

The Case for Tradable Remedies in WTO Dispute Settlement

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1. Remedies In The WTO: Can We Get It Right This Time?

It has been four years since the process leading to the reform of the Dispute Settlement Understanding (DSU) was initiated. The Ministerial Conference in Doha provided the legal mandate (§30) to do so. Negotiations started in early March 2002 and were supposed to be concluded by end of May 2003. This has not been the case. The situation is quite ambivalent from a purely legal perspective right now: negotiators seem to take the view (WTO Doc. TN/DS/9 of 6 June 2003) that although the deadline for concluding negotiations has lapsed, they still have the mandate to continue negotiating, which is what they have been doing ever since.

The negotiations so far reveal convergence on some issues and divergence on others. The proposals with a “high level of support” have been reflected in a document (WTO Doc. TN/DS/9 of 6 June 2003) and those that could not gather momentum are, at least for the time being, kept aside (although, technically, they are still on the negotiating table since it is up to the country proposing them to introduce them at some stage).¹ In this paper we essentially focus on one proposal of the latter kind, the Mexican proposal to allow WTO Members to trade their rights for retaliation. This proposal is definitely the most ambitious and innovative proposal (judging by the pace of institutional reforms throughout the history of dispute settlement in the GATT/WTO) ever submitted in this context. At the same time, it is a meritorious proposal and deserves to be discussed in a comprehensive manner. This paper aims to offer arguments in this perspective.

As usually happens, proposals are largely based on a “learning by doing” approach. By now, we have had a critical mass of cases adjudicated in the WTO and some patterns, regarding the various phases of adjudication (from request of bilateral

¹By this we mean that there is absolutely no legal obligation to concentrate, during the remaining stages of multilateral negotiations, only on those proposals considered to have “high level support”.

consultations to enforcement), have emerged. The negotiations so far have been quite revealing: some delegations have tabled daring proposals instead of doing the usual “beat around the bush GATT dance” and opted for radical reforms of the DSU rather than cosmetic changes which might incrementally, if at all, change the face of the system. The European Community for example, proposed that we should move to a permanent panelists-regime, something like a first instance court at the WTO. Many developing countries opted for a re-negotiation of the remedies regime in the WTO. The fact, for example, that a group of African states requested an introduction of monetary damages in the WTO legal system is at least evidence of the fact that the existing institutional possibility for countermeasures in case of non-compliance is not a big hit with developing countries. The Mexican proposal is in the same vein.

In Section 2 of the paper, we examine the empirical basis on which proposals requesting reform of enforcement procedures are based. The central question that we address in this section is whether non-implementation depends on the identity of the complainant and the defendant. As will become apparent from the data we produce in this section, implementation is much more likely in a developed vs. developing country scenario than vice-versa. We thus establish that there is indeed a problem in the functioning of the DSU in this respect and that developing countries' proposals are addressing a real issue and not a ghost. Of course, we do not realistically expect that through the negotiation of an international contract (like the WTO) all imbalances and asymmetries between players will be wiped out. But we do expect that players will realize that it is essential from an institutional perspective to strike a compromise that will not make the same sub-group of players consistently unhappy.

In Section 3 of the paper, we move to discuss the idea that auctioning the right to retaliate can have beneficial effects and boost the rate of implementation of WTO decisions. It is in this context that we refer specifically to the Mexican proposal which is,

for all practical purposes, based on the same reasoning. It is true that Mexico did not specifically refer to auction theory when submitting its proposal. In fact, Mexico did not even use the term 'auctioning', preferring to use the term 'tradable rights' instead without any further detailed discussion. In this section, which draws heavily on Bagwell, Mavroidis and Staiger (2003), we will see to what extent auction theory can lend useful support to the Mexican proposal. Finally, in Section 4 we briefly summarize our conclusions.

2. Implementation Of WTO Obligations

In a nutshell, the DSU makes it clear that WTO Members cannot unilaterally define inconsistencies with the WTO contract. Such definitions are the exclusive privilege of the WTO adjudicating bodies (Art. 23.2 DSU). To this effect, a WTO Member which believes that practices by another Member violate the WTO contract can request bilateral consultations (Art. 4DSU) which, if not fruitful, could lead to a procedure before a WTO panel (Art. 6 DSU). All Panel findings can be appealed (Art. 17 DSU). At the end of the adjudicating process, WTO Members will be granted an implementation period (in WTO parlance, the reasonable period of time, RPT) in case immediate compliance is not in the cards (Art. 21 DSU). In case there is disagreement as to the sufficiency of corrective actions taken during this period, a so-called compliance panel (Art. 21.5 DSU) –and, eventually, the Appellate Body (AB)—will be requested to pronounce on the issue. If a panel (or AB) decision has not been implemented during the appropriate implementation period, a WTO Member has the right to request countermeasures (Art. 22 DSU) which it can impose until implementation has occurred. Countermeasures are thus the *ultima ratio* in the WTO enforcement process. Mutually agreed solutions can occur at any stage during the proceedings but have to be

consistent with the WTO contract (Art. 3.5 DSU) and have to be notified to the WTO Dispute Settlement Body (DSB, Art. 3.6 DSU).

2.1 Our Data

In order to provide an assessment whether a remedies-reform is appropriate, we need to first establish the record for compliance in the WTO. To do that we need to check all disputes brought to the WTO since its inception (January 1, 1995). We follow the definition of dispute adopted in Horn, Mavroidis and Nordstrom (1999), that is, in case of multiple complaints we distinguish pairs of complainant-defendant and count them as separate disputes. As a consequence, the reader should not be surprised by finding a case, say DS266 in a given table more than once (or in multiple tables). It could simply be that in this particular dispute more than one WTO Member complained about the practices of another WTO Member. In case where a request to join in consultations has not been accepted at the moment of writing, we count the dispute as one.

We are considering all bilateral disputes in the WTO Disputes Settlement system during the years 1995-2003 (our data runs through 30 June 2003). In terms of WTO DS numbers, this includes DS1 to DS295.² With regard to the WTO Members included in the data, we take the WTO membership as of July 1, 2003 as a starting point (i.e., 146 Members). We treat the European Community (EC) as one unit, with complaints against individual EC Members treated as being directed against the EC.

For the purposes of this paper, we distinguish between WTO Members which are and which are not OECD-Members. This distinction is not unproblematic. Although the definition is, in principle, meant to distinguish between developed and developing countries, it suffers from at least two weaknesses. First, some OECD-Members are poorer than other countries that are not OECD members (e.g., Turkey, Mexico). Second,

such a classification by implication puts all developing countries in one basket. Arguably, when it comes to dispute settlement participation, it is inappropriate to equate large, middle-income countries such as Brazil with poor, resource-scarce countries in sub-Saharan Africa.³ Nonetheless, the classification reflects to some extent the distinction between developed and developing countries. In an effort to correct for some of the more obvious anomalies, we count WTO Members that are acceding to the European Union in 2004 and which are currently not Members of the OECD as OECD Members, even though formally they are not (i.e., Slovenia, Malta, Cyprus, Estonia, Latvia, and Lithuania).⁴

Our data are sub-divided into 6 categories, of which only the last category is the subject of this paper. The 6 categories of disputes are:

1. Abandoned Disputes. We treat as abandoned all disputes where the complainant has withdrawn the complaint or the authority of the panel has lapsed under Art. 12.12 DSU. Legally there is no dispute that such cases should be treated as abandoned. However, we have added two categories of cases under this heading: first, cases where more than two years have passed since the panel has been established and its composition has yet to see the light of the day; second, cases where the WTO adjudicating body has exonerated the defendant from any legal responsibility. (We regard it as irrelevant whether exoneration occurs at the panel stage and no appeal has been submitted or at the appellate level.)
2. Ongoing disputes. These are sub-divided in: Pending Consultations, Pending The Panel's Outcome, Pending the Appellate Body's (AB) Outcome, Pending the

² The nomenclature DS followed by a number is the way that cases are identified in the WTO. A description of each case can be found on the WTO web site (www.wto.org).

³ For a more elaborate sub-division among WTO Members in a dispute settlement context, see Horn and Mavroidis (2003).

⁴ The current OECD Membership is as follows: Australia, Austria, Belgium, Canada, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Japan, Korea, Luxembourg, Mexico,

Art.21.5 DSU Panel's Outcome; Pending the Appeal Against A Report By An Art. 21.5 DSU Panel; and Other Cases.

3. Disputes With Uncertainty As To The Outcome.
4. Disputes that were settled before the end of the process (consultations + panel/AB proceedings). These are sub-divided into two categories: cases of unilateral withdrawal of the contested measure, and cases where mutually agreed solutions (MAS) were concluded before the end of process.
5. Disputes where Panel or AB reports were implemented. These are sub-divided in cases of unilateral implementation, and cases where a MAS was concluded following a multilateral finding of inconsistency.
6. Cases that led to countermeasures (suspension of concessions).

In this paper, we focus on the last category of cases as our interest is in the effectiveness of countermeasures to induce compliance. This implies that we need to first discard all cases that fall into categories 1-5. This is done in the working paper version of this paper.⁵ In terms of collecting data on cases, our “workhorse” is WTO Doc. WT/DS/OV/14 of 30 June 2003. This document describes the official WTO record of the state of disputes. It is true that information about the outcome of disputes can be found in other fora as well.⁶ We did take the liberty, however, to adjust some of the data re-produced in this document, as explained *supra*, and also correct some of the information provided in the document by looking at the official record before the WTO

Netherlands, New Zealand, Norway, Poland, Portugal, Slovak Republic, Spain, Sweden, Switzerland, Turkey, United Kingdom and the United States.

⁵ Bagwell, Mavroidis and Staiger (2004), www.worldbank.org/trade, provide the listing of all cases mapped into categories 1-5.

⁶ Horn, Mavroidis and Nordstrom (1999), for example, point to what they call a “third circle” of disputes that have never been notified to the WTO but concern cases of relevance to the world trading system whereby a change in trade policy has been requested through un-official channels.

Dispute Settlement Body (DSB).⁷ Our classification of data is to some extent explained by the exogenous “legal constraint” that is imposed by the WTO Dispute Settlement Understanding (DSU).⁸

2.2 Implementation of WTO Obligations

The outcome of many WTO disputes is uncertain. The reasons for this uncertainty vary. In some cases, we do not know if implementation actually occurred or not. One could speculate that the former is an unlikely event, since if the WTO Member at hand implemented in good faith its obligations, it would have little incentive not to notify the actual implementation. It may be that the parties failed to notify their MAS, or that the defendant failed to implement and no action by the complainant has been taken against such failure. These cases are of course relevant were one to measure the effectiveness of WTO remedies. It could, for example, be the case that the complainant fears that “pushing” the defendant could be counter-productive. It could also be that the complainant believes its countermeasures will not induce compliance. We prefer, however, to discard these cases because of the high level of speculation involved as to what might have happened. The same is true for disputes where either the defendant withdrew the contested measure before the completion of the process, or a MAS was reached between the defendant and the complainant during the same time period. These cases are also discarded. Finally, we have to discard as well all disputes where the contested measure was unilaterally withdrawn *after* completion of the process

⁷ Sometimes there is a disjoint between information provided to the DSB and that included in the OV document. We privilege the former since it reflects the official stance of the WTO Member concerned, whereas the latter is simply information compiled by the WTO Secretariat.

⁸ These include a number of very old disputes, because there is no maximum limit in the DSU restricting the duration of bilateral consultations. The right to a panel can be exercised following the passage of statutory deadlines (see, for example, Art. 4.3 and 4.7 DSU), but there is no legal obligation to submit a dispute to a panel. Parties can consult forever. Conversely, the panel’s authority lapses twelve months after its work has been suspended (Art. 12.12 DSU).

(issuance of the panel or AB report, as the case may be) or a MAS between the interested parties was reached at the same stage.

We are then left with the data that are relevant for our paper. In what follows, we deal with cases where we know with certainty that implementation did not occur and that the complainant had the option to request and impose countermeasures. As is well known, provided that countermeasures are equivalent to the trade damage suffered (Art. 22.4 DSU), a simple request to this effect suffices for the interested party to be authorized the right to impose countermeasures. Countermeasures in WTO law are a means to induce implementation of obligations and should not be understood as a perfect substitute to implementation (Art. 22.1 DSU). Hence, almost by definition, countermeasures must be withdrawn once implementation has occurred.

We distinguish between four scenarios: cases where countermeasures are still in place (Table 1), that is, cases where countermeasures have not led to implementation; cases where countermeasures have been withdrawn as a result of subsequent implementation (Table 2); cases where countermeasures have been authorized but not been applied (Table 3); and, finally, cases where, faced with non-implementation, the complainant did not request authorization to impose countermeasures (Table 4):

Table 1: Counter-measures In Place

Complainant OECD / Defendant OECD

DS26: as of July 26, 1999 the US was authorized and imposed countermeasures against the EC for its failure to bring into conformity its “Hormones” legislation.

DS48: as of July 26, 1999, Canada was authorized and imposed countermeasures against the EC for its failure to bring into conformity its “Hormones” legislation.

Complainant OECD / Defendant non-OECD: Nil.

Complainant non-OECD / Defendant OECD : Nil.

Complainant non-OECD / Defendant non-OECD : Nil

Table 2: Counter-measures That Led To Implementation

Complainant OECD / Defendant OECD

DS27: on 19 April 1999, the US were authorized to impose countermeasures against the EC for the failure of the latter to implement the Bananas panel and AB report. The US imposed countermeasures soon thereafter that remained in place until 2003 when they were lifted as a result of, partially, an MAS (see WTO Doc. WT/DS58 & 59) and, partially, the waiver accorder to the EC at the Doha Meeting (2002).

Complainant OECD / Defendant non-OECD : Nil

Complainant non-OECD / Defendant OECD : Nil

Complainant non-OECD / Defendant non-OECD : Nil

Table 3: Counter-measures Authorized, No Action Taken

Complainant OECD / Defendant OECD

DS108: the complainant (EC) was authorized on 7 May 2003 to impose countermeasures of approximately \$4 billion against the US but has not exercised this to date.

Complainant OECD / Defendant non-OECD

DS46: The Arbitrator (Art. 22.6 DSU) established the level of countermeasures that Canada could impose against Brazil for the failure of the latter to implement the Aircraft Subsidies report (DS46/ARB, 28 August 2000). Canada subsequently obtained authorization to impose countermeasures but never exercised the option.

Complainant non-OECD / Defendant OECD

DS27: On 18 May 2000, Ecuador was authorized to impose countermeasures against the EC for the failure of the latter to implement the panel and AB report on Bananas. Ecuador has never exercised this option.

DS222: The Arbitrator (Art. 22.6 DSU) established the level of countermeasures that Brazil could impose against Canada for the failure of the latter to implement the Aircraft Subsidies report (DS222/ARB, 17 February 2003). Brazil subsequently obtained authorization to impose countermeasures but never exercised the option.

DS70: This case has been overtaken by DS222.

Complainant non-OECD / Defendant non-OECD : Nil.

Table 4: No Request For Counter-measures When Faced With Non-Implementation

Complainant OECD / Defendant OECD

DS27: Mexico did not request authorization to impose countermeasures against the EC for the failure of the latter to implement the panel and AB report on Bananas.

Complainant OECD / Defendant non-OECD : Nil

Complainant non-OECD / Defendant OECD

DS27: Guatemala did not request authorization to impose countermeasures against the EC for the failure of the latter to implement the panel and AB report on Bananas.

DS27: Honduras did not request authorization to impose countermeasures against the EC for the failure of the latter to implement the panel and AB report on Bananas.

Complainant non-OECD / Defendant non-OECD : Nil

2.3 What Do the Data Suggest?

Our data⁹ on the cases is quite revealing in some respects. **First**, there is not one single occasion where a developing country (non-OECD member) imposed countermeasures to induce compliance even when faced with non-implementation. **Second**, when faced with non-compliance, with only two exceptions (Brazil and Ecuador), non-OECD Members do not even enter into the process of calculating damage, that is, the first step towards requesting authorization to impose countermeasures. **Third**, when facing a recalcitrant opponent which happens to be a “larger” market, even OECD Members (Mexico vs. EC in *Bananas*) have sometimes refrained from requesting the authorization to impose countermeasures. **Fourth**, the opposite is true when OECD Members face non-implementation: all countermeasures have been imposed by OECD Members.

⁹ At the moment of writing, the EC had announced its intention to request authorization to adopt countermeasures against the US (as a result of the latter's unwillingness to implement the AB rulings in the *FSC* dispute) but had not materialized its threat.

It is difficult to pronounce on the effectiveness of countermeasures, but it is certainly true that OECD Members (namely, the US and Canada) have used this instrument. The two cases when no use was made are quite odd: Canada did not impose countermeasures against Brazil most likely because Brazil could do the same in the same dispute (export subsidies in regional aircrafts where Bombardier and Embraer, Canadian and Brazilian producer respectively hold a joint dominant position in the world market); the EC did not impose countermeasures against the US in the *FSC* dispute, probably in light of the possible repercussions (the EC was granted the right to block trade worth approximately 4 billion \$/ year).

Our data suggest even more: there is not one single case with uncertainty as to its outcome when an OECD Member is complainant and a non-OECD Member defendant. Conversely, there are six cases where an OECD member is the defendant and non-OECD members the complainant, without a request by the latter to impose countermeasures. Thus, the data suggest that countermeasures are a more or less ineffective instrument in the hands of “smaller” players. Mexico’s proposal is therefore aimed at a real problem.

3. Theory

3.1 Potential Benefits Of Auctioning Countermeasures In The WTO

In proposing that WTO countermeasures be made tradable, Mexico (WTO, 2002) suggested that this might help small countries and especially developing countries solve a practical problem with effective retaliation that they otherwise might face. In Mexico’s words:

“The suspension of concessions phase poses a practical problem for the Member seeking to apply such suspension. That Member may not be able to find a trade sector or agreement in respect of which the suspension of concessions would bring about compliance without affecting its own interests...There may be other

Members, however, with the capacity to effectively suspend concessions to the infringing Member.” (WTO, 2002, p. 5).

The Mexican proposal continues, identifying two potential benefits from making tradable the right to impose countermeasures within the WTO:

“Incentives for Compliance: Facing a more realistic possibility of being the subject of suspended concessions, the infringing Member will be more inclined to bring its measure into conformity.” (WTO, 2002, p. 6),

and

“Better readjustment of concessions, since the affected Member would be able to obtain a tangible benefit in exchange for its right to suspend.” (WTO, 2002, p. 6).

The data presented and reviewed in the previous section, while not conclusive, are nevertheless suggestive that small and developing countries may indeed face practical problems once they reach the suspension-of-concessions phase of a WTO dispute, as the Mexican proposal indicates. In this section we discuss the likelihood that permitting WTO countermeasures to be tradable might yield the benefits suggested in the Mexican proposal. Our discussion, which is informal and intuitive, relies heavily on results from our technical paper on this topic (Bagwell, Mavroidis and Staiger, 2003). Readers interested in the technical conditions under which the informal and intuitive discussion that follows can be formalized into precise statements are referred to that paper.

Overall, the theoretical results of Bagwell, Mavroidis and Staiger (2003) lend support to Mexico’s suggestion that auctioning countermeasures in the WTO can lead to both better incentives for compliance and better readjustment of concessions, if we gauge the incentive for compliance on the basis of the cost inflicted on the infringing government (more is better), and if we gauge the readjustment of concessions on the basis of the expected revenue generated by the government running the auction (more is better). Moreover, our theoretical results indicate a third potential benefit: by

auctioning countermeasures in the WTO, the existing right of retaliation may be more efficiently allocated to the WTO Member who values this right most highly.

However, as we next discuss, the possibility of *externalities across bidders* in the auction arises naturally in this setting, and these externalities can “disrupt” auction performance with regard to each of the three benefit dimensions listed above. Further, the precise pattern of externalities depends on a key feature of auction design, namely, whether the “infringing” government is permitted to bid to “retire” the right of retaliation. After describing these externalities, and the way in which they depend on the design of the auction, we describe how different auction designs can imply different auction performance along each of these benefit dimensions, and we argue that the appropriate choice of auction design is therefore likely to depend on which of these three dimensions is the most important goal of permitting countermeasures to be auctioned in the WTO.

3.2 Externalities Across Bidders

We begin by describing the nature of the externalities across bidders that are likely to arise in an auction of WTO countermeasures. First we must define what we mean by an externality in this setting. We will say that an auction exhibits *positive externalities* across bidders if one bidder would rather lose to another bidder than have no bidder win the object. And we will say that an auction exhibits *negative externalities* across bidders if one bidder would rather have no bidder win the object than to lose to another bidder.

In a standard auction setting, it is typically assumed that every bidder is *indifferent* between losing to some other bidder and having no bidder win the object: that is, in traditional auction analysis, the *absence of externalities* across bidders is

typically assumed.¹⁰ To see why this standard assumption is not likely to be met in the case of auctioning off WTO countermeasures, let us suppose that Honduras has been granted the authority to impose countermeasures against the EC, that Honduras does not have the capacity to use this right, and that it puts this right (say, the suspension of concessions against the EC of \$100 million) up for auction. Suppose further that Canada and the U.S. choose to take part in the auction and bid for this right of retaliation against the EC, that there are no other bidders, and that each country will choose largely the *same* list of imported EC products upon which to retaliate if it wins the right by placing the winning bid in the auction. In fact, to fix ideas and to keep things simple, let us suppose that there is a single *retaliation good*: if either Canada or the U.S. obtains the right from Honduras to suspend concessions against the EC, it will use this right to block \$100 million of EC *feta cheese* imports from its markets.

It may now be seen that an externality between Canada and the U.S. will naturally arise in the auction of WTO countermeasures. That is, it is highly unlikely that Canada, say, will be indifferent between (a) losing to a higher bid from the U.S., and (b) having no bidder win the right to retaliate against the EC. This is because, relative to the *status quo* that obtains if Canada loses and no bidder wins the right to retaliate against the EC, there will be an impact on Canada if it loses and the U.S. wins the right to retaliate against the EC, since at least a portion of the \$100 million of EC feta cheese exports that would have gone to the U.S. market will now be *diverted* into the Canadian market. Whether the trade diverted into the Canadian market in this circumstance is perceived by the Canadian government as a “good thing” relative to the *status quo*, in which case we have a positive externality across bidders, or a “bad thing” relative to the

¹⁰Recently, the auction literature has begun to consider systematically the analysis of auctions with externalities. For important contributions to this literature, see Jehiel and Moldovanu (1996, 2000, 2001), Das Varma (2002), Ettinger (2002) and Haile (2000).

status quo, in which case we have a negative externality, will depend on the circumstances faced by the Canadian government, and we will examine this question next. But the essential point is that *an externality naturally arises between bidders in an auction of WTO countermeasures*.

Let us next consider whether the externality between Canada and the U.S. identified above is likely to be a positive externality or a negative externality. There will be two impacts on the Canadian economy when EC feta cheese, originally destined for the U.S. market, is diverted into the Canadian market: **first**, we may anticipate that the price charged by EC feta cheese exporters will fall somewhat, and therefore Canada enjoys a terms-of-trade improvement and a consequent rise in its real national income. This impact suggests a positive externality between the bidders. But there is also a **second** impact, and that is the associated fall in the price of feta cheese within the Canadian market that occurs as a result of the fixed Canadian feta cheese tariff and the falling “world” (i.e., EC exporter) feta cheese price. If the Canadian government is not “too” concerned about the employment/factor-income-distributional consequences of this drop in the internal Canadian price of feta cheese, then the first impact dominates in the preferences of the Canadian government and there is a positive externality across bidders. But it is possible – if for example political pressure from Canadian feta cheese producers is sufficiently intense – that this second impact could be negative and weigh sufficiently heavily in the preferences of the Canadian government to overturn the terms-of-trade considerations, and a negative externality between bidders would then arise. We will adopt the view that the “normal” case is the one in which political

pressures are not so intense, and so the case of positive externalities between bidders arises. This is the view adopted in Bagwell, Mavroidis and Staiger (2003).¹¹

It is at this point important to observe that our focus on the case of positive externalities between bidders does not rule out the possibility that Canada and the U.S. each face very significant political pressures to protect their feta cheese industry from imports. In fact, in Bagwell, Mavroidis and Staiger (2003) we assume that this political pressure is privately observed by the respective government, but that it can range from “no significant political pressure” up to a high degree of political pressure that would make the government an aggressive bidder to win the right to unilaterally block feta cheese imports from the EC. That is, the assumption that a government faces an upper bound on its political pressure so that it always prefers to *lose* to the other bidder rather than to maintain the *status quo* (*nobody wins*) does *not* rule out the possibility that the political pressure faced by this government is nevertheless sufficiently intense that it would prefer (gross of its bid) to *win* the auction rather than to *lose* to the other bidder. Instead, the assumption only serves to guarantee that the externality between bidders is positive over the entire range of their possible political-pressure realizations.

At the same time, it is instructive to point out that, under sufficiently weak political pressure to protect its feta cheese industry, a government would prefer (gross of its bid) to *lose* the auction to the other bidder rather than to *win* the auction itself. This is because, either way it gets to enjoy the terms-of-trade benefits (lower EC exporter-price) of the retaliation against EC exports of feta cheese, while, if it loses, it can avoid the distortionary costs associated with the higher-than-world feta cheese prices that would prevail in its local economy as a result of the tariff if it won (and which it does

¹¹We note in passing that the negative externality case is not an unreasonable case to consider (it would be consistent, for example, with an importing government wishing to negotiate VERs with exporting governments) and warrants investigation in its own right.

not value highly for political reasons in this weak-political-pressure case). We will return to this observation in the next subsection.

Thus far, we have identified an externality between bidders who are *competing importers of the retaliation good*, and have suggested that this externality will be positive in the typical case faced in an auction of WTO countermeasures. Suppose, though, that the *infringing country* (the EC in our example) were also allowed to bid. In this case, if the EC placed the winning bid in Honduras' auction, the right of retaliation against the EC would be *retired* (i.e., it would not be used). If the EC is permitted to bid to retire the right of retaliation against it, the pattern of (positive) externalities across bidders that we have identified above will become more complicated. On the one hand, both Canada and the U.S. will be indifferent between the *status quo* (nobody wins) and losing to the EC (the right of retaliation is retired), and so the presence of the EC as a bidder at the auction imposes no externality on Canada and the U.S.. On the other hand, the EC would ordinarily prefer the *status quo* (nobody wins) over losing to *either* Canada or the U.S. and facing retaliation, and so Canada and the U.S. each impose a *negative externality* on the EC when it is also bidding.

As a consequence of these observations, we may conclude that the pattern of externalities across bidders in an auction of WTO countermeasures will depend on whether the infringing country is permitted to bid to retire the retaliation right against it. In a *basic auction*, where the infringing country is not permitted to bid, we have argued that there will normally be *positive externalities* across bidders. In an *extended auction*, in which the infringing country is also permitted to bid, there will normally be both *positive and negative externalities* across (different) bidders.

With this essential point established, we now turn in the next subsection to begin a consideration of how different auction designs can imply different auction performance along each of the three benefit dimensions listed in section 3.1, and we

argue that the appropriate choice of auction design is therefore likely to depend on which of these three dimensions is the most important goal of permitting countermeasures to be auctioned in the WTO. We begin with a consideration of the performance of the basic auction.

3.3 The Basic Auction: The Infringing Government Is Not Permitted To Bid

As detailed in Bagwell, Mavroidis and Staiger (2003), an important feature of the basic auction that arises as a result of the positive externalities across bidders which we have described above is the possibility of *auction failure*. In the context of our example above, auction failure refers to a situation in which Honduras holds an auction of its right of retaliation against the EC and receives *no bids* from either Canada or the U.S., even though Canada and the U.S. would each “value” acquiring this right (that is, each would prefer *winning* to the status quo that would prevail if *nobody wins*). We observe that auction failure can occur in the basic auction even when the “reservation price” – the lowest (non-negative) bid permitted by the auction – is set at zero. In this case, as a result of the positive externality between bidders, Honduras would find that it cannot even *give away* its right of retaliation against the EC!

The basic intuition for the possibility of auction failure in this setting follows fairly directly from our description in the previous subsection of the positive externalities between bidders in the basic auction. If Canada, for example, faces a low (and privately observed) level of political pressure to protect its feta cheese industry, then as we have explained in the previous subsection Canada prefers (gross of its bid) to lose the auction to the U.S. rather than win. As observed just above, however, Canada prefers to win over the alternative that nobody wins. (Notice that these two statements can hold simultaneously only because there is a positive externality, so that Canada prefers to lose rather than the alternative that nobody wins). Hence, if Canada is

sufficiently certain that the U.S. will bid, perhaps because Canada believes that the U.S. is likely to be facing a degree of (privately observed) political pressure that makes the U.S. prefer to win rather than lose, then Canada will not bid in the auction (thereby hoping to “lose” to the U.S.). If it happens that the U.S. *also* faces a low (and privately observed) level of political pressure to protect its feta cheese industry, and if the U.S. is sufficiently certain that Canada will bid, then the U.S. will not bid in the auction either (hoping to “lose” to Canada). Arguing in this fashion, it can be seen (see Bagwell, Mavroidis and Staiger, 2003, for the formal proof) that the basic auction will *fail* to generate any bids if the degree of political pressure for import protection in the economies of the potential bidders is sufficiently low.

Obviously, when the degree of political pressure is sufficiently low across potential bidders so that auction failure occurs, the basic auction will fail to deliver on the first two potential benefits noted in section 3.1. It fails to provide any incentive for compliance, since the infringing government faces no new costs as a result of the basic auction in this case. And it fails to provide any readjustment of concessions, since the government running the auction fails to generate any revenue in this case. As for the third dimension of allocative efficiency, whether or not the basic auction delivers in this case depends on how costly retaliation is to the infringing government: if retaliation is sufficiently costly to the infringing government, then it is better from an efficiency standpoint that no retaliation occur, and so allocative efficiency is served by failure of the basic auction; if retaliation is not so costly to the infringing government, then allocative efficiency requires that the right of retaliation be allocated to the (competing-importer) government that most values its use, and the basic auction then fails to achieve allocative efficiency in this case.

On the other hand, if the degree of political pressure for import protection is sufficiently intense, then as we have noted in section 3.2 a government will prefer (gross

of its bid) to win rather than lose, and in this case the outcome of the auction looks like a more standard auction, with the (competing-importer) country who most highly values the right of retaliation making the winning bid, and with bids reflecting individual valuations. When the political pressure faced by at least one potential bidder is sufficiently intense, then, we can expect the basic auction to perform “well” on the first two dimensions listed in section 3.1: it inflicts the cost of retaliation on the infringing government; and it generates revenue for the government running the auction commensurate with the maximum amount consistent with the valuations of the potential bidders. As for the third dimension of allocative efficiency, whether or not the basic auction performs well in this case depends again on how costly retaliation is to the infringing government: as before, if retaliation is sufficiently costly to the infringing government, then it is better from an efficiency standpoint that no retaliation occur, and so in this case the basic auction now fails to achieve allocative efficiency; if retaliation is not so costly to the infringing government, then allocative efficiency requires that the right of retaliation be allocated to the (competing-importer) government that most values its use, and in this case the basic auction now achieves allocative efficiency.

Finally, given the bidding behavior that we have described over these two (sufficiently low, sufficiently high) ranges of political pressure, it can be shown (see Bagwell, Mavroidis and Staiger, 2003) that over an intermediate range of realizations for political pressure, all bids must be made at the auction’s reservation price, and a random sharing rule is then used to break the ties and allocate the retaliation right. Over this intermediate range of realizations of political pressure, then, bids do not rise with rising valuation, and the resulting allocation across countries is also independent of valuation. As a result, when the political pressure faced by each potential bidder falls in this intermediate range, we can expect the basic auction to perform in a “mediocre” fashion: on the bright side, it inflicts the cost of retaliation on the infringing

government; but it does not generate revenue for the government running the auction commensurate with the maximum amount consistent with the valuations of the potential bidders; and it does not (except by chance) allocate the right of retaliation efficiently to the government that values it most highly.

Overall, then, in an expected sense over the entire range of possible realizations of political economy pressure, we may conclude that the basic auction of WTO countermeasures can be expected to deliver something on each of the three benefit dimensions listed in section 3.1, but that the positive externalities between bidders that are likely to be present in this setting will tend to disrupt the auction performance on each dimension relative to what one might expect in a more standard (no-externalities) setting.

3.4 The Extended Auction: The Infringing Government Is Permitted To Bid

As we establish in Bagwell, Mavroidis and Staiger (2003), the outcome of the extended auction in which the infringing government is also permitted to bid differs strikingly from the outcome of the basic auction that we described in the previous subsection. Most importantly, at least when the auction's reservation price is set sufficiently low, there is *no* possibility of auction failure in the extended auction. That is, permitting the infringing government to bid to retire the right of retaliation against it will ensure that the auction of WTO countermeasures does not "fail."

In fact, continuing to focus on the low-reservation-price case, we can say more: in the extended auction, the infringing government *always* places the highest bid and retires the right of retaliation against it. Intuitively, this is because the positive externalities across the other (competing importer) bidders keep either of them from bidding sufficiently high to beat what the infringing (exporting) government – who faces *all* the costs of the retaliation – is willing to pay to avoid the retaliatory tariff.

Hence, continuing with our example, if the EC is permitted to bid to retire the right of retaliation against its feta cheese exporters in the auction run by Honduras, the EC will place a bid that “beats” the highest possible bid that either Canada or the U.S. could “conceivably” make, and the right of retaliation will be retired.¹²

How does the extended auction perform with respect to the three dimensions of benefits described in section 3.1? Here we discuss the ability of the extended auction to deliver on each of these dimensions relative to no auction. In the next subsection, we will compare the relative merits of the basic and the extended auctions.

Consider first the incentives for compliance. Interestingly, while we have just observed that there will be no retaliation against the infringing government when it is permitted to bid to retire the right of retaliation against it, it is nevertheless the case that incentives for compliance will be created by the extended auction: they simply take the form of *cash payments* made by the infringing government to the auctioneer. Hence, with regard to incentives for compliance, relative to no auction the extended auction accomplishes two things: it increases the cost of non-compliance faced by an infringing government; and it changes the form of payments normally associated with WTO “compensation,” from retaliatory tariffs to cash. In effect, then, the extended auction provides a way to *induce* infringing governments to pay cash compensation to successful claimants in a WTO dispute.

Consider next the readjustment of concessions. Of course, the flip side of the compliance effect of this cash payment is the readjustment of concessions for the government running the auction. Hence, relative to no auction, the extended auction also leads to better readjustment of concessions.

¹²There are a number of more intricate technical issues that arise in constructing the equilibria of the extended auction, and we refer the interested reader to Bagwell, Mavroidis and Staiger (2003) for details.

Finally, consider the efficient allocation of retaliation. Given that the infringing government always wins the extended auction and retires the right of retaliation against it, we may conclude that allocative efficiency is attained in the extended auction if and only if retaliation is sufficiently costly to the infringing government, so that it is better from an efficiency standpoint that no retaliation occur.

3.5 The Auction Design: Should The Infringing Government Be Permitted To Bid?

We now compare the performance of the basic and extended auctions along the three benefit dimensions listed in section 3.1, in order to assess whether the infringing government should be permitted to bid to retire the right of retaliation in an auction of WTO countermeasures. We describe how the two auctions can perform differently along each of these dimensions, and we argue that the preferred auction design is therefore likely to depend on which of these three dimensions is the most important goal of permitting countermeasures to be auctioned in the WTO.¹³

Consider first the incentive for compliance. At one level, it might be thought that the infringing government will face the highest costs when it is prevented from bidding in the auction (i.e., under the basic auction). After all, it might seem that a “revealed preference” argument would indicate that the infringing government must face lower costs when it is permitted to bid (i.e., under the extended auction), because it chooses in

¹³There are of course many other features of auction design, such as the setting of the reservation price or the nature of the bidding (e.g., sealed or open, ascending or descending, first-price or second-price) that can also have important implications in this auctions-with-externalities setting, but we follow Bagwell, Mavroidis and Staiger (2003) and emphasize the question of whether or not the infringing government should be permitted to bid as a novel and key feature of the design of auctions for WTO countermeasures.

this case to make a sufficiently high bid to guarantee that it will not face retaliation. However, this reasoning is incorrect: the presence of the infringing government at the extended auction *alters* the bidding behavior of the other governments in a way that can be so unfavorable to the infringing government that it would do better if it had been barred from the auction. In terms of our example, Canada and the U.S. will be induced to bid far more aggressively when they know that the EC is also bidding (and that it will retire the right of retaliation if it wins), and this means that the EC must in turn bid aggressively to beat the Canadian and U.S. bids and win the extended auction. In the basic auction, on the other hand, there is always the chance that the EC will “get lucky” and the basic auction will end in failure (with no retaliation against the EC).

As this discussion suggests, it can be shown that whether or not the EC would prefer the expected outcome of the basic auction or the extended auction depends on how likely auction failure is in the basic auction: if auction failure is sufficiently likely in the basic auction, then the EC fares better under the basic auction than under the extended auction, and the incentive for compliance is then served best under the extended auction; otherwise, compliance is best served under the basic auction. Hence, with regard to compliance, the choice between auctions depends on the likelihood of auction failure in the basic auction—the more likely is auction failure in the basic auction, the better is the extended auction from the point of view of providing incentives for compliance.

Consider next the readjustment of concessions. Here the choice between auctions is unambiguous: the extended auction always yields more revenue for the auctioneer than the basic auction. In terms of our example, Honduras will get more cash compensation as a result of the infringement of the EC if it can run an auction of WTO countermeasures in which the EC is permitted to bid. This reflects the fact, as noted just above, that (i) Canada and the U.S. will be induced to bid far more aggressively when

they know that the EC is also bidding (and that it will retire the right of retaliation if it wins), and (ii) this means that the EC must in turn bid aggressively to beat the Canadian and U.S. bids and win the extended auction (and therefore the EC must bid higher than what could conceivably be the winning bid in the basic auction).

Finally, consider the efficient allocation of the right of retaliation. As we described in the previous subsections, the extended auction always retires the right of retaliation, and so always ends with no retaliation, while the basic auction yields no retaliation under auction failure, allocates retaliation randomly across bidders when their political pressure is in an intermediate range, and allocates the right of retaliation to the highest value bidder when its political pressure is sufficiently strong. Clearly, then, if retaliation is sufficiently costly to the infringing government so that it is better from an (ex ante) efficiency standpoint that no retaliation occur, the efficient allocation of the right of retaliation will be best served by the extended auction. On the other hand, if retaliation is not so costly to the infringing government, then allocative efficiency requires that the right of retaliation be allocated to the (competing-importer) government that most values its use, and the basic auction may then out-perform the extended auction on this dimension.

On the basis of this discussion, we may conclude that the preferred auction design is likely to depend on which of the three dimensions of benefits listed in section 3.1 is the most important goal of permitting countermeasures to be auctioned in the WTO. If the readjustment of concessions is paramount, then the infringing government should be permitted to bid to retire the right of retaliation. If the incentive for compliance is foremost, then the infringing government should be prevented from bidding in the auction, unless the likelihood of auction failure is sufficiently great. And to the extent that the efficient allocation across governments of the right to retaliate is

dominant, then the infringing government should be prevented from bidding in the auction, unless the political costs it faces in the event of retaliation are sufficiently great.

4. Conclusion

Auctioning countermeasures in the WTO is a novel and potentially very controversial idea. Tradable retaliation rights have been formally proposed by Mexico (WTO, 2002), as a potential solution to a perceived practical problem. The attractiveness of Mexico's proposal is that it offers an additional possibility to injured WTO Members to get something from the dispute settlement mechanism *without* putting into question the legal nature of the existing contract, that is, the predominantly de-centralized system of enforcement in the WTO. The data we have reviewed in Section 2 of this paper, while not conclusive, lend some support to Mexico's perception that there is indeed a practical problem faced by small countries and especially developing countries when they attempt to carry through with effective retaliation within the WTO system. And the theory we have reviewed in Section 3 lends some support to the efficacy of Mexico's proposed solution from the perspective of formal economic theory.

At this stage, we deem it precarious to set out in a formal manner the necessary formal amendments to the DSU for Mexico's proposal to fit in. Indeed, Mexico did not offer a concrete proposal beyond the idea of tradable rights. In this spirit, we have limited our observations to a discussion on the substantive merits of Mexico's proposal (by using auction theory to back it up) and have refrained from proposing any concrete re-design of the DSU. We would argue, though, that auctioning countermeasures in the WTO is an idea that should be studied seriously. This is not to say that introducing such auctions into the WTO system is necessarily a good idea. It may possibly be a very bad idea. This possibility is especially apparent when one considers the likely political ramifications that would arise when one government, as a result of placing the winning

bid in an auction, imposed WTO-sanctioned retaliatory tariffs against a second government with whom it had no unresolved WTO dispute. Needless to say, the political costs and public perceptions associated with such an action could be far more costly to the workings of the WTO than any benefits that we have assessed in the proceeding sections. Similar statements, however, could be made about *any* attempt to bring multilateral elements into WTO dispute resolutions for the purpose of helping small and developing countries take part more effectively in the WTO system. In this light, the auctioning of countermeasures in the WTO deserves serious study, because it represents one (in principle, particularly effective) way to multilateralize the WTO dispute procedures for this purpose.

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