, if countervailing duties are to serve any function at all as a deterrent to foreign subsidy practices, deterrence will tend to be greater (though still often minimal) when the import supply curve is less elastic.\textsuperscript{24}

abroad. Id. at 179-81. Of course, the countervailing duty laws do not exploit U.S. monopsony power optimally, but may nonetheless generate a welfare gain in a few cases by chance.

For the arguments why the United States should not use subsidization abroad as a pretense for the systematic exploitation of its monopsony power through countervailing duty law, see Sykes, supra note 3, at 218-22.

22. The elasticity of the import supply curve depends upon demand and supply conditions in the subsidizing country. The more elastic the supply curve is abroad, the more a small increase in the U.S. price will elicit substantial additional production for export to the United States, and hence the more elastic the U.S. import supply curve will be. Likewise, the more elastic the home market demand curve is, the more that a small increase (or decrease) in price in the United States will divert large quantities of output from (or to) the foreign market, and thus the more elastic the U.S. import supply curve will be.

It is important to distinguish the elasticity of the import supply curve from the extent to which a subsidy will shift that curve. In general, the more elastic the supply curve is abroad, the more a subsidy will stimulate increased output, and thus the greater the extent to which a given subsidy will shift the U.S. import supply curve. By contrast, the less elastic the demand curve is for the subsidizing country, the more a new subsidy will shift the U.S. import supply curve because increased output due to the subsidy will be consumed at home to a lesser extent.


24. The elasticities of U.S. supply and demand also affect the welfare consequences of a duty. Beginning with demand, consider the limiting case in which domestic demand is perfectly elastic. Consumer prices will not rise in response to the duty, so the effect of the duty upon domestic consumer and producer surplus in partial equilibrium is nil. But if the duty is not prohibitive, the government will earn some revenue, all at the expense of foreign producer surplus—national economic welfare actually increases unless this gain is outweighed by the adverse effects of a duty in other markets. In general, the more elastic domestic demand is, other things being equal, the greater the extent to which the incidence of the duty will fall upon foreign suppliers rather than domestic consumers, and the adverse welfare consequences of protection will diminish.

Similar analysis applies to the elasticity of the domestic supply curve. If domestic supply is perfectly elastic, a duty can have no impact on consumer and producer surplus in the market in question, and the duty revenue is then a pure gain in national economic welfare, although it may once again be
The remarks up to this point draw upon the competitive model, and a relaxation of competitiveness assumptions also suggests some scenarios in which countervailing duties may have relatively fewer unfavorable consequences. The literature on "strategic trade policy," for example, suggests some possibilities. In theory, foreign governments might increase their national economic welfare at the expense of U.S. welfare by subsidizing industries that earn greater than competitive returns. The objective might be to facilitate monopolization, but subsidies might also simply facilitate an expansion of the subsidized producers at the expense of their U.S. (and other) competitors, allowing the subsidized firms to capture a greater share of the rents to be earned in world markets. In theory, countervailing duties in response to such subsidies may increase national economic welfare for the importing nation. And, although the conditions under which a welfare gain will arise are probably quite rare and impossible to observe, duties may be less harmful on average in cases that roughly fit the strategic trade paradigm.

Likewise, countervailing duties may be less disadvantageous on average when protection, while introducing the familiar inefficiencies, also ameliorates some underlying distortion in the domestic economy. For example, suppose that the Keynesian problem of downward wage rigidity afflicts some industries. As a consequence, these industries may suffer inefficient unemployment when the demand for labor falls because the labor market takes a long time to "clear." Protection for industries in which this prob-

offset by adverse effects in other markets. For this reason, the adverse welfare effects of protection tend to decline as the domestic supply curve becomes highly elastic.

25. E.g., Sykes, supra note 3, at 250-56.
28. For a critique of the proposition that strategic trade models provide a rationale for countervailing duties as a "first-best" policy, see Sykes, supra note 3, at 250-56; see also Grossman, Strategic Export Promotion: A Critique, in STRATEGIC TRADE POLICY AND THE NEW INTERNATIONAL ECONOMICS 47 (P. Krugman ed. 1986).
29. The two important classes of cases involve: (1) industries where firms earn substantial monopoly rents that will not be competed away quickly; and (2) industries in which the supracompetitive returns take the form of a positive externality associated with domestic production—most likely, a research and development spillover in an industry that exhibits rapid technical progress.
lem is especially severe\(^{31}\) may be less disadvantageous on average than protection elsewhere, since it may yield an efficiency gain in the labor market that partially offsets efficiency losses elsewhere.

Thus far, the discussion focuses upon the effects of a countervailing duty in partial equilibrium. But it is important to consider its likely effects on the rest of the economy. One broader effect of U.S. policy, for example, may take the form of retaliation or mimicry by other nations. The United States has the largest economy in the world, and the policies that it adopts will not go unnoticed elsewhere. It must then anticipate that whatever tools of protection it embraces may at some point be employed against it. This observation suggests two rather divergent directions for possible second-best reforms.

On the one hand, the United States might recognize the "repeat-play" character of the trade policy game among nations, and attempt through unilateral initiatives to encourage the world to adopt the countervailing duty policy that an efficient agreement among nations might embody.\(^{32}\) For example, if an ideal agreement would encourage nations to sanction inefficient subsidy practices, but prohibit sanctions otherwise, the United States might try to devise criteria that distinguish inefficient from efficient subsidies as well as possible. It might then administer its countervailing duty laws in accordance with those criteria, at least until it became clear that other nations would not cooperate by adopting similar policies.

On the other hand, perhaps it is impossible to identify inefficient subsidies reliably using criteria that other nations will accept. The proposition that U.S. policy may elicit mimicry abroad then yields an alternative suggestion for reform. Countervailing duties in response to foreign subsidy programs that closely resemble existing U.S. government programs may increase the likelihood that foreign governments will impose duties on U.S. exports. Such duties plainly have the potential to reduce national economic welfare. Thus, reforms to eliminate countervailing duties in the United States under these circumstances may have appeal.

Finally, whatever the particular economic characteristics of the industry under investigation or the likely international response to U.S. policy, expenditures upon the administration of the countervailing duty laws are a welfare cost. Holding constant such factors as the average size of countervailing duties and the number of affirmative injury determinations, therefore, simple, bright-line rules that require minimal administrative effort

\(^{31}\) Atypically high unemployment and underemployment relative to other industries may reflect this problem.

\(^{32}\) For the argument that countervailing duties would probably have no role in an ideal agreement regarding inefficient subsidy practices, however, see Sykes, supra note 3, at 260-61.
tend to dominate complicated, discretionary rules that require greater administrative resources.

AN EVALUATION OF THE ENTITLEMENT APPROACH

The entitlement approach postulates that U.S. firms enjoy an entitlement to protection from the effects in the domestic market of certain foreign subsidy programs, corresponding to those presently deemed "countervailable" under U.S. law by the specificity test. The entitlement does not depend upon the structure or conditions prevalent in the domestic industry, except that the proponents of the entitlement model would retain the existing material injury test.

Is the Entitlement Approach the Best Feasible Reform?

The proponents of the entitlement approach do not argue that their proposed reforms enhance economic efficiency relative to existing practice. Not surprisingly, therefore, the reforms suggested by the entitlement approach do not closely track any of the possible directions for reform suggested by the discussion above, nor on their face do they undertake to confine countervailing duties to the cases suggested above in which duties are relatively less damaging from an efficiency standpoint. This observation suggests one obvious objection to any claim that the entitlement approach offers an appealing direction for reform—before such a conclusion can be drawn with any confidence, other options for reform that pursue the national economic interest more directly should be thoughtfully evaluated.

Although the discussion above does not purport to identify reforms that are both economically superior to the entitlement approach and consistent with the statutory constraint, it at least suggests some interesting possibilities. For example, the ITC has wide discretion in the administration of the injury test, and could give more weight to factors suggesting that subsidies are shifting substantial rents to foreign competitors, or that duties might ameliorate some underlying domestic distortion. Likewise, the ITA may often have enough discretion to avoid the imposition of countervailing duties in response to "subsidies" that seemingly represent a reasonable response to market failures, or that closely resemble existing U.S. government programs. Until these and other possibilities have been inves-

33. See Diamond, Search for Principles, supra note 8, at 533-35.
34. Id. at 540-42 (discussing current ITC methodologies and potential overlap with the entitlement model).
35. See id.
tigated carefully and either rejected or integrated into the entitlement framework, the economic case for the entitlement approach will not have been made.

**Is the Entitlement Approach Superior To Existing Agency Practice?**

Suppose that all reforms which dominate the entitlement approach would violate the statutory constraint. Suppose further—perhaps a bold assumption—that the entitlement approach does not violate the statutory constraint. Then, the only remaining question is whether existing practice dominates the entitlement approach or vice versa.

Goetz, Granet and Schwartz hint (Diamond, interestingly, does not) that the reforms suggested by the entitlement approach would systematically lead to lower duties than existing practice. As noted, any reform that lowers duties may have considerable appeal, and the possibility that the entitlement approach may do so is perhaps its greatest virtue.

**The Competitive Case**

Consider a competitive foreign industry in which every firm receives a countervailable payment from the government equal to one dollar for each unit of output produced—a classic domestic subsidy. Presently, the ITA would compute a countervailing duty of one dollar per unit. Under the entitlement approach, by contrast, the duty would be computed to equal the amount that would restore U.S. producers to the position that they would have enjoyed in the absence of the countervailable subsidy program. For reasons neglected by the proponents of the entitlement approach—relating to the distinction between the supply curve of foreign producers and the U.S. import supply curve—proper calculation of the duty in this case often results in lower duties than current practice.

For simplicity, consider a case of two-country trade, and let transport costs equal zero. Denote the demand curve for the U.S. market by \( D(p_1) \), and for the foreign market by \( d(p_E) \), where \( p_1 \) is the price to the consumer in the importing country (the United States) and \( p_E \) is the price to the

---

36. Goetz, Granet & Schwartz, supra note 9, at 24.
38. See Diamond, Search for Principles, supra note 8, at 540-42.
39. The two approaches are less likely to yield disparate results with export subsidies. Consider, for example, the case of an export subsidy program, under which the foreign government provides its producers with a fixed payment per unit of exports to the United States. A duty equal to the fixed payment per unit will precisely nullify the added incentive that foreign producers have under such a program to increase their exports to the U.S. market. See Diamond, Economic Foundations, supra note 8, at 799.
SECOND-BEST POLICY

consumer in the exporting country. The supply curve for U.S. producers is $S(p_I)$. Foreign suppliers receive a subsidy on all output equal to $x$ per unit; thus, they receive for every unit sold in their home market an amount $p_E + x$. Further, if these price-taking firms are to sell both at home and in the United States, they must receive the same revenue per unit of output in both markets; otherwise, they would divert all their sales to one market or the other. Thus, in equilibrium, they must receive $p_E + x$ on each unit that they sell to the United States. The supply curve abroad can thus be written $s(p_E + x)$.

Let the United States now impose a countervailing duty equal to $c$. If foreign suppliers are to sell in both markets, it follows that:

\[(1) \quad p_I = p_E + c\]

With zero transport costs, the price in the U.S. market will be higher by exactly the amount of the duty.

Further, equilibrium in this two-country trade model requires that excess supply in the foreign country (the excess of domestic production over domestic consumption) equal excess demand in the United States (the excess of domestic consumption over domestic production). Assuming for the moment that all the supply and demand curves have finite elasticity, the equilibrium condition is:

\[(2) \quad s(p_E + x) - d(p_E) = D(p_I) - S(p_I)\]

Consider now a small increase in $x$, the domestic subsidy abroad. What increase in the amount of duty is necessary to protect the entitlement of U.S. suppliers? In the limiting and empirically unimportant case where demand is infinitely elastic in either market, any increase in foreign output will be fully absorbed at current prices, and thus no increase in the duty is necessary. But where consumer demand has finite elasticity in both countries, the duty must rise to protect the entitlement; in particular, it must rise by the amount necessary to restore $p_I$ to its original value. To compute the necessary increase, differentiate equation (2) with respect to $x$, setting $\partial p_I/\partial x = 0$, to obtain:

\[\partial p_E/\partial x = s'/(d'-s')\]

40. This result is similar to that in Diamond's case in which the marginal revenue curve is horizontal. Diamond, Economic Foundations, supra note 8, at 794-95.

1990] 711
Differentiation of equation (1) with \( p \), held constant implies that the change in the duty must exactly offset the change in \( p_E \). It then follows that:

\[
(3) \quad \frac{dc}{dx} = \frac{s'}{s'-d'}
\]

In the limiting case where the supply curve abroad is perfectly inelastic (\( s' = 0 \)), the entitlement is not infringed at all by the subsidy—even though foreign producers perceive an increase in price (or a decrease in cost), they cannot expand output to take advantage of it, and thus do not increase their exports (the U.S. import supply curve does not shift). For the upward sloping supply curve with some elasticity (\( s' > 0 \)), the increase in the duty necessary to protect the entitlement is less than the increase in the subsidy as long as the home market demand is not completely inelastic (as long as \( d' < 0 \)). Intuitively, when the increase in the subsidy induces increased output, price falls and home market consumption rises—this increase in output to the home market requires a movement upward along the foreign supply curve. The excess supply curve (the import supply curve from the U.S. perspective) shifts by less than the full amount of the increase in the subsidy because some of that increase is offset by the increased costs that attend an increase in output for the home market. To protect the entitlement of U.S. producers, it suffices to counteract the shift in the import supply curve with a duty equal to the magnitude of that shift. Hence, the necessary increase in the duty is smaller than the increase in the subsidy.

As the supply curve abroad approaches perfect elasticity (\( s' \) becomes arbitrarily large), however, the change in the duty necessary to protect the entitlement approaches the change in the subsidy. Here, foreign suppliers can increase output to supply the home market at the lower, subsidized price without experiencing any increase in production costs, and the supply price to the U.S. market then falls by the full amount of the increase in the subsidy.

The case of the perfectly elastic supply curve is the limiting case in perfect competition, of course, because a downward-sloping supply curve would imply increasing returns to scale that any price-taking firm would attempt to exploit by increasing output. Thus, competitive equilibrium cannot exist where firms are experiencing increasing returns.

For this reason, on the assumption that supply curves abroad frequently slope upward, proper application of the entitlement approach to competitive industries can be expected to lower the amount of the duty imposed with some regularity. The reduction in the duty relative to current practice increases as the elasticity of home market demand in the
SECOND-BEST POLICY

foreign country (the larger the absolute value of \(d'\)) increases and the elasticity of supply abroad (the smaller the value of \(s'\)) decreases. Note that an important issue, suppressed in this discussion, is whether the long run or short run supply elasticity is the relevant concern—supply is generally more elastic in the long run.

Although the entitlement approach produces lower duties on average, it is important not to exaggerate the significance of this finding. Plainly, the information about supply and demand conditions in the foreign market necessary to make the proper adjustment to the rate of duty would be, at best, difficult to obtain. The additional administrative costs associated with efforts to obtain and evaluate this information to some degree offset the benefits of lower duties in the welfare calculus. It is also difficult to predict what would happen in cases where the ITA finds itself unable to obtain and verify the requisite information.

Moreover, note that the reduction in the level of duty under the entitlement approach may tend to occur in cases where the reduction is least valuable from a welfare standpoint (and conceivably even harmful). Holding other variables constant, as the supply curve abroad becomes less elastic, the duty falls because the shift in the U.S. import supply curve due to the subsidy is smaller. Yet foreign sellers will absorb more of the duty and pass through less of the duty to U.S. consumers precisely when their supply curve is less elastic. The deadweight loss triangles are then smaller, and the duty revenue earned by the U.S. government comes to a greater extent out of foreign producer surplus. In short, the entitlement approach is potentially at odds with the teachings of optimal tariff theory, and may lead to significantly lower duties precisely when the reduction is least advantageous.\(^41\)

Imperfect Competition

To be sure, cases involving competitive industries are but a subset of all countervailing duty cases. Diamond correctly acknowledges that the entitlement approach does not systematically justify lower duties with imper-
fect competition—in theory, it can justify either higher or lower duties depending upon the circumstances. 42

For example, one can easily imagine cases in which the entitlement approach would justify prohibitive duties. Consider the following adaptation of an illustration developed by Krugman. 43 A new product, known as a widget, is under development and everyone anticipates that it will be commercially available in the near future. The widget industry will exhibit greatly increasing returns to scale, to the point that given the likely worldwide demand for widgets, only one firm will be able to enter and operate profitably. The two possible entrants are existing firms that produce related products. One firm is from Japan, the other is from the United States. The firm that ends up as the sole producer of widgets will earn large monopoly rents in world markets, and it is in the national economic interest of both Japan and the United States to have its own firm become the successful entrant.

Absent government intervention, the first mover will capture the market. That is, if one of the two firms can credibly commit to entry before the other firm does so, the second firm will not enter because it knows that if both of them enter, the market will be unprofitable for each of them.

Suppose that the U.S. firm has a good chance to be the first mover. Anticipating this possibility, the Japanese government announces a credible commitment to subsidize its firm conditional upon its entry, to an extent that ensures its profitability even if the U.S. firm enters as well. The U.S. firm knows this, and consequently will decline to enter because entry by the Japanese firm is a certainty, and the U.S. firm will then lose money. Absent an effective counterpolicy by the U.S. government, the Japanese government strategy ensures that its firm will succeed.

Suppose that the only U.S. response is to let the Japanese firm enter, and then to impose a countervailing duty on its exports to the United States in accordance with the entitlement model. 44 What level of duty will be necessary to restore the U.S. firm to the position that it would have enjoyed absent the Japanese government subsidy program? Conceivably, no duty will suffice to do so, no matter how high. If U.S. consumption of

42. More precisely, Diamond suggests that the entitlement approach results in higher duties when marginal costs fall with output. Such conditions are inconsistent with competitive equilibrium, as noted, but may be reasonably common in imperfectly competitive industries. Diamond, Economic Foundations, supra note 8, at 796.

43. Krugman, supra note 26, at 134-37.

44. Papers addressing the welfare economics of countervailing duties under imperfect competition include Dixit, supra note 27, at 1; Eaton & Grossman, Optimal Trade and Industrial Policy Under Oligopoly, 101 Q.J. ECON. 383 (1986).
widgets is small, for example, or U.S. demand is highly elastic, even a complete ban on Japanese imports may not yield enough profit to induce the U.S. firm to enter the market.

This illustration is obviously somewhat contrived, but the point is more general. We can have no confidence that proper implementation of the entitlement approach in cases of imperfect competition would lower duties on average in the absence of an effective international constraint to prohibit them from rising.

Article VI(2) of the General Agreement on Tariffs and Trade (GATT) and article 4(2) of the GATT Subsidies Code, which prohibit the imposition of a duty in excess of the “per unit” subsidy found to exist, provide such a constraint. As a first approximation, current ITA practice systematically imposes this maximum rate of duty. Hence, as long as the United States would abide by GATT obligations after adopting the entitlement approach, it follows that the entitlement approach can only reduce the average level of countervailing duties, even in cases of imperfect competition. Of course, it also follows that the entitlement approach would be inconsistent with international obligations if fully implemented—the entitlement can only be protected fully if the duty necessary to do so does not exceed the value of the government subsidy allocated over the units of output under investigation.

The benefits of reduced duties in this class of cases, however, may be much less than in the competitive case. First, it is by no means clear how often the entitlement approach, properly applied, would result in lower duties. Second, serious effort to accurately protect the entitlement would require a staggering amount of information about strategic conditions in the industry, the cost and demand conditions here and abroad, and so on—far more than that required in the competitive case. Indeed, much of the necessary information is simply unobservable, and the use of highly


46. See supra text accompanying note 37.

47. In Diamond’s own model, for example, the proper duty depends upon the shape of the marginal revenue and marginal cost functions of the subsidized firm. Diamond, Search for Principles, supra note 8, at 540-42. In a foreign industry with more than one firm, each firm’s perceived marginal revenue depends upon such subjective factors as managers’ estimates of the strategic reaction of competitors to changes in output. Marginal cost as well is notoriously difficult to observe or estimate. In their well-known article on predatory pricing, for example, Areeda and Turner simply assume that marginal cost is unobservable, and offer average variable cost as an imperfect proxy. Areeda & Tur-
imperfect proxies would be necessary notwithstanding the most diligent (and costly) efforts of the ITA to do as well as it could. This problem might create great pressure for the retention of much of current practice, even if the ITA embraced the entitlement approach in principle.

Finally, the adoption of the entitlement approach would afford the proponents of protectionist policies with an argument as to why, in an ideal world, countervailing duties ought to be higher than under current practice in many cases. It thus provides them with an intellectually respectable argument for violation of existing GATT obligations, for efforts at artful construction of those obligations in order to circumvent them, or for a change in the GATT itself to allow signatories the freedom to protect fully the jeopardized "entitlements" of their home market firms. In short, the entitlement approach may open the door to greater protectionism in the future—a door that should perhaps remain shut.

The Effect of Subsidies upon Marginal Cost

In one respect, the ITA treats all subsidies alike. The countervailable benefit is simply the dollar benefit received from the foreign government somehow allocated over the output (or sometimes exports) of the foreign industry. Accordingly, the countervailing duty is always equal to the estimated subsidy per unit.\footnote{See supra note 37 and accompanying text.} This duty may well exceed what is necessary to protect the "entitlement," for a reason not yet discussed here, but much discussed by the proponents of the entitlement approach.

Take the competitive case as an illustration. Even where the import supply curve shifts downward by the full amount of the reduction in marginal costs attributable to the subsidy (e.g., the home market supply curve abroad is perfectly elastic), the effect of the subsidy on marginal cost may be less than the per unit value of the subsidy. If so, the effect of the subsidy on the U.S. import supply curve is less than the per unit value of the subsidy and, a fortiori, so is the duty necessary to protect the entitlement.

In the imperfectly competitive case, the analysis is more complicated. For example, a subsidy here can affect the strategic interaction among firms in the world market and thus affect the "entitlement" other than through a direct effect on marginal costs. But much the same point can be made. "Subsidies" of a given amount can have greatly differing effects upon marginal costs of production. And, other things being equal, the

\footnote{See supra note 37 and accompanying text.}
greater the extent to which the subsidy lowers marginal cost, the greater
the duty required to protect the entitlement.

The difficulty is that with few, if any, exceptions, it is virtually impos-
sible to determine accurately how subsidies affect marginal costs. Goetz,
Granet and Schwartz give the example of a subsidy that induces a firm to
locate its new plant in a depressed region where its marginal cost of pro-
duction will be higher than it would have been had the plant been built in
an efficient location absent the subsidy. Here, they suggest, the costs of the
foreign firm actually increase relative to what they would have been ab-
sent the subsidy, U.S. producers benefit, and no duty is necessary. 49 How-
ever, if the plant does not substitute for another of the same capacity, but
instead adds to capacity (and output) in the subsidizing country, their con-
clusion no longer holds, even if the new plant has higher marginal costs
than existing plants. Any increase in output abroad will lead to somewhat
lower prices and will likely have some effect on export markets. 50 Thus, it
is necessary to know just how the construction of the new plant has af-
Acted the investment or disinvestment decisions not only of the subsidized
firm, but of all other firms in the subsidizing country. Such information
can only be obtained through a painstaking investigation of every firm,
and even then the accuracy of a survey of investment intentions, based on
a counterfactual scenario, would be extraordinarily difficult to assess.

More generally, any time that a government grants a subsidy to pro-
ducers in a particular industry, whether or not the subsidy has a direct
effect upon marginal costs, entry may be induced, output may rise, and
U.S. producers may be affected. It all depends upon how the subsidy af-
fected expectations about future returns on investment in the subsidizing
industry. These variables are intrinsically unobservable, and accurate infer-
ences about them can rarely be drawn.

For these reasons, any serious attempt to implement the entitlement ap-
Droach by determining the effect of subsidies on supply or marginal cost
curves will be extremely expensive and will inevitably rely upon informa-
tion that does not come close to meeting the usual standards for ITA "ver-
ifications." One possible result, even if the ITA were to embrace the enti-
tlement approach in principle, would be for the ITA to retain much of
current practice—it might adopt a rule of thumb that the effect of the
subsidy on the foreign supply or marginal cost curve is equal to the per

49. Goetz, Granet & Schwartz, supra note 9, at 21-22.
50. Indeed, a subsidy that results only in new capacity (and no new output) can still affect the
incentives of U.S. firms to enter a market or expand their output, and thus affect their entitlement.
See generally C. von WEIZSÄCKER, BARRIERS TO ENTRY 125-44 (1980); Baumol & Willig, Fixed
unit value of the subsidy. Alternatively, efforts by the ITA to examine seriously the effect of subsidies on marginal costs would entail a substantial increase in administrative costs, and even then could not avoid a considerable rate of error.

The Injury Test

The proponents of the entitlement approach discuss its implications for ITA practice at length, and say little about its implications for injury analysis at the ITC. For several reasons, the integration of the entitlement approach with the material injury test may have adverse welfare consequences.

Following the entitlement approach, the ITC would have to determine that the adverse effect of the subsidy upon the entitlement was "material" before duties could be imposed (in cases where the injury test applied). Equivalently, once the ITA computed the duty necessary to restore the entitlement, the ITC would have to determine whether the imposition of the duty would materially benefit U.S. firms. This inquiry is closely akin to the inquiry under the unitary analysis of injury that a minority of ITC Commissioners now utilize, and that Diamond seemingly endorses.51

Based on recent experience at the ITC, it is tempting to infer that this approach to injury analysis would result in fewer affirmative injury determinations. The reason is quite simple—the ITC Commissioners who have expressed the most interest in the unitary approach, and who use that approach most frequently, seem to cast negative votes more often than other Commissioners. But this correlation between the unitary approach and a tendency to vote in the negative may be spurious. It may simply reflect the fact that the Commissioners who presently use this approach have a greater affinity for economic analysis, and because of their affinity for economic analysis, they are more persuaded by the economic case for free trade, and vote accordingly.

With a different group of Commissioners, all utilizing the same method of injury analysis, the entitlement approach could well become a vehicle for increasing the number of affirmative injury determinations. In particular, whenever the ITA would compute a positive rate of duty, its determination would imply that a duty in that amount was necessary to remedy the damage done to the U.S. industry by the subsidy. The only question for the ITC to answer would be whether that damage was "material."

51. Diamond, Search for Principles, supra note 8, at 549-52.
Given the low statutory threshold for a "material" effect, and the wide discretion afforded Commissioners to determine what is "material," any Commissioner who was predisposed to vote for domestic petitioners could use the entitlement approach to justify an affirmative determination in virtually every case simply by adopting a low subjective threshold of "materiality."

Likewise, the entitlement approach sweeps away one potentially important check on the number of affirmative determinations—the bifurcated injury test, presently embraced by a majority of Commissioners. Under this test, the Commissioners first inquire whether the industry is suffering from "material injury." That is, they inquire whether the indicia of industrial well-being—prices, output, employment, and so on—show decline or softness that might reflect or portend financial difficulties. Only if "material injury" is found does the analysis proceed to the second-stage inquiry into "causation." Not only can this bifurcated test result in some negative determinations for lack of "material injury," but it discourages industries from filing petitions when the industry is growing and profitable. The bifurcated injury test may thus have much to do with the fact that the number of filings behaves countercyclically. The elimination of the bifurcated injury test, therefore, might cause a significant increase in the number of countervailing duty petitions, particularly in times when the economy is strong.

Finally, holding constant the number of affirmative determinations and the number of filings, the entitlement approach (like the unitary approach) may tend to result in affirmative determinations precisely when a countervailing duty is most detrimental to national economic welfare. Consider again the competitive case. Under the entitlement approach, the likelihood of an affirmative injury determination increases, other things being equal, the more that the imposition of a duty would result in higher prices in the U.S. market. The logic is clear—the greater the impact of a duty on price, the more the subsidy must have injured U.S. producers by depressing the price, and the greater the adverse effect of the subsidy upon the entitlement. Because the deadweight loss triangles increase in size as consumer prices increase, however, it follows that the entitlement approach is more likely to afford protection, other things being equal, when the deadweight loss triangles are large rather than small.

Similarly, the effect of a duty on price will be smaller (and thus the probability of a negative injury determination greater) when the import

supply curve is less elastic—foreign suppliers will then absorb more of the duty. Thus, affirmative injury determinations are more likely under the entitlement approach, other things being equal, when the import supply curve is more elastic. Yet, the “optimal tariff” is inversely related to the elasticity of the import supply curve. The more that foreign suppliers will absorb the duty, the greater the extent to which duty revenue comes out of foreign producer surplus rather than domestic consumer surplus, and the less adverse the effect of the duty upon national economic welfare. Hence, the entitlement approach is again at odds with the teachings of optimal tariff theory.

These observations suggest the following conjectures: holding constant the percentage of affirmative injury determinations and the number of filings, national economic welfare declines less if affirmative determinations are made at random rather than on the basis of the entitlement approach (or unitary analysis). Likewise, holding the same factors constant, the bifurcated injury test dominates the entitlement approach (or unitary analysis) from a welfare standpoint.

A Final Note on Administrative Costs

The discussion above notes at several points the increased administrative costs that would attend efforts by the ITA to implement the entitlement approach. In each instance discussed thus far, however, those costs would be incurred in the course of investigating issues that might lead to lower duties, a development that seems beneficial from an economic standpoint. But the entitlement approach also requires a considerable expenditure of resources upon the investigation of issues that bear no systematic relation to the average rate of duty, or to any other variable with clear welfare implications.

Diamond’s own discussion makes the point. For example, he considers at some length the problem of how to allocate government payments among the products of a multiproduct firm. However, unless the ITA’s current practices systematically misallocate benefits to products under investigation, a case that Diamond does not make, efforts to develop superior allocation methods will not affect duties on average.

Similarly, Diamond critiques the approach now used to allocate over time the benefits from a subsidized loan to a credit-worthy company. He correctly notes that current practice allocates benefits over the repayment

55. Diamond, Search for Principles, supra note 8, at 566-71.
56. Id. at 587-91.
period of the loan, rather than over the period during which changes in production techniques financed by the loan have an impact upon the firm’s cost structure—-the latter method is required by the entitlement approach. But it is very easy to ascertain the repayment period of a loan, and very difficult to determine how its proceeds have affected the cost structure. And, unless there is some reason to believe that repayment periods are systematically shorter than the period over which costs are affected, costly efforts to ascertain the proper allocation period under the entitlement approach have no economic payoff.

CONCLUSION

By proposing a new interpretation of the countervailing duty laws first, and leaving until later systematic consideration of its normative consequences, the proponents of the entitlement approach attack the problem backwards. Proceeding in this fashion, they are unlikely to identify the best options for reform from the set of feasible alternatives, and may even fail to identify options that dominate existing practice. Not surprisingly, therefore, the reforms suggested by the entitlement approach are of questionable desirability.

To be sure, the entitlement approach has a degree of economic coherence and self-consistency that existing agency practices lack. But economic coherence is not a virtue in itself, except perhaps from the perspective of potential economic consultants. For those who believe that trade policy should pursue national economic welfare, therefore, the search for second-best reforms must continue.

57. Id. at 587.

58. If repayment periods are for some reason shorter on average, then the ITA’s current practice would increase rates of duty in the short term relative to the entitlement approach, and terminate them sooner. Even if the average rate of duty were the same over time, the present value of the welfare losses would be higher under current practice.