WORLD TRADE ORGANIZATION

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EUROPEAN COMMUNITIES – MEASURES CONCERNING MEAT AND MEAT PRODUCTS (HORMONES)

ORIGINAL COMPLAINT BY CANADA

RECOURSE TO ARBITRATION BY THE EUROPEAN COMMUNITIES UNDER ARTICLE 22.6 OF THE DSU

DECISION BY THE ARBITRATORS

The Decision of the Arbitrators on European Communities - Measures Concerning Meat and Meat Products (Hormones) - Recourse to arbitration by the European Communities under Article 22.6 of the DSU - is being circulated to all Members, pursuant to the DSU. The report is being circulated as an unrestricted document from 12 July 1999 pursuant to the Procedures for the Circulation and Derestriction of WTO Documents (WT/L/160/Rev.1).

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I. INTRODUCTION

1. On 20 May 1999, Canada, pursuant to Article 22.2 of the DSU, requested the Dispute Settlement Body ("DSB") to authorize the suspension of the application to the European Communities ("EC") and its member States of tariff concessions covering trade in an amount of CDN$ 75 million per year.[1] In a letter dated 2 June 1999, the EC objected to the level of suspension proposed by Canada and requested that the matter be referred to arbitration. In its submissions, the EC quantified the level of trade impairment caused by the hormone ban on Canadian bovine meat and meat products at a maximum of CDN$ 3,537,769. The EC also asked that the arbitrators request Canada to submit a list with proposed suspension of concessions equivalent to the level of nullification or impairment, once this level had been determined by the arbitrators.

2. At its meeting of 3 June 1999, the DSB - referring to both the Canadian and the EC request - noted that, pursuant to Article 22.6 of the DSU, the matter shall be referred to arbitration. Article 22.6 provides as follows:

> "When the situation described in paragraph 2 occurs [if the Member concerned fails to bring the measure found to be inconsistent with a covered agreement into compliance therewith or otherwise comply with the recommendations and rulings within the reasonable period of time determined pursuant to paragraph 3 of Article 21], the DSB, upon request, shall grant authorization to suspend concessions or other obligations within 30 days of the expiry of the reasonable period of time unless the DSB decides by consensus to reject the request. *However, if the Member concerned objects to the level of suspension proposed … the matter shall be referred to arbitration.* Such arbitration shall be carried out by the original panel, if members are available, or by an arbitrator appointed by the Director-General and shall be completed within 60 days after the date of expiry of the reasonable period of time. Concessions or other obligations shall not be suspended during the course of the arbitration".[2]

The arbitration was carried out by the original panel (hereafter referred to as "the arbitrators"), namely:

Chairman:	Mr. Thomas Cottier
Members:	Mr. Peter Palecka
	Mr. Jun Yokota

3. The jurisdiction of the arbitrators and the effect of this arbitration report is set out in Article 22.7 of the DSU:

> "*The arbitrator* acting pursuant to paragraph 6 shall not examine the nature of the concessions or other obligations to be suspended but *shall determine whether the level of such suspension is equivalent to the level of nullification or impairment …* The parties shall accept the arbitrator's decision as final and the parties concerned shall not seek a second arbitration. The DSB shall be informed promptly of the decision of the arbitrator and shall upon request, grant authorization to suspend concessions or other obligations where the request is consistent with the decision of the arbitrator, unless the DSB decides by consensus to reject the request".[3]

The substantive provision at issue here is contained in Article 22.4 of the DSU:

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[1] WT/DS48/17.
[2] Footnote omitted and emphasis added.
[3] Ibid.

> "The level of the suspension of concessions or other obligations authorized by the DSB shall be equivalent to the level of the nullification or impairment".

4. In this case, the arbitrators are called upon to "determine whether the level of … suspension [of tariff concessions, as proposed by Canada] is *equivalent* to the level of nullification or impairment"[4] caused to Canada by the EC ban on imports of hormone treated beef and beef products.

5. The organisational meeting at which time-table and working procedures were adopted, was held on 4 June. On 7 June we received a paper from Canada explaining the methodology it applied in calculating the proposed level of suspension. First written submissions were received from both parties on 11 June. Rebuttals were filed on 18 June. A meeting with the parties was held on 22 June. On 25 June we received answers to a list of questions we had submitted to the parties.

6. The main arguments of the parties are summarized below when examining each of the claims before us.

II. PRELIMINARY ISSUES

A. THIRD-PARTY RIGHTS

7. Following a request by the United States ("US") for third-party rights and after careful consideration of the parties' arguments made at the organisational meeting of 4 June 1999 and in their written submissions, the arbitrators ruled as follows:

> The US and Canada are allowed to attend both arbitration hearings, to make a statement at the end of each hearing and to receive a copy of the written submissions made in both proceedings.
>
> The above ruling was made on the following grounds.
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> - DSU provisions on panel proceedings, referred to by analogy in the arbitrators' working procedures, give the arbitrators discretion to decide on procedural matters not regulated in the DSU (Article 12.1 of the DSU) in accordance with due process.[5] The DSU does not address the issue of third-party participation in Article 22 arbitration proceedings.
>
> - US and Canadian rights may be affected in both arbitration proceedings:
>
>   First, the estimates for high quality beef ("HQB") exports, foregone because of the hormone ban, are to be based on a tariff quota that allegedly needs to be shared between Canada and the US. A determination in one proceeding may thus be decisive for the determination in the other.

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[4] Article 22.7 of the DSU, emphasis added.

[5] In this respect see footnote 138 in the Appellate Body Report on *EC – Measures Concerning Meat and Meat Products (Hormones)*, adopted on 13 February 1998, WT/DS26/15, WT/DS48/13: "[T]he DSU, and in particular its Appendix 3, leave panels a margin of discretion to deal, always in accordance with due process, with specific situations that may arise in a particular case and that are not explicitly regulated. Within this context, an appellant requesting the Appellate Body to reverse a panel's ruling on matters of procedure must demonstrate the prejudice generated by such legal ruling".

Second, several methodologies are proposed to calculate lost export opportunities. Given the fact that the product scope (HQB and edible bovine offal ("EBO")) and relevant trade barriers (hormone ban and HQB tariff quota) are the same in both proceedings, both arbitration panels (composed of the same three individuals) may consider it necessary to adopt the same or very similar methodologies. This is all the more necessary because the arbitrators are called upon to arrive at a specific determination on the amount of nullification and impairment caused by the ban.[6] They are therefore not limited, as in most panel proceedings, to ruling only on the consistency of the amounts proposed by the US and Canada with DSU provisions. Due process thus requires that all three parties receive the opportunity to comment on the methodologies proposed by each of the parties.

- In contrast, the EC has not shown how third-party participation would prejudice its rights. No specific arguments were made demonstrating that third party participation would substantially impair the EC's interests or due process rights.

B. BURDEN OF PROOF AND THE ROLE OF ARBITRATORS UNDER ARTICLE 22 OF THE DSU

8. Both parties made extensive submissions on the question of who bears the burden of proof in Article 22 arbitration procedures. Each party submitted that the burden of proof rests on the other party.

9. WTO Members, as sovereign entities, can be *presumed* to act in conformity with their WTO obligations. A party claiming that a Member has acted *inconsistently* with WTO rules bears the burden of proving that inconsistency. The act at issue here is the Canadian proposal to suspend concessions. The WTO rule in question is Article 22.4 prescribing that the level of suspension be equivalent to the level of nullification and impairment. The EC challenges the conformity of the Canadian proposal with the said WTO rule. It is thus for the EC to prove that the Canadian proposal is inconsistent with Article 22.4. Following well-established WTO jurisprudence, this means that it is for the EC to submit arguments and evidence sufficient to establish a *prima facie* case or presumption that the level of suspension proposed by Canada is *not* equivalent to the level of nullification and impairment caused by the EC hormone ban. Once the EC has done so, however, it is for the Canada to submit arguments and evidence sufficient to rebut that presumption. Should all arguments and evidence remain in equipoise, the EC, as the party bearing the original burden of proof, would lose.

10. The same rules apply where the existence of a specific *fact* is alleged; in this case, for example, where a party relies on a decrease of beef consumption in the EC or the use of edible bovine offal as pet food. It is for the party alleging the fact to prove its existence.

11. The duty that rests on *all* parties to produce evidence and to collaborate in presenting evidence to the arbitrators – an issue to be distinguished from the question of who bears the burden of proof -- is crucial in Article 22 arbitration proceedings. The EC is required to submit evidence showing that the proposal is *not* equivalent. However, at the same time and as soon as it can, Canada is required to come forward with evidence explaining how it arrived at its proposal and showing why its proposal *is* equivalent to the trade impairment it has suffered. Some of the evidence - such as data on trade with third countries, export capabilities and affected exporters - may, indeed, be in the sole possession of Canada, being the party that suffered the trade impairment. This explains why we requested Canada to submit a so-called methodology paper.[7]

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[6] See paragraph 12.
[7] See paragraph 5.

12. There is, however, a difference between our task here and the task given to a panel. In the event we decide that the Canadian proposal is *not* WTO consistent (i.e. the suggested amount is too high), we should not end our examination the way panels do, namely by requesting the DSB to recommend that the measure be brought into conformity with WTO obligations. Following the approach of the arbitrators in the *Bananas* case – where the proposed amount of US$ 520 million was reduced to US$ 191.4 million -- we would be called upon to go further. In pursuit of the basic DSU objectives of prompt and positive settlement of disputes[8], we would have to estimate the level of suspension we consider to be equivalent to the impairment suffered.[9] This is the essential task and responsibility conferred on the arbitrators in order to settle the dispute. In our view, such approach is implicitly called for in Article 22.7:

> "The parties shall accept the arbitrator's decision as final and the parties concerned shall not seek a second arbitration. The DSB shall be informed promptly of the decision of the arbitrator and shall upon request, grant authorization to suspend concessions or other obligations where the request is consistent with the decision of the arbitrator, unless the DSB decides by consensus to reject the request".

C. PRODUCT COVERAGE OF THE CANADIAN PROPOSAL TO SUSPEND CONCESSIONS

13. The Canadian proposal to suspend tariff concessions vis-à-vis the EC and its member States includes a list of products that covers trade in an amount significantly higher than the proposed CDN$ 75 million.[10] As stated in the request itself, the list of products attached to the request

> "is a proposed list of products on which concessions could be withdrawn, and on which public comment is now being received. This list is attached for ease of reference. The trade value of the final list of products subject to increased tariffs will be equivalent, on an annual basis, to Can$ 75 million".

Canada has not yet determined the final list of EC products that will be subject to the suspension of tariff concessions. Canada did determine the degree of the suspension (i.e. the level of the tariff to be imposed), namely a 100 per cent tariff on each of the selected products.

14. In its objection to the Canadian proposal for suspension, as well as at the DSB meeting during which this case was referred to arbitration, the EC complained about the above outlined approach taken by Canada. The EC asks us "to request Canada to submit a list with proposed suspension of concessions equivalent to the level of nullification or impairment, once this level has been determined by the arbitrator".[11] In other words, the EC requests the arbitrators to first decide on the amount of trade impairment, to then request a specific product list from Canada and to finally determine whether both are "equivalent". Canada objects to this EC request.[12]

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[8] See Articles 3.3 and 3.7.

[9] If this were not done, the Member requesting suspension would need to make new estimates and arguably submit a new proposal. This proposal could again meet objections and might be referred back to arbitration. To avoid this potentially endless loop, the arbitrators -- in the event they find that the proposal is *not* equivalent to the trade impairment -- have to come up with their own estimate, i.e. their own figure.

[10] According to Canada's answers to the arbitrators questions, the proposed list of products covers trade in an amount of CDN$ 316,412,782.

[11] WT/DS48/17.

[12] In contrast to this case, in the *Bananas* dispute the list of products attached to the US request for suspension corresponded, at least according to US calculations, to the US estimate of trade impairment of US$ 520 million. Once the arbitrators had lowered the level of trade impairment to US$ 191.4 million, the US submitted a new request to the DSB meeting. At that meeting the US received authorization to suspend concessions equivalent to an amount of US$ 191.4 million. Subsequently, the US selected a number of products from the original list that, according to US calculations, were equivalent in value to the authorized

15. The arbitrators are unable to follow the EC request. No support for this request can be found in the DSU.

16. The authorization given by the DSB under Article 22.6 of the DSU is an authorization "to suspend [the application to the Member concerned of] concessions or other obligations [under the covered agreements]".[13] In our view, the limitations linked to this DSB authorization are those set out in the proposal made by the requesting Member on the basis of which the authorization is granted. In the event tariff concessions are to be suspended, only products that appear on the product list attached to the request for suspension can be subject to suspension. This follows from the minimum requirements attached to a request to suspend concessions or other obligations. They are, in our view: (1) the request must set out a specific level of suspension, i.e. a level equivalent to the nullification and impairment caused by the WTO inconsistent measure, pursuant to Article 22.4[14]; and (2) the request must specify the agreement and sector(s) under which concessions or other obligations would be suspended, pursuant to Article 22.3.[15]

17. Neither can support for the EC request be found in other provisions of Article 22. Instead, they prescribe the following: (1) the "DSB shall not authorize suspension of concessions or other obligations if a covered agreement prohibits such suspension" (Article 22.5); (2) "[c]oncessions or other obligations shall not be suspended during the course of the arbitration" (Article 22.6 *in fine*); and (3) the suspension "shall only be applied until such time as the measure found to be inconsistent with a covered agreement has been removed, or the Member that must implement recommendations or rulings provides a solution to the nullification or impairment of benefits, or a mutually satisfactory solution is reached" (Article 22.8).

18. In our view, the determination of other aspects related to the suspension remain the prerogative of the Member requesting the suspension. We note, in particular, that the Member in respect of whom concessions or other obligations would be suspended, can object to "*the level* of suspension proposed"[16] and that an arbitrator has to "determine whether *the level* of such suspension is equivalent to *the level* of nullification or impairment".[17] Arbitrators are explicitly prohibited from "examin[ing] *the nature* of the concessions or other obligations to be suspended"[18] (other than under Articles 22.3 and 22.5).

19. On these grounds, we cannot require that Canada further specify the nature of the proposed suspension. As agreed by all parties involved in this dispute[19], in case a proposal for suspension were to target, for example, only biscuits with a 100 per cent tariff *ad valorem*, it would not be for the arbitrators to decide that, for example, cheese and not biscuits should be targeted; that a 150 per cent tariff should be imposed instead of a 100 per cent tariff; or that tariff increases should be levied on a product

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US$ 191.4 million. The EC objected to the US approach of not providing a definite product list at the DSB meeting during which authorization was granted. The US stated that there was nothing in the DSU to the effect that such a list should be attached to a request for authorization to suspend concessions (Minutes of the DSB meeting of 19 April 1999, WT/DSB/M/59).

[13] Article 22.6 of the DSU. Bracketed text added is from Article 22.2 of the DSU.

[14] In respect of the first requirement see further paragraph 21.

[15] The more precise a request for suspension is in terms of product coverage, type and degree of suspension, etc…, the better. Such precision can only be encouraged in pursuit of the DSU objectives of "providing security and predictability to the multilateral trading system" (Article 3.2) and seeking prompt and positive solutions to disputes (Articles 3.3 and 3.7). It would also be welcome in light of the statement in Article 3.10 that "all Members will engage in [DSU] procedures in good faith in an effort to resolve the dispute".

[16] Article 22.6, emphasis added.

[17] Article 22.7, emphasis added.

[18] Ibid.

[19] Answers to arbitrators' Question 1.

weight basis, not *ad valorem*. All of these are *qualitative* aspects of the proposed suspension touching upon the "nature" of concessions to be withdrawn. They fall outside the arbitrators' jurisdiction.

20. What we do have to determine, however, is whether the overall proposed level of suspension is *equivalent* to the level of nullification and impairment. This involves a *quantitative* -- not a qualitative -- assessment of the proposed suspension. As noted by the arbitrators in the *Bananas* case, "[i]t is impossible to ensure correspondence or identity between two levels if one of the two is not clearly defined".[20] Therefore, as a prerequisite for ensuring equivalence between the two levels, we have to be able to determine, not only the "level of the nullification and impairment", but also the "level of the suspension of concessions or other obligations". To give effect to the obligation of equivalence in Article 22.4, the Member requesting suspension thus has to identify the level of suspension of concessions it proposes in a way that allows us to determine equivalence.

21. In this case Canada has to – and did -- identify the products that may be subject to suspension in a way that allowed us to attribute an annual trade value to each of these products when subject to the additional tariff proposed, namely a 100 per cent tariff (assuming this tariff is prohibitive). We have carried out that task in Section IV below. Once this is done, however, Canada is free to pick products from that list – not outside the list - equalling a total trade value that does not exceed the amount of trade impairment we find. In our view, this obligation to sufficiently specify the level of suspension flows directly from the requirement of ensuring equivalence in Article 22.4, the substantive provision we have to enforce here. It is part of the first element under the minimum requirements we outlined above, namely to set out a specific level of suspension, i.e. a level equivalent to the nullification and impairment caused by the WTO inconsistent measure.

III. CALCULATION OF THE LEVEL OF NULLIFICATION AND IMPAIRMENT CAUSED BY THE EC HORMONE BAN

A. SUMMARY OF THE PARTIES' BASIC METHODOLOGIES

1. Canada

22. Canada submits that the EC hormone ban impairs Canadian exports in two respects. First, because of the ban Canadian high quality beef ("HQB") that has been treated with hormones, cannot be imported into the EC market. More particularly, Canadian hormone-treated HQB does not qualify for importation under the 11,500 tonnes tariff quota for HQB granted by the EC.

23. Second, because of the ban Canadian edible beef offal ("EBO") for human consumption that has been treated with hormones is not allowed for importation into the EC.[21] For such imports the EC does not apply a tariff quota.

24. In respect of HQB, Canada submits that EC regulations do not make a distinction between Canadian and US beef for purposes of administering the 11,500 tonnes tariff quota. Canada argues that for purposes of estimating trade impairment, both Canada and the US should be allocated 50 per cent of the undivided joint interest in the tariff quota, i.e. 5,750 tonnes each. In support of this, Canada refers to its considerable export capacity for meat of bovine animals. It further argues that since the pre-ban period (1981-88) the Canadian cattle and beef industry have undergone considerable

[20] WT/DS/ARB, para. 4.2.

[21] EBO treated with hormones is considered by the EC as unsuitable for human consumption. It cannot enter the EC market under the tariff headings summed up in footnote 32. However, such beef offal – treated with hormones – still enters the EC for use in pet food under other tariff headings, not subject to the ban.

transformation, illustrated by a substantial expansion of production and, in particular, by a dramatic export growth in recent years.

25. In calculating the value of its potential exports under the tariff quota, Canada used the average North American price in 1998 for choice ribeye roll and choice beef loin cuts of bovine animals, namely CDN$ 10,805 per tonne. To arrive at the nullification and impairment caused by the hormone ban, Canada deducted the trade value of its 1998 exports of HQB. On this basis, Canada estimates the value of its expected trade of HQB to be CDN$ 62.1 million.

26. In order to calculate the trade impairment in respect of EBO, Canada's starting-point is to estimate trade flows of EBO between North America (i.e. Canada and the US), the EC and the rest of the world, in the absence of the ban. To do this, Canada utilises the *Armington Framework Market Share Model*.[22] Canada submits that the basic assumption of the Armington Framework is that similar products are imperfect substitutes given that they can be differentiated by origin of production. According to Canada, trade models that make this assumption usually employ a two-step process to estimate the demand for the product examined. In a first step, the demand/expenditure of a group is determined irrespective of the source of origin. In a second step, this demand/expenditure is allocated among the identified suppliers based on the place of origin and/or the form of the product. The Armington model assumes that the allocation of demand/expenditure of one group is not dependent on any other group's demand/expenditure. Therefore, one of the major assumptions of the Armington model is that the marginal rate of substitution between any two products of the same kind is independent of the consumption of other kinds of products. Thus, according to Canada, the two key features of this framework are that it allows for two-way trade between groups and it differentiates products based on source of production.

27. In order to calculate the potential export value Canada (1) uses 1988 data for the determination of the pre-ban situation regarding trade flows, market shares and prices; (2) uses 1997 as the most recent year because it is the last year for which a complete data set was available; (3) defines the EC, North America (i.e. Canada and the US) and the rest of the world as the three regions used in the analysis; and (4) assumes that edible bovine offal production is a function of the price of beef rather than the price of edible beef offal, as the latter was a by-product of beef production.

28. According to Canada's calculations, in the absence of the ban North American EBO exports to the EC would have been approximately 71,205 tonnes. Based on Canada's share in North America's total EBO exports (including US-Canada trade) between 1996 and 1998, Canada estimates its share to be 10.8 per cent or 7,690 tonnes. This volume, multiplied by the EBO price derived from the Armington model, gives the value of potential Canadian EBO exports to the EC. To arrive at the nullification and impairment caused by the hormone ban, Canada deducted from the potential exports the value of its 1998 exports of EBO to the EC. As a result, Canada estimates the level of nullification and impairment to be CDN $ 17.1 million.

2. European Communities

29. In respect of HQB, the EC submits that Canada, together with the US, can export HQB to the EC market as long as it complies with the conditions linked to the tariff quota. The approach followed by the EC is to compare the situation that existed before the introduction of the import ban with the current situation. The EC submits that possible short-term effects were eliminated by taking the average figures and data of the period 1986 to 1988 and 1996 to 1998. The value of Canadian exports to the EC was obtained by converting ECU into CDN$ by applying the conversion rates as

[22] Paul S. Armington, *A Theory of Demand for Products Distinguished by Place of Production* (IMF Staff Papers, Volume XVI, No. 1, March 1969), pp. 159-178, Annex B to Canada's first submission.

they were recorded during the years concerned. The level of nullification and impairment identified by the EC in respect of HQB using this approach is zero given that the value of current Canadian exports of HQB to the EC is higher than that prior to the ban.

30. The EC further submits that in the period prior to the ban, Canada's share of the tariff quota never amounted to more than 3 per cent of the total in-quota quantity. The EC argues that Canadian export prices of HQB are significantly higher than US prices, rendering the Canadian product entirely non-competitive when compared to US beef. In addition, the EC submits that in the period from 1988 to 1998, Canadian beef producer prices increased, whereas EC beef producer prices dropped substantially, in particular following the reform of the common agricultural policy of the EC (as from 1992).

31. In respect of EBO, the EC notes that edible offal is a by-product of meat production. It submits that consumer behavior in respect of offal follows the same pattern as that observed for meat. If consumption of meat declines, for example, because of a negative perception of the meat produced, a similar decline will take place in the consumption of offal. The EC refers to the constant drop in beef consumption within the EC in recent years, as well as to the BSE crisis, and argues that this decline is also reflected in a drop of consumption of bovine offal. The EC submits that only offal for human consumption is affected by the import ban. It adds that overall production of offal in the EC over the last 12 years increased significantly, while the consumption of offal decreased. As a result, the EC, originally a net importer of offal, became into a net exporter.

32. The EC estimates Canadian exports of EBO but for the ban, using the 1986-1988 average value as a base from which to deduct "current exports", defined as the 1996-98 average value of Canadian exports of EBO to the EC. The EC further notes that EC imports of EBO were subject to a general downward trend irrespective of the origin of the products, warranting a downward adjustment in value of 25.47 per cent. It also submits that the prohibition of growth hormones only concerns the quantities of EBO actually used for human consumption, not those used for pet food. For these reasons, the EC makes an additional downward adjustment in quantities of 31.7 per cent. The EC accordingly estimates the level of nullification and impairment with regard to EBO for human consumption to be CDN$ 3,537,769.

B. GENERAL APPROACH OF THE ARBITRATORS

33. We carefully examined the claims, arguments and evidence submitted by the parties in light of the rules on burden of proof and the role of arbitrators under Article 22 of the DSU outlined above.[23]

34. Based upon the record before us, in particular evidence submitted by the EC demonstrating that the Canadian assessments were not always appropriate, we consider that the EC established a *prima facie* case that the level of suspension proposed by Canada is *not* equivalent to the level of nullification and impairment caused by the ban. In our view, Canada failed to rebut this presumption. We were, therefore, not able to accept in full the estimates proposed by Canada. We were not convinced either by all of the EC alternatives. We could, however, accept certain elements of both the Canadian and the EC methodologies. As explained earlier[24], in such circumstances, the essential task and responsibility of the arbitrators is to make their own estimate, on the basis of all arguments and evidence submitted by the parties. In doing so, we follow the rules on burden of proof set out in paragraphs 9-11.

[23] See Section II.B.
[24] See paragraph 12.

C. GUIDELINES FOR THE CALCULATION OF NULLIFICATION AND IMPAIRMENT

35. To determine whether the proposed level of suspension (CDN$ 75 million) is "equivalent" to the level of nullification and impairment caused by the hormone ban, we have, of course, to determine what this level of nullification and impairment is.

36. Canada states that it is expected to estimate the amount of trade that would be occurring in the absence of the EC ban. The EC submits that the calculation of nullification and impairment can only be based on the situation in which Canada would have found itself if the EC had withdrawn, or otherwise had brought into conformity, the inconsistent trade measure.

37. Upon careful consideration of the claims and arguments set forth by the parties, we consider that our starting-point is as follows: what would annual prospective Canadian exports of hormone-treated beef and beef products to the EC be *if the EC had withdrawn the ban on 13 May 1999*? 13 May 1999 is the date of expiration of the reasonable period of time granted to the EC to implement the panel and Appellate Body reports. In accordance with DSU provisions, it was by 13 May 1999 that the EC had to bring its beef import regime into conformity with the SPS Agreement. We cannot assume that the EC from 1989 onwards, i.e. from the time it imposed the ban, was under a legal obligation to withdraw the ban. We note, in this respect, that the violations found were violations of the SPS Agreement, an agreement only in existence from 1 January 1995 onwards.[25] The EC does not contest that it has not brought the measure into conformity with its WTO obligations. Nor does it contest that the "counterfactual" we need to look at in these proceedings is a situation without the ban. The EC did not propose that we examine any other alternative that would meet its obligations under the SPS Agreement.

38. We are, furthermore, of the view that the effect of suspending concessions should not exceed that of the EC bringing the measure into conformity with WTO rules on 13 May 1999. This stems directly from the DSU itself. The DSU characterizes full and prompt implementation of DSB recommendations as the *first* objective and *preferred* solution. The suspension of concessions, in contrast, is only a temporary measure of last resort to be applied only until such time as full implementation or a mutually agreed solution is obtained.[26] To allow the effect of suspension of concessions to exceed that of bringing the measure into conformity with WTO rules would not be justifiable in view of DSU objectives.

39. We note further that we agree with the arbitrators in the *Bananas* case that

> "the authorization to suspend concessions or other obligations is a temporary measure pending full implementation by the Member concerned. … this *temporary* nature indicates that it is the purpose of countermeasures to *induce compliance*. But this purpose does not mean that the DSB should grant authorization to suspend concessions beyond what is *equivalent* to the level of nullification or impairment. In our view, there is nothing in Article 22.1 of the DSU, let alone in paragraphs 4 and 7 of Article 22, that could be read as a justification for counter-measures of a *punitive* nature".[27]

40. The question we thus have to answer here is: what would annual prospective Canadian exports of hormone-treated beef and beef products to the EC be if the EC had withdrawn the ban on

[25] It might be argued that the ban also violated GATT 1947. However, no legal findings on this were ever made.

[26] See Articles 3.7, 21.1, 22.1 and 22.8 of the DSU.

[27] Op. cit., para. 6.3.

13 May 1999? An answer to this question, like any question about future events, can only be a reasoned estimate. It is necessarily based on certain assumptions. In making those estimates and assumptions, we need to guard against claims of lost opportunities where the causal link with the inconsistent hormone ban is less than apparent, i.e. where exports are allegedly foregone not because of the ban but due to other circumstances.[28]

41. In this sense, our task of estimating nullification and impairment is very different from that of a panel examining the WTO conformity of certain measures. Once a panel has found a WTO inconsistency, it can *presume* – pursuant to Article 3.8 of the DSU – that the inconsistency has caused nullification and impairment. On that ground the panel can give redress to the winning party under Article XXIII of GATT 1994 or corresponding provisions in other WTO agreements. What normally counts for a panel is competitive opportunities and breaches of WTO rules[29], not actual trade flows. A panel does not normally need to further assess the nullification and impairment caused; it can presume its existence. We, in contrast, have to go one step further. We can take it for granted here that the hormone ban is WTO inconsistent. What we have to do is to estimate the nullification and impairment caused by it (and presumed to exist pursuant to Article 3.8 of the DSU). To do so in the present case, we have to focus on trade flows. We must estimate trade foregone due to the ban's continuing existence beyond 13 May 1999.

42. Both products referred to by Canada – high quality beef and edible beef offal – once certified as *not* having been treated with hormones, do currently enter the EC market, with the ban in place. To assess the trade impairment caused by the hormone ban, we first estimate, for each product category, the *total* value of Canadian beef or beef products – hormone treated or not -- that would enter the EC annually if the ban would have been withdrawn on 13 May 1999. To estimate the nullification and impairment caused by the hormone ban we then deduct from that total value the current value of Canadian exports of HQB and EBO, i.e. those that have *not* been treated with hormones. We assume that these "current exports", adjusted for other factors as explained below, are representative of the exports that will occur in the future with the ban in place. The end result provides us the estimated value of hormone treated HQB and EBO exports that would enter the EC but for the ban's continuing existence beyond 13 May 1999.

43. Our calculations are based on exports at the f.o.b. stage -- excluding insurance and freight -- an approach which all parties have used in their calculations. We use f.o.b. prices to ensure comparability with the customs valuation method of suspension of concessions proposed by Canada.

D. NULLIFICATION AND IMPAIRMENT IN RESPECT OF HIGH QUALITY BEEF

1. Volume of the tariff quota

44. All parties, including the US as a third party, agree that the EC market for HQB exports from the US *and* Canada – with or without the ban -- is limited by a tariff quota of 11,500 tonnes at an in-

[28] In this respect, see the Decision by the Arbitrators in *EC – Regime for the Importation, Sale and Distribution of Bananas*, Recourse to Arbitration by the EC under Article 22.6 of the DSU (hereafter "the *Bananas* case"): "We are of the view that the benchmark for the calculation of nullification or impairment of US trade flows should be losses in US exports of goods to the European Communities and losses by US service suppliers in services supply in or to the European Communities. However, we are of the opinion that losses of US exports in goods or services *between the US and third countries* do not constitute nullification or impairment of even *indirect* benefits accruing to the US under the GATT or the GATS for which the European Communities could face suspension of concessions" (circulated on 6 April 1999, WT/DS/ARB, para. 6.12, italics in original).

[29] This includes so-called "non-violation nullification and impairment" claims under Article XXIII:1(b) of GATT 1994.

quota tariff rate of 20 per cent *ad valorem*.[30] This quota is to be shared between the US and Canada. The out-of-quota rate is considered by all parties to be prohibitive.

2. Estimated utilisation of the 11,500 tonnes tariff quota

45. Canada submits that the entire tariff quota would be filled but for the ban. The EC, referring to the fact that the tariff quota has never been filled in the past -- not even before the ban -- argues that the tariff quota would only be filled to the same extent as before the ban (1986-1988 average).

46. In this respect, we considered, in particular, the following elements: (1) the fact that the tariff quota represents only a negligible portion of total EC beef consumption; (2) the fact that all HQB tariff quotas allocated by the EC to other countries such as Argentina, Australia, Brazil, New Zealand and Uruguay have over the years been fully or almost fully utilised; and (3) the high production and export capacities of the Canadian beef industry. On these grounds, we can reasonably expect that under the "counterfactual" the tariff quota would be 100 per cent filled.

3. Estimated tariff quota share of Canada

47. Given our conclusions above, we next have to estimate the Canadian share in the 11,500 tonnes tariff quota.

48. Our approach here is based on Canada's and the US' past performance with respect to HQB exports as well as beef exports in general. We considered, in particular, the following elements. Firstly, the proportions of Canadian and US HQB exports in third country export markets, such as Japan, Korea, Switzerland and Taiwan. The Canadian share of HQB exports has been below 6 per cent in these markets in the 1996-98 period, except in Taiwan where Canadian exports averaged 10 per cent over the last three years. Secondly, the general proportions of Canadian and US beef exports. Canada's share of North American beef exports to the rest of the world was 4per cent on average in 1996-98, although Canada's share, including Canada-US trade, was approximately 30 per cent. Thirdly, the proportions of Canadian and US beef exports to the EC (a 6 per cent share for Canada in 1998). Fourthly, changes in the relative proportions of Canadian and US exports. The general tendency in both the EC and third country markets in recent years has been an increase of Canada's share at the expense of the US.

49. Taking these elements into account, we consider a Canadian share of 8 per cent a reasonable estimate.

4. Estimated prices under the counterfactual

50. Canada suggests a price of CDN$ 10,805 per tonne which corresponds, according to Canada, to the 1998 average price for North American choice ribeye roll and choice beef loin cuts, both top quality beef cuts. Considering evidence submitted by the EC on current average prices obtained for Canadian beef and relevant price ratios before the ban, we are of the view that the suggested price is too high.

51. In this respect, we refer to the price suggested by the US, a third party in this dispute (US$ 5,342 per tonne). In response to questions from the arbitrators, Canada submits that in the absence of the ban one can expect that Canadian and US prices for HQB would be very similar as

[30] The tariff classification for this category in respect of which Canada alleges trade impairment is: HS 0201 (Meat of Bovine Animals, Fresh or Chilled), HS 0202 (Meat of Bovine Animals, Frozen), HS 0206 1095 (Edible Offal of Bovine Animals, Fresh or Chilled, Thick Skirt and Thin Skirt) and HS 0206 2991 (Edible Offal of Bovine Animals, Frozen, Thick Skirt and Thin Skirt).

similar cuts would be shipped. We agree with Canada that it is reasonable to expect that without the hormone ban a considerable share of the tariff quota would be filled with high quality hormone-treated cuts fetching higher prices than current Canadian exports that include all types of cuts, of both high and low value. This would occur in order to maximize the value of exports entering the EC market under the tariff quota. We note, however, that average Canadian beef export prices in trade with the EC have been consistently higher than corresponding US prices. We thus use a higher price in our estimate than the price suggested by the US but lower than the price suggested by Canada.

52. On that basis, we consider a price of CDN$ 8,594 per tonne (f.o.b.) to be reasonable. Consequently, we calculate the total value of Canadian HQB exports to the EC under the counterfactual to be CDN$ 7,906,480.

5. Estimated value of "current exports" to be deducted

53. As noted earlier[31], to estimate the nullification and impairment caused by the hormone ban we have to deduct from the total value of Canadian exports under the counterfactual, the current value of Canadian exports of non-hormone treated HQB.

54. The EC suggests that Canadian exports in the 1996-1998 period are representative for exports that would occur in the future with the ban in place. Canada suggests deducting the 1998 value of its beef exports to the EC. We consider it more appropriate to deduct the 1996-1998 average actual Canadian exports to the EC, in light of the point made by the EC that short-term effects need to be eliminated.

55. On this basis we calculate the value of current exports to be deducted from the estimated exports under the counterfactual to be CDN$ 2,265,843.

6. Estimate of nullification and impairment in respect of HQB

56. Following our estimates developed above, we calculate the total amount of nullification and impairment caused by the hormone ban on Canadian exports of HQB to be **CDN$ 5,640,637**.

E. NULLIFICATION AND IMPAIRMENT IN RESPECT OF EDIBLE BEEF OFFAL

1. Estimated volume of Canadian EBO exports under the "counterfactual"

57. Unlike the EC import market for HQB, Canadian exports of EBO to the EC are subject to tariffs only, not to a tariff quota.[32] The tariff levied on imports of EBO – according to Canada, ranging from 2.3 per cent *ad valorem* to free -- is also much lower than the in-quota tariff for HQB (20 per cent *ad valorem*). Therefore, a different methodology to calculate trade impairment in respect of EBO is warranted. In respect of HQB, we could assume that imports but for the ban would be subject to a ceiling of 11,500 tonnes. In respect of EBO, one of the major tasks is to estimate potential exports of Canadian EBO in the absence of the ban. Canada's and the EC arguments in this respect were summarized above.[33]

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[31] See paragraph 42.

[32] The tariff classification for this category in respect of which Canada alleges trade impairment is: HS 020610 (Offal of Bovine Animals, Edible, Fresh or Chilled), HS 020621 (Tongue of Bovine Animals, Edible, Frozen), HS 020622 (Livers of Bovine Animals, Edible, Frozen), HS 020629 (Offal of Bovine Animals, Not Elsewhere Specified, Edible, Frozen, e.g., Hearts, Kidneys, Sweetbreads), but excluding HS 0206 1095 and 0206 2991, tariff items that are covered by the HQB tariff quota (see footnote 30 above).

[33] See Section III.A of this report.

58. We consider average Canadian exports of EBO in 1986-1988 to be a representative starting-point for our calculations of total exports under the counterfactual, i.e. assuming the ban would have been lifted on 13 May 1999. However, it is clear to us that these pre-ban figures reflect a market situation that is quite different from the current market situation for EBO in the EC. We must therefore make certain adjustments.

59. We consider it reasonable to make a downward adjustment to the pre-ban exports to take account of the demonstrated decline in "apparent consumption" of EBO in the EC market since the imposition of the ban.[34] At the same time, we note that part of this decline in apparent consumption was caused by the hormone ban itself. Data for 1988 compared to 1989 -- when the ban was first imposed -- show a sharp drop in EBO imports. In order to take account of this decline related to the ban, we calculated the absolute *difference* between (i) the *trend* import volumes for the years 1989-91 (estimated by way of an extrapolation of the actual import volumes for the period 1981-88) and (ii) the *actual* import volumes for the years 1989-91. The annual average of this *difference* was then added to actual imports in each of the years 1995-97. The apparent consumption of edible beef offal for 1995-97 was calculated on the basis of these adjusted import figures. As a result of this approach, we estimate the downward adjustment factor for apparent consumption to be 18.4 per cent. We assume that the volume of Canadian exports to the EC but for the ban would have declined in proportion to the decline in apparent consumption.

60. On this basis, we estimate annual Canadian exports of EBO in case the ban had been lifted on 13 May 1999 to be 2,630 tonnes. We note that our estimate for the Canadian share in total North American EBO exports to the EC is lower than the share claimed by Canada. We recall, however, that our estimate (4.7 per cent) is considerably higher than the current Canadian share in North American EBO exports to the EC with the ban in place. From 1996-1998 Canada only exported 2 tonnes of EBO to the EC. For these reasons, we consider our estimate to be reasonable.

2. Estimated price of Canadian EBO exports under the "counterfactual"

61. Canada suggests reference to a North American price of US$ 1,501 per tonne (f.o.b.). The US, third party in this dispute, refers to a higher price of US$ 1,689 or CDN$ 2,381 per tonne (f.o.b.). The latter price is lower than the average 1996-1998 unit price of current US exports with the ban in place (US$ 2,420 per tonne).[35] This is so because EBO prices would be expected to fall should the ban be lifted, as a result of an increased volume of imports. The EC uses a 1986-1988 average price of CDN$ 2,301 per tonne, a price very similar to the US suggestion and higher than the Canadian suggestion. We consider the price suggested by the US to be reasonable.

62. Consequently, we calculate the total value of Canadian EBO exports to the EC under the counterfactual to be CDN$ 6,261,954.

3. Estimated value of "current exports" to be deducted

63. As noted earlier[36], to estimate the nullification and impairment caused by the hormone ban we have to deduct from the total value of exports under the counterfactual, the current value of Canadian exports of EBO.

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[34] The consumption figures we used were calculated following the balance sheet approach, i.e. consumption equals production plus imports minus exports, assuming no change in stocks. This is referred to as the "apparent consumption".

[35] Since Canada only exported two tonnes of EBO to the EC in the 1996-1998 period we consider these US prices to be more relevant than current Canadian prices.

[36] See paragraph 42.

64. Canada suggests deducting 1998 imports. We consider it more appropriate to deduct a 1996-1998 average of actual Canadian exports to the EC in light of the point made by the EC that short-term effects need to be eliminated.

65. On this basis we calculate that the value of current exports to be deducted from the estimated exports under the counterfactual to be CDN$ 2,151.

4. Adjustment requested by the EC for Canadian EBO exports used not for human consumption but in pet food

66. All data provided by the parties in respect of EBO – on the basis of which both the estimated *total* value of Canadian exports but for the ban and *current* Canadian exports with the ban in place, were calculated – do not distinguish between EBO for human consumption and EBO for pet food. In contrast, Canada's claim of trade impairment caused by the ban only extends to EBO for human consumption, not that used for pet food. This is so because the hormone ban itself does not apply to -- and therefore does not hamper trade in – EBO used for pet food. It is difficult to estimate how much of the EBO ends up in pet food since both categories of EBO are imported under the same tariff heading. The EC estimates the share of EBO imports from Canada that is used in pet food at 31.7 per cent. Canada agrees that 10 per cent of all EBO is used in pet food.[37] Neither party has provided documentary evidence in support of these figures. In particular, the EC – the party claiming that a deduction should be made because of EBO use in pet food – has not substantiated its allegation of 31.7 per cent. For these reasons, we made an adjustment of 10per cent only.

5. Estimate of nullification and impairment in respect of EBO

67. Following our estimates developed above, we calculate the total amount of nullification and impairment caused by the hormone ban on Canadian exports of EBO to be **CDN$ 5,633,823**.

F. TOTAL NULLIFICATION AND IMPAIRMENT

68. As a result of both calculations developed above, we estimate the total nullification and impairment caused by the EC hormone ban on Canadian exports of beef and beef products at **CDN$ 11.3 million**. The elements of this estimate are reproduced in Annex I to this report.

IV. ASSESSMENT OF THE PROPOSED LEVEL OF SUSPENSION OF CONCESSIONS

69. In reply to questions by the arbitrators, Canada submitted for each product on the proposed suspension list the average import value of EC exports to Canada over a three-year period (1996-1998). We consider the calculations thus provided to be reasonable. They are reproduced in Annex II to this report.

70. As noted in paragraph 21 above, Canada is free to pick products from the proposed list as long as the total trade value is lower than or equivalent to the amount of nullification and impairment we have found, namely CDN$ 11.3 million.

71. We received confirmation from Canada that the actual level of suspension once implemented will be equivalent to the level of nullification and impairment we have found. All we can do at this stage is to encourage Canada to stand by this confirmation and to abide by Article 22.4 of the DSU. In the event of a future dispute on this issue, we note that the EC could start normal - or arguably even

[37] Annex B, p. 2, to Canada's second submission.

expedited - DSU procedures challenging the consistency of the level of the Canadian suspension with Article 22.4.

V. AWARD OF THE ARBITRATORS

72. For the reasons set out above, the arbitrators determine that the level of nullification or impairment suffered by Canada in the matter *European Communities – Measures Concerning Meat and Meat Products (Hormones)* is **CDN$ 11.3 million** per year.

73. Accordingly, the arbitrators decide that the suspension by Canada of the application to the European Communities and its member States of tariff concessions and related obligations under GATT 1994 covering trade in a maximum amount of CDN$ 11.3 million per year would be consistent with Article 22.4 of the DSU.

ANNEX I

High quality beef: **CDN$ 5,640,637**

= [(11,500 * 1) * 0.08 * 8,594] - 2,265,843

TRQ	TRQ fill	Can share	price/t (f.o.b.)	current exports (f.o.b.)

Edible beef offal: **CDN $ 5,633,823**

= [(3,223 * 0.816 * 2,381) - 2,151] * 0.90

av. 86-88 exports	18.4% adjustment for decline in consumption but for the ban	price/t (f.o.b.)	current exports (f.o.b.)	10% reduction for pet food usage

Total: **High quality beef and Edible beef offal**

CDN$ 11.3 million

ANNEX II

List of products for suspension of concessions proposed by Canada [38]

Tariff Item or Heading	Description	Average import value (1996-98) CDN$
0201	Meat of bovine animals, fresh or chilled	746
0202	Meat of bovine animals, frozen	44,396
0203	Meat of swine, fresh, chilled, frozen	24,942,418
0206.29	Bovine edible offal, frozen	129
0707.00.99	Cucumbers and gherkins, fresh or chilled	4,687,027
0709.60	Peppers of the genus Capsicum or Pimenta, fresh, chilled	14,233,362
1108.13	Potato starch	4,823,942
1109	Wheat gluten, whether or not dried	4,245,776
1602.20.90	Livers of any animal prepared or preserved, Other	235,579
1602.41	Hams and cuts thereof of swine prepared or preserved	476,300
1602.42	Shoulders and cuts thereof of swine prepared or preserved	1,398,558
1602.49	Swine meat & meat offal, excl. livers/incl. Mixtures, prepared or preserved	236,338
1602.50	Bovine meat and meat offal, excl. livers, prepared or preserved	425,675
1704.90.90	Sugar, confectionery, (incl. white chocolate), not containing cocoa	39,088,695
1806.90.90	Chocolates, and Chocolate confectionery, put up for retail sale	75,523,171
1905.20	Gingerbread and the like	5,301,767
1905.30	Sweet biscuits, waffles and wafers	54,180,233
2002.10	Tomatoes, whole or in pieces prepared or preserved o/t by vinegar or acetic acid	18,984,239
2007.99	Jams, fruit jellies, fruit or nut purée & paste, ckd prep. sugared, sweetened or not	7,488,896
2008.70	Peaches o/w prep. or preserved whether or not sugared, sweetened or not	9,213,227
2104.10	Soups and broths and preparations thereof	2,797,645
2201.10	Mineral and aerated waters not containing sugar or sweetening matter nor flavoured	25,026,538
2208.50	Gin	12,435,709
2208.60	Vodka	10,622,416

[38] See WT/DS48/17 and Canada's answer to arbitrators' question 10.