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UNITED STATES – CONTINUED DUMPING AND SUBSIDY OFFSET ACT OF 2000

(ORIGINAL COMPLAINT BY CANADA)

Recourse to Arbitration by the United States under Article 22.6 of the DSU

DECISION BY THE ARBITRATOR

The Decision by the Arbitrator on *United States – Continued Dumping and Subsidy Offset Act of 2000 (Original Complaint by Canada) – Recourse to Arbitration by the United States under Article 22.6 of the DSU* is being circulated to all Members, pursuant to the DSU. The Decision is being circulated as an unrestricted document from 31 August 2004 pursuant to the Procedures for the Circulation and Derestriction of WTO Documents (WT/L/452).

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I. INTRODUCTION

A. INITIAL PROCEEDINGS

1.1 On 27 January 2003, the Dispute Settlement Body (DSB) adopted the report of the Panel in this dispute, as modified by the report of the Appellate Body.[1]

1.2 The findings adopted by the DSB were that the measure at issue in this case – the Continued Dumping and Subsidies Offset Act of 2000 (hereafter "CDSOA"):[2]

(a) is a non-permissible specific action against dumping or a subsidy, contrary to Articles VI:2 and VI:3 of the GATT 1994, Article 18.1 of the Agreement on Implementation of Article VI of the General Agreement on Tariffs and Trade 1994 (hereafter the "Anti-Dumping Agreement") and Article 32.1 of the Agreement on Subsidies and Countervailing Measures (hereafter the "SCM Agreement");

(b) is inconsistent with certain provisions of the Anti-Dumping Agreement and SCM Agreement, so that the United States has failed to comply with Article 18.4 of the Anti-Dumping Agreement, Article 32.5 of the SCM Agreement and Article XVI:4 of the Marrakesh Agreement Establishing the World Trade Organization (hereafter the "WTO Agreement");

(c) pursuant to Article 3.8 of the DSU, to the extent that it is inconsistent with provisions of the Anti-Dumping Agreement and the SCM Agreement, nullifies or impairs benefits accruing to the complaining parties[3] under those Agreements;

1.3 On 13 June 2003, an arbitrator established under Article 21.3(c) of the DSU ruled that the "reasonable period of time" for the United States to implement the recommendations and rulings of the DSB in this case was 11 months from the date of adoption of the Panel and Appellate Body Reports by the DSB. The United States was consequently awarded until 27 December 2003 to bring the CDSOA into conformity with its obligations under GATT 1994, the Anti-Dumping Agreement, the SCM Agreement and the WTO Agreement.[4]

1.4 On 16 January 2004, Canada requested authorization from the DSB[5], under Article 22.2 of the DSU, to suspend the application to the United States of its concessions or other obligations in an amount to be determined every year by reference to the amount of the offset payments made to affected domestic producers in the latest annual distribution under the CDSOA.

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[1] Report of the Appellate Body on *United States – Continued Dumping and Subsidy Offset Act of 2000* (WT/DS217; WT/DS234/AB/R), (hereafter the "Appellate Body Report") and Report of the Panel on *United States – Continued Dumping and Subsidy Offset Act of 2000* (WT/DS217; WT/DS234/R) (hereafter the "Panel Report". Throughout this Decision, the original panel in this case will be referred to as the "Panel".

[2] Enacted as part of the Agriculture, Rural Development, Food and Drug Administration and Related Agencies appropriations Act, 2001, Public Law 106-387, 114 Stat. 1549, 28 October 2000, sections 1001-1003. For a description of the CDSOA, see Panel Report, para. 2.1 to 2.7.

[3] The Complaining Parties in the original proceedings were: Australia, Brazil, Chile, the European Communities, India, Indonesia, Japan, Korea, Thailand (WT/DS217), as well as Canada and Mexico (WT/DS234).

[4] WT/DS217/14; WT/DS234/22.

[5] WT/DS234/25.

1.5 The amount would be established by adding:

(a) the amount of offset payments attributed to duties collected on products from Canada; and

(b) a proportionate amount of the balance of total offset payments less the offset payments attributed to duties collected on products of other Members that are authorized by the DSB to suspend concessions or other obligations in this dispute.

1.6 The annual amount of offset payments would be based on information published by the US Bureau of Customs and Border Protection or any successor entity.

1.7 Canada intended to implement the above through one or both of the following types of measures:

(a) the imposition of additional import duties above bound custom duties on products originating in the United States. Each year, prior to the imposition of the additional duties, Canada would notify to the DSB a final list indicating the level of the duties to be imposed on selected products in the light of the latest annual distribution of offset payments under the CDSOA;

(b) the suspension of the application of the obligations under Article VI of GATT 1994, Articles 3, 5, 7, 8, 9, 10, 11 and 12 of the Anti-Dumping Agreement, and Articles 11, 12, 15, 17, 18, 19, 20, 21 and 22 of the SCM Agreement to determine that the effect of dumping or subsidization of products from the United States is to cause or threaten material injury to an established domestic industry or is to retard materially the establishment of a domestic industry.

B. REQUEST FOR ARBITRATION AND SELECTION OF THE ARBITRATOR

1.8 On 26 January 2004, the United States submitted a communication to the DSB[6] objecting to the level of suspension of concessions or other obligations proposed by Canada, on the grounds, *inter alia*, that Canada's request failed to specify the level of suspension it proposed to implement, and was therefore an inadequate basis for an arbitrator to make the determinations provided for in Article 22.7 of the DSU.

1.9 At the DSB meeting of 26 January 2004, Canada's request under Article 22.2 of the DSU and the United States objection were referred to arbitration in accordance with Article 22.6 of the DSU.[7]

1.10 The arbitration was undertaken by the original panel, namely:

Chairman: Mr Luzius Wasescha

Members: Mr M. Maamoun Abdel-Fattah
Mr William Falconer

[6] WT/DS234/27.

[7] Other complaining parties in the original proceedings had requested authorization to suspend concessions or other obligations *vis-à-vis* the United States under Article 22.2 of the DSU. The United States requested arbitration pursuant to Article 22.6 of the DSU with respect to each individual request. However, it did not object to a joint review, provided the Arbitrator would issue a separate report in each case. The complaining parties, having requested authorization to suspend concessions or other obligations in this case, are hereafter referred to as the "Requesting Parties".

1.11 On 13 February 2004, the Arbitrator held a joint organization meeting with the United States and all the parties who requested authorization to suspend concessions or other obligations pursuant to Article 22.2 of the DSU[8], and in respect of which the United States had also requested arbitration. During this meeting, the parties expressed their views on the draft timetable and working procedures prepared by the Arbitrator covering all the arbitrations requested. The Arbitrator adopted its working procedures on 18 February 2004 and its timetable on 23 February 2004.[9]

1.12 On 19 February 2004, the United States submitted a request for preliminary ruling from the Arbitrator applicable to all requests for arbitration. Following consideration of the request, the Arbitrator informed all parties on 23 February that, having regard to the issues raised in the request, the Arbitrator deemed it more appropriate to address the content of the United States' communication of 19 February together with all the other issues and arguments that might be raised throughout the proceedings. The Arbitrator added that parties should feel free to include comments on the United States' request in their submissions, as they saw fit.

1.13 In accordance with the timetable, the Requesting Parties submitted communications concerning the methodology supporting their requests for authorization to suspend concessions or other obligations (hereafter the "methodology paper(s)") on 23 February.[10]

1.14 The United States submitted a single written submission, applicable to all its requests for arbitration, on 12 March 2004.

1.15 All the Requesting Parties filed their written submissions on 31 March 2004.[11]

1.16 On 15 April 2004, the Arbitrator informed the parties that a single, joint substantive hearing with all parties present would be held. However, if a party so requested and if deemed necessary by the Arbitrator, special sessions on specific issues affecting that party might be organized, at which only the party concerned and the United States would be allowed to express their views.

1.17 The joint substantive meeting with all parties present was held on 19 April 2004 and written questions were submitted to the parties on 21 April. The parties replied in writing on 28 April 2004 and were given until 4 May to comment on each other's replies. The Arbitrator submitted additional questions on 28 May 2004. Parties replied on 7 June and were allowed to comment on each other's replies by 14 June. The Arbitrator circulated its Decisions to Members on 31 August 2004.[12]

C. ORDER FOLLOWED BY THE ARBITRATOR IN ITS ANALYSIS

1.18 Section II of this Decision addresses the procedural issues raised by the United States, in particular the United States' claims as to lack of specificity in the requests for authorization to suspend obligations made to the DSB, and in the methodology papers submitted by the Requesting Parties. It also addresses the related question of the burden of proof, as applicable to these proceedings.

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[8] Out of the ten complaining parties in the original proceedings, Brazil, Canada, Chile, the European Communities, India, Japan, Korea, Mexico requested authorization to suspend concessions or other obligations, pursuant to Article 22.2 of the DSU.

[9] The Arbitrator's working procedures are found in Appendix 3 of the DSU and in Annex A to this Decision.

[10] Brazil, Canada, the European Communities, India, Japan, Korea and Mexico submitted a joint communication. Chile submitted its own communication.

[11] Brazil, the European Communities, India, Japan, Korea and Mexico submitted a joint written submission. Canada and Chile each submitted their own written submission.

[12] Circulation to all Members was deemed to comply with the requirement of Article 22.7 of the DSU that the DSB be informed promptly of the decision of the arbitrator, once it has been reached.

1.19 Pursuant to Article 22.7 of the DSU, our mandate is to "determine whether the level of suspension [of concessions or other obligations] is equivalent to the level of nullification or impairment." To this end, the Decision first determines, in Section III, what may be considered to be the correct level of nullification or impairment caused by the CDSOA. This course of action is in conformity with previous arbitrations.[13] Also in line with previous arbitrations, the decision first addresses the approach advocated by Canada for the assessment of the level of nullification or impairment.

1.20 Then, in Section IV, the Decision addresses the level of suspension of concessions or other obligations proposed by Canada, and considers the compatibility with Article 22 of the DSU of: (a) a level of suspension of obligations expressed as a duty rather than as a total value of trade; (b) an annual adjustment to the level of suspension; and (c) the suspension of obligations by one WTO Member in relation to a measure also affecting other Members or non-Members.

1.21 Section V of the Decision contains the award of the Arbitrator. It is followed by some concluding remarks in relation to certain wider issues raised in the course of the arbitration.

II. PRELIMINARY ISSUES

A. REQUEST OF THE UNITED STATES FOR A PRELIMINARY RULING

1. Summary of the United States' request

2.1 As mentioned in the previous section, on 19 February 2004, the United States filed a request for a preliminary ruling from the Arbitrator that:

(a) a Requesting Party cannot suspend concessions or other obligations based on the nullification or impairment suffered by other WTO Members; and consequently offset payments for products other than the Requesting Parties' products that are subject to anti-dumping or countervailing duty orders are outside the scope of the arbitration proceeding with respect to that Requesting Party;

(b) the Requesting Parties failed to specify the level of suspension and the level of nullification or impairment in such a way that allows the Arbitrator to determine equivalence; and consequently each party must provide the information necessary to enable the Arbitrator to make the determinations called for under the DSU in relation to that party; and

(c) the proposition that a Requesting Party may establish a new level of suspension each year is inconsistent with Article 22 of the DSU; and is consequently outside the scope of the arbitration proceeding for any party requesting to proceed in that manner.

2. Analysis of the Arbitrator

2.2 On 23 February 2004, we informed the parties that, having regard to the issues raised in the United States' request for a preliminary ruling, they would more appropriately be addressed together with all the issues and arguments that might be raised throughout the proceedings. We added that

[13] See *EC – Bananas III (US) (Article 22.6 – EC)*, para. 4.2:

"… as a prerequisite for ensuring equivalence between the two levels at issue we have to determine the level of nullification or impairment."

parties should feel free to include comments on the United States' request in their submissions, as they saw fit.

2.3 The United States has reiterated the claims made in its request for a preliminary ruling in its subsequent submissions. As a result, we deem it necessary for the clarity of our findings to describe how we dealt with these claims.

2.4 First, we note that neither paragraph 6 nor paragraph 7 of Article 22 of the DSU provide for the possibility of a preliminary ruling and there is, strictly speaking, no practice of a preliminary ruling at the request of a party in past arbitrations.

2.5 Second, some of the issues we were asked to rule upon by the United States were intimately linked to questions central to this dispute. We concluded that the relatively expeditious process of a preliminary ruling was not appropriate to the matters the United States had raised. The purpose of that process is essentially to eliminate from an arbitration issues that could not be deemed to fall within the mandate of the Arbitrator.[14]

2.6 Indeed, a core issue in this arbitration is whether the level of nullification or impairment suffered by the Requesting Parties can be determined on the basis of the total disbursements made by the United States under the provisions of the CDSOA. We address this question as part of our review of the substantive issue, in Section IV.B.2 below.

2.7 Similarly, we concluded that consideration of whether the ability to set a new level of suspension each year is allowed under Article 22 of the DSU had to form part of our broader assessment of the level of nullification or impairment and of the level of suspension of concessions or other obligations. We address this question in Section IV.B.3 below.

2.8 Finally, with respect to the alleged failure of the Requesting Parties to specify the level of suspension and the level of nullification or impairment sufficiently to enable the Arbitrator to determine equivalence, we note that the United States did not seek an immediate ruling on the admissibility of the Requesting Parties' requests, but rather that the Arbitrator require the Requesting Parties to provide the necessary information in the course of the proceedings. We recall that other arbitrators have reminded parties that they had an obligation to provide evidence in support of their allegations and, more generally, a duty to cooperate with the arbitrator.[15] We assumed that all parties would cooperate in good faith and we did not deem it necessary to make any specific request at that stage.

2.9 As an additional consideration, we note that this particular claim of "specificity" by the United States is, with some exceptions[16], essentially based on the assumption that the approach advocated by the United States to the determination of nullification and impairment is the only correct one, and should have been followed by the Requesting Parties. Since a central question in this case is whether the Requesting Parties are entitled, under Article 22 of the DSU, to proceed on the basis of the level of nullification or impairment and the level of suspension they propose, it does not seem appropriate in our opinion to address this question as a matter for a preliminary ruling. Rather, it should be addressed as part of the substance of the case.

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[14] We noted that addressing these issues at a preliminary stage in a manner fully respecting due process would most probably involve an amount of time close to the time necessary to review the case as a whole. Indeed, we would have had to give a sufficient amount of time to the Requesting Parties to address the United States' claims in writing and perhaps hold a specific hearing on these issues.

[15] See, e.g., *EC – Hormones (Canada) (Article 22.6 – EC)*, para. 11, *Brazil – Aircraft (Article 22.6 – Brazil)*, para. 2.9.

[16] This is the case, in our view, of the United States' claim concerning Canada's failure to specify how it will implement its suspension of obligations under the Anti-Dumping Agreement and the SCM Agreement.

2.10 This said, we note that our decision not to issue a preliminary ruling on the particular issues raised by the United States does not preclude us from ruling on procedural issues in the Decision.

B. SUFFICIENT SPECIFICITY OF CANADA'S REQUEST UNDER ARTICLE 22.2 OF THE DSU

1. Preliminary remarks

2.11 As mentioned above, some of the claims raised by the United States which could normally be considered as "procedural" were essentially based on the assumption that the Requesting Parties ought to follow the approach advocated by the United States in their assessment of the level of nullification or impairment and of the level of suspension of concessions or other obligations. This is for instance the case regarding the issue whether a single specific level of nullification or impairment and, correlatively, of suspension of obligations should be provided by the Requesting Parties. This is also the case, in our opinion, with the United States' claim regarding the type of measure which the Requesting Parties plan to apply, if they are allowed to suspend concessions or other obligations.[17] We consider that such claims are more appropriately addressed as part of our review of the substance of the case. We nonetheless found that certain aspects of these claims should be discussed separately to the extent that they relate to specific procedural rights of the United States in these proceedings, which ought to be protected.

2.12 We consider this to be the case in relation to the claim that there should be a minimum degree of specificity supporting any request for suspension of concessions or other obligations so as to allow the respondent in the main dispute to exercise its right to request arbitration.[18]

2.13 We also deem it appropriate, in the light of the arguments of the parties, to address separately the United States' claims related to the lack of specificity in Canada's request regarding how it intends to suspend certain obligations under Article VI of the GATT 1994, the Anti-Dumping Agreement and the SCM Agreement.

2. Main arguments of the parties

(a) United States

2.14 The United States claims that the Requesting Parties have failed to specify the level of suspension of concessions and the level of nullification or impairment, both in their requests under Article 22.2 of the DSU and subsequently in the course of this arbitration, in a way that enables the Arbitrator to determine equivalence. The United States presents this issue as one of specificity of the request under Article 22.2 of the DSU and, more generally as a question of duty to cooperate with the Arbitrator by providing information on the level of nullification or impairment.[19]

2.15 The United States contends that the Requesting Parties have failed to quantify either the level of suspension or the level of nullification or impairment. The Requesting Parties replace specific values with general concepts and ask the Arbitrator to determine that two amounts are equivalent to one another without knowing what those amounts are. The United States adds that the Requesting

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[17] The United States contests in substance the intention of the Requesting Parties to impose a tariff surcharge on a list of products to be calculated so as to generate, over a period of one year, an income equivalent to the offset payments made in the latest annual distribution under the CDSOA. The United States argues that this approach places no limit on the level of suspension that will be effectively imposed and is contrary to past practice.

[18] We leave aside the question of the usefulness of a sufficiently specific request to allow the DSB to reach an informed decision.

[19] United States preliminary request, 19 February 2004, paras. 21-27.

Parties decline to provide any information on the level of suspension requested or to base their request on trade effect.[20]

2.16 The United States notes that the Requesting Parties intend to impose a yet unidentified duty to an unspecified value of imports, thus failing to identify the amount of trade that would be covered by their request. Without more information, it is impossible to "determine" the level of suspension proposed and the actual impact of the duty on imports from the United States.[21]

2.17 The United States also contests Canada's intention to suspend the application of some of its obligations under Article VI of GATT 1994, the Anti-Dumping Agreement and the SCM Agreement. The United States notes that, while arbitrators may not review the "nature" of the obligations to be suspended, they nonetheless need to evaluate the impact that a suspension proposal will have. This requires a certain degree of specificity from requesting parties in the description of the measures that they plan to adopt to suspend obligations.[22]

(b) Canada

2.18 With respect to the quantification of the level of nullification or impairment and the level of suspension, Canada replies that the Requesting Parties have directly linked those levels to the level, or quantity, of disbursements made by the United States each year under the CDSOA. The requested level of suspension has been stated in quantitative terms. Not only is the level quantified each year, but the quantity is derived from figures reported by the United States itself.[23]

2.19 With regard to the United States' claims regarding the suspension of certain obligations under Article VI of GATT 1994, the Anti-Dumping Agreement and the SCM Agreement, Canada argues that this claim amounts to requesting the Arbitrator to examine the *nature* of the specific obligations that Canada has requested authorization to suspend, and that the manner in which Canada ultimately chooses to suspend concessions is not something for the Arbitrator to review.[24]

3. Does Canada's request fail to meet the minimum specificity standard applicable in an Article 22.6 arbitration?

2.20 In *EC – Bananas III (Ecuador) (Article 22.6 – EC)*, the arbitrators stated that "the specificity standards, which are well established in WTO jurisprudence under Article 6.2 of the DSU were relevant for requests for authorization to suspend concessions under Article 22.2 and for requests for referral of such matter to arbitration under Article 22.6".[25] More particularly, the arbitrator considered that:

(a) the request under Article 22.2 must set out the specific level of suspension (i.e. a level deemed equivalent to the nullification or impairment caused by the WTO-inconsistent measure, pursuant to Article 22.4 of the DSU); and

(b) the request must specify the agreement and sector(s) under which concessions or other obligations would be suspended, pursuant to Article 22.3 of the DSU.

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[20] United States written submission, para. 25.
[21] United States written submission, para. 28.
[22] United States written submission, paras. 31-36.
[23] Canada's written submission, para. 53.
[24] Canada's written submission, paras. 62-64.
[25] See *EC – Bananas III (Ecuador) (Article 22.6 – EC)*, paras. 20-29. See also *EC – Hormones (Canada) (Article 22.6 – EC)*, para. 16.

2.21 The specificity issue whether requirement (a) has been met by Canada in its request, turns on whether the "specific level of suspension" should be expressed "in dollars and cents", or monetary terms. This in turn depends on the determination of the substantive issue before the Arbitrator of whether the approach to nullification or impairment proposed by Canada and the other Requesting Parties is compatible with Article 22 of the DSU. We revert to this matter in Section III below.

2.22 With regard to requirement (b) above, we note that Canada's request expressly mentions GATT 1994 provisions, as well as articles of the Anti-Dumping and SCM Agreements. In addition, Canada's request, to the extent that it specifies that the suspension would consist of the imposition of "additional import duties above bound custom duties on products originating in the United States,"[26] unequivocally specifies the sector (trade in goods) concerned.

2.23 The question raised by the United States includes a second dimension if one applies *mutatis mutandis* to this case the standards of specificity developed under Article 6.2 of the DSU. This is whether the information provided by Canada as to its proposed level of suspension was such as to prejudice the ability of the United States to defend itself (i.e., in this case, to make an informed decision to request, or not, arbitration under Article 22.6 and to argue its case before the Arbitrator).[27] This question may be answered by reviewing the United States' submissions in these proceedings. Having reviewed those submissions, we note that the degree of specification of the level of suspension proposed by Canada in no way prejudiced the ability of the United States to exercise its rights under Article 22.6. Moreover, as explained below, a number of claims presented by the United States as to a lack of specificity in Canada's request actually relates to the *nature* of the obligations to be suspended rather than to the specificity of the request under Article 22.2.

2.24 We therefore conclude that Canada's request for authorization to suspend concessions or other obligation, while it could have certainly been more informative, is acceptable in terms of the minimum specificity requirement applicable to Article 22.2 requests. In this respect, we consider that the United States did not demonstrate that either its ability to reach an informed decision to request arbitration, or its ability to defend itself in these proceedings had been prejudiced as a result of the way Canada's request was formulated.

4. Canada's suspension of obligations under Article VI of GATT 1994, Articles 3, 5, 7, 8, 9, 10, 11 and 12 of the Anti-Dumping Agreement and Articles 11, 12, 15, 17, 18, 19, 20, 21 and 22 of the SCM Agreement

2.25 As previously indicated, the question of the specificity of certain aspects of Canada's request for suspension of obligations in terms of its equivalence with the level of nullification or impairment is addressed in paragraphs 4.7-4.11 below. This section is limited to addressing the "procedural" question of whether the United States was prejudiced in its ability to defend itself as a result of the alleged lack of specificity of Canada's request for suspension of obligations under Article VI of GATT 1994, Articles 3, 5, 7, 8, 9, 10, 11 and 12 of the Anti-Dumping Agreement and Articles 11, 12, 15, 17, 18, 19, 20, 21 and 22 of the SCM Agreement.

2.26 Article 22.7 of the DSU provides that:

> "The arbitrator acting pursuant to paragraph 6 shall not examine the nature of the concessions or other obligations to be suspended ..."[28]

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[26] See WT/DS234/25.
[27] See Appellate Body Report in *Korea – Dairy*, paras. 127-131.
[28] See also *EC – Hormones (Canada) (Article 22.6 – EC)*, para. 19.

2.27 In terms of this provision, *prima facie*, the choice of provisions of the GATT 1994, the Anti-Dumping Agreement or the SCM Agreement to be suspended is a matter to be exercised by Canada at its discretion.[29] We agree with Canada that we do not have a mandate to address its choice of WTO obligations to be suspended.

2.28 It is our understanding that the United States does not contest the discretion of Canada to suspend certain obligations rather than others. Instead, the United States seems to be concerned with the lack of precision in Canada's request as to how those suspensions will be actually implemented. The United States argues in effect that this leads to a situation where the Arbitrator is incapable of assessing with sufficient certainty the level of suspension of concessions or other obligations because the request leaves it open to Canada to implement the suspensions proposed in many different ways.

2.29 In order to address the United States' concern, Canada's request would essentially have to specify the *measures* proposed to be taken to implement the suspension of a given obligation. In considering this, it is necessary to differentiate between the *WTO obligation* to be suspended and the specific *measures* taken to implement such suspensions. We note that our mandate is to determine whether the level of suspension of WTO *obligations* is equivalent with the level of nullification or impairment. Article 22.7 of the DSU does not imply a review of the actual *measures*, which will implement a suspension, to determine if they will exceed the level of nullification or impairment, and in our view, the Arbitrator's mandate does not extend to addressing or approving the proposed implementation of the suspension of the obligations.

2.30 Moreover, we do not believe it is appropriate to presume in this Decision that Canada *will* breach its obligations when implementing the authorization from the DSB to suspend concessions or other obligations. Such a presumption would be contrary to the obligation on WTO Members to comply with their treaty obligations in good faith (*pacta sunt servanda*).

2.31 Previous arbitrators have generally not reviewed the obligations that the requesting party proposed to suspend to verify that, once applied, the level of nullification or impairment would not be exceeded. Nor have they, for that matter, requested information on the way the suspensions would be implemented.[30] We note that risks of the level of nullification or impairment being breached arises with most countermeasures, including where a Member imposes a 100 per cent tariff surcharge, the most common type of suspension.[31]

2.32 We conclude therefore, that we do not have authority under our mandate to *require* Canada to be more specific as to the *measures* it intends to apply to suspend its obligations. We note that, if the DSB considers that Canada's request is not acceptable in this respect, it may reject Canada's request, pursuant to the last sentence of Article 22.7 of the DSU. Similarly, if the United States were to consider that the actual suspension of obligations by Canada exceeded the level of nullification or impairment determined pursuant to this decision, it may have recourse to the dispute settlement mechanism.[32]

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[29] See *EC – Hormones (Canada) (Article 22.6 – EC)*, paras. 18-19.

[30] Even the arbitrator in *EC – Bananas III (Ecuador) (Article 22.6 – EC)*, which had to determine whether the principles and procedures set forth in Article 22.3 had been followed by Ecuador, reviewed only the obligations and did not address the implementing measures.

[31] We also note that, pursuant to Article 19.1 of the DSU, panels and the Appellate Body may only recommend that the Member concerned bring its legislation into conformity with its obligations under the agreement which has been breached.

[32] See *EC – Hormones (Canada) (Article 22.6 – EC)*, para. 71, *US – 1916 Act (EC) (Article 22.6 – US)*, para. 7.9.

2.33 Having regard to the above, we nonetheless urge Canada, as occurred in two arbitrations where similar suspensions of obligations were proposed[33], to take appropriate steps to ensure, if it decides to proceed with the suspension of certain of its obligations *vis-à-vis* the United States referred to in document WT/DS234/25, that this will be done in such a way that equivalence between the level of suspension and the level of nullification or impairment is respected. We also urge Canada, if and when it submits a revised request for authorization to the DSB to suspend concessions or other obligations in this case, to provide a more detailed request to ensure greater transparency and predictability in its suspensions (and thus reduce the potential for a continuation of this dispute through recourse by the United States to the dispute settlement mechanism).[34]

C. BURDEN OF PROOF

1. Main arguments of the parties

2.34 The parties have repeatedly raised the question of the burden of proof in these proceedings. Canada argues that the United States, as the party claiming that Canada's requested level of suspension is not equivalent to the level of nullification or impairment, must prove its case. The United States also bears the burden of proving on a *prima facie* basis its allegation that the level of nullification or impairment is "zero". Canada considers that, by contrast, the Requesting Parties have demonstrated in their written submissions that the level of suspension they request authorization to apply is equivalent to the level of nullification or impairment.[35]

2.35 The United States acknowledges that it bears the burden of proof in these proceedings. However, it argues that it only has to submit evidence sufficient to establish a "presumption" that the level of suspension proposed is not equivalent to the level of nullification or impairment. According to the United States, it does not bear the burden to show that the level of nullification or impairment is "zero". By contrast, the Requesting Parties failed to substantiate their claim that the level of nullification or impairment corresponds to the full amount of disbursements made under the CDSOA, despite the fact that Canada itself asserts that the level of nullification or impairment must be based to the extent possible, on credible, factual and verifiable information, and not on speculation.[36]

2. Position of the Arbitrator

2.36 Since burden of proof has been extensively addressed in previous Article 22.6 arbitrations, we need not dwell on this matter. Like the arbitrator in *EC – Bananas III (Ecuador) (Article 22.6 – EC)*, we simply note the considerations of the arbitrator in *EC – Hormones (Canada) (Article 22.6 – EC)* on this matter and conclude that, while it is for the United States to prove that Canada's request for suspension exceeds the level of nullification or impairment, Canada must also sufficiently support its allegations that its request meets the requirement for equivalence of Article 22.4 of the DSU.

2.37 We also note that, in *EC – Hormones (Canada) (Article 22.6 – EC)*, the arbitrator recalled that:

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[33] *Brazil – Aircraft (Article 22.6 – Brazil)*, para. 4.2; and *Canada – Aircraft Credits and Guarantees (Article 22.6 – Canada)*, para. 4.2. See also *EC – Hormones (Canada) (Article 22.6 – EC)*, para. 71 and *EC – Hormones (US) (Article 22.6 – EC)*, para. 82.

[34] In general, a more detailed presentation of the measures that may ultimately be applied to suspend concessions or other obligations by the Member requesting authorization to suspend under Article 22.2 of the DSU, would contribute to the transparency necessary to alleviate concerns that, once authorized, the level of suspension of obligations may exceed the level of nullification or impairment. See also *EC – Hormones (Canada) (Article 22.6 – EC)*, footnote 15, referring to articles 3.2, 3.3, 3.7 and 3.10 of the DSU.

[35] Canada's written submission, para. 10. Canada's oral statement, paras. 6-8.

[36] United States oral statement, paras. 5-6.

> "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."[37]

2.38 Having regard to the duty of the parties to supply evidence and, more generally, to collaborate with the Arbitrator, and following the approach of the arbitrators in *Brazil – Aircraft (Article 22.6 – Brazil)*[38] and *in Canada – Export Credit and Guarantees (Article 22.6 – Canada)*[39], we are of the view that if a party makes a particular claim but fails to cooperate and provide evidence sufficiently supporting its claim, we may reach a conclusion on the basis of the evidence available, including evidence submitted by the other party or data publicly available.

III. DETERMINATION OF THE LEVEL OF NULLIFICATION OR IMPAIRMENT

A. MAIN ARGUMENTS OF THE PARTIES

1. United States

3.1 The United States considers that the Requesting Parties, by arguing that a breach is itself a nullification or impairment ignore the critical distinction that the drafters of the WTO agreements have drawn between, on the one hand, a breach of a WTO commitment and, on the other hand, the economic impact that is "the result of" that breach. The United States refers to Article XXIII of GATT 1994, but also to Article 22.8 of the DSU.[40] The United States further claims that the level of nullification or impairment must be established on the basis of the trade loss suffered directly by each Requesting Party. The United States argues that an analysis of the level of nullification or impairment must focus on the "benefit" allegedly nullified or impaired as a result of the failure of the responding party to bring the measure at issue into conformity with the recommendations and rulings of the DSB.[41] In previous cases, arbitrators have compared the actual amount of exports affected by the WTO-inconsistent measure to the amount of exports in a "counterfactual".[42] The difference between the two values typically represented the level of nullification or impairment. The United States is also of the view that the Appellate Body confirmed this approach by focusing on the "trade effect" of the CDSOA, as a non-permissible specific action against dumping or a subsidy. A change in the "conditions of competition" arising from a government payment to producers is different from a subsidies analysis since there has been no finding against the CDSOA as an "actionable subsidy". The focus on trade effect is consistent with past practice in Article 22.6 arbitrations.[43] Moreover, the level of nullification or impairment must be measured in terms of the effect the CDSOA has on producers/exporters subject to anti-dumping or countervailing duty orders.

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[37] See, e.g., *EC – Hormones (Canada) (Article 22.6 – EC)*, paras. 9-11.
[38] Paras. 2.9-2.11.
[39] Para. 3.76.
[40] United States oral statement, paras. 7-13.
[41] United States written submission, para. 40.
[42] i.e., the situation which would exist if the responding party had brought the WTO-inconsistent measure into conformity within the reasonable period of time (United States written submission, para. 41).
[43] United States written submission, para. 47.

3.2 The United States also claims that, under the Appellate Body analysis, any effect that the CDSOA offset payments might have on competitors that are not subject to anti-dumping or countervailing duties (i.e. other United States' producers and foreign producers/exporters not subject to an anti-dumping or countervailing duty order) was not relevant to the findings of the Panel or the Appellate Body under Article 18.1 of the Anti-Dumping Agreement and Article 32.1 of the SCM Agreement. A Member cannot suffer nullification or impairment as a result of a non-permissible specific action against dumping or against a subsidy if no order is in place and if no duties can be collected on that Member's products. The allocation of the total annual disbursements advocated by the Requesting Parties shows that the Requesting Parties have not even attempted to relate the levels of suspension proposed to the level of nullification or impairment suffered.

3.3 In addition, the United States argues that special accounts relating to revoked orders should not be considered because, in the case of revoked orders, a link does not exist between offset payments and an anti-dumping or countervailing duty order. When there is no anti-dumping or CVD order in place, any payment received by an affected domestic producer in 2003 cannot nullify or impair any benefits related to Article 18.1 of the Anti-Dumping Agreement or Article 32.1 of the SCM Agreement.[44]

3.4 The United States further claims that disbursements under the CDSOA, i.e. the concrete application of the CDSOA, are not part of the measure found inconsistent with the WTO Agreement. As a result, an examination of the actual disbursements made under the CDSOA would go beyond the terms of reference of the original disputes.[45]

3.5 Yet, even if one were to consider these payments, the United States recalls that the DSB found that the CDSOA offset payments caused no adverse effect[46] and there is no evidence that CDSOA offset payments have in reality affected Requesting Parties' dumped or subsidized trade. There is no requirement under the CDSOA for how offset payments are to be used. Likewise, a substantial share of the "qualifying expenditures" reported reflect expenditures made after the issuance of the anti-dumping duty finding or order or countervailing duty order, but long before the US Congress even enacted the CDSOA. It is also impossible for affected domestic producers to predict whether they will receive offset payments and, if so, how much they will receive in any given year. Furthermore, in at least two instances, offset payments under the CDSOA flowed to companies not involved in the production or sale of products covered by an anti-dumping or countervailing duty order. Finally, offset payments represent a small fraction i.e. in most cases less than 1 per cent and in no case more than 5 per cent of domestic producers' sales or production of the relevant product. The United States deems it unlikely that such *de minimis* disbursements would have any real impact on production and any discernible effect on trade. The United States notes in this respect that for the purpose of Article 11.9 of the SCM Agreement, a subsidy is *de minimis* if it is less than 1 per cent *ad valorem*.[47]

3.6 Finally, the United States argues that there is no bar to a finding of "zero" nullification or impairment in an Article 22.6 proceeding. Not every violation will result in a measurable level of nullification or impairment and the United States considers that the presumption of nullification or impairment under Article 3.8 of the DSU can be rebutted before an Article 22.6 arbitrator.[48]

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[44] United States written submission, paras. 57-58.
[45] United States written submission, paras. 15-19.
[46] United States written submission, paras. 62-65.
[47] United States written submission, paras. 66-74.
[48] United States written submission, paras. 75-79.

2. Canada

3.7 Canada claims that the level of nullification or impairment in this case corresponds, at a minimum, to the total amount of disbursements made by the United States' authorities under the CDSOA.

3.8 According to Canada, Article 22.4 of the DSU does not itself elaborate on the concept of "nullification or impairment". However, the meaning of these terms can be understood by considering how nullification or impairment relates to a violation of obligations. Article 3.8 of the DSU provides for a presumption that a violation of rights will lead to nullification or impairment because the covered agreements confer "benefits" on Members in the form of "rights". A violation by a Member of its obligations adversely affects – nullifies or impairs – the rights of other Members. Indeed, Articles 22.3(a) and 23.1 deem a violation of obligations to be a form of nullification or impairment of benefits. It follows that the extent of a violation will determine the extent of the nullification or impairment. This is consistent with the object and purpose of the DSU itself and the WTO dispute settlement system more generally. The level of nullification or impairment is, therefore, the extent to which any benefit accruing to a WTO Member under the WTO Agreement is affected by the failure of another Member to carry out its obligations. In this case, the extent of the failure is the failure of the United States to bring the CDSOA into compliance, including by continuing to make illegal CDSOA distributions. Canada adds that the arbitrator in *US – 1916 Act (EC) (Article 22.6 – US)* recognized that the existence of the non-compliant measure itself nullified or impaired benefits and that each application of the measure increased or further nullified or impaired benefits.[49]

3.9 As to the amount of nullification or impairment, Canada recalls that the arbitrator in *US – 1916 Act (EC) (Article 22.6 – US)* found that the term "level" refers to a quantitative measure. The level of nullification or impairment must be based to the extent possible on credible, factual and verifiable information and not on speculation. The concrete application of the CDSOA, in the form of illegal monetary disbursements, is readily quantifiable. Each dollar of illegal disbursements, a direct economic consequence of the CDSOA, further nullifies or impairs benefits. Accordingly, the quantitative level of nullification or impairment is determined, as a minimum, by the illegal distributions under the CDSOA. In order to counter the whole amount disbursed, the Requesting Parties have not only allocated among themselves the disbursements relating to duties imposed on products from those Members, seven of them have also allocated among themselves the difference between the disbursements relating to their own exports and the total disbursements under the CDSOA.[50]

3.10 Canada further disagrees with the United States' position that the level of nullification or impairment in this case and, hence, the level of suspension, is "zero". Canada contests the United States' argument that the Arbitrator must divorce the application of a measure from the measure itself. When a measure as such violates the WTO Agreement, each and every application of the measure is, by definition, a violation of the WTO Agreement[51] and every illegal disbursement contributes to the level of nullification or impairment of benefits.[52]

3.11 Canada also contests the opinion of the United States that nullification or impairment should be measured by the effect that the CDSOA has on the trade of each Requesting Party. Canada considers that there is nothing in Article 22.4 of the DSU or elsewhere to support the United States' interpretation that nullification or impairment refers exclusively to the trade effect of the illegal measure. According to Canada, the benefits being impaired in this case are the rights of Members to

[49] Canada's written submission paras. 11-20.
[50] Canada's written submission paras. 21-27.
[51] Canada's written submission, paras. 29-33.
[52] Canada's written submission, para. 44.

expect that the United States will take no measure other than those authorized under the WTO Agreement to respond to dumping, and the corresponding obligation of the United States not to take such measures. Canada refers to the arbitration in *US – FSC (Article 22.6 – US)*, where the arbitrator rejected the United States' argument that the remedies for non-compliance under Article 4 of the SCM Agreement had to be linked or limited to "trade effect". Likewise, the obligation being breached by the United States is an *erga omnes* obligation, owed to each of the Requesting Parties. Each of the Requesting Parties might therefore have requested a level of suspension equivalent to the total amount of the disbursement.[53]

B. ANALYSIS OF THE ARBITRATOR

1. Introduction

3.12 The approaches of the parties are – in appearance at least – based on diametrically opposed conceptions of "nullification or impairment". However, while the United States' approach seems to rely largely on the practice of other arbitrations under Article 22.6 of the DSU, the approach defended by Canada is, if one excludes the arbitrations carried out under Article 4.10/4.11 of the SCM Agreement, novel in the context of Article 22.6 of the DSU.

3.13 Consistent with the practice of previous arbitrators[54], we proceed with the review of the approach advocated by Canada. If we find it to be compatible with the DSU, we will proceed with a determination of the level of nullification or impairment on that basis. If we do not find it compatible with the DSU, we will determine the level of nullification or impairment by applying a methodology appropriate in this case.[55]

3.14 Canada's contention that the level of nullification or impairment corresponds, at the minimum, to the total amount disbursed by the United States under the CDSOA seems, in our understanding, to be based essentially on the following premises:

(a) a violation is a form of nullification or impairment;

(b) the notion of "benefit" under Article XXIII of GATT 1994 and the DSU encompasses rights under the WTO Agreement;

(c) Canada has a right under the WTO Agreement to expect that the CDSOA should not exist. As a result, Canada, together with the other Requesting Parties in this case, has a right to suspend concessions or other obligations up to the full amount of disbursements under the CDSOA.

3.15 We will hereafter address these elements. We will also subsequently address a core issue for our determination of the level of nullification or impairment, i.e. whether we can consider disbursements under the CDSOA in our calculation.

2. Review of the approach proposed by Canada

(a) Article XXIII of GATT 1994 and the DSU

3.16 After careful consideration we are not persuaded that the position of Canada is supported by Article XXIII of GATT 1994 or the DSU, for the reasons stated below.

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[53] Canada's written submission, para. 46.
[54] See, e.g., *Brazil – Aircraft (Article 22.6 – Brazil)*, paras. 1.5 and 3.18.
[55] *EC – Hormones (Canada) (Article 22.6 – EC)*, para. 12.

3.17 First, in order to assess Canada's arguments, it seems appropriate to revisit the source of the concept of nullification or impairment, i.e., Article XXIII of GATT 1994, on which the DSU is based.[56] Article XXIII:1 of GATT 1994 provides – in relevant parts – as follows:

> "If any contracting party should consider that any benefit accruing to it directly or indirectly under this agreement is being nullified or impaired [...] as a result of
>
> (a) the failure of another contracting party to carry out its obligations under this Agreement, or
>
> (b) the application by another contracting party of any measure, whether or not it conflicts with the provisions of this Agreement, or
>
> (c) the existence of any other situation,
>
> The contracting party may, with a view to the satisfactory adjustment of the matter, make written representations or proposals to the other contracting party or parties which it considers to be concerned."

3.18 Considered in the context of Article XXIII of GATT 1994, nullification or impairment and violation are clearly separate concepts. Article XXIII:1 basically provides that nullification or impairment of benefits is what must be ultimately demonstrated.[57] Nullification or impairment may essentially exist "as a result of": (a) a violation; (b) a situation of non-violation; or (c) "any other situation". Therefore, violation is not to be confused with nullification or impairment of a benefit.

3.19 We find support for this position in Article 3.8 of the DSU, which reads as follows:

> "In cases where there is an infringement of the obligations assumed under a covered agreement, the action is considered *prima facie* to constitute a case of nullification or impairment. This means that there is normally a presumption that a breach of the rules has an adverse impact on other Members parties to that covered agreement, and in such cases, it shall be up to the Member against whom the complaint has been brought to rebut the charge."

3.20 As mentioned by Canada, a violation generates, pursuant to Article 3.8 of the DSU, a *presumption* of nullification or impairment. Article 3.8 does not treat violation as *a form* of nullification or impairment. Article 3.8 merely exempts the party having demonstrated the violation from also having to demonstrate nullification or impairment. It does not modify the fundamental requirement that what is ultimately to be demonstrated is nullification or impairment.

3.21 This is confirmed by the last sentence of Article 3.8, which provides the opportunity for the alleged violating Party to rebut the presumption of nullification or impairment. If violation was conceptually equated by Article 3.8 to nullification or impairment, there would be no reason to provide for a possibility to rebut the presumption. The theoretical possibility to rebut the presumption established by Article 3.8 can only exist because violation and nullification or impairment are two different concepts.

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[56] See Article 3.1 of the DSU. This provision makes clear that the DSU must be applied in a manner consistent with the principles embodied in Article XXIII of GATT 1994.

[57] Since "impediment of the attainment of an objective of the Agreement" is not discussed in this case, we refrain from referring to it.

3.22 Even if we were to follow Canada's interpretation of Article 3.8, the end result would be the same as that from our interpretation: a nullification or impairment is deemed to exist, which implies that the Member found in breach of its obligations has to bring its legislation into conformity with its obligations under the WTO Agreement. However, this does not imply that the level of such nullification or impairment is equal to the "value" of the violation. Article 3.8 deals with the establishment of the *existence* of nullification or impairment during proceedings before a panel, it does not address the *valuation* or *quantification* of such nullification or impairment.

3.23 Canada argues that the presumption under Article 3.8, if not rebutted, implies that nullification or impairment exists and cannot be "zero". Canada cites the *US – 1916 Act (EC) (Article 22.6 – US)* arbitration in support of its position.

3.24 We accept the view that some nullification or impairment should exist if it has not been rebutted. However, the quantification of the level of nullification or impairment remains to be established. Article 3.8 does not address how nullification or impairment should be valued.

3.25 We note that Canada refers to Articles 22.3(a) and 23.1 of the DSU in support of its position that violation is a form of nullification or impairment.

3.26 Article 22.3(a) reads as follows:

> "[T]he general principle is that the complaining party should first seek to suspend concessions or other obligations with respect to the same sector(s) as that in which the panel or Appellate Body has found a violation or other nullification or impairment."

3.27 Article 23.1 reads as follows:

> "When Members seek the redress of a violation of obligations or other nullification or impairment of benefits under the covered agreements or an impediment to the attainment of any objective of the covered agreements, they shall have recourse to, and abide by, the rules and procedures of this Understanding."

3.28 We are of the view that, taken in their context, including Article XXIII of GATT 1994 and Article 3.8 of the DSU, those provisions simply deal with the principles to be applied in the suspension of concessions or more generally in dispute resolution. They reinforce, rather than contradict, the basic distinction between violation, on the one hand, and nullification or impairment the result of a violation, on the other hand.

3.29 Canada considers that the concept of "benefit" in the DSU encompasses the rights of Members under the WTO Agreement.

3.30 As mentioned above, pursuant to Article XXIII of GATT 1994, nullification or impairment of a benefit may be "the result of" a violation of a right, which implies that a violation is not to be confused with the nullification or impairment itself. Rather, the violation is the *cause* of a nullification or impairment of a benefit. In other words, rights *confer* benefits (e.g., predictable conditions of competition), they are not *themselves* benefits within the meaning of Article XXIII of GATT 1994 and the DSU.

3.31 Canada also argues that, since violation is a form of nullification or impairment, and since a right generally applies *erga omnes*, each Member should be entitled to retaliate up to the full effect of the violation.

3.32 Again, we consider that this argument fails to recognize the distinction between the violation of a right and the consequence thereof, i.e., nullification or impairment within the meaning of Article XXIII:1 of GATT 1994. We therefore consider that, while a violation of an obligation may affect all Members, this does not *ipso facto* result in a nullification or impairment of a given Member's benefits up to the "value" of the violation.

(b) Previous arbitrations

(i) Introduction

3.33 We note that previous arbitrations (a) support our approach regarding the interpretation to be given to the provisions relating to nullification or impairment and (b) more specifically, have concluded that the nullification or impairment of benefits resulting from a violation should be expressed in terms of trade or, in two instances, economic effects.[58]

(ii) Interpretation of the provisions relating to nullification or impairment by previous arbitrators

3.34 Previous Article 22.6 arbitrators concluded, as we have, that violation and nullification or impairment are two different concepts. The arbitrator in *EC – Bananas III (US) (Article 22.6 – EC)* stated that the presumption of nullification or impairment contained in Article 3.8 of the DSU could not, in and of itself, be taken simultaneously as evidence proving a particular level of nullification or impairment allegedly suffered by a Member requesting authorization to suspend concessions or other obligations under Article 22 of the DSU. Such authorization would only arise at a much later stage of the dispute settlement process. The arbitrator added that:

> "The review of the level of nullification or impairment by Arbitrators from the objective benchmark foreseen by Article 22 of the DSU, is a separate process that is independent from the finding of infringements of WTO rules by a panel or the Appellate Body. As a result, a Member's potential interests in trade in goods or services and its interest in a determination of rights and obligations under the WTO Agreements are each sufficient to establish a right to pursue a WTO dispute settlement proceeding. However, a Member's legal interest in compliance by other Members does not, in our view, automatically imply that it is entitled to obtain authorization to suspend concessions under Article 22 of the DSU."[59]

(iii) Consideration of benefits nullified or impaired in terms of economic or trade effect

3.35 As a preliminary observation, we note that all parties to these proceedings agree that the level of nullification or impairment must, in this case, be monetarily quantified. Disagreement arises regarding whether this monetary quantification has to be based on some economic effect of the violation, or whether it can be directly based on the disbursements made under the CDSOA.

3.36 We note that the arbitrators in *US – Section 110(5) Copyright Act (Article 25.3)* considered that benefits for the purpose of Article XXIII of the GATT 1994 and the DSU were of an economic nature:

> "If it is assumed, then, that copyright holders exploit their exclusive rights by granting licences for the use of their works, one of the benefits which arises from those rights consists of the licensing royalties which right holders would receive.

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[58] See *US – Section 110(5) Copyright Act (Article 25.3)*, para. 3.18 and *US – 1916 Act (EC) (Article 22.6 – US)*, para. 5.23.

[59] *EC – Bananas III (US) (Article 22.6 – EC)*, para. 6.10.

> Thus, exclusive rights such as those set forth in Articles 11*bis*(1)(iii) and 11(1)(ii) will normally translate into economic benefits for copyright holders.
>
> In their submissions to the Arbitrators, the parties have focused on this type of benefit accruing to copyright holders. The Arbitrators concur with the parties that, for purposes of these arbitration proceedings, the relevant benefits are those which are economic in nature.[60] This is consistent with previous decisions of arbitrators acting under Article 22.6 of the DSU.[61] Moreover, like the parties to this dispute, the Arbitrators will proceed on the assumption that the licensing royalties realizable by copyright holders constitute an adequate measure of the economic benefits arising from Articles 11*bis*(1)(iii) and 11(1)(ii)."

3.37 We further note that, with the exception of the arbitrations carried out under Article 4.11 of the SCM Agreement, previous arbitrators have relied on an approach based on the economic or trade effect of the violation.[62] While most arbitrations have relied on the narrower concept of trade effect, we note that both the *US – Section 110(5) Copyright Act (Article 25.3)* arbitrator and the *US – 1916 Act (EC) (Article 22.6 – US)* arbitrators referred to economic effects.[63] The use of direct trade effect in most case reflects the fact that trade loss is generally more directly identifiable and quantifiable and that, in such a context, arbitrators preferred to rely on verifiable figures.

3.38 In both *US – Section 110(5) Copyright Act (Article 25.3)* and *US – 1916 Act (EC) (Article 22.6 – US)*, reliance on the broader concept of economic impact was dictated by the nature of the measures at issue. In *US – Section 110(5) Copyright Act (Article 25.3)*, no actual trade took place,

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[60] *(footnote original)* This view is based on the object of the present proceedings, which is to quantify the economic harm suffered by the European Communities as a consequence of the continued application of Section 110(5)(B). It does not necessarily follow that Members having recourse to Article 64 of the TRIPS Agreement need to establish nullification or impairment of *economic* benefits accruing to them under the TRIPS Agreement. The Arbitrators find support for their view in the following statement by the arbitrators in *European Communities – Regime for the Importation, Sale and Distribution of Bananas – Recourse to Arbitration by the European Communities under Article 22.6 of the DSU*: "[A] Member's potential interests in trade in goods or services and its interest in a determination of rights and obligations under the WTO Agreements are each sufficient to establish a right to pursue a WTO dispute settlement proceeding. However, a Member's legal interest in compliance by other Members does not, in our view, automatically imply that it is entitled to obtain authorization to suspend concessions under Article 22 of the DSU." See the Decision of the Arbitrators on *European Communities – Regime for the Importation, Sale and Distribution of Bananas – Recourse to Arbitration by the European Communities under Article 22.6 of the DSU* (hereafter "*EC – Bananas III (22.6) (US)*", WT/DS27/ARB, 9 April 1999, para. 6.10.

[61] *(footnote original)* See, e.g., the Decisions of the Arbitrators on *EC – Bananas III (22.6) (US), supra*, para. 6.12 (benefits nullified or impaired: losses in US exports of goods and losses by US service suppliers in services supply); *European Communities – Regime for the Importation, Sale and Distribution of Bananas – Recourse to Arbitration by the European Communities under Article 22.6 of the DSU*, WT/DS27/ARB/ECU, 24 March 2000, footnote 52 (benefits nullified or impaired: losses by Ecuador of actual trade and of potential trade opportunities in bananas and the loss of actual and potential distribution service supply); *European Communities - Measures Concerning Meat and Meat Products* (*Hormones*) *- Original Complaint by the United States - Recourse to Arbitration by the European Communities under Article 22.6 of the DSU* (hereafter "*EC - Hormones (22.6) (US)*"), WT/DS26/ARB, 12 July 1999, para. 41 (benefits nullified or impaired: foregone US exports of hormone-treated beef and beef products); *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* (hereafter "*EC - Hormones (22.6) (Canada)*"), WT/DS48/ARB, 12 July 1999, para. 40 (benefits nullified or impaired: foregone Canadian exports of hormone-treated beef and beef products).

[62] See the list in footnote 61 above, as well as *US – 1916 Act (EC) (Article 22.6 – US)*, para. 5.23.

[63] See *US – Section 110(5) Copyright Act (Article 25.3)*, para. 3.18, *US – 1916 Act (EC) (Article 22.6 – US)*, para.7.2.

but rights had been breached which conferred economic benefits to the holders of intellectual property rights in the form of royalties. In *US – 1916 Act (EC) (Article 22.6 – US)*, the law at issue dealt with the possibility of civil and/or criminal proceedings being taken against companies importing dumped imports. Since a judicial decision or settlement under the 1916 Act did not automatically restrict trade, the broader concept of economic effect was more appropriate.

3.39 In the present case, we note that disbursements under the CDSOA operate, in economic terms, as subsidies that may generate import substitution production. Considering that the benefit nullified or impaired in this case corresponds to the value of exports from Canada "replaced" by the United States' domestic production would be consistent with the approach followed by previous arbitrators. As a result, it would be possible, in theory, to rely on the effect of the CDSOA on Canada's trade with the United States.

3.40 This said, our task is not to determine whether this is the only approach acceptable under Article 22.6 of the DSU.[64] On the contrary, it is to determine whether the approach advocated by Canada is compatible with the DSU.

3.41 From a review of the arbitrations which would seem to support Canada's approach, we note that the only arbitration decisions based on the value of violation itself were those under Article 4.10 and 4.11 of the SCM Agreement.

3.42 The position adopted by Canada seems to be based essentially on the approach followed by the arbitrator in *US – FSC (Article 22.6 – US)*, who relied on the *prohibited nature* of the subsidy concerned and the *erga onmes* nature of the violation to conclude that "appropriate countermeasures" under Article 4.10 SCM could correspond to the full amount of the subsidy illegally granted, irrespective of its trade effect.

3.43 First, we note that disbursements under the CDSOA are different from the export subsidy addressed by the *US – FSC (Article 22.6 – US)* arbitrator.

3.44 Second, we consider that the reasoning underlying the *US – FSC (Article 22.6 – US)* decision cannot be extended to the present case. One reason is that the mandate of arbitrators under Article 4.11 of the SCM agreement is different from that of arbitrators under Article 22.7 of the DSU. In this regard, Article 4.11 reads as follows:

> "In the event a party to the dispute requests arbitration under paragraph 6 of Article 22 of the Dispute Settlement Understanding ('DSU'), the arbitrator shall determine whether the countermeasures are appropriate."[65]

3.45 The *US – FSC (Article 22.6 – US)* arbitrator expressly differentiated the situation under Article 4.10 and 4.11 of the SCM Agreement and that under Article 22.4 of the DSU:

> "We recall that Article 22.4 of the *DSU* provides as follows:
>
> > '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.'

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[64] As a matter of fact, we do not consider previous arbitrations to be constitutive of "subsequent practice", within the meaning of that concept under public international law (see Vienna Convention on the Law of Treaties, Article 31.3(b)).

[65] *(footnote original)* This expression is not meant to allow countermeasures that are disproportionate in light of the fact that the subsidies dealt with under these provisions are prohibited.

> The drafters have explicitly set a quantitative benchmark to the level of suspension of concessions or other obligations that might be authorized. This is similarly reflected in Article 22.7, which defines the arbitrators' mandate in such proceedings as follows:
>
> > 'The arbitrator acting pursuant to paragraph 6 … shall determine whether the level of such suspension is equivalent to the level of nullification or impairment….' (footnote omitted)
>
> As we have already noted in our analysis of the text of Article 4.10 of the *SCM Agreement* above, there is, by contrast, no such indication of an explicit quantitative benchmark in that provision. It should be recalled here that Articles 4.10 and 4.11 of the *SCM Agreement* are 'special or additional rules' under Appendix 2 of the *DSU*, and that in accordance with Article 1.2 of the *DSU*, it is possible for such rules or procedures to prevail over those of the *DSU*. There can be no presumption, therefore, that the drafters intended the standard under Article 4.10 to be necessarily coextensive with that under Article 22.4 so that the notion of 'appropriate countermeasures' under Article 4.10 would limit such countermeasures to an amount 'equivalent to the level of nullification or impairment' suffered by the complaining Member. Rather, Articles 4.10 and 4.11 of the *SCM Agreement* use distinct language and that difference must be given meaning."[66]

3.46 Like the *US – FSC (Article 22.6 – US)* arbitrator, we consider that Article 4.11 of the SCM Agreement is a special or additional dispute settlement provision which provides for a *sui generis* approach applicable to prohibited subsidies only. Article 4.11 instructs arbitrators to determine "appropriate countermeasures" rather than whether the level of suspension of concessions or other obligations is equivalent to the level of nullification or impairment. This would seem to leave more discretion to arbitrators in assessing the amount of countermeasures. This was confirmed by the arbitrator in *US – FSC (Article 22.6 – US)*:

> "Thus, as we interpret Article 4.10 of the *SCM Agreement*, a Member is entitled to act with countermeasures that properly take into account the gravity of the breach and the nature of the upset in the balance of rights and obligations in question. This cannot be reduced to a requirement that constrains countermeasures to trade effects, for the reasons we have set out above."

3.47 While the arbitrator in *US – FSC (Article 22.6 – US)* did not exclude the application of a trade effect test under Article 4.11, it would be difficult, in situations other than those relating to prohibited subsidies, to conclude that any disbursement pursuant to an illegal measure automatically causes nullification or impairment at least equivalent to the total amount disbursed.

3.48 Canada also relies on the arbitrator's decision in *US – 1916 Act (EC) (Article 22.6 – US)* in support of its position.[67] We do not agree with Canada that the passages it relies upon support the position that the violation resulting of the existence of an inconsistent measure itself nullified or impaired benefits accruing to the European Communities. We note that the arbitrator in *US – 1916 Act (EC) (Article 22.6 – US)* agreed with the arbitrators in *EC – Bananas III (US) (Article 22.6 – EC)* that:

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[66] *US – FSC (Article 22.6 –US)*, paras. 5.45-5.47.
[67] *US – 1916 Act (EC) (Article 22.6 – US)*, paras. 6.14 and 7.8.

> "[T]he *presumption* of nullification or impairment, as provided in Article 3.8 of the DSU, by no means provides evidence of the *level* of nullification or impairment sustained by the Member requesting authorization to suspend obligations."[68]

3.49 We further note that, in that case, the arbitrator relied on the economic impact of the measure. The arbitrator refused to consider the "chilling effect" of the law as such, and it was determined that the costs attached to any settlement or judgement under the 1916 Act – i.e., instances of application – could be considered to correspond to the economic effect of the 1916 Act on EC companies.

3.50 Overall therefore, we conclude that the reasoning of previous arbitrators under Article 22.6 of the DSU does not seem to support the approach proposed by Canada.

(c) Conclusion

3.51 We conclude from the above that Article XXIII of GATT 1994 and the DSU clearly differentiate between two stages in WTO dispute settlement:

(a) one is the establishment of the *existence* of nullification or impairment by panels and the Appellate Body. This is where Article 3.8 of the DSU plays its role by providing that the existence of a violation creates a presumption of nullification or impairment of a benefit; and

(b) a separate and subsequent process where a Member requests the authorization to suspend concessions or other obligations and an arbitrator, under Article 22.6 of the DSU, is requested to determine the *level* of the benefit nullified or impaired.

3.52 This implies, in our view, that no assimilation can be made between, on the one hand, a violation or the right breached and, on the other hand, the benefit nullified or impaired as a result of that violation. Under the WTO dispute settlement mechanism, a violation is the *precursor* to establishing the nullification or impairment of a benefit.

3.53 In that context, the benefit nullified or impaired must necessarily be something else. In this respect, we recall that past arbitrators under Article 22.6 of the DSU have deemed that benefit to correspond to the trade directly affected by the maintenance of the illegal measure.

3.54 For the reasons stated above, we reject the approach proposed by Canada in this case.

3. Reliance on specific instances of disbursements to assess nullification or impairment

(a) Main arguments of the parties

3.55 The United States claims that an examination of the actual disbursements made under the CDSOA would go beyond the terms of reference of the original disputes. Disbursements are not part of the "measure found to be inconsistent with a covered agreement" under Article 22.2 of the DSU. In the absence of an actual finding, it is not permissible under the DSU to assume that any application breaches any WTO obligation or nullifies or impairs any benefit.[69] The United States adds that, since there are no recommendations or rulings concerning any payments made under the CDSOA, there is certainly no recommendation or ruling about future payments – i.e., there is no legal basis for the

[68] *US – 1916 Act (EC) (Article 22.6 – US)*, para. 5.50, emphasis in the original.
[69] United States written submission, paras. 15-19.

Arbitrator to make an award for alleged nullification or impairment supposedly caused by measures not even in existence.[70]

3.56 Canada argues that where a measure as such has been found to violate the WTO Agreement, every application of the WTO-inconsistent measure by that Member further nullifies or impairs benefits to other WTO Members. If the successful challenge of the application of a measure does not impugn the whole measure (because there may be other ways to apply that measure consistent with that Member's obligations), where a measure as such violates the WTO Agreement, each and every application of that measure is by definition also a violation. If one were to follow the United States' logic, Canada argues, a complaining party seeking appropriate retaliation rights would have to challenge a law each and every time it is applied, which could only be done after the damage has been done. Any application of the measure not addressed in the challenge would be unaffected by the DSB recommendations and rulings. This would make the prompt settlement of disputes impossible.[71]

(b) Analysis of the Arbitrator

3.57 First, we recall that the requesting parties have not identified nullification or impairment beyond that resulting from the instances of application of the CDSOA.

3.58 Second, we note that the United States raised two separate questions regarding this issue: one is whether disbursements already made under the CDSOA can be considered by the Arbitrator, the other one is whether future disbursements may be considered.

3.59 At this stage, the question before us is whether we may take into account the economic or trade effects resulting from the instances of application of the CDSOA, given the United States claim that the CDSOA was challenged as such, and, had not been applied when it was first challenged.

3.60 We agree with the United States that the DSB never issued recommendations or rulings with respect to the application of the CDSOA. We also note the arguments of the requesting parties that once a measure has been found illegal, any instance of application of this measure is *ipso facto* illegal.

3.61 We take the view that the CDSOA *mandates* disbursements whenever certain conditions are met; that these disbursements have been found by the Panel and the Appellate Body to be a core element in their conclusion that the CDSOA violates the WTO Agreement[72], and that there is no reason, *for the purpose of assessing nullification or impairment*, to exclude instances of the application of the CDSOA from our consideration.

3.62 This approach is in line with the practice of other arbitrators. For instance, the arbitrator in *US – 1916 Act (EC) (Article 22.6 – US)* considered that instances of application could be taken into account in assessing nullification or impairment by a law as such.[73]

3.63 We also recall that, in reply to one of our questions[74], the United States referred to two cases, *US – Section 110(5) Copyright Act (Article 25.3)* and *EC – Hormones (US) (Article 22.6 – EC).* In

[70] United States oral statement, paras. 39-40.
[71] Canada's written submission, paras. 42-46.
[72] See Panel Report, paras. 7.35-7.39 and 8.1; Appellate Body Report, para. 256.
[73] *US – 1916 Act (EC) (Article 22.6 – US)*, para. 7.8.
[74] Reply of the United States of 28 April 2004 (paras. 11 and 12) to question 12 of the Arbitrator of 21 April 2004, which reads as follows:

"Considering its reasoning in paragraphs 15 to 19 of its written submission and more generally its position on nullification or impairment, could the United States give an example of a situation where a law *as such* would cause more than "zero" nullification or impairment?"

those two cases, a law had been challenged as such. Nevertheless, the arbitrators determined the level of nullification or impairment on the basis of an analysis of lost royalties in the first case and lost trade in the second case.

3.64 We fail to see any meaningful difference between the *US – Section 110(5) Copyright Act (Article 25.3)*, the *EC – Hormones (US) (Article 22.6 – EC)* arbitrations and this arbitration. In these two cases, the arbitrators relied, for all practical purposes, on the economic result of the *application* of the law. In this case, Canada requests us to rely on disbursements made under the CDSOA to assess the level of nullification or impairment it suffered. The only difference which may exist is that, under the CDSOA, the United States' authorities are expected to implement the law through the application of a number of administrative steps. The United States seems to claim that, as a result, these are "measures" separate from the CDSOA on which no finding was ever made. The difference, in our view, is a matter of degree, not of nature.

3.65 As a result, we conclude that we are entitled, for the purpose of assessing the trade effect and, thus, the level of nullification caused by the CDSOA to Canada, to take into account instances of application of the CDSOA.

3.66 The second question raised by the United States is addressed in Section IV.B.3 below.

4. Approach to be followed by the Arbitrator in this case

3.67 Given our conclusion that the approach advocated by Canada is not compatible with Article XXIII of GATT 1994 and Article 22 of the DSU, and consistent with past arbitrations, it falls to us to determine the approach we consider to be compatible.

3.68 We do not agree with the United States that nullification or impairment is to be limited in all instances to the direct trade loss resulting from the violation. We agree with the Requesting Parties that the terms "trade effect" are found neither in Article XXIII of GATT 1994, nor in Article 22 of the DSU. Previous arbitrators' decisions based on direct trade impact are not binding precedents.

3.69 However, as already mentioned, the "trade effect" approach has been regularly applied in other Article 22.6 arbitrations and seems to be generally accepted by Members as *a* correct application of Article 22 of the DSU.

3.70 On that basis, we conclude that we should apply an approach based on determining the trade effect, on the Requesting Parties, of the violation by the United States of its WTO obligations through the application of the CDSOA. Indeed, while the Requesting Parties contest the view of the United States that nullification or impairment may only be assessed in relation to the trade effect of the challenged measure and the conclusion that the actual trade effect of the CDSOA is "zero", they have not convincingly argued that *an approach* based on the trade effect of the CDSOA could not be applicable in this case.

3.71 In selecting the methodology to be applied in determining the level of nullification or impairment suffered by Canada in this case, we noted the importance attached by the Requesting Parties to the view that suspension of concessions or other obligations is intended to induce compliance, and the view of the Requesting Parties that this purpose should guide our determinations under Article 22.7 of the DSU.

3.72 The concept of "inducing compliance" was first raised in the *EC – Bananas III (US) (Article 22.6 – EC)*[75] arbitration and has been referred to since in other arbitrations. However, it is not

[75] *EC – Bananas III (US) (Article 22.6 – US)*, para. 6.3.

expressly referred to in any part of the DSU and we are not persuaded that the object and purpose of the DSU – or of the WTO Agreement – would support an approach where the purpose of suspension of concessions or other obligations pursuant to Article 22 would be exclusively to induce compliance. Having regard to Articles 3.7 and 22.1 and 22.2 of the DSU as part of the context of Articles 22.4 and 22.7, we cannot exclude that inducing compliance is part of the objectives behind suspension of concessions or other obligations, but at most it can be only one of a number of purposes in authorizing the suspension of concessions or other obligations. By relying on "inducing compliance" as the benchmark for the selection of the most appropriate approach we also run the risk of losing sight of the requirement of Article 22.4 that the level of suspension be *equivalent* to the level of nullification or impairment.

3.73 Moreover, we note from past arbitrations that, in all instances, arbitrators have quantified or valued the benefit nullified or impaired. In the present case, both parties have also attempted to quantify the level of nullification or impairment. Such quantification or valuation exercises show, in our view, that even though each party relies on a radically different legal approach, the economic rationales underlying these approaches seem to be very close. We consider that, beyond the legal argumentation of the Requesting Parties, their choice of the total disbursement made under the CDSOA is ultimately a benchmark, which they expect to yield a higher level of nullification or impairment than the more "classical" benchmark based on lost trade. All the more so as the United States has taken the view that the level of nullification or impairment caused by the CDSOA was in fact "zero" in terms of direct trade loss. As we see it, the Requesting Parties in effect use the amount of disbursements under the CDSOA as simply a proxy for the conduct of an economic analysis of the impact of the CDSOA disbursements on their exports or, more generally, on the competitive situation of the businesses concerned. Under those circumstances, we believe that our decision to rely on the trade effect resulting from the violation to determine the level of nullification or impairment does not, in economic terms, significantly depart from the rationale of the Requesting Parties' approach.

3.74 We are also mindful that other arbitrators have taken a prudent approach by avoiding claims that were "too remote", "too speculative" or "not meaningfully quantified".[76] We recall that parties have also cautioned us against the risk of relying on overly speculative data.[77]

3.75 For this reason, we considered it inappropriate to try to apply a counterfactual based on a relatively simple equation and simple parameters, as in *EC – Hormones (US) (Article 22.6 – EC)*, *EC – Hormones (Canada) (Article 22.6 – EC)* or *EC – Bananas III (US) (Article 22.6 – EC)*. Rather, given the number of factors potentially influencing the eventual trade effect of the CDSOA disbursements, it would be more appropriate to identify and apply an economic model reflecting those factors and allowing us, on the basis of a clearly identifiable amount – the disbursements made under the CDSOA – to assess the extent to which those payments could nullify or impair benefits accruing to the Requesting Parties.

3.76 To this end, we requested the parties to submit data and relevant economic literature so as to assess the feasibility of an economic model that would measure the extent to which disbursements under the CDSOA affect exports from the Requesting Parties to the United States.[78] On the basis of the elements available, we concluded that such a model was feasible and produced more credible results than if we applied the total disbursement as a proxy for the level of nullification or impairment. Indeed, while the model we have chosen to apply is based on a number of assumptions, we also note that the evidence before us does not demonstrate that using the total disbursement as a proxy for the

[76] See, e.g., *EC – Hormones (US) (Article 22.6 – EC)*, para. 77; *US – 1916 Act (EC) (Article 22.6 – US)*, paras. 5.54 -5.57.

[77] See, e.g. United States written submission, para. 40, Canada's written submission, para. 50.

[78] See paras. 3.126-3.127 below.

level of nullification or impairment would produce a more credible result. Our analysis is described in Section III.C; below.

3.77 We recognize that, in relying on an economic model in this arbitration, we may be breaking new grounds. This impression may be correct to the extent that we base our determinations on the results of this model. However, we note that economic modelling has already been applied in the *US – FSC (Article 22.6 – US)* arbitration. We are also mindful that applying economic models in arbitrations under Article 22.6 of the DSU may make such proceedings more complex and costlier. We acknowledge that economic analysis requires expertise that may not be readily available to all WTO Members. We do not believe, however, that this should be a reason to deprive ourselves of a means to reach a credible result through a transparent process in complex cases such as this one. Rather, we see the option of using economic models in Article 22.6 arbitrations as creating an opportunity to ensure full cooperation from the parties and, hence, more precise and credible results where the alternative may be to choose between simplistic and perhaps irreconcilable approaches.

C. CALCULATION OF THE LEVEL OF NULLIFICATION OR IMPAIRMENT THROUGH AN ECONOMIC MODEL

1. Introduction

3.78 As mentioned above, we consider that an appropriate way to assess the trade effect of a law operating, in economic terms, like a domestic subsidy[79] was to endeavour to establish an economic model. This model, when applied to the facts of this case, would identify a coefficient which, when multiplied by the amount of disbursements over a given period, would produce a figure corresponding to a trade effect which could reasonably be deemed to correspond to the level of nullification or impairment for that period.

3.79 We also noted that when establishing an economic model, we would need to address a number of arguments made by the United States in relation, *inter alia*, to the calculation proposed by the Requesting Parties: its own view that the level of nullification or impairment would, in fact, be "zero"; the combined effect of offset payments and an anti-dumping or countervailing duty order; and the effect of CDSOA payments vis-à-vis the United States or foreign competitors not subject to anti-dumping or countervailing duties.[80] These arguments are addressed in the relevant parts of this section in relation to the determination of the amount of disbursements to be used in the application of the model, together with the United States' arguments regarding the fact that the figures published by the United States' authorities may either not be accurate or not definitive.[81]

2. Review of the approaches of the parties regarding economic models

(a) United States

3.80 The United States originally took the view that the trade effect of the CDSOA disbursements can be estimated to be zero.[82] This position is grounded in the view that benefiting firms would not

[79] We are mindful of the United States views that the CDSOA is a subsidy not found to cause any adverse trade effect (United States written submission, paras. 62-65). We nonetheless note that the United States does not object to a model which would rely on the price effect of CDSOA disbursements (see, e.g., Exhibit US-18, p. 2).

[80] See United States written submission, para. 52.

[81] See United States written submission, paras. 13, 14, 26 and 27.

[82] The Arbitrator asked the United States to submit a model that would justify its claim that nullification and impairment is "zero". The United States did not submit a model in response to this question, but outlined the basic parameters of the Armington model, which was submitted at a later stage in the proceedings. Instead, the United States argued that a formal model was not required, since in its view the facts

expend the CDSOA disbursements to enhance their commercial position. Instead, the funds would be used elsewhere. The United States did not disagree that modelling was appropriate in this case, but because the input to the model would be zero, the output, or conclusion about trade effects would also necessarily be zero.[83] The United States added that even if the firms concerned did use the funds to enhance their competitive position, there would be a *de minimis* effect on output and hence on trade. In other words, the United States considered that the pass-through effect of the government transfers, i.e. the *ad valorem* effect of the transfers on the recipients' prices, would be zero or close to zero.

3.81 However, the United States ultimately acknowledged that modelling could actually be done with some precision and volunteered a possible model.[84]

3.82 The model proposed by the United States adopts a disaggregated approach to estimating trade effects. Instead of treating the United States' economy as a whole and estimating a single trade effect number, it estimates the trade effect at the product level for each importer. These individual values are then summed to obtain the total trade effect. The model proposed by the United States also divides the countries in the world into three groups: the United States, WTO Members affected by the CDSOA disbursements and other exporters to the United States, thereby isolating the effects of the CDSOA payments only on the WTO Members subject to active anti-dumping or countervailing duty orders. The inputs required to run the model include:[85]

- A current market value share for each source of the products;
- An *ad valorem* measure of the CDSOA distribution that actually affected production;
- An estimate of the elasticity of substitutability as between products produced in the United States and imports (the elasticity of substitution);
- An estimate of the price sensitivity of supply for each product (the elasticity of the United States' supply, complaining party import supply, and rest-of-the-world import supply); and
- An estimate of the market demand elasticity.

3.83 Estimates of the supply, demand and substitution elasticities were taken from various US International Trade Commission reports. Supply elasticities for WTO Members with dumped or subsidized exports into the United States were arbitrarily set at 100 to reflect that they would not be able to adjust the price of their product downwards.[86] Trade and production data for the model is sourced from the Bureau of the Census, US Department of Commerce, and USITC investigations.[87]

3.84 The output of the model for each WTO Member affected by the CDSOA payments and each industry is as follows:[88]

- "An estimate of the decrease in US domestic shipments"; and

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are such that the CDSOA payments would not result in any increase in production. (United States replies to the Arbitrator's questions of 21 April 2004, paras. 16-26).

[83] United States replies to the Arbitrator's questions of 21 April 2004, para. 26.

[84] In commenting on the view of the Requesting Parties that modelling would be "complex and burdensome" and Chile's comment that modelling would be "tedious", the United States stated that:

"The fact that an exercise is complex, tedious, or even burdensome does not mean it can be dispensed with."

Comments of the United States of 4 May 2004 on answers of the Requesting Parties to the questions of the Arbitrator, para. 3.

[85] Exhibit US-18.

[86] Exhibit US-18.

[87] Exhibit US-18

[88] Exhibit US-18.

- "An estimate of changes in foreign trade partner exports to the United States, specifically breaking out the gain to the individual complaining party, the exemption of whose duty payments from CDSOA served as the basis for the particular counter factual estimation."

3.85 While the model is straightforward and based on the standard literature in applied international economics, implementation of the model by the United States in this case was not. The United States made a number of assumptions, which in its view were specific to the current case. These assumptions affect the input of the model, the values of the elasticities and the treatment of unavailable data.

3.86 These are:

- ignoring cases that do not exceed the *de minimis* threshold advocated by the United States in this arbitration;
- making certain assumptions about which payments affect production;
- making certain assumptions about the pass-through effect of payments.

3.87 The United States considers that only those payments that are above a *de minimis* level should be analysed. Citing Article 6.1(a) of the SCM Agreement and Article 6.4(a) of the Agreement on Agriculture, the United States argues that a 5 per cent *de minimis* threshold is appropriate.[89] In implementing the model, however, the United States assumes a 1 per cent *de minimis* level.

3.88 The United States also deducts certain payments, which it assumed did not affect production.[90]

3.89 The United States further deducts payments made in respect of products for which the anti-dumping or countervailing duty was revoked on the ground that the "nullification or impairment should be measured in terms of the effect the CDSOA has on producers/exporters subject to antidumping or countervailing duty orders".[91] This point is further clarified in the United States' statement that "a Member cannot suffer nullification or impairment as a result of a non-permissible specific action against dumping (or against a subsidy) if no order is in place and no duties can be collected on that Member's products."[92]

3.90 Only once the industries that meet the United States' definition of *de minimis* are identified and the various deductions are calculated does the United States apply its assumption of the proportion of disbursements that affect production. Its initial argument is that the pass-through figure should be "zero", which implies that none of the CDSOA disbursements would have an affect on trade. The United States provides four reasons for this assumption:

- the disbursements are untied, hence there is no requirement to expand production with these payments[93];
- there is no link between "qualifying expenditures" under the CDSOA and the expansion of production;
- the unpredictability of the disbursements makes it difficult for beneficiary firms to rely on the expenditures in a commercially meaningful way;

[89] United States replies to the Arbitrator's second set of questions, para. 27.

[90] Citing the example of a company called Torrington, which was sold to another company (Timken) without the payments, the United States argues that these payments should be deducted, since they do not affect production.

[91] United States replies to the Arbitrator's second set of questions, para. 23.

[92] United States replies to the Arbitrator's second set of questions, para. 24.

[93] United States replies to the Arbitrator's second set of questions, paras. 5-7.

- offset payments reflect a small fraction of production, hence they cannot have a discernable impact on trade.

3.91 However, in response to the Arbitrator's query on the validity of a zero pass-through value, the United States indicated that a pass-through level of 25 per cent would be "reasonable".[94] It qualified this response by indicating that the economic literature did not point towards any specific value. However, the United States cited a value of 75 per cent for a United States policy contingent on export (the Domestic International Sales Corporation programme), which was reported in an academic study.[95] The United States also cites a study that concludes that 60 per cent of an investment tax incentive was received by the recipients.[96]

3.92 The results of the United States' model as applied according to its assumptions are outlined in Table 1.

(b) Requesting Parties

3.93 The original position of the Requesting Parties was that modelling need not be considered by the Arbitrator to determine the award. Instead, they argued that the value of the CDSOA disbursements was a proxy for the minimum level of nullification or impairment caused by the measure found to be illegal. The position of the Requesting Parties is that the level of nullification or impairment can be quantified on the basis of the value of the CDSOA payments; since their view is that economic modelling of the trade effects in this case would be too difficult.[97]

3.94 However, in response to a question posed by the Arbitrator regarding whether or not a model for estimating the trade effects that meets their criteria exists, the Requesting Parties submitted such a model. Their model is based on the level of CDSOA payments, a gross measure of the elasticity of substitution between domestic and imported products and the ratio of US manufacturing imports to domestic shipments of US manufacturing industries.

[94] United States replies to the Arbitrator's second set of questions, para. 13.
[95] United States replies to the Arbitrator's second set of questions, para. 11.
[96] United States replies to the Arbitrator's second set of questions, para. 12.
[97] According to the Requesting Parties, "specific quantification of the trade effects of the CDSOA would be an extremely complex and burdensome exercise. It would involve taking into account every payment to every US producer, in respect of every product, now and in the future".

Table 1: Estimated Level of Nullification or Impairment Revised Pursuant to the Model Proposed by the United States

Country	2001			2002			2003		
	Model results	No production data adjustments	Total nullification and impairment	Model results	No production data adjustments	Total nullification and impairment	Model results	No production data adjustments	Total nullification and impairment
Brazil	$0	$7	$7	$176,783	$0	$176,783	$124,264	$0	$124,264
Canada	$342,357	$0	$342,357	$0	$0	$0	$0	$0	$0
Chile	$0	$0	$0	$0	$0	$0	$0	$0	$0
EC	$651,736	$147,474	$799,210	$154,538	$80,620	$235,158	$119,810	$102,176	$221,986
India	$0	$336	$336	$85,584	$1,083	$86,667	$46,537	$935	$47,472
Japan	$1,149,255	$23,442	$1,172,697	$1,061,395	$39,144	$1,100,539	$1,036,507	$46,484	$1,082,991
Korea	$130,631	$6,684	$137,315	$52,041	$41,121	$93,162	$65,329	$31,461	$96,790
Mexico	$0	$0	$0	$0	$0	$0	$0	$203	$203
Total	$2,273,979	$177,943	$2,451,922	$1,530,341	$161,968	$1,692,309	$1,392,447	$181,259	$1,573,706

Source: United States

3.95 The formal specification of the model proposed by the Requesting Parties, as submitted to the Arbitrator, is:[98]

$$\text{Reduction in imports} = \left(\frac{\Delta M / M}{\Delta P_q / \Delta P_q} \right) * \left(\Delta P_q * Q \right) * \left(\frac{P_m M}{P_q Q} \right) \qquad (1)$$

where,
M = volume of imports
ΔM = change in the volume of imports
P_m = the price of imports
Q = the volume of domestic shipments
P_q = the price of domestic goods
ΔP_q = change in the price of domestic goods

3.96 The Requesting Parties further simplify this expression by reducing it to the following three components:

- the elasticity of substitution (η), which is the first term and can be expressed as:

$$h = \left(\frac{\Delta M / M}{\Delta P_q / \Delta P_q} \right) \qquad (2)$$

- the total value of the payments expressed as a margin of the price reduction on domestic production financed by payments (S), the second term in the equation and can be expressed as: $S = \Delta P_q * Q$ (3)

- the ratio of the value of imports to the value of domestic shipments in the markets in question: (R), the third term in the equation and can be expressed as $R = \left(\frac{P_m M}{P_q Q} \right)$ (4)

3.97 Taken together, the model of the Requesting Parties as expressed by equation (1) can be presented as the product of the above three variables (equations (2)-(4)).

$$\text{Reduction in imports} = h * S * R \qquad (5)$$

3.98 The Requesting Parties operationalize their model for the year 2002 with data from public sources. For the elasticity of substitution, they adopt the highest elasticity in the classification of sectors used by the Global Trade Analysis Project of 5.2.[99] They argue that this is appropriate since "the kinds of products that are typically subject to anti-dumping and countervailing duties tend to be

[98] Box 1 of the joint replies of the Requesting Parties to the questions of the Arbitrator, dated 28 April 2004.
[99] See joint replies of the Requesting Parties to the questions of the Arbitrator of 21 April 2004, para. 36.

commodities and commoditised manufactured goods that compete under conditions much closer to perfect competition".[100] They further argue that:

> "elasticities of substitution specific to the products benefiting from the CDSOA payments would be higher than the aggregated average GTAP or NAIC data because CDSOA disbursements typically relate to commodities and commoditised manufactured products, for which preference of buyers is largely determined by price. Moreover, it is generally acknowledged in the economic literature that the more disaggregate the sample the higher the estimated substitution elasticity. Therefore the Requesting Parties consider that an elasticity drawn from the upper end of the GTAP range (5.2) is justified as typical degree of price sensitivity".[101]

3.99 In addition to the homogeneity of products as implied by the assumption of commoditized manufactured products, the Requesting Parties submit that elasticity values should be taken from long-run estimates and not short-run estimates. They note that these estimates are "on average, twice as large as short-run elasticities".[102]

3.100 Data on domestic shipments are sourced from public sources. The Requesting Parties estimate that in the year 2002 the ratio of imports to domestic production was 0.295.

3.101 Using total payments for 2002 of US$329 million, the Requesting Parties, therefore, conclude that the total trade effect of the CDSOA programme is US$505 million. In simple terms, they conclude that for the year 2002 the trade effect coefficient would be 1.54 times the level of disbursements. At this point we should note that this coefficient is independent of the value of disbursements. It depends only on the assumed value of the elasticity of substitution and the import penetration ratio. Changes in either one of these values will change the overall value of the coefficient.

3.102 We also recall that, in commenting on the model submitted by the Requesting Parties, the United States observed that the Requesting Parties include the amount of all CDSOA offset payments. This is equivalent to assuming that every CDSOA dollar disbursed by the United States under the CDSOA would be put towards reducing the price of domestic products (i.e. pass-through effect). The United States also notes that an aggregate measure of import penetration is used as opposed to a measure specific to those industries where there is an incidence of CDSOA payments. In addition to these criticisms, the United States notes that the Requesting Parties used the highest elasticity value available.

3. Analysis of the Arbitrator

(a) Comparison of the models

3.103 We note at the outset that the modelling approaches of the parties differ in terms of their level of aggregation and also in terms of their specification.

3.104 The model proposed by the Requesting Parties is aggregated and contains two terms in addition to the level of disbursements. Certain known elements of the CDSOA programme are not

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[100] Ibid.

[101] Joint replies of the Requesting Parties to the second set of questions from the Arbitrator, 7 June 2004, para. 6.

[102] Comments of the Requesting Parties on the replies of the United States to the second set of questions from the Arbitrator, page 14.

taken into account, such as the industry distribution of the payments and the fact that one variable in their computation, the import penetration ratio, can vary significantly across industries.

3.105 We also note that the Requesting Parties have not explained the basis on which they chose the highest value for the elasticity of substitution.

3.106 The model proposed by the United States, while qualitatively similar to that of the Requesting Parties, is slightly more sophisticated. The effect of a CDSOA disbursement depends upon a number of parameters beyond the elasticity of substitution between domestic and imported products. In particular, the response of domestic and foreign firms to any change in the domestic price plays a role in determining the overall trade effect.

3.107 The level of sophistication and the heavy data requirements of this model prevented the United States from applying it at the desired level of detail. We note that of the 66 country-product-year data points, the United States applied its model to 21 such points.[103] This indicates, roughly, that estimation of the CDSOA disbursements could only be done for around a third of the cases. The rest of the cases would require the use of proxy data. In our view, such a heavy reliance on proxy data would cast doubt on the reliability of that model. Furthermore, it would seem to us that the use of proxy data is open to the same criticisms as those made by the United States with respect to the Requesting Parties' model in terms of its degree of aggregation.

3.108 Despite the differences between the parties as to the appropriate model to be used, the two models submitted have qualitatively similar characteristics. Both multiply an assumed level of disbursements by a factor, or coefficient, to arrive at the total trade effect. In the case of the Requesting Parties, this factor is 1.54. In the case of the United States, this factor would appear to be on a product and importer basis for each year as illustrated in Table 2. The range of coefficients as estimated by the United States for the seven products for which they have data is 0.27 to 1.41.

3.109 Table 2 illustrates that, with product-specific data, the aggregate trade effect coefficient could exceed 1. At the same time, it also highlights the different effects that one could obtain at different levels of disaggregation.

[103] An estimate for a given product, in a given year for a given exporter is considered to be one observation. There are considerably more periods of observations, however, the United States chose not to submit the data for those observations that did not meet its assumption of *de minimis* effect.

Table 2: Aggregate Trade Effect Coefficient for Products Estimated by the United States

Product	Exporter	Year	Aggregate trade effect coefficient
Alloy magnesium	Canada	2001	1.24
Ball bearings	EC, Japan	2001	0.77
Ball bearings	EC, Japan	2002	0.74
Ball bearings	EC, Japan	2003	0.70
Pasta	EC, Japan	2001	0.27
Preserved mushrooms	India	2002	0.82
Preserved mushrooms	India	2003	0.86
Silicon metal	Brazil	2002	1.24
Silicon metal	Brazil	2003	1.24
Stainless steel butt-welded pipe fittings	EC, Japan, Republic of Korea	2002	0.67
Stainless steel butt-welded pipe fittings	EC, Japan, Republic of Korea	2003	0.91
Top of the stove stainless steel cookware	Republic of Korea	2001	1.39
Top of the stove stainless steel cookware	Republic of Korea	2002	1.40
Top of the stove stainless steel cookware	Republic of Korea	2003	1.41

Source: Estimated using data supplied by the United States. The coefficient is calculated for each product, exporter and year by dividing the estimated total reduction in trade by the value of the disbursement. The numerator is the sum of the loss in imports of exporters under active orders and those not under active orders.

3.110 In reviewing the model proposed by the United States, we note that in fact the coefficient is specific to each industry and is independent of the level of the disbursement. Hence, for the ball-bearing industry the *aggregate* trade effects for the European Communities and Japan are identical (Table 2). The absolute amount of the trade effect varies according to their share of exports to the United States in the ball-bearing industry.

3.111 Thus, the differences in modelling have more to do with differences in the assumptions about the values of the elasticities and the pass-through values used rather than with the model itself, or the level of aggregation. For example, as illustrated by the Requesting Parties, a *ceteris paribus* doubling of the elasticity of substitution can have a substantive impact on the overall trade effect. Similarly, an assumption that only 50 per cent of a given CDSOA disbursement will have an impact on output, will necessarily reduce any estimate of the trade effect by 50 per cent.

(b) Choosing an appropriate model

3.112 The previous sections presented the approaches to economic modelling submitted by the parties and a number of shortcomings we identified with both approaches. In general, we considered the approach of the Requesting Parties to be too aggregated, hence not specific enough to this case. While the model specification proposed by the United States is disaggregated and well specified, we concluded that there is insufficient data to run that model with any degree of accuracy.

3.113 Our preference would have been to employ a model endorsed by all parties, and we gave ample opportunity to the parties to try and find common ground on this question. Failing this, our preference would have been for the disaggregated model proposed by the United States. However, as mentioned above, the United States failed to provide sufficient data to employ such a model, despite it being in the United States' interest to do so. Moreover, the United States decided to apply a *de minimis* threshold for assessed trade impacts. The result was that the United States' model could not be implemented independently. This left us with the option of either accepting or rejecting the

United States' model in its entirety. Our decision is to reject the United States' model in favour of a modified version of the model proposed by the Requesting Parties.

3.114 We have two principal reasons for taking this decision. The first is the lack of available data to implement the United States' model. As we have noted before, relevant data was available for only a third of the samples proposed by the United States and the United States did not provide any indication as to whether or not additional data would be made available. Our second reason is that the only objections the United States had about the Requesting Parties' model concerned the value of the parameters used in the model and the level of aggregation. We agree with the Requesting Parties in their assessment of the United States' view on their submitted model that the United States "does not critique the economic theory supporting the model, but argues that the parameter values used in the model are inappropriate".[104] This implies that if due account is taken of the legitimate concern of both sides regarding the variance in the values of the parameters, then the model of the Requesting Parties could be used to estimate the trade effect of the measure in question.

3.115 A basic economic model to derive a coefficient for the trade effects of disbursements operating as subsidies can be described as the product of four variables: the value of the subsidy, a measure of the *ad valorem* price reduction caused by the CDSOA disbursements (i.e., "pass-through"), a substitution elasticity of imports, and import penetration. The basic relationship of the trade effect can be expressed as follows:

Trade effect = (value of disbursements)*[(pass-through)* (import penetration)*(elasticity of substitution)]

3.116 The term in the square brackets can be defined as a trade effect coefficient. For a given expenditure of CDSOA disbursements that is deemed to affect trade, the product of that expenditure and the coefficient provides the overall trade effect.

3.117 The above expression is identical to the model proposed by the Requesting Parties as presented in equation (5).[105] It differs only in the addition of a separate multiplicative term to reflect the pass-through effect of the disbursements on production. In the Requesting Parties' model, this term was implicitly assigned a value of one. It can be rewritten as:

$$\text{Reduction in imports} = a * h * S * R \qquad (6)$$

Where, α, is a parameter which reflect the value of the pass through effect of the disbursement.

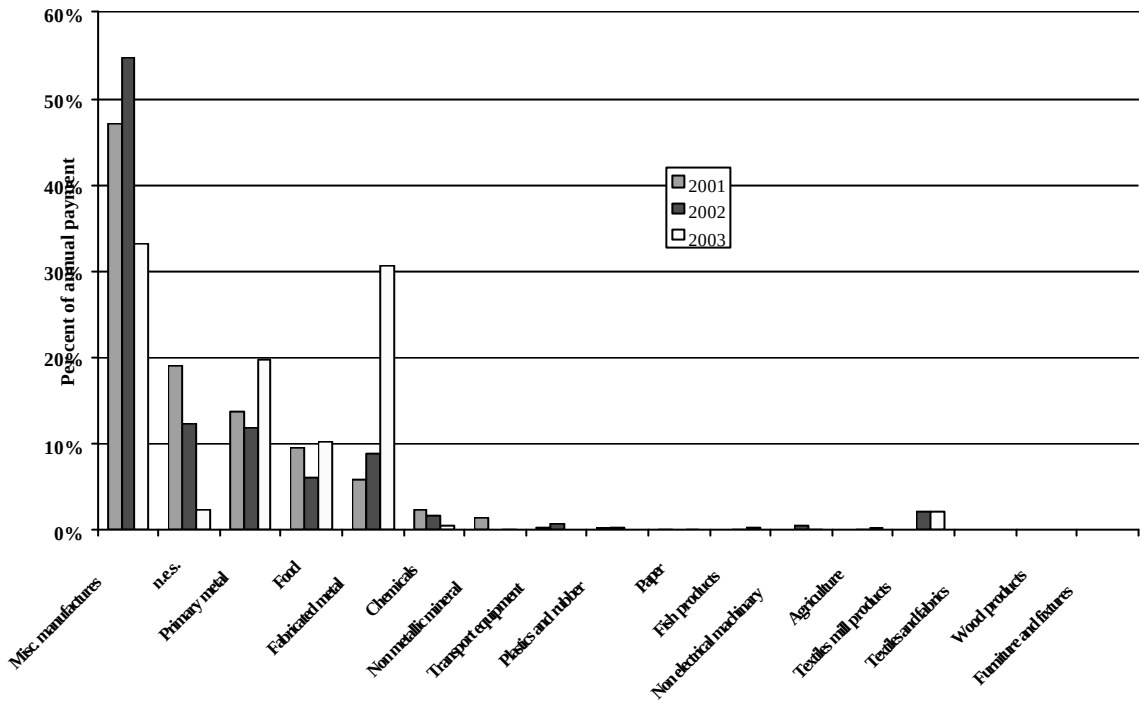
3.118 As noted earlier and as pointed out by the United States, the model as specified in equation (5) and the variant as specified in equation (6) is too aggregated to take into account some of the specific aspects of the CDSOA scheme. Chart 1 illustrates how the payments vary across industries at the 3-digit level of the North American Industry Classification. The issue more generally is that while the CDSOA programme is technically open to any sector, and hence potentially has economy-wide effects, in practice the use of the programme, and hence the disbursements, are quite concentrated. While 67 per cent of the CDSOA disbursements in 2002 have been identified by the United States as either being miscellaneous manufacturing or non-classifiable, in fact a review of the specific recipient industries identified allows a more precise breakout. In particular, the majority of the disbursements to "miscellaneous manufacturing" went to producers of ball and roller bearings, and the majority of the disbursements identified by the United States as "non-classifiable" went to

[104] Requesting Parties comments of 14 June 2004 on the United States replies to the second set of questions of the Arbitrator, para. 21.

[105] See Box 1 of the joint replies of the Requesting Parties to questions from the Arbitrator, dated 28 April 2004.

companies in the electronics, machinery and primary and fabricated metals industries. In addition, the United States identifies a further 21 per cent of 2002 disbursements as going to the primary and fabricated metal industries. The comparable figures for 2001 are 66 per cent for "miscellaneous manufacturing and not elsewhere specified" (with a similar distribution to that in 2002) and 20 per cent classified as primary and fabricated metal. Chart 1 also highlights the fact that the inter-industry distribution of payments can also vary over time.

Chart 1: Distribution of CDSOA Disbursements by 3-Digit North American Industry Classification, 2001-2003



3.119 We account for the industry distribution variation of the CDSOA payments by calculating the trade effects at the industry level and then aggregating the result. This approach is broadly similar to the approach of the United States, which is to calculate the trade effects at the detailed product level. Even though this approach is a practical way to proceed, we did not use the United States approach due to some shortcomings in the implementation of the model. The United States identified only 18 product categories out of 71 that met their criteria for a *de minimis* trade effect. Of these 18 categories, complete data was available for only 7 of the categories. In essence, the United States made assumptions in addition to those required to model the trade effects in order to arrive at a result.

3.120 While it may be that, had the United States modelled all 71 industries by not introducing the *de minimis* threshold, a more reliable estimate could have been put forward, we are not, however, convinced by that argument. When the 18 categories analysed by the United States are multiplied by the relevant year and the relevant requesting party, we obtain 66 country-year-product data points that are analysed. Of these 66, complete data to run the fully specified model proposed by the United States was available for only 21 points. This implies that the United States fully specified model could only be used for a third of the overall cases that needed to be estimated.

3.121 The approach we are adopting, while disaggregated compared to the Requesting Parties' approach, but aggregated when compared to the United States' approach, has less intensive data

requirements. Instead of using the detailed product level data, we adopt the 3-digit North American Industry Classification for our model. Therefore, each of the parameters of the model requires data at that level and both parties were able to submit all the data necessary to run the model. The trade effect expression is, therefore, applied at each industry level for each year to estimate the trade effect of each industry. The sum of these trade effects is then divided by the total annual disbursements for the year to arrive at a trade effect coefficient for that year. This coefficient, by definition, is a weighted average of the CDSOA payments.

3.122 We have also taken into account the reservations of the United States in adopting this approach. The United States underlines four reservations towards this approach: (i) the total payments should not be used; (ii) the total price reduction should not be equivalent to the size of the payments; (iii) industry-specific data should be used; and (iv) greater care should be taken in choosing appropriate elasticity values instead of arbitrarily choosing the highest value. The manner in which these are taken into account is explained later in this section. At this point, we wish simply to recall that the United States' reservations are with how the model is implemented, not with the specification of the model *per se*.

3.123 Our approach is not immune from data difficulties. We are in agreement with the views of the arbitrators in *US – FSC (Article 22.6 – US)* regarding the reliability of economic modelling when they stated that they were "mindful that the task of evaluating the trade effects of the scheme cannot be accomplished with mathematical precision".[106] Their statement reflects the fact that there can be a genuine debate about an appropriate model to be adopted and about the various assumptions required to implement any particular model. We are also in agreement with them when they state that "economic science does allow us to consider a range of possible trade effects with a certain degree of confidence".[107] We would like to make it clear that we also share the reservations expressed by the parties to this arbitration about the degree of precision that may be attached to the results of economic modelling. The next section addresses some of these concerns and also presents the various parameters that we must consider.

3.124 However, before moving on, we would like to reiterate that, as Arbitrator, we have been obliged to accept the intrinsic difficulties attached to the use of an economic model. However, such difficulties should not be confused with those resulting from the failure of the parties to supply data, where those parties are generally the source of the relevant information. While the first type of difficulty (the intrinsic difficulties attached to the use of an economic model) is one of the elements arbitrators must consider in deciding whether to apply an economic model, the second type of difficulty (that resulting from the failure of the parties to supply data) should not be part of that consideration. We therefore remain convinced that it is appropriate to rely on the information available when the arbitrator is of the view that an economic model would be the most effective way of calculating the level of nullification or impairment and one or more parties do not fully cooperate with the arbitrator in providing data and do not submit convincing reasons for not doing so. In other words, we consider that we are expected to produce, at a minimum, an outcome which is robust in a lowest common denominator sense, but which is nonetheless, in our opinion, a fair measure of the level of nullification or impairment.

4. Data issues

(a) Introduction

3.125 A complete explanation of the approach we have adopted is appended as Annex B. This section addresses the data issues related to economic modelling in this case. It discusses the value of

[106] *US – FSC (Article 22.6 – US)*, para. 6.49.
[107] Ibid.

the payments, the pass-through effect and the elasticity of substitution. It does not discuss import penetration, since there is only one source for this data, the United States' Government. We therefore used the figures provided by the United States regarding import penetration.

3.126 Another issue that needs to be addressed in advance of parameterizing the model is the relevant market to be examined. The Requesting Parties claim that the CDSOA disbursements have an impact on their exports to the United States and also their exports to other markets.[108] Hence, in their view, any analysis of trade effects should take into account the trade effects on the world market.

3.127 We consider that neither the approach advocated by the Requesting Parties, nor the model they proposed would allow us to assess the trade impact of CDSOA disbursements on markets outside the United States. In our opinion, any quantification of this effect would have to heavily rely on speculations and we recall that parties agree that we should not address effects that are too remote or speculative. We are also of the view that, having regard to the nature of the measure at issue, the trade effect of any disbursement to US companies that have supported an anti-dumping or countervailing duty investigation against imports into the United States is more likely to be on the US market than abroad. We therefore limit our analysis to the imports into the United States that are displaced as a result of CDSOA disbursements.

(b) Value of payments

3.128 The Requesting Parties have claimed that, when modelling the trade effects of the disbursements, the total value of all disbursements should be used. In contrast, the United States claims that certain deductions must be applied prior to determining the relevant value of disbursements for modelling purposes.

3.129 In our view, a decision on this issue is not required for modelling purposes. The reason for this is based on the difference between the absolute trade effect and the relative trade effect of a CDSOA disbursement. Unquestionably, a higher value of disbursements used to model the trade effect will yield a higher absolute trade effect value. However, the model we propose is based on the concept of a trade effect coefficient (square brackets in our expression),[109] which is independent of the value of the disbursement.

3.130 In fact, the model proposed by the United States, the so called Armington model, has a similar characteristic. As noted above, the United States has only furnished the Arbitrator with a fully specified model for seven product categories. However, in cases where the model is applied in the same industry to different WTO Members, the relative trade effect is always identical. Only the absolute trade effect varies. For example, take the impact of CDSOA payments on ball bearing imports from the European Communities and Japan in the year 2001. In both cases the aggregate trade effect, according to the United States' model, is 0.77.[110] Similarly, for the years 2002 and 2003 the aggregate trade effects are, respectively, 0.74 and 0.7. Therefore, despite the fact that the payments attributable to the European Communities and Japan are different, the total trade effect in relative terms is identical.

3.131 We recall the United States' arguments that the value of disbursements should be adjusted to take into account administrative errors, reimbursements, revoked anti-dumping or countervailing duty

[108] Joint replies of the Requesting Parties to the second set of written questions from the Arbitrator, 7 June 2004, paras. 13-14.

[109] See para. 3.115 above.

[110] Aggregate trade effects are defined as the total imports reduced as a result of the CDSOA disbursements.

orders. We consider that we should, as a matter of transparency, rely on figures published by the United States' authorities when it comes to assess the value of CDSOA disbursements. As a result, we will disregard administrative errors that have not been corrected at the time of the publication of the relevant figures.[111] Likewise, we see no reason to adjust the figures published by the United States' authorities because reimbursements have been requested but the requests have not yet been finally settled.[112]

3.132 With respect to the United States' argument that disbursements relating to revoked orders should be deducted, we note that, under the CDSOA, payments made in, say, 2004, actually correspond to revenue collected in 2003. If an order was revoked on imports from a given Requesting Party in 2004, this has no influence on the fact that offset payments in 2003 corresponded to duties collected at the time when the order was in place. Under these circumstances, we see no reason to exclude payments made in a given year, even though in that year no duty may have been collected due to the revocation of an existing order, if the payments are based on duties collected while the order was in place. We believe this interpretation to be consistent with the Panel and Appellate Body findings in this case.

3.133 As a result, we decide to use the amount of disbursements published by the United States, without any adjustment.

3.134 The United States has also raised the issue of *de minimis* deductions. We do not have any legal guidance as to why such deductions should be made in these proceedings. In making the deductions, the United States referred to two provisions of the Anti-Dumping Agreement and the SCM Agreement that we do not consider relevant in an arbitration pursuant to Article 22.6 of the DSU. Furthermore, we do not see any rationale for making the deductions on economic grounds. The purpose of an economic model is to estimate the trade effect of the measure. Any result derived from that model should then be assessed in terms of its relevance. Any methodology that *a priori* excludes certain industries will automatically bias the end result. In any case, assuming that the final result of any economic model is that the total trade effect is 1 per cent of the value of the CDSOA disbursement, then we do not see any grounds, legal or economic, to round that value down to zero and issue an award of "zero".

(c) Elasticity of substitution

3.135 The views of the parties also differ on the appropriate value of the elasticity of substitution to be used in modelling, although they are all in agreement that it is possible to calculate values at the 3-digit NAIC level.[113] The Requesting Parties submitted a set of elasticities at that level. The United States did not submit these elasticities when requested, and failed to convincingly contest the validity of the values submitted by the Requesting Parties. As a result, we used in our model the values submitted by the Requesting Parties.

3.136 In recognition of the fact that different aggregation methodologies exist, we decided to vary the elasticity values submitted by the Requesting Parties by 20 per cent. Therefore, three different sets of simulations are performed; one using the submitted elasticities and one each for values that are 20 per cent lower and 20 per cent higher than these elasticities.

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[111] We also note the possibility that such correction may be reflected in the figures subsequently published.

[112] See United States written submission, para. 13.

[113] Exhibit JR-15.

(d) Pass-through

3.137 While the concept of pass-through is generally referred to in the economic literature as the extent to which exchange rate changes affect domestic prices, in this case we use the concept in a similar fashion to that used by the arbitrator in the *US – FSC (Article 22.6 – US)* case. The arbitrators in that case noted, in the context of an export subsidy that:

> "[P]ass through relates to the degree to which a company uses a subsidy it receives to lower the price of the product that it exports. At one extreme the company may choose to apply the full amount of the subsidy to the price of its products, thereby lowering its price. At the other, it may choose not to lower the price of the product."[114]

3.138 Therefore, pass-through, in the context of the case before us, is the extent to which a CDSOA disbursement will be applied to reducing the price of a beneficiary firm's products. A 100 per cent pass-through assumption implies an application of the total amount, whereas a zero assumption implies that none will be so employed.

3.139 The United States' position that the pass-through factor is zero is highly unrealistic. A factor of zero would presume that no recipient of a CDSOA payment would ever use the funds in any way that could have a price effect. While this may be the case for some firms, it would seem impossible that it would always and inevitably be the case for all firms, since as a basic rationale of economics, firms are expected to use their money efficiently, and at least some will use that money to lower their prices.

3.140 The Requesting Parties' argument of full pass-through is based on the presumption that every firm receiving CDSOA payments in every case would fully use those payments to finance price reductions on the products subject to the anti-dumping or countervailing duty order in question. This would seem to be quite unlikely in reality. In particular, while some firms may use CDSOA receipts in this way, the progamme leaves recipients free to use the funds as they wish. Furthermore, many or most firms producing a product that is subject to an anti-dumping or countervailing duty order also produce other products (often, many other products). Thus, it is possible for CDSOA benefits to be applied to products that are not subject to orders. In addition, some recipient firms may use their payments to train their workers, to upgrade their technology or machinery, or to expand their capacity and/or production. While using the funds in these sorts of ways clearly will have supply side effects that may have eventual consequential effects on prices, these price effects will be inter-temporal. Finally, some firms may, as the United States argues, not use the funds in any way that would have price effects.

3.141 In order to identify a suitable value for the pass-through coefficient we sought supplemental submissions and guidance from the parties.[115] On the one hand, the United States responded that a study of their Domestic International Sales Corporation programme had identified a pass-through of that export subsidy of 75 per cent of the payment, but expressed the belief that "a pass-through of 25 per cent is reasonable".[116] This statement was not supported by any methodology or based on any factual evidence. On the other hand, the Requesting Parties did not alter their position that the only reliable pass-through is 100 per cent.

3.142 In the absence of precise information on the value of the pass-through, we adopt the same approach as we adopted for the value of the elasticity of substitution; instead of using one specific

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[114] *US – FSC (Article 22.6 – US)*, footnote 97.
[115] Second set of questions from the Arbitrator, dated 28 May 2004.
[116] United States replies to the second set of questions of the Arbitrator, para. 13.

value we have used the range of 25 per cent to 100 per cent derived from the comments of the parties. The lower point of the range is provided by the United States, whereas the 100 per cent assumption is based, as we stated above, on the assumption that a firm has every incentive to use the funds in a commercially meaningful way. We acknowledge that 100 per cent pass-through is, in practice, not realistic for the reasons mentioned above, and we do not wish to give any credit to the Requesting Parties for not having justified their position that the pass-through is 100 per cent. However, we were not provided with any better information allowing us to apply another percentage as the upper end of our range and we are intuitively of the view that, if the upper end of the range is not 100 per cent, it is probably very close to that percentage.

5. Application of the model

3.143 We now proceed to apply the model. Table 3 summarizes our results for the range of assumed elasticities of substitution and for a range of assumed pass-through values for 2001, 2002 and 2003. For each year we have 12 values, giving us 36 values in all. At the outset we note that the range for 2003 differs from the ranges for the other two years. This arises due to the change in the industry distributions for that year (see Chart 1 above). The yearly change in the industry distribution is also one of the reasons why we use an average based on 2001-2003, even though the United States was not required to bring its legislation into conformity with its WTO obligations until 27 December 2003.

3.144 Since our approach is based on assigning a single value of a trade effect coefficient we need a methodology to reduce the 36 estimates to a single value. Since we have no guidance from the literature or from the submissions of the parties, we have decided to take for each year, the average of the middle two rows and the middle column and average these three values. In doing so, we obtain a value of 0.68 for 2001, 0.78 for 2002 and 0.70 for 2003 and an overall value of 0.72.

3.145 The United States contests the right of the Requesting Parties to "retaliate on behalf of other Members" and we now proceed to address how this point is taken into account in our modelling. Our core rationale is that the trade effect of the CDSOA measure can be estimated to be the nullification or impairment that the Requesting Parties have suffered as a result of the measure having not been withdrawn. Based on our analysis, we have estimated that the trade effect coefficient of the disbursements can be estimated to be 0.72. Therefore, the total annual trade effect of the disbursements, taking an average of the disbursements over the years 2001-2003, is US$136,943,784 based on total disbursements on Requesting Parties products of US$190,199,701.02. Our remaining task is to allocate this total trade effect amongst the Requesting Parties. One possibility is to use the aggregate share of total imports for each Requesting Party. This, however, has an obvious bias, especially due to the industry concentration of the disbursements as discussed earlier. More detailed trade data could circumvent the problem of industry concentration, but, in our view, this is also problematic, due to the fact that the trade data would be biased since they reflect import values when the anti-dumping and countervailing duties were in place.

3.146 In our view, a better measure is based on the distribution of CDSOA payments, which is in turn based on aggregate duty collections on imports of products subject to anti-dumping duty or countervailing duty orders, but which can be analysed to determine the distribution of those imports amongst the various exporting countries. From this we may conclude that a WTO Member's share of the total disbursements is a better indicator of the share of their exports that will be lost in consequence of the disbursement than the aggregate share of imports. Therefore, we decide to allocate the total trade effect amongst the Requesting Parties on the basis of the share of CDSOA disbursements attributable to duties collected on their respective exports. In doing so, we note that the level of nullification or impairment will not exceed, for each Requesting Party, the level of nullification or impairment that results from the disbursements relating to that party's exports subject to anti-dumping or countervailing duty orders.

Table 3: Summary of Trade Effect Coefficient Values by Elasticity and Pass-Through, 2001-2003

2001			
	Elasticity values		
Pass through	Low	Medium	High
25	0.22	0.27	0.33
50	0.43	0.54	0.65
75	0.65	0.81	0.98
100	0.87	1.09	1.30
2002			
	Elasticity values		
Pass through	Low	Medium	High
25	0.25	0.31	0.37
50	0.50	0.62	0.74
75	0.74	0.93	1.12
100	0.99	1.24	1.49
2003			
	Elasticity values		
Pass through	Low	Medium	High
25	0.22	0.28	0.34
50	0.45	0.56	0.67
75	0.67	0.84	1.01
100	0.89	1.12	1.34

D. CONCLUSION: LEVEL OF NULLIFICATION OR IMPAIRMENT

3.147 As mentioned above, the purpose of the development of an economic model in this case was to define a coefficient by which future disbursements under the CDSOA would be multiplied to reach a value of trade effect. In line with past arbitrations, we consider this trade effect to represent the level of nullification or impairment suffered by Canada.

3.148 We note that this solution is hybrid to the extent that it combines a fixed coefficient calculated on the basis of actual disbursement patterns over a particular period of time – in this case 3 years[117], with variable amounts of future disbursements. We also acknowledge that this coefficient is based on past disbursements (2001-2003) which may reflect neither the amount nor the categories of products which will be subject to anti-dumping or countervailing duty orders and lead to CDSOA disbursements in the future. We nevertheless note that this approach is consistent with past arbitrations where representative periods where used to determine volumes and prices of exports[118] in order to calculate levels of nullification or impairment and levels of suspension fixed once and for all. It is also consistent with the practice under Article XIII of GATT 1947 and 1994 for allocation of quotas or tariff quotas.

3.149 As a result we conclude that: the level of nullification or impairment in this case may be deemed to correspond, for Canada and for a given year, to the following:

[117] The reasons for using a three-year period are explained in more detail in Annex B, para. 38.
[118] *EC – Hormones (Canada) (Article 22.6 – EC)*, paras. 57-61.

Amount of disbursements under CDSOA for the most recent year[119] for which data are available relating to anti-dumping or countervailing duties paid on imports from Canada at that time, as published by the United States' authorities.

multiplied by

0.72

IV. EQUIVALENCE OF THE LEVEL OF SUSPENSION OF CONCESSIONS OR OTHER OBLIGATIONS WITH THE LEVEL OF NULLIFICATION OR IMPAIRMENT

A. ISSUES RAISED BY THE UNITED STATES IN RELATION TO THE LEVEL OF SUSPENSION OF CONCESSIONS OR OTHER OBLIGATIONS PROPOSED BY CANADA

4.1 The United States has argued, in relation to Canada's request for suspension[120], that Canada has failed to specify the level of suspension of concessions or other obligations in a way that allows the Arbitrator to determine equivalence. The United States also claims that other features of Canada's request are not compatible with Article 22 of the DSU. The United States considers that Canada's request to collect additional duties based on offset payments places no limits on the level of suspension proposed. It also considers that Canada should not be allowed to, as the United States puts it, "retaliate for other Members". Finally, Canada should not be allowed to impose a variable level of suspension each year.

4.2 We have already addressed the question of whether Canada's request was sufficiently specific in order to allow the United States to fully exercise its rights under Article 22.6 of the DSU. Our conclusions are found in Section II.B.4 above.

4.3 In the previous section, we concluded that Canada's approach based on the premise that a violation was a form of nullification or impairment – thus justifying countermeasures equivalent to the amount of disbursements under the CDSOA – was not supported by the DSU. However, this does not *ipso facto* render Canada's proposed suspension invalid. The issue before us now is to what extent Canada's request for suspension remains equivalent to the level of nullification or impairment as we have decided to determine it (i.e., in terms of trade effect). This issue is addressed in relation to the following features of Canada's request, which are challenged by the United States:

(a) Suspension of concessions or other obligations expressed as a duty on an undetermined quantity of trade rather than as a suspension of concessions and tariff surcharges on a determined value of trade;

(b) Suspension of concessions or other obligations by some of the Requesting Parties so as to cover the total amount of disbursements under the CDSOA; and

(c) Determination of a variable level of suspension of concessions or other obligations.

4.4 In doing so, we are mindful that, pursuant to Article 22.7 of the DSU, we should not examine the nature of the concessions to be suspended.

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[119] We assume that the United States will continue to publish the amount of disbursements under the CDSOA on a yearly basis.

[120] Canada's request is described in paras. 1.5-1.6 above.

B. THE LEVEL OF SUSPENSION OF CONCESSIONS OR OTHER OBLIGATIONS DETERMINED BY THE ARBITRATOR TO BE EQUIVALENT TO THE LEVEL OF NULLIFICATION OR IMPAIRMENT

1. Suspension of concessions or other obligations expressed as a duty on an undetermined quantity of trade rather than as a suspension of concessions on a determined value of trade

(a) Arguments of the parties

(i) United States

4.5 The United States contests the Requesting Parties' intention to impose additional import duties on US products which rate will be set so as to collect, over one year, additional duties equivalent to certain offset payments under the CDSOA. The United States contends that the Requesting Parties set no limits on the amount of trade that would be covered by their request. Depending on the amount of duty, the impact on United States exports could exceed by many multiples any impact that the CDSOA may have on exports from the Requesting Parties. The Requesting Parties' suspension proposal stands in stark contrast to the proposals that arbitrators have approved in previous Article 22.6 proceedings.[121] Since equivalence between the amount of disbursement and the duty that the Requesting Parties intend to collect does not, in the view of the United States, ensure a level of suspension equivalent to the level of nullification or impairment, the United States considers that it has established a *prima facie* case that the level of suspension is not equivalent to the level of nullification or impairment.[122]

(ii) Canada

4.6 Canada argues that the amount of trade that would be covered by the suspension is limited to the level of concessions, which will be limited to the level of the United States' illegal disbursements. Canada adds that the implication of the United States' argument is that the Arbitrator should determine equivalence between the *measures* the Requesting Parties have proposed to implement the suspension of concessions or other obligations, and the level of suspension they have requested. Referring to the decisions in *US – 1916 Act (Article 22.6 – US)* citing with approval the arbitrator in *EC – Hormones (Canada) (Article 22.6 – EC)*, Canada notes that the suspension of tariff concessions against certain products rather than others, the extent of the proposed tariff increase and the modalities of the suspension, all relate to the nature of the concessions to be suspended, which, in application of Article 22.7 of the DSU, fall outside the mandate of the Arbitrator.[123]

(b) Analysis of the Arbitrator

4.7 In the approach we decided to follow in order to determine the level of nullification or impairment, disbursements made under the CDSOA were only a starting point in assessing the *trade effect* of the CDSOA on each Requesting Party. The figure reached as a result of the application of an economic model by the Arbitrator is, consequently, a *value of trade*.

4.8 Comparatively, Canada's proposed suspension of concessions or other obligations is not based on a value of trade but aims at equating, through the imposition of a special duty, the amount disbursed by the United States under the CDSOA in relation to imports from Canada and "a proportionate amount of the balance of total offset payments less the offset payments attributed to

[121] United States written submission, paras. 28-30.
[122] United States oral statement, paras. 16-17.
[123] Canada's written submission, paras. 60-61.

duties collected on products of other Members that are authorized by the DSB to suspend concessions or other obligations in this dispute."[124]

4.9 With the exception of its link with the amount of disbursements under the CDSOA, nothing in the Canadian proposal enables us to conclude at this stage that Canada's proposed suspension of concessions or other obligations will or will not be equivalent to the level of nullification or impairment in terms of affected trade determined according to this Decision. We are nonetheless concerned that the total impact on trade of an additional duty may not only be difficult to predict in general, but also may vary on the basis of the rate applied and the products subject to that additional duty.

4.10 We are therefore of the view that, in order for the level of suspension of concessions or other obligations proposed by Canada to be equivalent to the level of nullification or impairment determined by this Decision:

(a) either Canada will have to take appropriate steps to ensure that the total value of United States trade subject to the proposed additional duty does not exceed the *total value of trade* determined to constitute the level of nullification or impairment, or

(b) if and when it submits a revised request for authorization to suspend concessions or other obligations to the DSB further to this arbitration, Canada will have to propose other forms of suspension of concessions or obligations that are less likely to have effects on trade exceeding the identified level of nullification or impairment in terms of value of United States exports to Canada.

4.11 It does not fall within our mandate to recommend the suspension of specific obligations or the adoption of specific measures by Canada.[125] We therefore refrain from taking a decision on this matter. We nonetheless note that the imposition of a 100 per cent *ad valorem* duty on imports of certain goods from the United States, as proposed by requesting parties – including Canada – in other arbitrations, would be a relatively transparent way of addressing the concern expressed above.

2. Suspension of concessions or other obligations by Canada and other Requesting Parties so as to cover the total amount of disbursements made under the CDSOA

(a) Main arguments of the parties

(i) United States

4.12 The United States notes that all the Requesting Parties, except Chile, include in their requests, authorization to impose countermeasures in an amount that corresponds to duties collected on dumped and subsidized products from all other countries, including non-WTO Members and WTO Members who either were not complainants in the original dispute or were complainants but did not request authorization to suspend obligations under article 22.2 of the DSU. The United States is of the view that a Member cannot suffer nullification or impairment as a result of the CDSOA if no order is in place and no duty can be collected on that Member's products. The United States notes that, according to the methodology paper submitted by the seven Requesting Parties concerned, each Requesting Party would assume 1/7th of the remaining annual disbursement under the CDSOA, no matter what level of exports each of these parties has with the United States.

[124] See para. 1.5(b) above.

[125] See Section II.B.4 above. We note in this respect that no claim was raised in relation to Article 22.3 of the DSU.

(ii) Canada

4.13 According to Canada, the approach pursuant to which all the disbursements under the CDSOA are WTO-inconsistent, constitute in their totality the "level of nullification or impairment" and may be allocated between the Requesting Parties is based on an objective concept of nullification or impairment in relation to the violating measure as such. Article 22.4 of the DSU only mandates the equivalence between two objective levels in relation to the measure. Thus, as all offset payments constitute "nullification or impairment", the suspension of obligations should be authorized in the same amount. Contrary to the arbitrator in *US – FSC (Article 22.6 – US)*, the Arbitrator is confronted with a multiple request. Since the question of allocation arises, most Requesting Parties, including Canada, have proposed the allocation described in their joint methodology paper.[126]

(b) Position of the Arbitrator

4.14 For reasons already stated above, we are of the view that the reasoning applied in the context of arbitrations pursuant to Article 4.10 and 4.11 of the SCM Agreement is not automatically applicable to arbitrations under Article 22.6 of the DSU, *inter alia* because the test applied under Article 4.10 and 4.11 of the SCM Agreement is not the same – the terms of Article 4.10 and 4.11 and Article 22.6 are different – and relates to the specific context of prohibited subsidies.

4.15 We have already mentioned in Section III.B above, in the context of the determination of the level of nullification or impairment, that we are not convinced by the reasoning of the Requesting Parties in support of authorizations based on the full amount of CDSOA disbursements without further assessment of the economic or trade effect of the measure.

4.16 Since the Requesting Parties' approach to sharing the disbursements relating to orders on imports from other Members and non-WTO Members is based on the same premise of an objective violation *erga omnes*, which we have already rejected in Section III.B.2 above, we come to the conclusion that a Requesting Party may only request suspension of concessions or other obligations

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[126] The relevant part of the methodology paper submitted by the Requesting Parties (except Chile) on 23 February 2004 reads as follows:

> "4. Each of the requesting parties intends to impose additional import duties on products originating in the United States and suspend the application of obligations to the United States up to an amount corresponding to an appropriate share for each requesting party of the total annual disbursements under the CDSOA. For each requesting party, the annual level of suspension would be fixed on the basis of two elements, one specific to the requesting party and one shared among the requesting parties:
>
> - First, each requesting party would include in its level of suspension the total share of illegal disbursements attributable to antidumping and countervailing duties imposed on products of its origin.
>
> - Second, Brazil, Canada, the EC, India, Japan Korea and Mexico would add to this first element a share of the remaining annual illegal disbursements. Those requesting parties consider that this share should be 1/7 for each of them. (footnote omitted)
>
> 5. The level of suspension for each requesting party would be determined annually in accordance with the above methodology and on the basis of information published by the U.S. Bureau of Customs and Border Protection or any successor entity. As these levels would be fixed in relation to the disbursements made by the United States in the latest annual distribution, each year the requesting parties would inform the DSB as to their respective levels of suspension and the products concerned."

with respect to the trade effect caused by disbursements under the CDSOA relating to its own exports.[127]

3. Determination of a variable level of suspension of concessions or other obligations

(a) Main arguments of the parties

(i) United States

4.17 The United States considers that the Arbitrator should establish a single level of suspension for each Requesting Party, and that the DSU does not permit a requesting party to alter the level of suspension in the future. It is of the view that, in this case, it would be impossible to create a formula that would equate allowable levels of suspension in the future to varying levels of nullification or impairment. The level of nullification or impairment, it is argued, must be determined at the time the matter is referred to arbitration pursuant to Article 22.6 of the DSU. Articles 22 and 23 only refer to "the level", which is a single and definite amount. There is no basis in the DSU for multiple, varying and indefinite "levels" of suspension. All requesting parties in prior arbitrations have requested a single amount. Articles 22.6 and 22.7 also provide a single opportunity to adjudicate the question of equivalence between the level of nullification or impairment and the level of suspension. The United States notes that, in *US – 1916 Act (EC) (Article 22.6 – US)*, the arbitrator found that the European Communities' right need not be frozen in time as of the date it made its request under Article 22.2 of the DSU. It also note that the arbitrator did not cite any authority other than *Canada – Aircraft Credits and Guarantees (Article 22.6 – Canada)*, in which the arbitrator declined to consider future applications of the illegal subsidy. One difference between the *US – 1916 Act (EC) (Article 22.6 – US)* arbitration and this case is that, as of the date of the Article 22.2 request in *US – 1916 Act (EC) (Article 22.6 – US)*, there was no quantifiable level of nullification or impairment. This is not the case in these proceedings. The difference between the challenge of a measure "as such" rather than "as applied" does not justify alterations in the level of suspension from year to year. Setting a single, unalterable annual level of suspension is consistent with the text of the DSU and with past practice.[128]

4.18 Even if an alterable level were permitted under the DSU, no alteration would be appropriate in this case. First the challenge relates to the CDSOA "as such", not to the payments made under the CDSOA. The United States considers that it is not possible to specify in advance the trade effect of the CDSOA in the future. It is not even possible to specify the level of payments under the CDSOA given the uncertainties attached to its calculation. The United States concludes that if requesting parties were permitted to refigure and revise their own level of suspension on an annual basis, these arbitrations would generate, rather than resolve, disputes between parties.[129]

(ii) Canada

4.19 Canada argues that there is no reason that "the level" referred to in Article 22.4 of the DSU could not be understood to vary from year to year, in lock-up steps with the level of nullification or impairment which will vary with the level of the United States' illegal disbursements. Canada claims that the position defended by the United States has already been rejected by the arbitrator in *US – 1916 Act (EC) (Article 22.6 – US)*. Canada considers that the methodology chosen by the Requesting Parties ensures that the level of suspension will always remain equivalent to the amount of the United States' illegal disbursements. Under that methodology, the Arbitrator is not required to speculate on, or extrapolate future levels of nullification or impairment. Canada claims that the

[127] See also our comments in para. 6.7 below.
[128] United States written submission, paras. 80-90.
[129] United States written submission, para. 91.

United States' rights are protected. It needs only reduce or eliminate its illegal disbursements to correspondingly reduce or eliminate the level of retaliation against it.[130]

(b) Analysis of the Arbitrator

4.20 We first address the textual arguments. While we note that Article 22.4 refers to "the level" (singular) of nullification or impairment and to "the level" (singular) of suspension of concessions or other obligations, we are not persuaded that these terms impose an obligation to identify a single and enduring level of nullification or impairment. The requirement of Article 22.4 is simply that the two levels be equivalent. As long as the two levels are equivalent, we do not see any reason why these levels may not be adjusted from time to time, provided such adjustments are justified and unpredictability is not increased as a result. In fact, we see no limitation in the DSU to the possibility of providing for a variable level of suspension if the level of nullification or impairment also varies.

4.21 Most previous arbitrators have established one single level of nullification or impairment at the level that existed at the end of the reasonable period of time granted to the responding party to bring its legislation into conformity.[131] We do not disagree that this approach is, in the large majority of cases, the most appropriate. However, we do not read anything in Article 22 of the DSU that would preclude us from following a different path if the circumstances of this case clearly required it.

4.22 The economic analysis carried out above suggests that the value and industry distribution of the trade impact of the CDSOA could vary widely from one year to the next, because of the numerous factors affecting the amounts that may be disbursed, the nature of the recipients and how each category of recipient is likely to use the monetary amounts awarded to them under the CDSOA. This variability is, in our opinion, very different in nature and degree from the more steady evolution of exports recorded in other cases where counterfactuals[132] were applied, such as *EC – Bananas III (US) (Article 22.6 – EC)* or *EC – Hormones (US) (Article 22.6 – EC)*. In those cases, the trade loss identified on the basis of a counterfactual was artificially fixed once for all. In the present case, there is an economic justification for allowing a variable level of nullification or impairment and, correlatively, a variable level of suspension of concessions or other obligations.

4.23 We are mindful of the United States' arguments that the ability to vary the level of suspensions could make the level of countermeasures applied unpredictable from one year to the next, and that no formula could be developed to introduce sufficient predictability. We do not find these arguments compelling. Indeed, the level of nullification or impairment in terms of the trade effect that we have calculated above is based on the CDSOA, a law designed and adopted by the United States' authorities, which disbursements are also determined by the United States' authorities. It should be straightforward for the United States' authorities to apply the formula developed in this Decision to find the amount of United States trade that may be subject to the suspension of concessions or other obligations in each following year. Any unpredictability ought correspondingly to be minimal.

4.24 Moreover, in this case, the United States would control the levers to make the actual level of suspension of concessions or other obligations go down. Indeed, in other arbitrations where the level of nullification or impairment was set once and for all, the responding party could not influence the level of countermeasures applied to its trade, unless the requesting party agreed to modify it. In this case, the level of suspension of concessions will automatically depend on the amount of

[130] Canada's written submission, paras. 56-59.

[131] See, e.g., *EC – Hormones (Canada) (Article 22.6 – EC)*, para. 37; *Brazil – Aircraft (Article 22.6 – Brazil)*, paras. 3.63-3.65; *US – FSC (Article 22.6 – US)*, paras. 2.12-2.15; *Canada – Aircraft Credits and Guarantees (Article 22.6 – Canada)*, paras. 3.67-3.73.

[132] For a definition of "counterfactual", see footnote 42 above.

disbursements made under the CDSOA in a given year. If this amount decreases, so will the level of suspension of concessions or other obligations that the Requesting Parties will be entitled to impose. If no disbursements are made, the level of suspension will have to be "zero".

4.25 Finally, while we have expressed some reservations about the notion of "inducing compliance", we note that variable levels could achieve this objective without affecting the requirement of "equivalence" between the level of nullification or impairment and the level of suspension under Article 22.4 of the DSU. We have been presented with convincing evidence that, if the CDSOA remains in force, the amount of disbursements is likely to increase in the coming years. We are conscious of the fact that higher countermeasures may not actually induce compliance in all instances. However, if we were to decide on a level of suspension fixed once for all on the basis of the first years of application of the CDSOA, it is possible that the level of suspension of concessions or other obligations would become, as time goes by, significantly less than the actual level of nullification or impairment resulting from the continued application of the CDSOA. In other words, the cost of the violation for the United States could decrease. In such a case, the incentive to comply would most probably decrease too. We believe that such a risk exists in the present case and justifies that we determine a variable level of nullification or impairment and, consequently, a variable level of suspension of concessions or other obligations.

4.26 We also consider this approach to be consistent with the principle of prompt and effective resolution of disputes, contained in Article 3.3 and 3.4 of the DSU.[133]

4.27 Finally, like the arbitrators in *EC – Hormones (US) (Article 22.6 – EC)*[134] and *US – 1916 Act (EC) (Article 22.6 – US)*[135], we note that the United States may have recourse to the appropriate dispute settlement procedures in the event that it considers that the application of the suspension by Canada exceeds, for a given period, the level of nullification or impairment that Canada has sustained as a result of the violation of the United States' obligations by the CDSOA, as calculated using the formula developed above.[136]

V. AWARD OF THE ARBITRATOR

5.1 For the reasons set out above, we determine that, in the matter *United States – Continued Dumping and Subsidy Offset Act of 2000 (Original Complaint by Canada)*, the level of nullification or impairment suffered by Canada in a particular year can be deemed to be equal to the total of disbursements made under the CDSOA for the preceding year relating to anti-dumping or countervailing duties paid on imports from Canada, multiplied by the coefficient identified in Section III.D above.

5.2 Accordingly, we decide that the suspension by Canada of concessions or other obligations in the form of:

(a) the imposition of additional import duties above bound custom duties on products originating in the United States; and

(b) the suspension of the application of the obligations under Article VI of GATT 1994, Articles 3, 5, 7, 8, 9, 10, 11 and 12 of the Anti-Dumping Agreement, and Articles 11, 12, 15, 17, 18, 19, 20, 21 and 22 of the SCM Agreement to determine that the effect of dumping or subsidization of products from the United States is to cause or threaten

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[133] See *EC – Hormones (Canada) (Article 22.6 – EC)*, para. 38.
[134] See para. 82.
[135] See para. 9.2.
[136] See also Panel and Appellate Body Reports on *US – Certain EC Products*.

> material injury to an established domestic injury, or is to retard materially the establishment of a domestic industry;

covering, on a yearly basis, a *total value of trade* not exceeding, in US dollars, the amount resulting from the following equation:

> Amount of disbursements under CDSOA for the most recent year for which data are available relating to anti-dumping or countervailing duties paid on imports from Canada at that time, as published by the United States' authorities.

multiplied by:

> 0.72

would be consistent with Article 22.4 of the DSU.

5.3 In this respect, we urge Canada to ensure that, if it decides to proceed with the suspension, *vis-à-vis* the United States, of obligations referred to in paragraph 5.2(b) above, that this will be done in such a way that the maximum *value of trade* referred to the previous paragraph is not exceeded. We also urge Canada, if and when it submits a revised request for authorization to suspend concessions to the DSB pursuant to this Decision, to be specific about the terms of the measures that will be adopted to implement the suspension, so as to promote additional transparency in this process.

5.4 In addition, we suggest that Canada notify to the DSB, every year, the amount of trade that will be subject to suspension of concessions, as well as the measures that will be adopted for that purpose.

5.5 Finally, we remind that Article 22.8 of the DSU provides that:

> "The suspension of concessions or other obligations shall be temporary and 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. …"

VI. CONCLUDING REMARKS

6.1 Some of the issues raised in these proceedings lead us to make the following remarks for wider consideration.

6.2 As mentioned above, the DSU does not expressly explain the purpose behind the authorization of the suspension of concessions or other obligations. On the one hand, the general obligation to comply with DSB recommendations and rulings seems to imply that suspension of concessions or other obligations is intended to induce compliance, as has been acknowledged by previous arbitrators.[137] However, exactly what may induce compliance is likely to vary in each case, in the light of a number of factors including, but not limited to, the level of suspension of obligations authorized.[138]

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[137] *EC – Bananas III (US) (Article 22.6 – EC)*, para. 6.3.

[138] While the value of the suspension or concessions or other obligations easily comes to mind as a relevant factor in inducing compliance, it must also be acknowledged that the actual role of the value of such

6.3 On the other hand, the requirement that the level of such suspensions remain equivalent to the level of nullification or impairment suffered by the complaining party seems to imply that suspension of concessions or other obligations is only a means of obtaining some form of temporary compensation, even when the negotiation of compensations has failed.

6.4 In other words, it is not completely clear what role is to be played by the suspension of obligations in the DSU and a large part of the conceptual debate that took place in these proceedings could have been avoided if a clear "object and purpose" were identified.

6.5 The WTO dispute settlement system authorizes Members to challenge a law as such, i.e. irrespective of whether it has been applied or not. The "classical" approach based on an assessment of the trade effect of a given measure may not always contribute to the identification of the actual level of nullification or impairment, in particular if no instances of application had arisen at the time. This may be because the trade impact of a measure may be difficult to assess due to the lack of verifiable figures. We are of the view that, while parties share a duty to cooperate with the Arbitrator in the establishment of the facts, there is no reason *a priori* to sanction the requesting party or the respondent if supporting figures are difficult or impossible to find. We believe that this is a situation that has to be addressed in order to reach a decision on what may be achievable through recourse to suspension of obligations in such cases.

6.6 In this arbitration, we have interpreted the concept of nullification or impairment, *inter alia*, from the terms of Article XXIII of GATT 1994 and Article 3.8 of the DSU. We believe, however, from the extensive discussion of this concept by the parties, that the actual meaning of this provision is disputed and needs to be addressed in the appropriate forum.

6.7 Finally, we note that an issue that arose as a consequence of following the approach whereby each party would be granted the right to suspend obligations exclusively in relation to its own exports is that there will remain disbursements under the CDSOA in respect of goods from other Members and non-WTO Members for which no suspension of concessions or other obligations have been authorized.

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suspension in securing compliance or not may vary from one case to the next. In some cases, even a very high amount of countermeasures may not achieve compliance, whereas in some others a limited amount may.

ANNEX A

WORKING PROCEDURES OF THE ARBITRATOR

The Arbitrator will follow the normal working procedures of the DSU where relevant and as adapted to the circumstances of the present proceedings, in accordance with the timetable it has adopted. In this regard,--

(a) the Arbitrator will meet in closed session;

(b) the deliberations of the Arbitrator and the documents submitted to it shall be kept confidential. However, this is without prejudice to the parties' disclosure of statements of their own positions to the public, in accordance with Article 18.2 of the DSU;

(c) at any substantive meeting with the parties, the Arbitrator will ask the United States to present orally its views first, followed by the party(ies) having requested authorization to suspend concessions or other obligations;

(d) each party shall submit all factual evidence to the Arbitrator no later than in its written submission to the Arbitrator, except with respect to evidence necessary during the hearing or for answers to questions. Derogations to this procedure will be granted upon a showing of good cause, in which case the other party(ies) shall be accorded a period of time for comments, as appropriate;

(e) the parties shall provide an electronic copy (on a computer format compatible with the Secretariat's programmes) together with the printed version (6 copies) of their submissions, including the methodology paper, on the due date. All these copies must be filed with the Dispute Settlement Registrar, [...]. Electronic copies may be sent by e-mail to [...]. Parties shall provide 6 copies and an electronic version of their oral statements during any meeting with the Arbitrator or no later than noon on the day following any such meeting.

(f) except as otherwise indicated in the timetable, submissions should be provided at the latest by 5.00 p.m. on the due date so that there is a possibility to send them to the Arbitrator on that date. As is customary, distribution of submissions to the other party(ies) shall be made by the parties themselves;

(g) if necessary, and at any time during the proceedings, the Arbitrator may put questions to any party to clarify any point that is unclear. Whenever appropriate, a right to comment on the responses will be granted to the other party(ies);

(h) any material submitted shall be concise and limited to questions of relevance in this particular procedure.

(i) Parties have the right to determine the composition of their own delegations. Delegations may include, as representatives of the government concerned, private counsel and advisers. Parties shall have responsibility for all members of their delegations and shall ensure that all members of their delegations act in accordance with the rules of the DSU and these Working Procedures, particularly in regard to confidentiality of the proceedings. Parties shall provide a list of the participants of their delegation prior to, or at the beginning of, any meeting with the Arbitrator.

(j) to facilitate the maintenance of the record of the arbitration, and to maximize the clarity of submissions and other documents, in particular the references to exhibits submitted by parties, parties shall sequentially number their exhibits throughout the course of the arbitration.

ANNEX B

METHODOLOGY FOR CALCULATING THE TRADE EFFECT OF CDSOA DISBURSEMENTS

A. INTRODUCTION

1. Section III.C.2 of this Decision outlines the proposed approaches of the parties to estimating the decline in imports arising from the disbursement of funds as part of the United States Continued Dumping and Subsidy Offset Act. The purpose of this Annex is to explain the methodology used to calculate the values in Table 3 in the main text. Section B outlines this methodology. This is followed, in Section C, by an explanation of the changes made to the Requesting Parties' model by the Arbitrator in its application of this model. Section D discusses the issue of the values to be assigned to the various parameters. The last section presents the overall results.

B. METHODOLOGY

2. The role of economic modelling of trade effects is discussed at length in the *US – FSC (Article 22.6 – US)* Arbitration decision.[139] The arbitrator in that case faced an issue similar to that faced by us, which is the selection of an appropriate model. Its approach, however, differs from the one we have taken, since the arbitrator decided to use, in its entirety, the model proposed by one of the parties. In support of its decision, the arbitrator in that case pointed to the fact that the model it used, although proposed by the European Communities, had actually been developed by the United States Government to explain the trade effects of the FSC programme to the United States Congress. Hence, the arbitrator concluded that, if the model was suitable for the United States Congress, it would be suitable for the arbitration.[140]

3. In this case, we received two models in response to our request to all parties to submit what they viewed as suitable models to simulate the trade impact of the CDSOA disbursements. However, as explained in Section III.C.2, the models proposed by the Requesting Parties and the United States, although broadly similar, differed in their level of aggregation and, to some extent, in the variety of parameters that estimate the counterfactual decline in the value of imports arising from CDSOA payments.[141] The model of the Requesting Parties relied on aggregate numbers for each of the three parameters, whereas the model of the United States calculated results at the product level for each

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[139] Section VI.B of WT/DS108/ARB.

[140] On this point the arbitrator in the *US – FSC (Article 22.6 – US)* case states: "In this regard, the very fact that the US Treasury report was submitted to Congress is, in our view, of considerable weight. That report did suggest that it may have somewhat overstated the results. Indeed, it may not be absolutely exact. Nonetheless, the US Treasury obviously made the judgement that, in the context of presenting the effects of the FSC scheme to US Congress (the authors, we note, of the legislation concerned), this report, including the modelling assumptions on which it is based, had sufficient credibility to represent a reliable reflection of the impact of the scheme when it came to the matter of informing the US Congress on its operation and effects. That was presumably not undertaken lightly and, at the very least, it was presumably considered to be not manifestly misleading." Para 6.48.

[141] The US model, although based on the same basic economic framework as the model proposed by the Requesting Parties, is specified differently, since it includes separate parameters for the supply elasticity and the own-price elasticity of demand. It is based on Francois and Hall (1997), "Partial Equilibrium Modelling" in Francois, J. and Rennert, K. (eds.), *Applied Methods for Trade Policy Analysis: A Handbook*, Cambridge: Cambridge University Press. By similar framework we mean that the mechanism by which CDSOA disbursements affect imports is the same. Imports are displaced due to an increase in their price relative to domestic goods sold by US firms benefiting from CDSOA disbursements.

affected WTO Member. The aggregate estimate using this approach was obtained by summing the individual estimates for each product.

4. Despite the relative merits of the proposed models, as presented in these proceedings, each possessed fundamental flaws that made them unworkable for this case. The model of the Requesting Parties required economy wide values. Hence, a single elasticity parameter was used to capture the substitutability between domestic and imported goods. Similarly, the import penetration value in this model was assumed to be the economy-wide average. The difficulty with this approach is that it ignores the substantial industry variation in CDSOA disbursements. Intuitively, one would expect the values for the elasticity of substitution and import penetration for industries with relatively larger shares of CDSOA disbursements to have a greater weight in the overall number.

5. The US model, although well accepted in the literature, could not be applied to all products for which there are CDSOA disbursements. This meant that, for these products, an assumption was required to proxy the trade effect. This raised the question whether or not the greater complexity of the US model would be warranted if, in the end, assumptions about key parameters would have to be made in a seemingly ad hoc fashion.

6. Furthermore, precise estimates for each of the elasticity parameters were not available. Hence, a range of values would have been required for the own-price elasticity of demand, elasticity of substitution and the supply elasticities of domestic and foreign producers. As stated by the Requesting Parties this introduces "greater parameter shortcomings than the Requesting Parties' proposed model". [142]

7. Since it is difficult, technically, to run the US model on an independent basis we have opted for a modified version of the model proposed by the Requesting Parties. In particular, we adjusted it to take into account technical concerns identified by the United States. While the principal reason for using the model of the Requesting Parties is the ease with which it can be employed, we also take note of the fact that the United States did not criticise the specification of the Requesting Parties' model. Thus criticisms were focussed predominantly on the values assigned to the various parameters.[143]

8. The basic model of the Requesting Parties is specified below as equation (A1). This equation is identical to equation (5) in the main text:

$$\text{Reduction in imports from CDSOA Disbursements} = h * S * R \quad \text{(A1)}$$

Where[144],

- η is the elasticity of substitution $h = \left(\frac{\Delta M / M}{\Delta P_q / \Delta P_q} \right)$
- S is the total value of the payments expressed as a margin of the price reduction on domestic production financed by payments and can be expressed as $S = \Delta P_q * Q$

[142] Comments of the Requesting Parties to additional questions of the Arbitrator, para. 23.

[143] "The United States does not critique the economic theory supporting the model, but argues that the parameter values used in the model are inappropriate", Comments of the Requesting Parties to additional questions of the Arbitrator, para. 21.

[144] All the variables are explained in paragraph 3.96.

- R is the ratio of the value of imports to the value of domestic shipments in the markets in question and can be expressed as $R = \left(\frac{P_m M}{P_q Q} \right)$

9. Turning first to the specification of the model and concerns about its robustness. In the first instance, we share the view of the United States that one cannot be 100 per cent certain that the entire disbursement given to a firm will be expended to reduce imports. While the economic rationale behind a 100 per cent pass-through is strong, the model specification needs to be adjusted to account for cases where the pass-through effect will be less than 100 per cent. Accordingly, we can include a fourth multiplicative term to equation A1 to account for less than 100 per cent pass through and re-specify equation A1 as equation A2 (equation (6) in the main text):

$$\text{Reduction in imports} = a * h * S * R \quad \text{(A2)}$$

Where, α is the pass-through factor and takes on a values: $0 < \alpha < 1$.

10. A value of zero for α implies no expenditure is used to reduce price, therefore the estimated trade effect would be zero. This is the case presented by the United States. The opposite case, presented by the Requesting Parties is that α takes on a value of 1, which represents a 100 per cent pass-through.

11. The principal focus of our approach to analysing trade effect is the determination of a trade effect coefficient, which is defined as a number that can be multiplied by the applicable level of disbursements to estimate the total trade effect. By focussing on the coefficient as the basis of our award, it is easier to simplify and bridge the differences in the models that have been proposed by the Requesting Parties. In expression A2 above, the coefficient can be defined as the product of α, η and R. Accordingly, equation A2 can be reduced to A3:

$$\text{Reduction in imports} = S * b \quad \text{(A3)}$$

Where β is the trade effect coefficient and can take on a value greater than or equal to zero. It is also important to note that this coefficient does not assign specific values to the elasticity of substitution or pass-through values. Different combinations of the values of these variables could be used to determine a single value for β.

12. The second issue is the level at which to implement the model. Technically, the model could be implemented at the product level as suggested by the United States. Or, as suggested by the Requesting Parties, implemented at the national, or aggregate level.

13. For the task at hand, there is no question that a disaggregated approach would be preferable. The CDSOA scheme collects duties at the product level and disburses them to petitioning firms. However, as pointed out by the United States, production data, which is key to implementing any economic model, is not available for some products. If a higher degree of aggregation is used, it is more likely that data will be available, albeit at the expense of greater precision.

14. In order to examine the feasibility of implementing a model at a level of aggregation above the product level and below the national level, we requested the United States to provide us with data for each of the parameters of equation A2.[145] Although the request was for the 2-digit level of the

[145] Question 16 of first set of questions of the Arbitrator.

Standard Industrial Classification, the United States provided the necessary data at the 3-digit level of the North American Industrial Classification ("NAIC"), which is more appropriate.

15. In a subsequent set of questions, we requested each of the parties to submit the additional data required to run an economic model at the 3-digit level of the NAIC system.[146] In responding to these questions, both the Requesting Parties and the United States expressed concern about conducting a counterfactual trade effects analysis at the 3-digit NAIC level. Consequently, before proceeding we should state and address these concerns.

16. The Requesting Parties' view was that:

> "3-digit NAIC levels cannot accurately represent substitution elasticities for products receiving CDSOA payments. The 3-digit NAIC level is not at a sufficiently disaggregated level and covers too broad a range of products. In fact, most products under dumping orders are specified at a highly disaggregated level. The use of aggregate estimates of substitution elasticities for disaggregated products would result in biased results for the calculated trade effects."[147]

17. They further submitted that this bias is likely to be downward, since the product specific elasticities are likely to be higher than the aggregate elasticities.[148] This assertion is substantiated through the example of pasta. This product would be included with breakfast cereals and candy bars, which tend to be branded products. The Requesting Parties also highlighted a similar problem associated with various categories of bearings by distinguishing between high-precision bearings used in aircraft and those used in the automotive industries and home appliances.

18. The United States shared the same view as the Requesting Parties that a 3-digit analysis would necessarily be biased. They stated, "all of the parties agree that any model based on data from the three-digit North American Industry Classification or from the Global Trade Analysis Project (GTAP) would result in a relatively imprecise estimate of the effect the CDSOA has on the trade of the Requesting Parties".[149]

19. The parties have placed us in a difficult position with respect to choosing an appropriate level of aggregation. We agree with the United States that a more product specific methodology is preferable to an aggregate methodology. However, given that if the product-specific methodology lacks the appropriate data, we do not see how a disaggregated methodology would be more accurate than an aggregate methodology. Furthermore, we note that the solution of the United States for cases where necessary data was missing was to assume the results of their analysis with available data applied to those products for which data was not available.[150] The United States, in effect, assumes that the analysis for one set of products could automatically be applied to another set of products, which must implicitly introduce the very same sorts of biases and inaccuracies that the United States argued against.

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[146] Question 1 of the second set of questions of the Arbitrator.

[147] Replies of the Requesting Parties to the second set of questions of the Arbitrator.

[148] Replies of the Requesting Parties to the second set of questions of the Arbitrator, para. 6.

[149] Comments of the United States to replies of the Requesting Parties to the second set of questions of the Arbitrator, para. 1.

[150] See footnote 6 of US Exhibit 18. The United States adopts the same approach that we adopt, which is to assume a trade effect coefficient. It defines the level for these products for which information is not available by the product of the offset payments and the ratio of the modelled trade impact for all complaining parties in the given year and the total modelled offset payments for all complaining parties in the given year.

20. While reiterating that economic modelling is not always precise, we consider that the issue is whether or not the broad parameters of an outcome derived through a trade-effects analysis is "unreasonable".[151] In this context, our assessment is that an analysis at the 3-digit level effectively bridges the problems of a too highly aggregated model that assumes single values for each variable and a disaggregated analysis, which does not have all the required data.

21. Therefore, the adopted approach is to estimate the trade effect, for a given year, at the 3-digit level and then sum these values to obtain a total trade effect.[152] This total trade effect is subsequently divided by the level of disbursements to obtain the trade effect coefficient (β in equation A3). This is done for each of the years 2001 through to 2003. The final value of the coefficient is then calculated as the simple average of these three numbers. The results arising from the implementation of this approach are explained and presented in the last section of this Annex.

C. VALUES ASSIGNED TO PARAMETERS

1. Pass-through

22. The positions of the parties with respect to pass-through are completely opposite. The United States asserts that the value is zero, whereas the Requesting Parties assert that it is 100 per cent. Section III.4(d) presents the rationale of the parties' positions and our views on the appropriate values. In summary, we have opted for a range of pass-through values of between 25 and 100 per cent. We were not persuaded by the US argument that the value should be zero. Although they identified certain cases where firms that benefited from CDSOA disbursements did not utilize the funds, the United States was not convincing in establishing that this would arise for every single dollar disbursed under the CDSOA programme.[153]

23. Similarly, the fact that the United States was able to identify at least one firm that did not use the funds to divert imports suggests that an absolute 100 per cent pass-through would be unrealistic. The problem we face, however, is that there is no evidence to suggest what the upper-bound value might be if it is not 100 per cent. The weight of economic theory and commercial pressures point to 100 per cent, but not any other specific number. As we state in paragraph 3.142 we are intuitively of the view that the upper end of the range would be close to 100 per cent.

2. Elasticities

24. As the parties have pointed out, the debate over the appropriate values to assign to the various elasticities used in modelling is intense. Not only are there differences at the specific product level, but, as the United States has pointed out, there would be differences about the relevant aggregation methodology to be employed if calculations are not done at the product level.

25. The model of the Requesting Parties relies on a single elasticity value – the elasticity of substitution. In contrast, the model of the United States employs three elasticity values in addition to the elasticity of substitution. We agree with the Requesting Parties that any avenue to minimize the

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[151] See *US – FSC (Article 22.6 – US)* para. 6.49.

[152] Aggregating the individual industries to get the total value should not be confused with analysing the effects in the United States market using general equilibrium analysis. Each estimate at the individual level is done assuming no changes in any other industry.

[153] The United States provided anecdotal evidence of a few firms that did not use the funds to expand output on pages 30-34 of its written submission. When asked (Question 13 of the Arbitrator) to provide additional evidence, the United States responded that it has "been unable to determine how affected domestic producers use CDSOA payments, beyond the information provided on pages 30-34 of [its] written submission".

variance in values should be explored. In this regard, the model of the Requesting Parties narrows the debate over relevant elasticity values to only the elasticity of substitution.

26. The Requesting Parties themselves acknowledge the difficulties in obtaining precise estimates. They submitted two sets of elasticities as evidence of possible values that could be used to model the trade effect. One set was sourced from the Global Trade Analysis Project ("GTAP") based on the sectors within their basic model. The second submitted set for the same sectors was sourced from United States International Trade Commission ("USITC") researchers. The two sets differed considerably (Annex Table 1). The standard GTAP range has a lower mean (2.7) than the USITC estimates (3.1), smaller range (4 compared to 3.4), but both have the same median (2.8). The USITC has higher values in 22 of the categories and the same value in eight of the categories.

27. In an attempt to develop a workable framework for modelling, the parties were requested to submit elasticities of substitution at the 3-digit NAIC level.[154] The Requesting Parties, while expressing some reservations, responded positively to this request and provided the data. The United States did not, but stated many of the difficulties confronting any methodology to concord data from one classification to another. It also offered to respond positively to the request, but only at a later stage.[155] As a result, we did not have any choice, but to proceed with the elasticity estimates provided by the Requesting Parties. However, before doing so, we reviewed the estimates submitted by the United States according to the product categories for which CDSOA disbursements were made. Basic summary statistics are presented in Annex Table 1 for each of the four sets of elasticity values: GTAP, USITC estimates of GTAP, US submitted elasticities (low, high and mid-point) by CDSOA product categories and NAIC 3-digit industry category as submitted by the Requesting Parties.

Annex Table 1: Summary Statistics of Sets of Elasticities of Substitution

	GTAP	USITC GTAP	Requesting Parties NAIC	US Product Low*	US Product Mid-Point*	US Product High*
Mean	2.68	3.09	2.67	2.83	3.99	5.17
Median	2.8	2.80	2.8	3	4	5
Std. Deviation	0.8	1.18	0.79	0.87	0.92	1.12
Minimum	1.8	1	1.8	1	2	3
Maximum	5.2	5	5.2	5	6.5	8
Count	41	41	31	65	65	65

* Does not include values for seamless pipe and sugar, since specific values for these products were not provided. They were only listed as "high" and "perfect" respectively.

28. The table confirms the view of the Requesting Parties that aggregate elasticities tend to be lower. The first three columns reflect the values from the GTAP classification, including the concorded classification into the NAIC category. The median for all three sets is 2.8 and the mean ranges from 2.67 to 3.09. In contrast, the mean of the mid-point values of the US product elasticity estimates is 3.99 and the median value is 4. The highest value for this category is 6.5, whereas the highest value for the aggregated values is 6.2. In general terms the descriptive statistics of the low category proposed by the United States corresponds to the statistics of the first three columns.

29. The table also confirms that the issue of what values to assign to the various elasticities of substitution that a modeller may use is far from being resolved. Our case is complicated by the fact

[154] Question 1 of the additional set of questions of the Arbitrator.

[155] "If the Arbitrators so request, the United States could calculate such concorded elasticity estimates using where necessary, either simple averages or trade-weighted averages." Replies of the United States to additional questions of the Arbitrator, para. 2.

that, despite asking specifically for values that we could use, we only have one set of values for the 3-digit NAIC level. In order to account for measurement error and, of course, aggregation bias, we propose to use the Requesting Parties' set of elasticity estimates, but vary them by 20 per cent in order to have a range of effects. That is, the calculations will be done using elasticity values that are both 20 per cent above the submitted elasticities and 20 per cent below. The figure of 20 per cent was chosen as a conservative adjustment, given that the differences between the means of the US low and medium and US medium and high values is approximately 25 per cent.

3. Import penetration

30. The import penetration values were calculated using data provided by the United States. They are defined by the Requesting Parties as the "ratio of imports to domestic shipments". The latter is defined as total shipments less exports.

31. The figures reported in the table correspond to what might intuitively be expected, with the exception of the very high figure for fish and fish products. The reported production figures for the years 2000 through to 2002 are respectively: US$3.55 billion, US$3.23 billion and US$3.09 billion. The respective export figures were: US$2.66 billion, US$2.85 billion and US$2.8 billion. When these figures are combined with the import figures of US$8.12 billion, US$7.71 billion, and US$7.8 billion for the respective years, the resulting import penetration figures are very high relative to those calculated for the other industries.[156]

[156] Imports divided by the residual of production minus exports.

Annex Table 2: Import Penetration Ratios by 3-digit NAIC Industry, 2001-2003

Industry	NAIC Code	2001	2002	2003
Agricultural products	111	0.16	0.16	0.17
Livestock and livestock products	112	0.03	0.04	0.03
Fish, fresh, chilled, or frozen and other marine products	114	20.60	26.89	23.79*
Food manufacturing	311	0.05	0.05	0.05
Beverages and tobacco products	312	0.08	0.09	0.11
Textiles and fabrics	313	0.16	0.19	0.21
Textile mill products	314	0.25	0.27	0.30
Apparel and accessories	315	1.30	1.29	1.38
Leather and allied products	316	3.34	2.64	2.55
Wood products	321	0.18	0.19	0.19
Paper	322	0.13	0.13	0.13
Printing, publishing and similar products	323	0.04	0.05	0.05
Petroleum and coal products	324	0.17	0.16	0.17
Chemicals	325	0.22	0.25	0.28
Plastics and rubber products	326	0.11	0.11	0.12
Non-metallic mineral products	327	0.15	0.16	0.18
Primary metal manufacturing	331	0.30	0.28	0.30
Fabricated metal products, n.e.s	332	0.11	0.12	0.13
Machinery, except electrical	333	0.38	0.37	0.42
Computer and electronic products	334	0.69	0.75	0.70
Electrical equipment, appliances and components	335	0.43	0.48	0.52
Transportation equipment	336	0.44	0.44	0.45
Furniture and fixtures	337	0.22	0.26	0.29
Miscellaneous manufactured commodities	339	0.59	0.61	0.60

Source: Calculated from data provided by the United States. Only those industries for which there is a non-zero CDSOA payment in any year between 2001 and 2003 are included.
* Average of 2001 and 2002.

4. Value of disbursements

32. The data on the level of the CDSOA disbursements at the 3-digit NAIC level was provided by the United States in response to a request for this information. In providing the data, the United States noted that it was unable to classify 17 products. The total of these unclassified disbursements is not insignificant and presents a problem with respect to estimating the total effect. Upon reviewing these disbursements, it would appear that some of the payments could be classified into relevant categories. However, since the United States chose not to classify these disbursements, we can only assume that some information relevant to the classification of the disbursements is not known to us. Accordingly, these payments will be listed as "Not Elsewhere Classified" and without an NAIC code.

33. Unclassified disbursement data creates a problem of assigning values of elasticities and value of import penetration. Our solution to this problem, in this case, is to assume an elasticity of substitution of 2.8, which is the median value, and an import penetration value, which is the average of the relevant NAIC categories for the given year.[157] In calculating the latter value, we exclude fish and fish products, since it is clear from the data presented by the United States that none of the unclassified fish products would fall under this category. Furthermore, we note that the resulting

[157] Relevant categories in this context are NAIC categories for which there were positive CDSOA disbursements in any of the years 2001, 2002 or 2003.

values for each of the years are not too dissimilar from the overall value of 0.295 presented by the Requesting Parties, which could also be used as a proxy.

D. IMPLEMENTING THE MODEL

34. Having dealt with the specification and various parameters of the model, we turn now to its implementation. The adopted aggregation methodology for the results at the 3-digit industry level is similar to that of the United States. Each counterfactual estimation of the trade loss arising from CDSOA disbursements at the 3-digit industry level is summed to obtain the total trade effect. This total trade effect is then divided by the total CDSOA disbursements for that year to obtain a value of the trade effect coefficient. This value, by definition, would be specific to the assumptions about the values of the elasticities of substitution and the pass-through effect. Changes in the assumptions of these variables will necessarily alter the final result. As explained previously, the approach with respect to the values of the elasticities of substitution is to vary the values by 20 per cent below and above the submitted values.

35. This process is repeated for each year from 2001 through to 2003, assuming a value of 100 per cent pass-through. Annex Tables 3-5 present the results of these simulations. In these tables, the relevant NAIC industry and code is presented first. After this, the CDSOA disbursement for the industry, as submitted by the United States, is listed. The fourth column is the elasticity of substitution followed by the market penetration variable. As indicated above, three values of elasticities are used. The resulting trade effect from each of these assumptions is listed in the last three columns as low, mid-point and high.

36. The second last row in the tables entitled "Totals" is the sum, where relevant, of all of the preceding rows. Therefore, the simulated reductions are found under "Reduction in Imports". The last row entitled "Trade Effect Coefficient" is the value obtained by dividing the total trade effect (from the row above) by the total CDSOA disbursements. For 2001, these values (listed in Annex Table 3) are 1.09 for the mid-point range, 0.87 for the low value and 1.30 for the high values. Similarly, the results for 2002 and 2003 are listed in Annex Tables 4 and 5 respectively.

37. In order to adjust the simulation results for various assumptions of pass-through, as proposed by the United States, we simply reduce the value of the disbursements. For example, for an assumption of a 25 per cent pass-through, only 25 per cent of the applicable disbursement is used to calculate the trade effect. With respect to equation A3, this would imply an assumption of 0.25 for the value of α. Annex Table 6, which is also Table 3 in the main text, presents the various results for the different assumptions about the values of the elasticity of substitution and pass-through.

38. What remains to calculate is the final trade coefficient. In doing so, we have decided to take a sample average of the trade coefficients for the three years (2001-2003). The reason for this choice is the changing values and distribution of the payments. A broader time period is more reflective of the value and type of distribution one could expect from the operation of the programme over time. As stated in paragraph 3.144, we take for each year the middle two rows and the middle column and average these three values. In doing so, we obtain 0.68 for 2001, 0.78 for 2002 and 0.70 for 2003. A simple average of these three values is 0.72. Accordingly, the value for B in equation A3, or the trade effect coefficient, is 0.72.

Annex Table 3: Counterfactual Trade Effect of CDSOA Disbursements
Assuming 100 per cent Pass-through by 3-digit NAIC, 2001

					Reduction in imports (US dollars)		
NAIC Code	Industry	Disbursements (US dollars)	Elasticity	Market Penetration	Low	Mid-point	High
111	Agriculture	25251.96	2.2	0.16	7111	8889	10666
114	Fish products	63576.45	2.8	20.60	2933672	3667090	4400508
311	Food	22086937.38	2.2	0.05	1943650	2429563	2915476
313	Textiles and fabrics	0	2.2	0.18	0	0	0
314	Textiles mill products	21673.08	2.2	0.25	9536	11920	14304
321	Wood products	0	2.8	0.18	0	0	0
322	Paper	413729.38	1.8	0.13	77450	96813	116175
325	Chemicals	5444564.42	1.9	0.22	1820662	2275828	2730994
326	Plastics and rubber	694385.83	1.9	0.11	116101	145127	174152
327	Non metallic mineral	3253894.67	2.8	0.15	1093309	1366636	1639963
331	Primary metal	31938114.29	2.8	0.30	21462413	26828016	32193619
332	Fabricated metal	13801060.19	2.8	0.11	3400581	4250727	5100872
333	Machinery, except electrical	27551.75	2.8	0.38	23452	29315	35178
336	Transportation equipment	714537.7	5.2	0.44	1307890	1634862	1961835
337	Furniture and fixtures	0	2.8	0.22	0	0	0
339	Misc. manufactures	108862859.3	2.8	0.59	143873155	179841444	215809732
	Not elsewhere classified	43853754.39	2.8	0.23	22724431	28405539	34086646
	Total	231201890.8			200793413	250991767	301190120
	Trade Effect Coefficient				0.87	1.09	1.30

Annex Table 4: Counterfactual Trade Effect of CDSOA Disbursements
Assuming 100 per cent Pass-through by 3-digit NAIC, 2002

					Reduction in imports (US dollars)		
NAIC Code	Industry	Disbursements (US dollars)	Elasticity	Market Penetration	Low	Mid-point	High
111	Agriculture	535685.42	2.2	0.16	150849	188561	226274
114	Fish products	261675.49	2.8	26.89	15761657	19702071	23642485
311	Food	18886033.44	2.2	0.05	1661971	2077464	2492956
313	Textiles and fabrics	0	2.2	0.19	0	0	0
314	Textiles mill products	6734180.07	2.2	0.27	3200082	4000103	4800124
321	Wood products	0	2.8	0.19	0	0	0
322	Paper	128975.29	1.8	0.13	24144	30180	36216
325	Chemicals	5463401.14	1.9	0.25	2076092	2595116	3114139
326	Plastics and rubber	1091701.37	1.9	0.11	182532	228166	273799
327	Non metallic mineral	3564.22	2.8	0.16	1277	1597	1916
331	Primary metal	36423770.47	2.8	0.28	22844989	28556236	34267483
332	Fabricated metal	27606835.88	2.8	0.12	7420717	9275897	11131076
333	Machinery, except electrical	1970105.76	2.8	0.37	1632824	2041030	2449235
336	Transportation equipment	2094362.23	5.2	0.44	3833521	4791901	5750281
337	Furniture and fixtures	0	2.8	0.26	0	0	0
339	Misc. manufactures	168327408	2.8	0.60	226232036	282790045	339348055
	Not elsewhere classified	37935918.13	2.8	0.24	20281048	25351310	30421571
	Totals	307463616.9			305303740	381629675	457955610
	Trade Effect Coefficient				0.99	1.24	1.49

Annex Table 5: Counterfactual Trade Effect of CDSOA Disbursements
Assuming 100 per cent Pass-through by 3-digit NAIC, 2003

					Estimated Reduction in Imports (US dollars)		
NAIC Code		Disbursements (US dollars)	Elasticity	Market Penetration	Low	Mid-point	High
111	Agriculture	417142.63	2.2	0.17	124809.1	156011	187214
114	Fish products	668638.52	2.8	23.75	35571569.3	44464462	53357354
311	Food	19378335.76	2.2	0.05	1705293.5	2131617	2557940
313	Textiles and fabrics	92126.35	2.2	0.21	34049.9	42562	51075
314	Textiles mill products	4153133.37	2.2	0.30	2192854.4	2741068	3289282
321	Wood products	71164.16	2.8	0.19	30287.5	37859	45431
322	Paper	354593.19	1.8	0.13	66379.8	82975	99570
325	Chemicals	1185138.69	1.9	0.25	450352.7	562941	675529
326	Plastics and rubber	17779.87	1.9	0.12	3243.0	4054	4865
327	Non metallic mineral	160876.92	2.8	0.18	64865.6	81082	97298
331	Primary metal	37658237.68	2.8	0.30	25306335.7	31632920	37959504
332	Fabricated metal	58308377.14	2.8	0.13	16979399.4	21224249	25469099
333	Machinery, except electrical	303535.69	2.8	0.42	285566.4	356958	428350
336	Transportation equipment	47777.55	5.2	0.45	89439.6	111799	134159
337	Furniture and fixtures	347.89	2.8	0.29	226.0	282	339
339	Miscellaneous manufactures	63033167.58	2.8	0.60	84716577.2	105895722	127074866
	Not elsewhere classified	4397052.27	2.8	0.25	2488614.3	3110768	3732921
	Totals	190247425.3			170109863.5	212637329	255164795
	Trade Effect Coefficient				0.89	1.12	1.34

Annex Table 6: Summary of Results for Various Values for Substitution Elasticity and Pass-through, 2001-2003

2001			
	Low	Medium	High
25 per cent	0.22	0.27	0.33
50 per cent	0.43	0.54	0.65
75 per cent	0.65	0.81	0.98
100 per cent	0.87	1.09	1.30
2002			
	Low	Medium	High
25 per cent	0.25	0.31	0.37
50 per cent	0.50	0.62	0.74
75 per cent	0.74	0.93	1.12
100 per cent	0.99	1.24	1.49
2003			
	Low	Medium	High
25 per cent	0.22	0.28	0.34
50 per cent	0.45	0.56	0.67
75 per cent	0.67	0.84	1.01
100 per cent	0.89	1.12	1.34