Directly Unproductive, Profit-seeking (DUP) Activities

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This paper proposes directly unproductive, profit-seeking (DUP) activities as a general concept that embraces a wide range of recently analyzed economic activities, including the subset of rent-seeking activities considered by Krueger. It then proceeds to provide a synthesis and generalization of the welfare-theoretic analysis of such activities by developing a fourfold categorization of cases depending on the levels of distortions before and after the DUP activity. Thus a unification and overview of the subject are achieved.

In recent years, economists have increasingly turned to a theoretical analysis of phenomena such as lobbying for protection, competing for a share of industrial or import licenses, inducing legislatures to enact monopolistic barriers to domestic entry, utilizing resources to evade "price" or "command" governmental regulations, etc.

In the area of international trade-theoretic analysis in particular, it would hardly be an exaggeration to say that this has been among the few leading topics of research focus recently. Thus, the theoretical analysis of *tariff evasion*, starting with Bhagwati and Hansen (1973),

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PROFIT-SEEKING ACTIVITIES989has witnessed further contributions by Johnson (1972), Bhagwati and
Srinivasan (1973), Sheikh (1974), Kemp (1976), Falvey (1978), Ray
(1978), and Pitt (1981). The theoretical analysis of activity whereby
immants compete for premium seeking, was begun in a seminar
paper by Krueger (1974) and extended by Bhagwati and Srinivasan
(1980). The theoretical analysis of *trevenue seeking*, where economic
gents try to get a slice of the tariff revenue resulting from the
doption of a protectionist tariff, has been initiated by Bhagwati and
Srinivasan (1980). The theoretical analysis of *tariff seeking*, on the
there hand, where lobbies seek protectionist trade tariffs, has been
invesan (1980). The theoretical analysis of tariff seeking, on the
there hand, where lobbies seek protectionist trade tariffs, has been
protectionist (1982). At the same time, in non-trade-theoretical
tanalysis of section I (1967, 1980) and Posner (1975).This paper, I begin in Section I by field discussing the comom
fying sesence of the phenomena so analyzed and then arguing why
hy thivities. Next, I proceed in Section II to differentiate analytically
immang different types of such activities, with a view to classifying
the min to categories which are analytically meaningful from the view-
point of their welfare impact. Existing analyses of specific problems,
such as tariff seeking and revenue seeking, are then readily identified
be only specific illustrations of a wider class of DUP activities with
a tentie a welfare consequences.

identical welfare consequences.

Directly Unproductive, Profit-seeking (DUP) Activities: I. The Concept

The essential characteristic of the phenomena whose analysis has recently been undertaken, and many of which have been referenced above, is that they represent ways of making a profit (i.e., income) by undertaking activities which are directly unproductive; that is, they yield pecuniary returns but do not produce goods or services that enter a utility function directly or indirectly via increased production or availability to the economy of goods that enter a utility function. Insofar as such activities use real resources, they result in a contrac-tion of the availability set open to the economy. Thus, for example, tariff-seeking lobbying, tariff evasion, and premium seeking for given import licenses are all privately profitable activities. However, their

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direct output is simply zero in terms of the flow of goods and services entering a conventional utility function: for example, tariff seeking yields pecuniary income by changing the tariff and hence factor rewards; evasion of a tariff yields pecuniary income by exploiting the differential price between legal (tariff-bearing) imports and illegal (tariff-evading) imports; and premium seeking yields pecuniary income from the premia on import licenses. Thus, these are aptly christened DUP activities. As an acronym, this can be pronounced "dupe" activities, coming close to the spirit in which economists must view these activities!¹

This distinction between directly unproductive and productive activities is somewhat reminiscent of the Physiocrats and the early Marxists but, in contrast, has, in strictly economic terms, a perfect claim to legitimacy. For example, lobbying to install a distortionary tariff is undoubtedly directly unproductive from an economic viewpoint, though it may possess a political legitimacy and value as constituting an element of a vigorous, pluralistic democracy!

Krueger's (1974) analysis of what she christened "rent-seeking" activities relates to a subset of the broad class of what are defined here as DUP activities. She is concerned with the lobbying activities which are triggered by different licensing practices of governments. Thus, she lists large numbers of licensing practices leading to lobbying to profit from the securing of such licenses. Also, her formal theoretical analysis is concerned with a welfare comparison between import licenses/quotas with attendant premium-seeking lobbying activity to earn the premia on these licenses vis-à-vis equivalent tariffs which were explicitly assumed not to attract any seeking activity. Thus, her focus is exclusively on licensing/quantity restrictions and the rents thereon,² and her rent-seeking activities exclude from their scope other DUP activities, for example, *price*-distortion-triggered DUP activities, or distortion-triggering DUP activities.³

¹The other acronymic alternative, christening them ZOP (zero-output, profitseeking) activities, is slightly less appealing on that account.

² Historians of concepts and phrase making may note that, parallel to Krueger's inspired phrase "rent seeking" to describe license-seeking activities, there is also the phrase "rentier society," used, e.g., in Bhagwati (1973) to describe much the same kind of phenomenon. In addition, there is also the Leninist (Lenin 1939) use of the phrase "rentnerstaat," by which was meant a "rentier state" or "usurer state" (1939, pp. 100–101), i.e., a rent-receiving society. Marxists, who consider Schumpeterian capitalism to be characterized by Joan Robinson's "animal spirits," also consider the rentnerstaat to be the antithesis of the creative impulses underlying robust capitalism.

³ Krueger (1974, pp. 301–2) did mention minimum wage legislation, regulation of taxi fares, and capital gains tax treatment in her concluding remarks as also examples of rent seeking. However, her arguments concerning these are ambiguous, to say the least. Thus, consider the following: "Capital gains tax treatment results in overbuilding of apartments and uneconomic oil exploration" (p. 302). But this seems to be simply

II. DUP Activities: A Taxonomy

With the general concept of DUP activities spelled out, the analysis can now be addressed directly to the issue of the welfare consequences of DUP activities.

From the viewpoint of the analysis of the welfare consequences of DUP activities, evidently the most fruitful theory-informed taxonomy must build on the distinction between distorted (or suboptimal) and nondistorted (or optimal) situations. Thus, a DUP activity which uses up resources in the context of a distortion may be paradoxically welfare improving, whereas a similar DUP activity which destroys a distortion and achieves a first-best, optimal outcome may be paradoxically welfare worsening.

Noting that when distortions exist almost anything can happen, I hasten to add that the theory and the resulting taxonomy which is built into table 1, and which will be presently explained, presuppose that the world is indeed distortion free except for the distortions with which the DUP activity in question is related in an essential way. Thus, if one considers premium seeking in Krueger's (1974) analysis, the premium sought by the lobbyists is on distortionary quotas already in place in the model. In her model, therefore, there is an unchanging distortion in place when the directly unproductive premium seeking is introduced, but there are no other distortions.

Next, I should clarify that the DUP activities which are considered in the analysis that follows are wholly related to governmental policies: For example, they involve changing these policies or evading them. However, they can in principle be government free or exclusively private. Thus, effort and resources may be (legally) expended in getting a share of the "going" transfer by an economic agent, what may be described as "altruism seeking." Or they may be expended on (illegal) theft, as Tullock (1967) has considered. What I argue in this paper can be simply extended to private activities, therefore, even though virtually all examples chosen below concern governmental policy-related DUP activities exclusively.

Furthermore, I make no distinction between activities that utilize real resources directly and those that do not. For, while pure transfers/bribes are often supposed to be resource free, they are not.

stating the traditional resource-(mis)allocational effects of a tax. At the same time, another concluding paragraph does reiterate the view that her concept and theory of rent seeking are intended to be wholly license or restriction created: "Finally, all market economies have some rent-generating restrictions" (p. 302). The precise manner in which Krueger's generic class of quota intervention-triggered "rent-seeking" activities is a subset of the far more general class of DUP activities is set out fully in Bhagwati and Srinivasan (1981). Also, see the extended discussion in Bhagwati (1982).

EXAMPLES AND CONSEQUENCES OF DUP ACTIVITIES	TYPES OF DIRECTLY UNPRODUCTIVE ACTIVITY	2. Initially Distorted but Finally Distortion-free Situations	Illegal (4)	Tariff-destroying lobbying with aid of bribes to politi- cians	cond-best analysis applies; therefore, paradox of beneficial outcome possible (except for pure quantity distortions: Bhagwati and Srinivasan [1981] and Anam [1982])	4. Initially Distortion-free and Finally Distortion-free Situations	Illegal (8)	g: Theft: Tullock nd (1967)	mmiserizing. No
			Legal (3)	Tariff-destroying lobbying: Findlay and Wellisz (1982)	Second-best analysis applies; therefore, paradox of beneficial outcome possit (except for pure quantity distortions Bhagwati and Srinivasan [1981] and Anam [1982])		Legal (7)	Zero-tariff-outcome lobbying: Tullock (1967); Findlay and Wellisz (1982)	Total outcome necessarily immiserizing. No paradoxes obtain.
		1. Initially Distorted and Finally Distorted Situations	Legal (1) Illegal (2)	 Premium seeking: Krueger Premium seeking: Krueger Bhagwati and Sriniva- Bhagwati and Sriniva- Bhagwati and Sriniva- Revenue seeking: Bhagwati Revenue seeking: Revenue seeking: Revenue seeking: Revenue	c b	3. Initially Distortion-free but Finally Distorted Situations	Legal (5) Illegal (6)	 Monopoly seeking: Posner Tariff evasion from an Zero- (1975) Tariff seeking: Brock and Ma- gee (1978); Bhagwati (1980); Feenstra and Bhagwati (1982); Fiedlo: and Wolling (1082); 	uiserizing. However, subsidi- 1 imposed without DUP activ- e than when imposed with it.
				1. Examples of such activity	2. Consequences of such ac- bound tivity			1. Examples of such activity	2. Consequences of such ac- tivity

TABLE 1

TES AND CONSECUENCES OF DUP AC

The direct demand on real resources that a successfully transacted bribe makes may be small, but it is not likely to be negligible.⁴

Finally, I distinguish between legal and illegal activities for two reasons. First, the latter introduce the added element that they constitute an independent element of the social loss insofar as illegality must be considered to be socially disapproved. Besides, it is interesting to note that, except on this dimension, the legal and illegal DUP activities can be shown to belong to analytically equivalent categories of our taxonomy, so that distinguishing between them is only with a view to underlining their analytical similarity in the present context.

With these clarifying remarks, let me then turn to the taxonomy underlying table 1. The taxonomy there, with an eye on welfare analysis, is critically built on the fact that all such DUP activities will involve either a distorted or a distortion-free situation, before and after the undertaking of such activity. Thus, four critical classes of DUP activities are distinguished as follows:

Category 1. Here, the initial and final situations are both distorted.

Category 2. Here, the initial situation is distorted, but the final situation (thanks to the DUP activity) is distortion free.

Category 3. Here, the initial situation is distortion free, but the final situation is distorted.

Category 4. Here, the initial situation is distortion free again, and so is the final situation (despite the DUP activity).

The fundamental distinction, however, remains that between categories 1 and 2 (which relate to initially distorted situations), on the one hand, and categories 3 and 4 (which relate to initially distortion-free situations).

I proceed then to demonstrate that, for DUP activities falling into categories 1 and 2, a beneficial rather than immiserizing outcome is paradoxically feasible, whereas for those falling into categories 3 and 4 it is not.⁵ The critical difference is that the former set have initial

⁴ Krueger (1974, p. 302) makes the interesting point that bribes can get reflected in the expected returns from qualifying to be a civil servant and thus divert resources via that route. However, the question is one of incidence here. If the government keeps civil service salaries low, expecting that the bribes will make up the required difference to attract a given volume of civil servants, the resource-impact analysis of bribes/ transfers gets more complex. One would then have to compare the bribe-induced resource diversion with the resource diversion required to collect taxes to pay adequate salaries when lump-sum taxes are unavailable: a unique rank ordering again would not be generally possible.

⁵ While the focus here is on whether the beneficial DUP activity paradox can arise, it is important to note that, with the second-best nature ignored, the problem in categories 1 and 2 (i.e., where there are initially distorted situations) will lead to other errors, situations that are distorted, whereas the latter set start with distortion-free initial situations. The existing analyses of DUP activities, detailed above, are then assigned to these four categories, distinguishing further among legal and illegal activities.

III. Welfare Consequences of DUP Activities

The critical analytical point at issue is very simple. The diversion of resources from directly productive to directly unproductive activities, when undertaken in the context of initially distorted situations, is fundamentally different from such diversion occurring in the context of initially distortion-free situations. For, in the latter case, the loss of resources is occurring from a first-best situation and hence must represent a social loss as well, whereas in the former case it is occurring in a second-best situation and hence need not represent a social loss but may well be beneficial. Analytically the paradox constituted by the welfare improvement following from the undertaking of the directly unproductive activity in a second-best situation is the same as the paradox of immiserizing growth noted by Bhagwati (1958) and Johnson (1967) and generalized in Bhagwati (1968). For, in the former case, withdrawal of resources for unproductive activity and hence "negative growth" is beneficial, and in the latter case (positive) growth is immiserizing. And, of course, the "dual" of this is the phenomenon of negative shadow prices of factors noted and analyzed in Bhagwati, Srinivasan, and Wan (1978) and in Srinivasan and Bhagwati (1978).

Category 1

In this class of cases, the DUP activities are addressed to initially distortion-ridden situations in an essential fashion. Two legal activities so discussed in the literature are the Krueger (1974) phenomenon of premium seeking and the Bhagwati and Srinivasan (1980) phenomenon of revenue seeking.

Krueger's analysis of premium seeking postulates that, as a result presumably of protectionist demands, import quotas have materialized and characterize the initial situation. The premium-fetching import licenses then generate resource-using competition among po-

as noted for the case of revenue seeking and premium seeking by Bhagwati and Srinivasan (1980). The taxonomic distinctions drawn here, therefore, are critical even if the analyst is inclined to assert (fallaciously, in my judgment) that the beneficial DUP activity paradox is unimportant in practice. On the question whether such second-best paradoxes are likely to arise in practice, see the discussion in Bhagwati (1980) in the specific context of tariff seeking.

tential beneficiaries of the license allocation, and the analysis presupposes that the initial quota level remains unchanged. Therefore, the Krueger analysis of premium seeking is essentially of a legal process of DUP activity undertaken in the context of a distorted situation where the distortion triggering off the DUP activity remains unchanged through the analysis.

The same features characterize the Bhagwati and Srinivasan (1980) analysis of revenue seeking: legal directly unproductive competition for securing a share in the disbursement/transfer of tariff revenue resulting incidentally in the imposition of a tariff thanks to protectionist lobbying, the tariff thus being an exogenously specified, unchanging distortion that triggers off the revenue seeking which is being analyzed.

It is easy to demonstrate, as in fact Bhagwati and Srinivasan (1980) have done already, that the lobbying activity being modeled can be paradoxically beneficial despite being directly unproductive, the reason for this paradox being that outlined above already. This possibility can arise also in the premium-seeking case (unless the quota is defined purely in quantity terms, in which case the second-best possibility of welfare improvement through DUP activity–induced changes in outputs will be prevented by the pure trade constraint from spilling over into the paradoxical outcome).⁶

Next, the existing analyses of illegal trade in the presence of tariffs (and quotas) also fit immediately into the present category 1 of DUP activities. For they assume that there is an initially distorting tariff, and the tariff-evading activity is undertaken with this tariff remaining in place through the analysis. In view of the theoretical analysis developed above, it follows immediately that these analyses ought to yield the conclusion that such tariff evasion may be welfare improving (even allowing for the fact that the illegality carries an extra, negative dimension), as they in fact do. Bhagwati and Hansen (1973), for example, show this in a model where the extra real costs of illegality in trade are incurred in the form of the traded goods themselves, this being the "melting ice" assumption used by Samuelson (1954) to model transportation costs within the confines of the two-by-two model. Smuggling will be beneficial rather than immiserizing in this model, even though it uses up real resources (in the form of produced, tradable goods), since it confers production and consumption gains when the effective tariff is cut by the smuggling. The negative weight attached to the illegality may be considered to be outweighed by the gain noted above, which leaves the net evaluation still a benefi-

⁶General propositions concerning the contrast between DUP activities triggered by price and quantity distortions have been developed in Bhagwati and Srinivasan (1981) and in Anam (1982).

cial one. The paradox has repeated itself in the context of illegal trade.

The foregoing examples of category 1-type DUP activitiespremium seeking, revenue seeking, and tariff or QR evasion-assume that the specified distortion which triggers off such activity remains exogenous to the activity. However, it is easy to imagine phenomena where the distortion may be endogenous to such activity. Thus, revenue seeking may affect adversely the protection implied by the tariff which triggered off the revenue seeking. Bhagwati and Srinivasan (1980) in fact demonstrate in the context of their general equilibrium analysis of revenue seeking that the revenue seeking may lead to a Metzler production paradox: The protectionist tariff plus revenue seeking may lead to a lower output of the importable than under free trade! If so, the protectionist lobby may well seek greater protection, thus influencing in principle the original tariff distortion itself, making therefore the eventual tariff level endogenous to revenue seeking. But even this complexity would leave the phenomenon of revenue seeking within the class of DUP activities squarely within category 1, with its attendant paradox of possible welfare improvement from such activities.

Category 2

In this class of DUP activities, the initial situation that triggers such activities is still distorted, but the outcome turns out to be distortion free.

This category is easily analyzed in light of the foregoing analysis of category 1. Thus, the overall welfare impact of a DUP activity starting from an initially distorted situation but ending in a distortion-free situation is the sum of two effects:

The welfare impact of a withdrawal of resources into the directly unproductive activity, holding the distortion unchanged (i.e., category 1 type of analysis) +ve or -ve The welfare impact of the elimination of the distortion in the final situation +ve

The former effect, as I have argued already, is either positive or negative; the latter, of course, is necessarily positive. The net outcome may therefore be positive or negative. The welfare-improving paradox obtains again, and so does the opposite quasi-paradox that a

distortion-destroying lobbying activity may lead to immiserization and hence be only a Pyrrhic victory.⁷

An instance of this, as implied by Findlay and Wellisz (1982) in the context of the analysis of tariff seeking, would be when the resources used up in restoring free trade that is to the lobby's economic advantage are socially more valuable than the social gains from free trade. An instance of illegal DUP activity of a similar nature would be when the lobbying in the foregoing example was replaced by bribes to congressmen to change their vote to free trade.

Category 3

The paradox of beneficial DUP activities disappears, however, as soon as these activities are undertaken in the context of initially distortionfree situations. Category 3 relates to these when the final situation is the successful creation of a distorted situation.

Two classic examples of such category 3, legal DUP activities are successful lobbying efforts at creating government-sanctioned monopoly and lobbying to get tariff protection: monopoly seeking and tariff seeking. In each such case, the total social loss imposed by the DUP activity in question can be decomposed as the sum of two effects:

The welfare effect of the	(The welfare effect of the im-)
withdrawal of resources into	position of the distortion, as-
the directly unproductive ac-	suming that the resources
{tivity, assuming that no dis-	$+$ have already been diverted to \downarrow .
tortion has resulted	the directly unproductive ac-
-ve	tivity
	-ve

Evidently, there is no source of gain here and hence no room for the paradox of welfare improvement as with categories 1 and 2 above.

Thus, consider monopoly seeking in figure 1. In this small, closed economy which produces at P^* initially, with welfare at U^* , the lobby to secure a monopoly in good 1 production succeeds. The resources expended in securing the monopoly shift the production possibility curve down to A'B', whereas the monopoly itself leads to nontangency of the goods-price ratio with A'B' in equilibrium. Equilibrium production and consumption therefore shift to $P_{\ell m}$, $C_{\ell m}$ and welfare declines to $U_{\ell m}$ from U^* . The total decline in welfare then can be decomposed into (1) the shift from U^* to U_{ℓ} reflecting only the diver-

⁷ Remember again the caveat concerning pure quantity distortions discussed in Bhagwati and Srinivasan (1981) and Anam (1982).

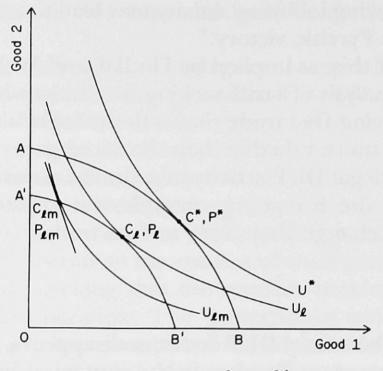


FIG. 1.—Monopoly seeking

sion of resources from directly productive use to the lobbying activity and the resulting move of production and consumption to P_{ℓ} , C_{ℓ} , if it is assumed hypothetically that monopoly has not resulted; and (2) the further shift from U_{ℓ} to $U_{\ell m}$ coming from the admission of the monopoly into the economy and the resulting move of production and consumption to $P_{\ell m}$, $C_{\ell m}$, respectively.⁸

Figure 2 illustrates the tariff-seeking case. The protectionist lobby, starting from free trade at P^* , manages in this small economy to spend resources to get a tariff enacted. If we take only the diversion of resources to lobbying into account, at free-trade prices production would shift from P^* to \hat{P}^*_{ℓ} on the shrunk-in production possibility curve A'B', which represents therefore a loss of RS measured in terms of good 1. Moreover, the tariff resulting from the successful lobbying

⁸ A referee has commented that the use of Samuelsonian social indifference curves to evaluate welfare may not be appropriate in figs. 1 and 2 on the following ground: "This construction is valid only if lump-sum transfers are being deployed to optimize income distribution. In response to any change in this distribution that the 'seeking' activities achieve, the government must recalculate the lump-sum transfers to optimize the Bergsonian welfare function again. This calls the whole process into question. Either the seek activities will be abandoned, or they will extend into persuading the government to abandon lump-sum transfer." However, the introduction of DUP activities is simply adding new activities to traditionally defined productive activities on the incomegenerating side in the model, with all of the given factors of production earning competitively determined incomes. In principle, therefore, it is not necessarily implausible to continue the use of Samuelsonian indifference curves as in the traditional analyses without DUP activities. If this were not so, one would have to agree with the referee that the analysis would then have to "do without social indifference curves, relying on the usual vague aggregate CV or EV measures" or shift to invoking Chipman-Moore type assumptions of identical, homothetic indifference curves for individuals combined with statements that are valid then for potential rather than actual welfare.

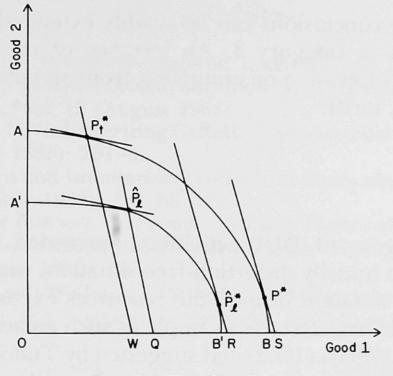


FIG. 2.—Tariff seeking

shifts the production point further to \hat{P}_{ℓ} , which is the final observed equilibrium under tariff seeking; this is tantamount to a further loss of QR in terms of good 1. These measures are conventional Hicksian equivalent-variational measures, as before, at world prices. Thus the overall loss (QS), as already explained, is decomposed into two constituent elements, each of which is unambiguously negative.

A minor paradox does lurk here, however, which needs to be noted, and it reflects much prevailing confusion. Though I have recently dispelled it elsewhere (Bhagwati 1980), it merits a brief mention in the present context. In figure 2, suppose that the total social cost of tariff seeking, QS, were to be decomposed along an alternative route: (1) the shift from P^* to P_t^* along AB, which represents the social cost of the tariff, if one assumes hypothetically that lobbying resources are not yet expended so that it is as if the tariff has come about exogenously; and then (2) the shift from P_t^* to \hat{P}_{ℓ} , from AB to A'B', which represents the further shift as a result of the diversion of resources to lobbying, if one assumes the tariff distortion is in place. In this case, the first element of the decomposition will always yield a social loss (WS); however, as illustrated in figure 2 and reflecting the second-best considerations outlined in the analysis of categories 1 and 2 above, the second element may well yield a gain (WQ). While therefore the overall impact of category 3 activities must be necessarily negative (QS), it would be incorrect to assert or imply that the social cost of a distortion imposed without the aid of directly unproductive activity must be necessarily less than that of the same distortion imposed thanks to such activity; that is, in figure 2, the shift from P_t^* to \hat{P}_{ℓ} need not always be a social cost and is, in fact, shown to be a social gain worth WQ.

Finally, these conclusions can be readily extended to examples of illegal activities in category 3. An instance of this kind would be provided by tariff evasion or smuggling from an optimal, rather than a distortionary, tariff.

Category 4

The final category of DUP activities is provided by those which, starting with an initially distortion-free situation, wind up also with a distortion-free situation despite the resources expended in such activities. A simple but effective example of such an activity is provided by Findlay and Wellisz (1982) and suggested by Tullock (1967) as well, where tariff seeking by one lobby is offset by tariff-averting lobbying by another group, and the result is that resources are used up in mutually deterring lobbying that does not affect free-trade policy for the small country in the end. Figure 2 would illustrate this case, with a slight reinterpretation. Now, there is evidently a shrinking-in of the production possibility set for goods 1 and 2 from AB to A'B' as resources are diverted to the lobbying activities and therewith a social loss of RS in terms of good 1 since \hat{P}_{ℓ}^* is now the actual postlobbying equilibrium, characterized by continuing free trade. The diversion of resources from productive use when the first-best policy (of free trade in this small competitive economy) is in place throughout must obviously be immiserizing.⁹ There is no room for paradoxes of any kind here.

Category 4 then is the clearest case of DUP activities where the simple claims of the early analysts of such activities about their negative impact can be sustained without the slightest qualification. But this is also clearly a very narrow subset of the entire range of activities that have been considered in the present paper.

IV. Concluding Remark

This paper has then provided a complete theory and taxonomy of the welfare consequences of DUP activities. The existing literature is in consequence synthesized within a general welfare-theoretic framework. The results are summarized in table 1.

⁹ An inference of illegal profit-seeking DUP activity in category 4 would be that of theft which utilizes real resources in attempts at both undertaking and evading it but without creating any distortion (cf. Tullock 1967).

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