

**BRAZIL – EXPORT FINANCING PROGRAMME FOR AIRCRAFT**

**RECOURSE TO ARBITRATION BY BRAZIL  
UNDER ARTICLE 22.6 OF THE DSU  
AND ARTICLE 4.11 OF THE SCM AGREEMENT**

**DECISION BY THE ARBITRATORS**

The Decision of the Arbitrators on Brazil – Export Financing Programme for Aircraft - Recourse to Arbitration by Brazil under Article 22.6 of the Dispute Settlement Understanding (DSU) and Article 4.11 of the Agreement on Subsidies and Countervailing Measures (SCM) - is being circulated to all Members, pursuant to the DSU. The report is being circulated as an unrestricted document from 28 August 2000 pursuant to the Procedures for the Circulation and Derestriction of WTO Documents (WT/L/160/Rev.1).



## TABLE OF CONTENTS

<b>I.</b>	<b>INTRODUCTION</b> .....	<b>1</b>
A.	REQUEST FOR ARBITRATION AND SELECTION OF THE ARBITRATORS .....	1
B.	PRESENTATION OF THIS REPORT .....	1
<b>II.</b>	<b>PRELIMINARY ISSUES</b> .....	<b>2</b>
A.	TIMETABLE FOR THE ARBITRATION .....	2
B.	REQUEST FOR THIRD-PARTY RIGHTS .....	3
C.	BURDEN OF PROOF .....	4
<b>III.</b>	<b>DETERMINATION OF THE "APPROPRIATE COUNTERMEASURES"</b> .....	<b>5</b>
A.	EXTENT OF THE MANDATE OF THE ARBITRATORS .....	5
<b>1.</b>	<b>Applicable provisions</b> .....	<b>5</b>
(a)	WTO provisions .....	5
(b)	Status of the Bilateral Agreement .....	6
<b>2.</b>	<b>Specific claims and arguments raised by Brazil</b> .....	<b>8</b>
<b>3.</b>	<b>Task of the Arbitrators</b> .....	<b>9</b>
B.	ARE CANADA'S PROPOSED COUNTERMEASURES "APPROPRIATE COUNTERMEASURES"? .....	9
<b>1.</b>	<b>Summary of Canada's methodology and Brazil's counter approach</b> .....	<b>9</b>
(a)	Canada's methodology .....	9
(b)	Brazil's counter approach .....	9
(c)	Preliminary remarks regarding the consequences of these approaches on the Arbitrators' task .....	10
<b>2.</b>	<b>Does the term "countermeasures" in Article 4.10 and 11 of the SCM Agreement apply to the type of countermeasures which Canada plans to take?</b> .....	<b>10</b>
<b>3.</b>	<b>Meaning of "appropriate"</b> .....	<b>11</b>
(a)	Issues before the Arbitrators .....	11
(b)	Is the "subsidy", to be used as the basis for the calculation of the level of appropriate countermeasures, the portion of the PROEX payments that reduces the net interest rate below the appropriate benchmark rate, or the full amount of the PROEX payments? .....	11
(c)	Should the level of countermeasures correspond to the amount of the subsidy granted by Brazil or be equivalent to the level of nullification or impairment suffered by Canada? .....	14
(i)	<i>Analysis of the relevant provisions</i> .....	14
(ii)	<i>Implications with respect to the number of aircraft sales to be taken into account in the calculation of the appropriate countermeasures</i> .....	18
	Treatment of sales of certain models of aircraft .....	18
	Treatment of the contracts pre-dating 18 November 1999 .....	18
<b>4.</b>	<b>Methodology applied by the Arbitrators</b> .....	<b>19</b>

C.	CALCULATION OF THE APPROPRIATE LEVEL OF COUNTERMEASURES .....	20
<b>1.</b>	<b>Average unit price per model .....</b>	<b>20</b>
(a)	Basic elements .....	20
(i)	<i>Sale price</i> .....	20
(ii)	<i>Spare parts</i> .....	20
(b)	Results.....	21
<b>2.</b>	<b>Projection of annual aircraft production per model.....</b>	<b>21</b>
<b>3.</b>	<b>Calculation of the present value of the subsidy .....</b>	<b>23</b>
(a)	Calculation of the present value of the subsidy .....	23
(i)	<i>Relevant tables</i> .....	23
(ii)	<i>Financing method</i> .....	23
(iii)	<i>Financing rate</i> .....	24
(iv)	<i>Agent fee</i> .....	24
(v)	<i>Discount rate</i> .....	25
(vi)	<i>Present value of the subsidy per aircraft model</i> .....	25
(b)	Calculation of the total present value of the subsidy .....	26
<b>IV.</b>	<b>AWARD OF THE ARBITRATORS .....</b>	<b>27</b>
	ANNEX.....	28

## I. INTRODUCTION

### A. REQUEST FOR ARBITRATION AND SELECTION OF THE ARBITRATORS

1.1 On 10 May 2000, Canada, pursuant to Article 4.10 of the Agreement on Subsidies and Countervailing Measures (hereinafter the "SCM Agreement") and Article 22.2 of the Understanding on Rules and Procedures Governing the Settlement of Disputes (hereinafter the "DSU"), requested that a special meeting of the Dispute Settlement Body ("DSB") be convened to authorise Canada to take appropriate countermeasures in the amount of Canadian dollars (hereinafter "C\$") 700 million per year (WT/DS46/16). At the DSB meeting held on 22 May 2000, Brazil requested, pursuant to Article 22.6 of the DSU, that the matter be referred to arbitration.<sup>1</sup>

1.2 In response to Brazil's request, the DSB decided on 22 May 2000 to submit the matter to arbitration of the original panel in accordance with Article 22.6 of the DSU and Article 4.11 of the SCM Agreement. The arbitrators were to determine whether the countermeasures requested by Canada in document WT/DS46/16 were appropriate; it being understood that no countermeasures would be sought pending the Appellate Body report and until after the arbitrators' report in the present case.<sup>2</sup>

1.3 The arbitration was carried out by the original panel (referred to hereinafter as the "Arbitrators"), namely:

Chairman: Dr. Dariusz Rosati

Members: Professor Akio Shimizu  
Dr. Kajit Sukhum

### B. PRESENTATION OF THIS REPORT

1.4 This report is structured as follows: we first address a number of issues which were discussed in the course of these proceedings and which we considered should be properly reported for the information of the Members and the transparency of the proceedings. These issues are the specific timetable applied by the Arbitrators in this case and the request for third party rights submitted by Australia. Included also is a section on the burden of proof in which we describe how we intend to consider the various data supplied by the parties, having regard to the fact that this case deals with the exportations of one single company, the Brazilian aircraft manufacturer *Empresa Brasileira de Aeronáutica S.A.* (hereinafter "Embraer").

1.5 Secondly, we proceed to the determination of the "appropriate countermeasures" in the present case, within the meaning of Article 4.10 and 11 of the SCM Agreement. In that context, we first determine the scope of our task. Thereafter, we proceed to determine whether Canada's proposed suspension of concessions or other obligations<sup>3</sup> fall within the definition of the term "countermeasures". Then, we address the question of whether Canada's proposed countermeasures are "appropriate". In order to do so, we first determine the meaning of the word "appropriate" in terms of the *level* of countermeasures that may be deemed "appropriate". This implies that we address the question of the actual amount of "prohibited subsidy" to be withdrawn pursuant to Article 4.7 of the SCM Agreement and the issue of whether Canada's measures should be based on the amount of nullification or impairment suffered or on the full amount of subsidization under the Brazilian

---

<sup>1</sup> See WT/DSB/M/81, para. 10. Brazil later confirmed its request in a communication dated 7 June 2000 (WT/DS46/18). At the meeting of the DSB on 22 May 2000, Brazil also notified the DSB of its decision to appeal to the Appellate Body certain issues of law covered in the panel report under Article 21.5 of the DSU.

<sup>2</sup> See WT/DSB/M/81, para. 31.

<sup>3</sup> See WT/DS46/16.

*Programa de Financiamento às Exportações* ("PROEX") interest rate equalisation payments. We then apply the criteria identified and perform our own calculations in order to determine whether the level of countermeasures proposed by Canada is appropriate.

1.6 Thirdly, we state in our conclusion the level of countermeasures which we consider to be appropriate in this case.

## II. PRELIMINARY ISSUES

### A. TIMETABLE FOR THE ARBITRATION

2.1 The Arbitrators met with the parties on 30 May 2000 to establish their working procedures and timetable. Canada and Brazil objected to the original timetable submitted by the Arbitrators for different reasons. The Arbitrators took into account the comments of the parties. They also considered the complex legal and factual situation which resulted mainly from two elements:

- (a) a bilateral agreement between the parties on recourse to Articles 21 and 22 of the DSU and Article 4 of the SCM Agreement (hereinafter the "Bilateral Agreement") which provided for deadlines in relation to the invocation of Article 22;<sup>4</sup> and
- (b) the fact that Brazil had appealed certain findings of the panel report issued under Article 21.5 of the DSU before the Appellate Body at the same time as it requested arbitration under Article 22.6 of the DSU and the fact that the report of the Appellate Body in the Article 21.5 proceedings was expected to be issued on 21 July 2000.

The time-periods referred to in the Bilateral Agreement were difficult to reconcile with the situation created by Brazil's appeal.<sup>5</sup> The extent to which the parties' rights and obligations under the DSU might have been affected by the Bilateral Agreement also had to be taken into account. The decision of the Appellate Body could influence the extent to which Brazil may be considered to have brought its legislation into conformity with its WTO obligations. Due process required that parties be in a position to meaningfully comment on the content of the Appellate Body report.<sup>6</sup> Thus, the Arbitrators adopted a timetable which, in their opinion, respected the spirit of Articles 21 and 22 of the DSU and the purpose of arbitration under Article 22.6 of the DSU and Article 4 of the SCM,<sup>7</sup> while not unduly delaying the issuance of the award.

---

<sup>4</sup> See document WT/DS46/13. The Arbitrators note in this respect that the Bilateral Agreement did not expressly refer to the fact that a party may appeal the report of the panel under Article 21.5 of the DSU. They also note that Brazil, at the DSB meeting of 9 December 1999, reserved its right to appeal the Article 21.5 panel report issued under Article 21.5 (see WT/DSB/M/72, p. 2).

<sup>5</sup> At the hearing with the Arbitrators, on 14 July 2000, Brazil stated that the recourse by Canada to Article 22.2 of the DSU before the completion of the Article 21.5 proceedings was a material breach of the Bilateral Agreement. Referring to Article 60 of the Vienna Convention on the Law of Treaties (1969) (U.N. Doc. A/CONF. 39/27 (1969), hereinafter the "Vienna Convention"), Brazil declared that it was terminating the Bilateral Agreement. This issue is addressed in section III.A.1. below.

<sup>6</sup> We agree in this respect with the statement of 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*, 9 April 1999, WT/DS27/ARB (hereinafter "*EC – Bananas (1999)*"), para. 2.12:

"[...] given that our own decisions cannot be appealed, we consider it imperative to achieve the greatest degree of clarity possible with a view to avoiding future disagreements between the parties. Reaching this objective required the parties to have more time to submit to us the information necessary to complete our tasks." (See also footnote 7 to that paragraph)

<sup>7</sup> The Arbitrators are also aware of the question of "sequencing" recourses to Article 21.5 and Article 22.6 of the DSU. They note that one of the effects of the Bilateral Agreement was to establish such a

2.2 The Arbitrators designed a timetable providing for two alternative dates of issuance of their report. Should the Appellate Body either decline jurisdiction in proceedings under Article 21.5 of the DSU or fully uphold the conclusions of the panel under Article 21.5, the report would be issued on 26 July 2000. Should any party consider that the conclusions of the Appellate Body would require additional submissions by the parties, a second round of submissions and possibly a second hearing would be organised. The award of the Arbitrators would then be issued on 23 August 2000.<sup>8</sup>

2.3 On the basis of the above-mentioned timetable, Canada was invited to submit a communication by 5 June 2000 explaining the methodology it applied in calculating its proposed level of suspension. Brazil commented on Canada's methodology on 13 June 2000. The parties made their initial written submissions on 26 June 2000. The Arbitrators held a meeting with the parties on 14 July 2000. Questions were asked to both parties by the Arbitrators and by Canada to Brazil on 17 July 2000. Both parties replied on 24 July. On the same date, having reviewed the report of the Appellate Body issued on 21 July, Brazil submitted additional comments to the Arbitrators. Canada commented on 28 July. The Arbitrators, on the basis of the parties' replies to their questions of 24 July, asked additional questions to the parties on 4 August 2000. The parties replied on 14 August 2000. For the reasons mentioned in paragraph 2.14 below, the report was first issued to the parties on 21 August 2000. It was then issued to the Members on 28 August 2000.

#### B. REQUEST FOR THIRD-PARTY RIGHTS

2.4 On 5 June 2000, Australia requested the Arbitrators to register its participation as a third party given its participation as a third party in the proceedings under Article 21.5 of the DSU and its substantial and continuing interest in the dispute.

2.5 At our request, the parties made their views known on 8 June 2000. On the same day, we informed Australia that we declined its request. Our decision took into account the views expressed by the parties, the fact that there is no provision in the DSU as regards third party status under Article 22, and the fact that we do not believe that Australia's rights would be affected by this proceeding.

2.6 We note in this respect that third party rights were granted in the Article 22.6 arbitrations concerning *European Communities – Measures Concerning Meat and Meat Products (Hormones)*<sup>9</sup>

---

"sequencing". By issuing their report after the Appellate Body report, the Arbitrators consider that they have respected the intention of the parties. The question of whether such a sequencing is actually required under the DSU is not part of the mandate of the Arbitrators. The Arbitrators also took note of the statement of Canada at the DSB meeting of 22 May 2000 not to apply countermeasures before the Appellate Body report had been issued.

<sup>8</sup> The Arbitrators would like to recall that the timetable adopted in this case, which substantially departs from the timetables in previous arbitrations under Article 22.6 of the DSU, was dictated by the particular circumstances of the case. It may be argued that, as a result of the Appellate Body report in this case, the question of whether a panel decision under Article 21.5 can be appealed or not is solved. If this is correct, the legal uncertainty which led the Arbitrators to act cautiously may be unlikely to occur again in similar circumstances and the approach followed is unlikely to set a precedent. However, it is the understanding of the Arbitrators that the issue of the jurisdiction of the Appellate Body in proceedings under Article 21.5 of the DSU was not addressed by the Appellate Body because the parties did not raise it. The Arbitrators have to assume that the Appellate Body considered its jurisdiction to be particularly obvious, because it is generally agreed in public international law that any tribunal is responsible to address the question of its jurisdiction, whether the parties raise it or not.

<sup>9</sup> See *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, 12 July 1999, WT/DS48/ARB, para. 7; *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, 12 July 1999, WT/DS26/ARB, para. 7. These decisions are hereinafter referred to as "*EC – Hormones*".

and rejected in the *EC – Bananas (1999)* Article 22.6 arbitration.<sup>10</sup> We do not consider that Australia in this case is in the same situation as Canada and the United States in the *EC – Hormones* arbitrations, nor even in the same situation as Ecuador in the *EC – Bananas (1999)* arbitration. Indeed, Australia never initiated dispute settlement proceedings against Brazil with respect to the export financing programme at issue. Moreover, Australia did not draw the attention of the Arbitrators to any benefits accruing to it or any rights under the WTO Agreement which might be affected by their decision.<sup>11</sup>

### C. BURDEN OF PROOF

2.7 Parties have addressed the question of the burden of proof in their submissions. The need for the Arbitrators to rely on data available only to one party also justifies that we recall at this stage how we deal with these aspects in this case.

2.8 In application of the well-established WTO practice on the burden of proof in dispute resolution, it is for the Member claiming that another has acted inconsistently with the WTO rules to prove that inconsistency.<sup>12</sup> In the present case, the action at issue is the Canadian proposal to suspend concessions and other obligations in the amount of C\$700 million as "appropriate countermeasures" within the meaning of Article 4.10 of the SCM Agreement.<sup>13</sup> Brazil challenges the conformity of this proposal with Article 22 of the DSU and Article 4.10 of the SCM Agreement. It is therefore up to Brazil to submit evidence sufficient to establish a *prima facie* case or "presumption" that the countermeasures that Canada proposes to take are not "appropriate". Once Brazil has done so, it is for Canada to submit evidence sufficient to rebut that "presumption". Should the evidence remain in equipoise on a particular claim, the Arbitrators would conclude that the claim has not been established. Should all evidence remain in equipoise, Brazil, as the party bearing the original burden of proof, would lose the case.

2.9 An issue to be distinguished from the question of who bears the burden of proof is that of the duty that rests on both parties to produce evidence and to collaborate in presenting evidence to the Arbitrators. This is why, even though Brazil bears the original burden of proof, we expected Canada to come forward with evidence explaining why its proposal constitutes appropriate countermeasures and we requested it to submit a "methodology paper" describing how it arrived at the level of countermeasures it proposes.<sup>14</sup>

2.10 A related problem faced by the Arbitrators in this case was that, in many instances, the original data necessary for the calculations or assessments was solely in the hands of Brazil. When this information originated in the Brazilian government, we assumed good faith and accepted the information and the supporting evidence provided by Brazil to the extent Canada also accepted it or did not provide sufficient evidence to put in doubt the accuracy of Brazil's statements and/or evidence.

2.11 However, since this case relates to subsidies granted for the purchase of aircraft produced by the Brazilian aircraft manufacturer, Embraer, a large number of data essential for the resolution of our task is only available to that company. We assumed that Embraer was independent from the Brazilian government and, for that reason, we could not treat statements from that company as we would have if

---

<sup>10</sup> *Op. Cit.*, para. 2.8.

<sup>11</sup> Our decision may have been different if Australia had demonstrated that the countermeasures which Canada plans to adopt may affect Australia's rights or benefits under the WTO Agreement.

<sup>12</sup> See also how this issue is addressed in the decisions by the arbitrators in *EC – Hormones, Op. Cit.*, paras. 8 to 11.

<sup>13</sup> See WT/DS/46/16.

<sup>14</sup> This approach is similar to those followed in the arbitrators' decisions in *EC – Bananas (1999)* and *EC – Hormones, Op. Cit.*



they had originated from a subject of international law.<sup>15</sup> When Brazil only provided statements regarding information available solely to Embraer, we requested that Brazil support those statements with materials usually regarded as evidence, such as articles or statements reproduced in the specialized press, company annual reports or any other certified information originating in Embraer or other reliable sources. When Brazil was not in a position to provide documentary evidence, we requested a detailed explanation of the reasons why such evidence was not available and expressed our willingness to consider written declarations from authorised Embraer officials, if duly certified. We then weighed this evidence against the evidence submitted by Canada.

2.12 In some instances, such as for the unit price of each model of Embraer's regional jets, Brazil declared that it was not in a position to provide the information or evidence supporting it, but stated that it accepted the data provided by Canada. In these circumstances, we accepted the information and evidence supplied by Canada.

2.13 Finally, Brazil insisted in the course of the proceedings on the confidentiality of certain documents it provided to the Arbitrators. We were mindful of the serious problems that could be caused by the disclosure of certain commercial or financial information. We were also aware of the fact that the full cooperation of Members and private persons to the WTO dispute settlement mechanism, which is essential for an objective assessment of the facts, often depends on the appropriate protection of confidential information.

2.14 This is the reason why we decided to prepare two versions of this report. The first version, including the details of our calculations and all the information relied upon, was issued exclusively to the parties on a confidential basis. The second version, in which the most commercially sensitive information has been removed, is circulated to the Members.<sup>16</sup> While some data is not included in this version, it is nevertheless sufficiently detailed for all Members to understand the reasoning of the Arbitrators and the methodology applied in determining whether the countermeasures proposed by Canada are appropriate. By doing so, the Arbitrators are of the view that they have respected their obligations under the DSU while appropriately protecting the confidentiality of certain information, for which the parties had requested confidentiality.

### **III. DETERMINATION OF THE "APPROPRIATE COUNTERMEASURES"**

#### **A. EXTENT OF THE MANDATE OF THE ARBITRATORS**

##### **1. Applicable provisions**

###### **(a) WTO provisions**

3.1 The Arbitrators note that the provisions which establish their mandate are also discussed in several of the following sections. Therefore, rather than quoting them each time they are referred to, the Arbitrators reproduce them here and will refer to this subsection as necessary.

3.2 Article 4.11 of the SCM Agreement reads as follows:

---

<sup>15</sup> See preceding paragraph, where we apply a presumption of good faith to statements and evidence originating in subjects of international law (on production and appraisal of evidence, see, *inter alia*, International Court of Justice ("ICJ") judgement of 9 April 1949 *Corfu Channel Case*, ICJ Reports 1949, p. 32; ICJ judgement of 11 September 1992 *Land, Island and Maritime Frontier Dispute (El Salvador v. Honduras, Nicaragua intervening)*, ICJ Reports 1992, p. 399, para. 63; ICJ judgement on merits *Military and Paramilitary Activities in and Against Nicaragua (Nicaragua v. United States of America)*, ICJ Reports 1986, p. 40, para. 60.

<sup>16</sup> The text of the version circulated to Members is identical to the text of the confidential version issued to the parties, with the exception of the information which the Arbitrators, having regard to the comments of the parties, considered to be confidential. This information was replaced by "xxx".

"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." [footnote 10]

Footnote 10 reads as follows:

"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."

3.3 Article 4.11 of the SCM Agreement refers to an arbitration requested under paragraph 6 of Article 22 of the DSU. Article 22.6 reads in relevant parts as follows:

"[...] However, if the Member concerned objects to the level of suspension proposed, or claims that the principles and procedures set forth in paragraph 3 have not been followed where a complaining party has requested authorization to suspend concessions or other obligations pursuant to paragraph 3(b) or (c), the matter shall be referred to arbitration. [...]"

3.4 The role of the arbitrator under Article 22.6 is described in Article 22.7, which reads in relevant parts as follows:

"The arbitrator [...] shall determine whether the level of such suspension is equivalent to the level of nullification or impairment. The arbitrator may also determine if the proposed suspension of concessions or other obligations is allowed under the covered agreement. However, if the matter referred to arbitration includes a claim that the principles and procedures set forth in paragraph 3 have not been followed, the arbitrator shall examine that claim. In the event the arbitrator determines that those principles and procedures have not been followed, the complaining party shall apply them consistent with paragraph 3. [...]"

3.5 The Arbitrators are aware that Article 4.10 and 11 has the status of "special or additional rules and procedures", within the meaning of Article 1.2 of the DSU. Having considered the views expressed by the parties, we follow the practice of the Appellate Body as defined more specifically in its report on *Guatemala – Anti-Dumping Investigation Regarding Portland Cement from Mexico*.<sup>17</sup>

(b) Status of the Bilateral Agreement

3.6 Both Canada and Brazil have referred to the Bilateral Agreement, which was concluded on 23 November 1999 and notified to the DSB in an annex to a communication from Canada.<sup>18</sup> At the hearing with the Arbitrators on 14 July 2000, Brazil declared that it had terminated the Bilateral Agreement because of a material breach by Canada. Brazil referred to Article 60 of the Vienna

---

<sup>17</sup> Adopted on 25 November 1998, WT/DS60/AB/R (hereinafter "*Guatemala – Cement*"). See, in particular, paras. 65 and 66, where the Appellate Body stated that special or additional rules and procedures referred to in Article 1.2 of the DSU fit together with the generally applicable rules and procedures of the DSU to form a comprehensive, integrated dispute settlement system (para. 66). Special or additional rules and procedures shall prevail over the provisions of the DSU to the extent there is a difference between the two sets of provisions. If there is no "difference", the rules and procedures of the DSU apply together with the special or additional provisions of the covered agreement. A special or additional rule or procedure should only be found to prevail over a provision of the DSU in a situation where adherence to one provision will lead to a violation of the other provision, that is, in case of conflict between them (para. 65); see also Appellate Body Report in *Brazil – Measures Affecting Desiccated Coconut*, adopted on 20 March 1997, WT/DS22/AB/R, p. 14. We therefore read these provisions as a whole and give a useful meaning to all, in application of the principle of effective interpretation (*ut res magis valeat quam pereat*).

<sup>18</sup> WT/DS46/13.

Convention. Brazil thus stated that, pursuant to Article 22.7 of the DSU, the Arbitrators should determine that the proposed countermeasures are not allowed under the SCM Agreement on the grounds that the time within which they may be authorized has expired. Canada considered that the Arbitrators do not have authority to interpret the Bilateral Agreement. Canada added that there is nothing in the SCM Agreement that provides that a Member must request or receive authorization to take countermeasures within a particular period of time. Furthermore, Article 22.6 of the DSU does not provide that a Member is required to take action within a particular period of time.

3.7 With respect to the Bilateral Agreement, the Arbitrators consider that the first question to address is whether it relates to the tasks of the Arbitrators. Without interpreting the Bilateral Agreement, the Arbitrators note that the only provision which could be taken to relate to their work is paragraph 5,<sup>19</sup> which provides for time periods for DSB action under the first sentence of Article 22.6 of the DSU and for a 30 day deadline for the completion of the arbitration.

3.8 The Arbitrators note that the parties disagree as to the meaning of the term "report under Article 21.5 of the DSU" in paragraph 5 of the Bilateral Agreement. However, we recall that, at the DSB meeting of 22 May 2000, it was agreed not to seek countermeasures "pending the Appellate Body report and until after the arbitration report in the present case."<sup>20</sup> We consider that, by doing so, the parties have amended the terms of paragraph 5 of the Bilateral Agreement. Since the date of issuance of the report proposed by the Arbitrators has not led to objections by the parties, we consider that we acted in conformity with our obligations under the norms applicable to our task. We therefore do not need to discuss the question of whether we could interpret the Bilateral Agreement or whether it ceased to apply to the Arbitrators' tasks after Brazil's alleged application of Article 60 of the Vienna Convention<sup>21</sup> on 14 July 2000.

3.9 Brazil also claimed that, as a result of the termination of the Bilateral Agreement, the Arbitrators should, pursuant to Article 22.7 of the DSU, determine that the proposed countermeasures are not allowed under the SCM Agreement on the grounds that the time within which they may be authorised has expired.

3.10 We note that Article 60 of the Vienna Convention provides for the "termination" of a treaty by one party in response to a "material breach" by the other party. Article 70 of the Vienna Convention nevertheless provides that the termination of a treaty does not affect any right, obligation or legal situation of the parties created through the execution of the treaty prior to its termination. We conclude that, even assuming that the Bilateral Agreement has been terminated by Brazil on 14 July 2000, the request by Canada under Article 4.10 of the SCM Agreement, to the extent it was made in accordance with the terms of the Bilateral Agreement, remains unaffected by the termination.<sup>22</sup> We therefore do not find it necessary to address further this question.

---

<sup>19</sup> Paragraph 5 of the Bilateral Agreement reads as follows:

"Pursuant to footnote 6 to Article 4 of the SCM Agreement, Brazil and Canada agree that the deadline for DSB action under the first sentence of Article 22.6 of the DSU shall be 15 days after the circulation of the report under Article 21.5 of the DSU, and that the deadline specified in the third sentence of Article 22.6 of the DSU for completion of arbitration shall be 30 days after the matter is referred for arbitration."

<sup>20</sup> WT/DSB/M/81, para.31.

<sup>21</sup> See above, para. 3.6.

<sup>22</sup> Furthermore, we note that the interpretation of the first sentence of Article 22.6 of the DSU suggested by Brazil has not been followed by the DSB so far. For instance, the request by Ecuador to suspend concessions or other obligations under Article 22.6 of the DSU in the case on *European Communities – Regime for the Importation, Sale and Distribution of Bananas* (hereinafter "*EC – Bananas*"), adopted on 25 September

## 2. Specific claims and arguments raised by Brazil

3.11 The parties agree that the Arbitrators are called upon to determine whether the *level* of countermeasures is appropriate. Having regard to the terms of Article 4.11 of the SCM Agreement and Article 22.7 of the DSU, we agree with them that we have, pursuant to those provisions, jurisdiction to determine whether the *level* or the *amount* of countermeasures proposed by Canada is appropriate.

3.12 More particularly, we note that Brazil, at the DSB meeting of 22 May 2000, where it requested arbitration under Article 22.6 of the DSU and Article 4.11 of the SCM Agreement, objected to the level of suspension of concessions or other obligations proposed by Canada. We note, however, that Brazil has, in the course of the proceedings, presented certain claims or arguments the admissibility of which needs to be addressed at this stage.

3.13 First, in a communication circulated as document WT/DS46/18, Brazil argued that the principles and the procedures set out in Article 22.3 of the DSU had not been followed by Canada. Canada has objected that this claim is not within the mandate of the Arbitrators. At the hearing of the Arbitrators, Brazil stated that "Since Canada's current retaliation proposal appears to fall within the provisions of Article 22.3(a), Brazil is not today raising any issue under Article 22.3. Brazil reserves its right to do so in the event that Canada modifies or expands its requested countermeasures."

3.14 It is within our jurisdiction to determine the scope of our mandate. We consider that if Brazil's claim were part of our mandate, Brazil would be entitled to develop it at any stage of the proceedings.<sup>23</sup> However, we would like to specify first that we are doubtful that Canada may "modify or expand its requested countermeasures" in the course of the present proceedings. We note that, at the time of issuance of this report, Canada has actually not notified anything of that sort.

3.15 Furthermore, we reviewed the minutes of the DSB meeting of 22 May 2000, where our mandate was adopted by the DSB. We note that, during that meeting, Brazil stated that:

"[it] ha[d] to object to the level of suspension proposed by Canada, which was entirely arbitrary"<sup>24</sup>

However, we did not find any clear evidence that, at that meeting, Brazil actually raised the claim that the principles and the procedures set out in Article 22.3 of the DSU had not been followed. Consequently, the statement of Brazil regarding that claim in document WT/DS/46/18 does not refer to a claim which is part of our terms of reference, as established at the DSB meeting of 22 May 2000. Therefore, we do not find it necessary to address this point any further.

3.16 Second, Brazil also argued in its oral presentation that certain measures which Canada planned to adopt in relation to certain obligations under Article VI:6(a) of the GATT 1994 and in relation to certain obligations under the Agreement on Textiles and Clothing and the Agreement on Import Licensing Procedures were not appropriate.<sup>25</sup>

3.17 While the claim raised by Brazil might seem to relate to the nature of the measures at issue, we consider that it is closely linked to the *level* of the countermeasures. Indeed, according to Brazil, it is not clear how the impact of these measures will be assessed in terms of the value of the Brazilian trade to be affected. Since, as mentioned above, the parties agree that we have jurisdiction to

---

1997, WT/DS27/AB/R, was made on 8 November 1999, several months after the adoption of the panel report under Article 21.5 (at the DSB meeting of 6 May 1999).

<sup>23</sup> See Appellate Body report in *EC – Bananas*, *Op. Cit.*, paras. 145-147.

<sup>24</sup> WT/DSB/M/81, para. 10.

<sup>25</sup> Brazil's oral presentation, 14 July 2000, para. 3.

determine whether the level of countermeasures is appropriate, we consider that, if necessary, we may decide on the relevance of the application of such measures by Canada.

### **3. Task of the Arbitrators**

3.18 As to our task, we follow the approach adopted by previous arbitrators under Article 22.6 of the DSU.<sup>26</sup> We will have not only to determine whether Canada's proposal constitutes "appropriate countermeasures", but also to determine the level of countermeasures we consider to be appropriate in case we find that Canada's level of countermeasures is not appropriate, if necessary by applying our own methodology.

B. ARE CANADA'S PROPOSED COUNTERMEASURES "APPROPRIATE COUNTERMEASURES"?

#### **1. Summary of Canada's methodology and Brazil's counter approach**

(a) Canada's methodology

3.19 Hereafter is a summary of Canada's methodology, as understood by the Arbitrators.<sup>27</sup> In Canada's calculation, the level of countermeasures is directly proportionate on both an annual and total basis to the size of the prohibited subsidies Brazil pays out in support of its regional aircraft exports. Canada estimates the subsidy by multiplying the average subsidy per exported aircraft by Brazil's announced annual rate of production for these aircraft. The cumulative total of Brazil's subsidies, based on Embraer's order book, is C\$4.1 billion with a present value of C\$3.2 billion based on the annual profile of regional aircraft deliveries. In this calculation, Canada has taken into account:

- (a) The average level of prohibited subsidy found to apply to Brazil's regional aircraft exports pursuant to contracts concluded prior to 18 November 1999 for aircraft delivered after that date under the PROEX regime that applies to those contracts;
- (b) the average level of prohibited subsidy on regional aircraft to be delivered pursuant to contracts concluded after 18 November 1999 under the modified PROEX regime; and
- (c) Brazil's announced production rates for ERJ-135/140/145 and ERJ 170/190.

3.20 Canada's calculation results in annual prohibited subsidies equal to United States dollar (hereinafter "US\$") 480 million. At an exchange rate of C\$1.47 to US\$, this is equivalent to C\$705.6 million per year.

3.21 In the alternative, Canada also provided a calculation based on the value of the harm caused by the subsidy to the Canadian industry. In that calculation, Canada estimates that the present value of the harm to Canada's regional aircraft industry is C\$ 4.7 billion.

3.22 However, Canada specified that its preference was to use the option based on the amount of the subsidy granted by Brazil.

(b) Brazil's counter approach

3.23 As the Arbitrators understand it, Brazil's position can be summarised as follows. Brazil considers that the Arbitrators must determine what annual prospective Canadian exports of regional

---

<sup>26</sup> See Article 22.6 arbitrations in *EC – Hormones, Op. Cit.*, para. 12.

<sup>27</sup> See Canada's explanation of its methodology in the paper submitted to the Arbitrators on 5 June 2000. This methodology was developed in Annex I to its written submission of 26 June 2000.

aircraft would be if Brazil had withdrawn PROEX from undelivered aircraft as of 18 November 1999 and for transactions entered into after 18 November 1999.<sup>28</sup>

3.24 Brazil differentiates between sales of aircraft made before 18 November 1999 – the date by which it was supposed to have complied with the recommendations of the DSB – and sales made after that date. Brazil provides separate calculations of the level of impairment of Canada's trade with respect to sales of aircraft which took place before 18 November 1999 but for which delivery had not taken place at that date and sales made after 18 November 1999. For sales made after 18 November 1999, Brazil bases the appropriate countermeasures by reference to three elements: Brazil's number of deliveries of aircraft each year, the number of those sales that might have been won by Canada if PROEX had been cancelled as of 18 November 1999, and the likely amount of the subsidy on each aircraft.

3.25 First, Brazil took the projected number of deliveries of aircraft per year as 168. Brazil then considered how many of these sales might have been won by Canada if PROEX had been cancelled as of 18 November 1999. In discussing the situation of undelivered aircraft, Brazil explained that Canada would not compete for sales of several categories of aircraft. Thus, because Canada does not produce a 37-seat regional jet (and has no apparent plans to do so), sales of the ERJ-135 do not compete with Canada's industry and should be excluded from the calculation. Similarly, there are a number of contracts for which, for various technical/operational reasons, Canada's aircraft did not compete. Brazil found that, out of the total of 942 undelivered aircraft, Canada may only have competed for and won sales of 44 of these aircraft had PROEX been cancelled as of 18 November 1999. Brazil assumed that the same competitive and technical conditions would apply for future sales after 18 November 1999. Brazil therefore multiplied the annual production level of 168 aircraft by the ratio of undelivered sales that Canada might win to the total number of undelivered sales (44/942). The result was 8 aircraft per year that Canada might possibly win were PROEX cancelled as of 18 November 1999.

3.26 Second, this number of aircraft must be multiplied by the average amount of the prohibited portion of the subsidy per aircraft. Brazil calculated this amount as US\$xxx per aircraft. Multiplying this amount by 8 (the number of aircraft explained above) gives a determination of US\$xxx as the annual level of impairment of Canada's trade with respect to sales made by Brazil after 18 November 1999.

(c) Preliminary remarks regarding the consequences of these approaches on the Arbitrators' task

3.27 The Arbitrators note that Canada is not requesting countermeasures corresponding to the level of nullification or impairment it suffers. The Arbitrators also note that both parties, even though they disagree on the subsequent steps, suggested that the calculation of the level of appropriate countermeasures could be based on the amount of subsidy. As a result, we take Canada's approach as a starting point and proceed to determine whether, and to what extent, this approach results in "appropriate countermeasures", having regard to Brazil's arguments.

**2. Does the term "countermeasures" in Article 4.10 and 11 of the SCM Agreement apply to the type of countermeasures which Canada plans to take?**

3.28 In a communication dated 10 May 2000, Canada informed the DSB that it would request the authorization from the DSB to take countermeasures in the form of suspension of concessions and other obligations under GATT 1994 and other Annex 1A agreements. Canada also notified a list of

---

<sup>28</sup> Brazil's approach and the figures referred to hereafter are contained essentially in paragraphs 66 to 72 of its written submission of 26 June 2000 and in its reply of 24 July to question No. 21 of the Arbitrators.

products for which concessions could be suspended.<sup>29</sup> Except for the claims referred to in the previous section, Brazil did not comment in the course of the proceedings on the measures planned by Canada.

3.29 We do not consider that we need to elaborate further on this issue. In particular, we do not need to identify a generally applicable definition of "countermeasures". We, therefore, note that both parties agree that the term "countermeasures", as used in Article 4 of the SCM Agreement, may include suspension of concessions or other obligations. We have found no reason why we should disagree with the parties.

### 3. Meaning of "appropriate"

#### (a) Issues before the Arbitrators

3.30 The core of the arguments exchanged by the parties relates to what should be considered an *appropriate level* of countermeasures. Canada considers that countermeasures are appropriate if they correspond to the amount of the prohibited export subsidy granted. Brazil agrees that the starting-point for the calculation of the appropriate level of countermeasure should be the subsidy granted. However, Brazil considers that this amount does not correspond to the full payment under the PROEX interest rate equalization programme. Brazil considers that only the part of the payments used to "secure a material advantage in the field of export credit terms" within the meaning given to those terms in item (k) of the Illustrative List of Export Subsidies<sup>30</sup> constitutes a prohibited subsidy. Brazil also considers that, since Canada chose to take countermeasures in the form of suspension of concessions or other obligations, the countermeasures adopted by Canada must be equivalent to the level of nullification or impairment pursuant to Article 22.4 of the DSU.

3.31 The Arbitrators are of the view that two main issues have to be addressed with respect to this question in the present case:

- (a) since both parties agree that the determination of an appropriate level of countermeasures can be based on the amount of the subsidy granted, we must first determine what constitutes the subsidy, the withdrawal of which has been recommended;
- (b) the second issue is to determine whether the level of countermeasures should correspond to the amount of the subsidy to be withdrawn or be equivalent to the level of nullification or impairment caused to Canada, with a consequence on the number of aircraft sales which should be taken into account.

We proceed to address these two main issues and the questions related to them successively hereafter.

- (b) Is the "subsidy", to be used as the basis for the calculation of the level of appropriate countermeasures, the portion of the PROEX payments that reduces the net interest rate below the appropriate benchmark rate, or the full amount of the PROEX payments?

3.32 We note that Brazil has argued in its written submission of 26 June 2000 that the determination of the appropriate countermeasures based on the amount of the prohibited subsidy in this case should be limited to the difference between the amount of the PROEX support provided in each transaction and the appropriate benchmark, be it the rate of the US Treasury 10-year bond plus 20 basis points ("T-bill plus 20") used in the revised PROEX programme or the Commercial Interest Reference Rate ("CIRR") established under the OECD Arrangement on Guidelines for Officially Supported Export Credits. Brazil recalled at the hearing with the Arbitrators that this issue was

---

<sup>29</sup> WT/DS46/16.

<sup>30</sup> Annex I to the SCM Agreement (hereinafter the "Illustrative List").

pending before the Appellate Body as part of its appeal of the findings of the panel under Article 21.5 of the DSU. On 24 July, after the circulation of the Appellate Body report in the proceedings under Article 21.5 of the DSU,<sup>31</sup> Brazil submitted comments in which it claimed that the Appellate Body had concluded that only the portion of the PROEX payments that reduces the net interest rate below an appropriate benchmark constitutes a prohibited subsidy. Canada contested Brazil's interpretation in remarks filed on 28 July 2000.

3.33 We recall that the first panel established in this case (hereinafter the "Original Panel") concluded that *PROEX payments* on exports of Brazilian regional aircraft are subsidies within the meaning of Article 1 of the SCM Agreement which are contingent upon export performance within the meaning of Article 3.1(a) of the SCM Agreement.<sup>32</sup> This conclusion was not modified by the original Appellate Body report. We also recall that the Original Panel did not differentiate in its findings between the portion of the "payments" which is not "used to secure a material advantage within the field of export credit terms", within the meaning of item (k) of the Illustrative List, and the portion which is or may be used for that purpose. The original Appellate Body report did not rule on the issue either. One of the reasons was that the issue of whether such "payments" would be *a contrario* "permitted" under the SCM Agreement led to no findings by the Original Panel and the lack of findings was not appealed.<sup>33</sup>

3.34 However, the panel in the proceedings initiated under Article 21.5 of the DSU (hereinafter the "Article 21.5 Panel") was confronted with a specific allegation of Brazil that, as a result of Brazil's Resolution 2667 of 19 November 1999, PROEX payments are no longer used to secure a material advantage in the field of export credit terms and are hence "permitted" by the first paragraph of item (k) of the Illustrative List.<sup>34</sup> The Article 21.5 Panel considered that:

"[...] Brazil's defence in this dispute depends upon the proposition that the first paragraph of item (k) may be used to establish that an export subsidy within the meaning of item (k) is "permitted" by the *SCM Agreement*. It further depends upon Brazil establishing that (a) PROEX payments are 'payments' within the meaning of item (k); and (b) PROEX payments are not 'used to secure a material advantage in the field of export credit terms'."<sup>35</sup>

3.35 On appeal, the Appellate Body stated:

"[...] we agree with the Article 21.5 Panel that in order for Brazil to establish its alleged "affirmative defence", Brazil must succeed in its legal and factual arguments on *each* of the three issues examined by the Article 21.5 Panel."<sup>36</sup>

3.36 The Appellate Body then proceeded with the examination of the last issue dealt with by the Article 21.5 Panel, i.e. whether subsidies under the revised PROEX are "used to secure a material advantage in the field of export credit terms." Having found that Brazil had failed to demonstrate that PROEX payments are not "used to secure a material advantage in the field of export credit terms"

---

<sup>31</sup> Report of the Appellate Body on *Brazil – Export Financing Programme for Aircraft – Recourse by Canada to Article 21.5 of the DSU*, adopted on 4 August 2000, WT/DS46/AB/RW.

<sup>32</sup> Panel Report on *Brazil – Export Financing Programme for Aircraft*, adopted on 20 August 1999, WT/DS46/R, para. 7.14.

<sup>33</sup> *Ibid.*, paras. 7.18 and 7.37; Appellate Body Report on *Brazil – Export Financing Programme for Aircraft*, adopted on 20 August 1999, WT/DS46/AB/R, para. 187.

<sup>34</sup> Panel Report on *Brazil – Export Financing Programme for Aircraft – Recourse by Canada to Article 21.5 of the DSU*, adopted on 4 August 2000, WT/DS46/RW, para. 6.20.

<sup>35</sup> *Ibid.*, para. 6.22.

<sup>36</sup> Appellate Body Report on *Brazil – Export Financing Programme for Aircraft – Recourse by Canada to Article 21.5 of the DSU*, *Op. Cit.*, para. 58.



within the meaning of the first paragraph of item (k) of the Illustrative List,<sup>37</sup> the Appellate Body did not believe it was necessary to examine the other two issues identified by the Article 21.5 Panel. The Appellate Body declared the findings of the panel on these two issues "moot, and, thus, of no legal effect".<sup>38</sup>

3.37 We consider that, in order to reach a conclusion consistent with the various decisions adopted in the course of this case, we have to start from the findings and conclusions of the Appellate Body report in the Article 21.5 proceedings. We note that, in paragraph 82(b) of its report, the Appellate Body "[upheld] the Article 21.5 Panel findings that payments made under the revised PROEX are prohibited by Article 3 of the *SCM Agreement* and are not justified under item (k) of the Illustrative List."<sup>39</sup> The Original Panel and the Article 21.5 Panel always made it clear that, when they referred to "PROEX payments", they referred to the PROEX interest rate equalization payments as a whole, not to a portion of such payments under PROEX.<sup>40</sup>

3.38 If, as Brazil suggested, the Appellate Body had meant in its report in the Article 21.5 proceedings that the prohibited subsidy was only the portion beyond the appropriate benchmark under item (k) of the Illustrative List, it would have had to specify it, since the Appellate Body did not contest in the original proceedings the fact that "PROEX payments", as meaning the full interest rate equalization payments, were considered to be a prohibited subsidy. It could be argued that the Appellate Body did not have to specify whether the prohibition applied to the full PROEX payment or only to part of it. Since it found that Brazil had not provided evidence that the subsidy was not used to secure a "material advantage", even the portion of the PROEX payments going beyond the CIRR was a prohibited subsidy. However, as mentioned above, the meaning given to the term "PROEX payments" by the Original Panel and by the Article 21.5 Panel was clear. If the Appellate body had disagreed with that meaning, an explanation would have been essential in its report under Article 21.5 of the DSU. In the absence of such a clarification, we can only conclude that, by "[upholding] the Article 21.5 Panel findings that payments made under the revised PROEX are prohibited by Article 3 of the *SCM Agreement* and are not justified under item (k) of the Illustrative List", the Appellate Body understood the term "payments" as meaning the full equalization payment under PROEX.

3.39 Moreover, Brazil's argumentation in its additional comments of 24 July 2000 seems to be based on a confusion between the notion of "benefit" under Article 1 of the *SCM Agreement* and the notion of "material advantage" in item (k) of the Illustrative List, a confusion against which the Appellate Body carefully cautioned in its original report.<sup>41</sup> Even if an export subsidy is "justified"

---

<sup>37</sup> *Ibid.*, para. 77.

<sup>38</sup> *Ibid.*, paras. 78 and 81. Moreover, we note that the Appellate Body stated in para. 80 of its report that:

"If Brazil had demonstrated that the payments made under the revised PROEX were not 'used to secure a material advantage in the field of export credit terms', and that such payments were 'payments' by Brazil of 'all or part of the costs incurred by exporters or financial institutions in obtaining credit', then we would have been prepared to find that the payments made under the revised PROEX are *justified* under item (k) of the Illustrative List." (Emphasis added)

This seems to imply that, in spite of its statement at paragraph 58 that "in order for Brazil to establish its alleged "affirmative defence", Brazil must succeed in its legal and factual arguments on *each* of the three issues examined by the Article 21.5 Panel", the Appellate Body would have been ready to find that the payments made under the revised PROEX are justified under item (k) of the Illustrative List if Brazil had proven two of the three issues. The Appellate Body also stated that it did not interpret footnote 5 of the *SCM Agreement* and did not opine on the scope of footnote 5 or on the meaning of any other items in the Illustrative List.

<sup>39</sup> Emphasis added. Italics in the original.

<sup>40</sup> See, e.g., Original Panel Report, *Op. Cit.*, paras. 7.14; 7.74; 8.1 and 8.2; Article 21.5 Panel Report, *Op. Cit.*, section VI.C.2.(c) "Conclusions and closing remarks".

<sup>41</sup> *Op. Cit.*, para. 179.

under item (k) because it is not used to secure a material advantage in the field of export credit terms, it still confers a benefit and it is still an export subsidy.<sup>42</sup> A possible *justification* under item (k), like a justification under Article XX of the GATT 1994, does not change the legal nature of a measure. If the justification did not exist, it would be that same amount of subsidy for which justification was sought which would be prohibited, because the fact that a subsidy is justified does not mean that it is no longer a subsidy. It simply means that it is not a *prohibited* subsidy.

3.40 We also note that Article 4.7 of the SCM Agreement provides that "If the measure in question is found to be a prohibited subsidy, the panel shall recommend that the subsidizing Member withdraw the subsidy without delay." We are therefore of the view that the subsidy to be withdrawn within the meaning of Article 4 of the SCM Agreement, and consequently the one on which we must base our calculations, is the full amount of the PROEX interest rate equalisation payments on exports of Brazilian regional aircraft, not the portion of those payments which goes beyond the CIRR rate or any other appropriate benchmark rate under item (k) of the Illustrative List.

(c) Should the level of countermeasures correspond to the amount of the subsidy granted by Brazil or be equivalent to the level of nullification or impairment suffered by Canada?

(i) *Analysis of the relevant provisions*

3.41 Canada considered that, since it could have proposed countermeasures based on the level of nullification or impairment suffered, its proposal based on the amount of subsidy per aircraft is *a fortiori* "appropriate", because it is much less.<sup>43</sup> Brazil claimed in substance that nullification or impairment has always been the yardstick in GATT 1947 and it has been carried into the WTO Agreement. Brazil agreed that Canada could have requested the authorization to grant a counter-subsidy. However, since Canada has chosen to impose countermeasures in the form of suspension of concessions or other obligations, it must comply with the requirements of Article 22.4 of the DSU.

3.42 In accordance with Article 3.2 of the DSU, we proceed with an analysis of the meaning of the term "appropriate" based on Article 31 of the Vienna Convention.

3.43 Examining only the ordinary meaning of the term "appropriate" does not allow us to reply to the question before us, since dictionary definitions are insufficiently specific. Indeed, the relevant dictionary definitions of the word "appropriate" are "specially suitable; proper".<sup>44</sup> However, they point in the direction of meeting a particular objective.

3.44 The first context of the term "appropriate" is the word "countermeasures", of which it is an adjective. While the parties have referred to dictionary definitions for the term "countermeasures", we find it more appropriate to refer to its meaning in general international law<sup>45</sup> and to the work of the International Law Commission (ILC) on state responsibility, which addresses the notion of countermeasures.<sup>46</sup> We note that the ILC work is based on relevant state practice as well as on

---

<sup>42</sup> *Ibid.* See also para. 180.

<sup>43</sup> See para. 3.21 above.

<sup>44</sup> The New Shorter Oxford English Dictionary (1993), p. 103; Webster's New Encyclopedic Dictionary (1994), p. 48.

<sup>45</sup> See, e.g., the *Naulilaa* arbitral award (1928), UN Reports of International Arbitral Awards, Vol. II, p. 1028 and *Case Concerning the Air Services Agreement of 27 March 1946 (France v. United States of America)* (1978) International Law Reports, Vol. 54 (1979), p. 338. See also, *inter alia*, the Draft Articles on State Responsibility With Commentaries Thereto Adopted by the International Law Commission on First Reading (January 1997), hereinafter the "Draft Articles" and the draft articles provisionally adopted by the Drafting Committee on second reading, A/CN.4/L.600, 11 August 2000. Even though the latter modify a number of provisions of the Draft Articles, they do not affect the terms to which we refer in this report.

<sup>46</sup> We also note that, on the basis of the definition of "countermeasures" in the Draft Articles, the notion of "appropriate countermeasures" would be more general than the term "equivalent to the level of nullification

judicial decisions and doctrinal writings, which constitute recognized sources of international law.<sup>47</sup> When considering the definition of "countermeasures" in Article 47 of the Draft Articles,<sup>48</sup> we note that countermeasures are meant to "induce [the State which has committed an internationally wrongful act] to comply with its obligations under articles 41 to 46". We note in this respect that the Article 22.6 arbitrators in the *EC – Bananas (1999)* arbitration made a similar statement.<sup>49</sup> We conclude that a countermeasure is "appropriate" *inter alia* if it *effectively* induces compliance.

3.45 In this respect, we recall that the measure in respect of which the right to take countermeasures has been requested is a prohibited export subsidy falling under Article 3.1(a) of the SCM Agreement. Article 4.7 of the SCM Agreement provides in this respect that if a measure is found to be a prohibited subsidy, it shall be withdrawn without delay. In such a case, effectively "inducing compliance" means inducing the withdrawal of the prohibited subsidy.

3.46 In contrast, other illegal measures do not have to be withdrawn without delay. As specified in Article 3.8 of the DSU, if a measure violates a provision of a covered agreement, the measure is considered *prima facie* to cause nullification or impairment. However, if the defendant succeeds in rebutting the charge, no nullification or impairment will be found in spite of the violation. Such a rebuttal may be impossible to make in a number of cases. Yet, this does not change the fact that the concept of nullification or impairment is not found in Articles 3 and 4 of the SCM Agreement. The Arbitrators are of the view that meaning must be given to the fact that the negotiators did not include the concept of nullification or impairment in those articles, whilst it is expressly mentioned in Article 5 of the SCM Agreement, which deals with the adverse effects of actionable subsidies.

3.47 A first approach would be to consider that the concept of nullification or impairment does not apply to Article 4 of the SCM Agreement. We note in this respect that, in relation to actionable subsidies, Article 5 refers to nullification or impairment as only one of the three categories of adverse effects. This could mean that another test than nullification or impairment could also apply in the context of Article 4 of the SCM Agreement.

3.48 That said, we note that the Original Panel concluded that, since a violation had been found, a *prima facie* case of nullification or impairment had been made within the meaning of Article 3.8 of the DSU, which Brazil had not rebutted. In that context, we are more inclined to consider that no reference was expressly made to nullification or impairment in Article 4 of the SCM Agreement for the following reasons:

- (a) a violation of Article 3 of the SCM Agreement entails an irrebuttable presumption of nullification or impairment. It is therefore not necessary to refer to it;
- (b) the purpose of Article 4 is to achieve the *withdrawal* of the prohibited subsidy. In this respect, we consider that the requirement to withdraw a prohibited subsidy is of a

---

or impairment". It would basically include it. Limiting its meaning to that given to the term "equivalent to the level of nullification or impairment" would be contrary to the principle of effectiveness in interpretation of treaties.

<sup>47</sup> See Article 38 of the Statute of the ICJ.

<sup>48</sup> We note that Canada objects to us using the Draft Articles in this interpretation process. Canada argues that the Draft Articles are not "relevant rules of international law applicable to the relations between the parties" within the meaning of Article 31.3(c) of the Vienna Convention. As already mentioned, we use the Draft Articles as an indication of the agreed meaning of certain terms in general international law.

<sup>49</sup> *Op. Cit.*, para. 6.3. In that case, the arbitrators had to determine the level of nullification or impairment. Since the Article 22.6 arbitrators in the *EC – Bananas* case considered that measures equivalent to the level of nullification or impairment can induce compliance, it could be argued that in the present case too, countermeasures equivalent to the level of nullification or impairment should be sufficient to induce compliance. However, the arbitrators in *EC – Bananas* were instructed by Article 22.7 to determine whether the proposed measures were equivalent to the level of nullification or impairment.

different nature than removal of the specific nullification or impairment caused to a Member by the measure.<sup>50</sup> The former aims at removing a measure which is presumed under the WTO Agreement to cause negative trade effects, irrespective of who suffers those trade effects and to what extent. The latter aims at eliminating the effects of a measure on the trade of a given Member;

- (c) the fact that nullification or impairment is established with respect to a measure does not necessarily mean that, in the presence of an obligation to withdraw that measure, the level of appropriate countermeasures should be based only on the level of nullification or impairment suffered by the Member requesting the authorisation to take countermeasures.

3.49 We also note that, when the negotiators have intended to limit countermeasures to the effect caused by the subsidy on a Member's trade, they have used different terms than "appropriate countermeasures". Article 7.9 and 10, which is the provision equivalent for actionable subsidies to Article 4.9 and 10 for prohibited subsidies, uses the terms "commensurate with the degree and nature of the adverse effects determined to exist". In that context, we do not consider the arguments made by Brazil in its oral presentation and based on the central position of the notion of nullification in the GATT to be compelling. As we have seen above, the term "appropriate countermeasures" does not impose similar constraints.

3.50 The parties have also discussed the meaning of footnotes 9 and 10 to, respectively, paragraphs 10 and 11 of Article 4 of the SCM Agreement. The content of those footnotes is identical; they both read as follows:

" 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."

3.51 We agree that, as those footnotes are drafted, it seems difficult to clearly identify how the second part of the sentence ("in light of the fact that the subsidies dealt with under these provisions are prohibited") relates to the first part of the sentence ("This expression is not meant to allow countermeasures that are disproportionate"). This is probably due to the use of the words "in light of the fact that". However, since the text of the treaty is supposed to be the most achieved expression of the intent of the parties, we should refrain from second guessing the negotiators at this point. We can nonetheless note that the reference to the fact that the subsidies dealt with are prohibited can most probably be considered more as an aggravating factor than as a mitigating factor. We also find the use of the word "disproportionate" to be interesting in light of the term "out of proportion" used in Article 49 of the Draft Articles. We do not draw any firm conclusions as to the meaning of footnotes 9 and 10. However, we note that footnotes 9 and 10 at least confirm that the term "appropriate" in Articles 4.10 and 4.11 of the SCM Agreement should not be given the same meaning as the term "equivalent" in Article 22 of the DSU.<sup>51</sup>

---

<sup>50</sup> We note that Article 3.7 of the DSU refers to the "withdrawal of the measures concerned" as a first objective. However, we also note that, contrary to Article 3.7 of the DSU, Article 4.7 of the SCM Agreement does not provide for any alternative than the withdrawal of the measure once it has been found to be a prohibited subsidy.

<sup>51</sup> We are mindful of the fact that, from the point of view of a textual interpretation, "equivalent" and "appropriate" should not be given the same meaning. Interpreters are not permitted to assume such a thing. What we mean is that the term "appropriate", read in the light of footnotes 9 and 10, may allow for more leeway than the word "equivalent" in terms of assessing the appropriate level of countermeasures. A countermeasure remains "appropriate" as long as it is not *disproportionate*, having also regard to the fact that the measure at issue is a prohibited subsidy.

3.52 Brazil raised a number of non-textual arguments in support of its position. We consider our analysis based on the text of the SCM Agreement sufficiently compelling. We will nevertheless discuss these other arguments for the sake of completeness.

3.53 Brazil agreed with Canada that the countermeasures should relate to the amount of the subsidy.<sup>52</sup> Brazil nonetheless claimed that countermeasures based on the full amount of the PROEX interest rate equalization payment and not taking into account solely the number of sales of aircraft with respect to which Canada suffers nullification or impairment would be disproportionate.

3.54 Our interpretation of the scope of the term "appropriate countermeasures" in Article 4 of the SCM Agreement above shows that this would not be the case. Indeed, the level of countermeasures simply corresponds to the amount of subsidy which has to be withdrawn. Actually, given that export subsidies usually operate with a multiplying effect (a given amount allows a company to make a number of sales, thus gaining a foothold in a given market with the possibility to expand and gain market shares), we are of the view that a calculation based on the level of nullification or impairment would, as suggested by the calculation of Canada based on the harm caused to its industry, produce higher figures than one based exclusively on the amount of the subsidy. On the other hand, if the actual level of nullification or impairment is substantially lower than the subsidy, a countermeasure based on the actual level of nullification or impairment will have less or no inducement effect and the subsidizing country may not withdraw the measure at issue.<sup>53</sup>

3.55 Brazil also claimed that countermeasures based on the full amount of the subsidy would be highly punitive. We understand the term "punitive" within the meaning given to it in the Draft Articles.<sup>54</sup> A countermeasure becomes punitive when it is not only intended to ensure that the State in breach of its obligations bring its conduct into conformity with its international obligations, but contains an additional dimension meant to sanction the action of that State. Since we do not find a calculation of the appropriate countermeasures based on the amount of the subsidy granted to be disproportionate, we conclude that, *a fortiori*, it cannot be punitive.<sup>55</sup>

3.56 We note that Brazil also claimed that Canada could not request the right to take countermeasures in the amount of the subsidy because it chose to take countermeasures in the form of suspension of concessions or other obligations and, pursuant to Article 22.4 of the DSU, such measures must be equivalent to the level of nullification or impairment.

3.57 We read the provisions of Article 4.11 of the SCM Agreement as special or additional rules. In accordance with the reasoning of the Appellate Body in *Guatemala – Cement*,<sup>56</sup> we must read the provisions of the DSU and the special or additional rules in the SCM Agreement so as to give meaning to all of them, except if there is a conflict or a difference. While we agree that in practice there may be situations where countermeasures equivalent to the level of nullification or impairment will be appropriate, we recall that the concept of nullification or impairment is absent from Articles 3 and 4 of the SCM Agreement. In that framework, there is no legal obligation that countermeasures in the form of suspension of concessions or other obligations be equivalent to the level of nullification or impairment.

---

<sup>52</sup> Brazil's comments on Canada's methodology paper, 13 June 2000, para. 2.

<sup>53</sup> Moreover, Brazil's approach seems to be contradictory in so far as it combines the level of the subsidy with its trade effect. By using the level of subsidy as the starting-point of its analysis, Brazil disregards the fact that trade effects may have no direct relation with the amount of the subsidy itself.

<sup>54</sup> See Draft Articles, p. 307.

<sup>55</sup> In this respect we recall our comment in footnote 43 above that "appropriate" should not be given the same meaning as "equivalent", but should be understood as giving more discretion in the appraisal of the level of countermeasures against prohibited subsidies.

<sup>56</sup> *Op. Cit.*, para. 65.

3.58 On the contrary, requiring that countermeasures in the form of suspension of concessions or other obligations be equivalent to the level of nullification or impairment would be contrary to the principle of effectiveness by significantly limiting the efficacy of countermeasures in the case of prohibited subsidies. Indeed, as shown in the present case,<sup>57</sup> other countermeasures than suspension of concessions or obligations may not always be feasible because of their potential effects on other Members. This would be the case of a counter-subsidy granted in a sector where other Members than the parties compete with the products of the parties. In such a case, the Member taking the countermeasure may not be in a position to induce compliance.

3.59 We are mindful that our interpretation may, at a first glance, seem to cause some risk of disproportionality in case of multiple complainants. However, in such a case, the arbitrator could allocate the amount of appropriate countermeasures among the complainants in proportion to their trade in the product concerned. The "inducing" effect would most probably be very similar.

3.60 For the reasons set out above, we conclude that, when dealing with a prohibited export subsidy, an amount of countermeasures which corresponds to the total amount of the subsidy is "appropriate".<sup>58</sup>

(ii) *Implications with respect to the number of aircraft sales to be taken into account in the calculation of the appropriate countermeasures*

#### ***Treatment of sales of certain models of aircraft***

3.61 In its submissions, Brazil excluded a number of sales on the grounds that they did not give rise to PROEX payments. This is the case for the sales of the xxx xxxxxxx to xxxxxxxx and xx xxxxxxx. Brazil also excluded certain sales in which competition was based on other factors than price (such as weight or maintenance costs of the aircraft, passengers and freight capacity and airport certifications). Finally, Brazil excluded the sales of ERJ-135 on the grounds that they do not compete with the turboprop aircraft produced by Bombardier.

3.62 Since we selected the amount of the subsidy as the basis for the countermeasures and not the level of nullification or impairment suffered by Canada, it is appropriate and logical to include in our calculation all the sales of subsidised aircraft, whether they compete or not with Bombardier's production. However, consistent with our approach on the burden of proof, we excluded all the sales where Brazil demonstrated that no PROEX interest rate equalization payments had been made and we assumed that future sales of the xxx xxxxxxx and xxx would not benefit from the PROEX interest rate equalization payments.

#### ***Treatment of the contracts pre-dating 18 November 1999***

3.63 Brazil has claimed that the deliveries of aircraft for which PROEX letters of commitment had been issued before 18 November 1999 should be excluded from the calculation of the appropriate countermeasures, and that only sales subsequent to the 90 day implementation period should be considered.

---

<sup>57</sup> Canada mentioned that it could have applied a counter-subsidy but refrained from doing so for a number of reasons.

<sup>58</sup> The Arbitrators also reviewed the arguments and evidence submitted by the parties concerning the approach based on the level of nullification or impairment suffered by Canada. They note that this approach implied – as any counterfactual – many more assumptions than the approach based on the amount of the subsidy. The Arbitrators were of the view that, if the calculation of appropriate countermeasures based on the amount of the subsidy were compatible with Article 4.10 of the SCM Agreement, it would be preferable to follow this approach since it could lead to a more objective result.

3.64 We note that, in its report within the framework of the proceedings under Article 21.5 of the DSU, the Appellate Body made the following findings:

"[the Appellate Body] upholds the conclusion of the Article 21.5 Panel that as a result of the continued issuance by Brazil of NTN-I bonds, after 18 November 1999, pursuant to letters of commitment issued before 18 November 1999, Brazil has failed to implement the recommendation of the DSB that it withdraw the prohibited export subsidies under PROEX within 90 days"<sup>59</sup>

3.65 We, therefore, consider that we have to include in the calculation of the appropriate countermeasures the firm sales for which PROEX letters of commitment were issued before 18 November 1999 and which had not yet been delivered (since the NTN-I bonds are issued at the time of the delivery of the aircraft).<sup>60</sup> We do not consider the arguments based on Brazil's contractual obligations to be compelling. Obligations under internal law are no justification for not performing international obligations.<sup>61</sup>

#### 4. Methodology applied by the Arbitrators

3.66 We first note that the parties agree to distinguish between pre and post 18 November 1999 aircraft sales in relation to the percentage of PROEX interest rate equalization applied. On the basis of the above considerations, we have decided to calculate the appropriate amount of countermeasures on the following basis:

- (a) We start with the identification of the average sale price of the models of aircraft for which sales are subsidised. We also take into account the fact that sales of spare parts have also been subject to payments under PROEX. We consider that PROEX financing for spare parts should be included in our calculation of the subsidy.
- (b) We then make a projection of the annual production of aircraft per model for the period 2000-2005 (six years). We chose this period essentially because it corresponds to the period in which Embraer's production capacity assessments can be assumed to be reasonably accurate. We also note, on the basis of the information available, that it will take until 2005 for Embraer to exhaust its backlog relating to sales pre-dating 18 November 1999 for which deliveries had not taken place on that date and for sales between 19 November 1999 and 30 June 2000 for ERJ-135.<sup>62</sup>
- (c) The next stage consists of the calculation of the present value of the subsidy per aircraft model using the sale price for each model, a financing rate of xxx% (for a financing corresponding to xxx% of the price), the applicable PROEX interest rate equalization (3.8% or 2.5% of the financing depending on the sale or the time at

---

<sup>59</sup> *Op. Cit.* para. 82(a).

<sup>60</sup> This clarification is made in relation to the use by the Arbitrators of the delivery data provided by Brazil rather than on information relating specifically to the issuance of the NTN-I bonds. Our choice is consistent with the factual finding of the Original Panel (*Op. Cit.*, para. 7.71) and the Appellate Body report in the original proceedings (*Op. Cit.* para. 154).

<sup>61</sup> See Article 27 of the Vienna Convention:

"A party may not invoke the provisions of its internal law as justification for the failure to perform a treaty. [...]"

<sup>62</sup> See Table 1 and the related explanations below.

which it was made), the agent fee which we considered to be representative of these types of transactions for Brazil and a discount rate equal to LIBOR.<sup>63</sup>

- (d) Finally, for each model we multiply the total amount of aircraft sold with a PROEX interest rate equalization of 3.8% by the present value of the subsidy per model and the total amount of aircraft sold with a PROEX interest rate equalization of 2.5% by the present value of the subsidy per model. The total is spread over 6 years to give the annual average present value of the subsidy for each of the subsidised models (ERJ-135 and ERJ-145). The total corresponds to the appropriate level of countermeasures based on the premises developed above.

## C. CALCULATION OF THE APPROPRIATE LEVEL OF COUNTERMEASURES

### 1. Average unit price per model

- (a) Basic elements

(i) *Sale price*

3.67 We used the average sale price for the ERJ-135 and ERJ-145 models. For the reasons mentioned above, sales of ERJ-170 and 190 have been excluded. There were no sales of ERJ-140 among the transactions considered. Brazil was not in a position to provide the Arbitrators with detailed price information regarding each sale. Therefore, having considered the arguments of the parties, we use the average sale prices supplied by Canada for each of the models concerned. Canada gives the price of the ERJ-135 as US\$xxx million and of the ERJ-145 as US\$xxx million.<sup>64</sup>

(ii) *Spare parts*

3.68 Canada's net price for each aircraft has been adjusted to take into account financing of spare parts under PROEX. Brazil estimates the total value of spare parts covered by PROEX that remained undelivered as of 18 November 1999 to be US\$xxx.<sup>65</sup> According to evidence provided by Brazil,<sup>66</sup> there is no financing for spare parts under PROEX for the ERJ-135. Canada did not provide specific information contradicting this statement. Therefore, we accept Brazil's evidence that PROEX only includes financing of spare parts for the ERJ-145 model. We also accept that the average expected PROEX financing for spare parts on the total number of ERJ-145 aircraft to be delivered after 18 November 1999 is US\$xxx. After 18 November 1999, there were no new requests for spare part financing under PROEX.

3.69 We noted that not all of the ERJ-145 aircrafts will likely benefit from PROEX financing for spare parts, but the evidence submitted does not allow a determination of which sales will and which will not benefit. Therefore, in order to take into account the subsidisation which resulted from undelivered spare parts as of 18 November 1999, we chose to divide the amount of US\$xxx by the total number of ERJ-145 aircraft to be delivered between 2000 and 2005 (i.e. 780 aircraft). We reach an approximate average figure of US\$xxx for spare parts per ERJ-145.

---

<sup>63</sup> LIBOR stands for "London Interbank Offer Rate".

<sup>64</sup> Information on the average sale price for ERJ-135 and ERJ-145 models as provided in Table 8 of Annex I to Canada's 26 June 2000 written submission. In its reply at p. 23 to question No. 9 of the questions of the Arbitrators dated 17 July 2000, Brazil "xxxxxxxx xxx xxxxxx xxxxxx xxxxxxxxxxx xxxxxxxxxxx xxx xxxxxx xxxxxxxxxxx, and Brazil accepts the use of Canada's figures xxx xxx xxxxxxx xxxxxx xxx xxxxxx xx xxxxx x for the purpose of calculating the amount of the PROEX subsidy".

<sup>65</sup> Brazil's written response of 24 July 2000 to question No. 18 of the Arbitrators, pp. 32-33.

<sup>66</sup> Statement from the Banco do Brasil contained in Brazil's Exhibit Br-A-33.



(b) Results

3.70 We thus use Canada's sale price for ERJ-135/145 aircraft and allocate the total value of undelivered spare parts provisioning that benefited from PROEX support to the total amount of ERJ-145 aircraft to be delivered between 2000 and 2005. As mentioned above, there is no financing for spare parts for ERJ-135. Therefore, for ERJ-145 only, we add US\$xxx per aircraft for spare parts benefiting from PROEX.

3.71 Thus, the average unit price per aircraft model for the purpose of our calculation is as follows:

- (a) the average price for an ERJ-135 is US\$xxx million;
- (b) the average price for an ERJ-145 is US\$xxx million (US\$xxx million plus US\$xxx for spare part financing under PROEX);

3.72 Having regard to the arguments of the parties, we considered that it was appropriate, for the purpose of calculating appropriate countermeasures, to consider that the external or bank financing on the basis of which PROEX interest rate equalization payments are calculated covers xxx% of the price of each model of aircraft. Thus, we consider that the financing for the ERJ-135 is xxx% of the US\$xxx million price of the aircraft, which amounts to US\$xxx. PROEX financing for the ERJ-145 is xxx% of the US\$xxx million price of the aircraft, which amounts to US\$xxx.

## 2. Projection of annual aircraft production per model

3.73 Pursuant to the methodology described above, we have established a projection of annual aircraft production per model of aircraft for the period 2000-2005. This projection is contained in Table 1. The parameters used in this table and the sources on which we relied to prepare this table are explained hereafter.

3.74 Table 1 sets out the comparison between the projected production capacity and projected deliveries of ERJ-135 and ERJ-145 aircraft for the period 2000-2005. As highlighted above, we consider a time-period of six years, i.e. 2000-2005, for our analysis of the structure of production per model of aircraft. In selecting this period, we took into account the fact that the production capacity figures given by Brazil only extend to 2004. However, this six-year period corresponds to the period of time which, under the production capacity figures provided to the Arbitrators, will be necessary to exhaust the backlog for existing orders of ERJ-135/145 aircraft. This should occur, according to our projection, by 2004 for the ERJ-145 and by 2005 for ERJ-135. We therefore considered that we should use a period of time which covers the foreseeable production based on existing firm orders and conversions of existing options as of 30 June 2000.<sup>67</sup> We did not find it reasonable to apply a longer period since it would be too speculative in this rapidly evolving sector of commercial aviation.

3.75 Table 1 contains three categories. Category A features the total production capacity figure per year for ERJ-135 and ERJ-145 aircraft for the period 2000 to 2005. Category B gives the production structure for the ERJ-135 model. Category C sets out the production structure for the ERJ-145 model. Under each of these categories, the total deliveries are given.<sup>68</sup>

---

<sup>67</sup> We note that, in its reply to question No. 16 of the Arbitrators, dated 24 July 2000, Brazil mentions that production of ERJ-135 and 145 should be gradually phased out. In Exhibit Br-A-30, Embraer states that its current backlog should be reduced substantially by 2002 xxx xxxx xxxx cxxxxxxxx xxxxxxx xxxxx xxxxx xx xxxxxx xxxxxx xxxxx xxx xxxxxx xx xxx xxxxxx. We considered this information and that provided by Canada and concluded that it was preferable to rely on current orders and options xxxx xx xxxxxx xxxxxxxxxxx xxxxxxx xx xxxxxx xx xxxxxxx xx xxx xxxxxx.

<sup>68</sup> The Arbitrators relied on Brazil's Exhibit Br-A-21.

3.76 In Category A of Table 1, we chose Brazil's projection of annual aircraft production per model for 2000-2002<sup>69</sup> and Canada's assessment for 2003-2005.<sup>70</sup> Otherwise, if one follows Brazil's production figures after 2002, the backlog of aircraft would be impossible to deliver in any reasonable time period. Given full production, we expect the backlog for ERJ-135 to be exhausted by 2005 and for ERJ-145 to be exhausted by 2004. Therefore, the total production figure at full capacity for ERJ-135 and ERJ-145 aircraft for the period 2000 to 2005 is 1,118 aircrafts.

3.77 For the breakdown of production between ERJ-135 and ERJ-145, we note that Brazil was not in a position to provide a detailed breakdown.<sup>71</sup> Canada assumed weights of 20% for ERJ-135, 10% for ERJ-140 and 70% for ERJ-145.<sup>72</sup> We did not find convincing evidence to support this breakdown of production. Therefore, we decided to apply the ration of 30/70 derived from the structure of the existing backlog for ERJ-135 and ERJ-145 aircraft respectively, based on data supplied by Brazil.<sup>73</sup>

3.78 The amount of aircraft benefiting from the 3.8% or the 2.5% equalization rate applied under PROEX is given per model in Categories B and C. This structure is based on Brazil's submission.<sup>74</sup> Furthermore, in projecting deliveries of aircrafts, we assumed that the deliveries of aircraft benefiting from the PROEX interest rate equalization of 3.8% will likely be executed first. Therefore, for the ERJ-135, the total number of aircraft to be delivered between 2000 and 2005 at 3.8% is xxx, and the total number to be delivered at the equalization rate of 2.5% is xxx. For the ERJ-145, the total number of aircraft to be delivered between 2000 and 2005 at 3.8% is xxx and the total number at 2.5% is xxx.

3.79 For Categories B and C, Table 1 sets out the conversion of options into firm orders for ERJ-135 and ERJ-145. For pre-18 November 1999 and 18 November 1999-30 June 2000 orders, the existing options are assumed to be converted into firm orders at the rate of 85%. Canada suggested a conversion rate of 100% due to high demand. Canada also suggested a conversion rate of 80% as the market for regional jets matures.<sup>75</sup> Brazil provided evidence of cancellations of options and states that the rate of conversion will be no more than 84%.<sup>76</sup> Having considered the evidence provided by the parties, we assumed a conversion of options into firm orders at a rate of 85% for the period 2000-2005. However, this assumption is only relevant to determine the proportion of aircraft transactions benefiting from PROEX at 3.8% and of those benefiting from PROEX at 2.5% because, in the assumed context of production at full capacity, the conversion rate of options does not affect the amount of deliveries.

---

<sup>69</sup> Brazil's written submission of 24 July 2000, p. 32.

<sup>70</sup> Annex I of Canada's 26 June 2000 written submission.

<sup>71</sup> Brazil's Exhibit Br-A-30, para. 7.

<sup>72</sup> Table 9 of Canada's 26 June 2000 written submission.

<sup>73</sup> Brazil's Exhibit Br-A-21.

<sup>74</sup> Brazil's Exhibit Br-A-15. The Arbitrators assumed that the PROEX rate applied after 18 November 1999 is 2.5%.

<sup>75</sup> Annex I, paras. 18 to 20 of Canada's written submission.

<sup>76</sup> Brazil's oral statement, 14 July 2000, para. 60.

**Table 1: Projection of Annual Aircraft Production per Model, 2000-2005**

Model	Jan-June 2000	July Dec 2000	2001	2002	2003	2004	2005	Total
<b>A. ERJ-135/145 total production capacity</b> (Brazil's figures) (Canada's figures)	151 (151) (168)		188 (188) (192)	203 (203) (192)	192 (148) (192)	192 (122) (192)	192 (122) (192)	<b>1118</b> (934) (1128)
<b>B. ERJ-135 total deliveries</b>								
Pre 18.11.99 orders (85 % conversion rate)	25	22	56	61	58	58	58	<b>338</b>
18.11.99–30.6.00 orders (85% conversion rate)	25	22	56	61	58	31	-	253
18.11.99–30.6.00 orders (85% conversion rate)	-	-	-	-	-	27	6	33
New orders	-	-	-	-	-	-	52	52
<b>Total ERJ-135 at 3.8%</b>	xxx	xxx	xxx	xxx	xxx	xxx	xxx	<b>xxx</b>
<b>Total ERJ-135 at 2.5%</b>	xxx	xxx	xxx	xxx	xxx	xxx	xxx	<b>xxx</b>
<b>C. ERJ-145 total deliveries</b>								
Pre 18.11.99 orders (85% conversion rate)	54	50	132	142	134	134	134	<b>780</b>
18.11.99–30.6.00 orders (85% conversion rate)	54	50	132	81	-	-	-	317
18.11.99–30.6.00 orders (85% conversion rate)	-	-	-	61	134	129	-	324
New orders	-	-	-	-	-	5	134	139
<b>Total ERJ-145 at 3.8%</b>	xxx	xxx	xxx	xxx	xxx	xxx	xxx	<b>xxx</b>
<b>Total ERJ-145 at 2.5%</b>	xxx	xxx	xxx	xxx	xxx	xxx	xxx	<b>xxx</b>

### 3. Calculation of the present value of the subsidy

#### (a) Calculation of the present value of the subsidy

##### (i) *Relevant tables*

3.80 The Annex to this report contains, for each model of aircraft (ERJ-135 and ERJ-145), the calculation of the present value of the subsidy per aircraft and per equalization rate. The results are reported in Table 2 below. This calculation assumes the following parameters.

##### (ii) *Financing method*

3.81 We note that the parties have based their calculations on different forms of repayment of the loan. We assumed that interest was paid on the outstanding balance. We agreed that there could be, in theory, a possibility to apply an annuity method of repayment (i.e., equal instalments including

payments and interest, as used by Canada). However, we assumed that the method suggested by Brazil corresponded to the form of repayment actually used when PROEX interest rate equalization payment is provided. Accordingly, we applied constant instalments for capital reimbursement in our calculations.

3.82 Moreover, we assume semi-annual constant instalments for capital reimbursement. Thus, 30 payments are made over a period of 15 years, in accordance with the maturation period of NTN-I bonds used by Brazil to finance PROEX interest rate equalization payments.<sup>77</sup> These instalments are based on PROEX financing of xxx% of the price of the aircraft (see section C.1 above on aircraft prices).

(iii) *Financing rate*

3.83 We have taken note that Canada's proposed methodology used a financing rate of 7.79%. However, we do not need to take a position on the accuracy of this rate. Indeed, the financing rate does not affect the level of the subsidy as it is expressed as a percentage of the financed portion of the price of the aircraft, which does not depend on the level of the interest rate. We therefore refrain from addressing this aspect of the financing.

(iv) *Agent fee*

3.84 Canada assumed that commercial banks involved in financing aircraft sales in the context of PROEX payments levy an agent fee inferior to one percent. In contrast, Brazil alleged that the commercial banks involved in PROEX payments take xxxx xxxx agent fees. In support of its claims, Brazil submitted evidence setting out the terms of financing for PROEX over a 15-year period for specific transactions.<sup>78</sup>

3.85 Even though the evidence presented by Brazil related to a limited number of aircraft, we assumed it to be sufficiently representative, because it referred to actual transactions. Therefore, we accept Brazil's claim. We understand that the agent fee of xxx% of the value of the NTN-I bonds mentioned in the evidence submitted by Brazil is supposed to reflect the "Brazil risk" inherent in the payment of PROEX over a 15-year period. Even though this is a high agent fee, we accept to use it for the following reasons:

- (a) the liquidity of the NTN-1 bonds is more limited than other government bonds that are denominated in convertible currencies. This is demonstrated by the fact that, according to Brazil, only three banks are involved in PROEX payments;
- (b) NTN-1 bonds are paid in domestic currency and face a convertibility risk; and
- (c) Brazil submitted two concrete examples involving the xxx banks which handle xxx% of the bonds used for PROEX financing and demonstrating that these banks have in the recent past charged an agent fee or commission of xxx% of the value of the NTN-I bonds or higher.<sup>79</sup>

---

<sup>77</sup> For a description of the operation of the PROEX programme, see Original Panel Report, *Op. Cit.*, section II.

<sup>78</sup> Brazil's Exhibits Br-A-14, Br-A-22 and Br-A-30.

<sup>79</sup> On p. 18 of Brazil's written submission of 26 June 2000, Brazil refers to a letter from a bank, which proposes an agent fee of xxx%. Brazil states that:

"this discount fee represents xx xxxxxxxx xxxxxxxxxxxx xx xxx xxxxxxxx xxxxx xxxxxxxxxxx xx xxx xxxxxxxx xxxxxxxx xx xxxxxx xxxxx x xxxxxxxx xxxxxxxx, and is in line with normal commercial operations in Brazil. xxxxx xxxxxx xx xxx xxxxxxxx xxxxx xxxxxxxxxxx xx xx xxxxxxxxxxxx

3.86 We therefore use the figures contained in the evidence submitted by Brazil that stipulates an agent fee or commission of xxx% of the interest rate equalization payment (PROEX) for the first ten years and xxx% for the remaining five years over a total 15-year financing period. At the PROEX rate of 3.8%, a xxx% agent fee is equivalent to xxx percentage points of 3.8% of the financing for the first ten years, and a xxx% agent fee is equivalent to xxx percentage points for the remaining five years (i.e.  $3.8\% \times \text{xxx}\% = \text{xxx percentage points}$ ;  $3.8\% \times \text{xxx}\% = \text{xxx percentage points}$ ). At the PROEX rate of 2.5%, a xxx% agent fee is equivalent to xxx percentage points for the first ten years, and a xxx% agent fee is equivalent to xxx percentage points for the remaining five years.

(v) *Discount rate*

3.87 We note that Canada's methodology used a discount rate of 12% and an agent fee of 0.15%. We understand that Brazil has included the xxx% agent fee in its calculation of the discount rate, as part of its claim that the total amount levied by the bank is equivalent to a discount rate of xxx%. Thus, Brazil adds the xxx% agent fee to the xxxxx rate of xxx% in order to reach what it claims to be equivalent to a discount rate of xxx%.<sup>80</sup> As outlined above, we prefer to calculate the specific risk factor entirely as part of the agent fee, since it appears to be the practice followed by the main banks involved in PROEX financing.

3.88 Therefore, for the discount rate, we considered it appropriate to use a xxxxx rate for US dollars of xxx%, as suggested by Brazil. We used a xxxxx rate for US dollars because the transactions are in US dollars. We did not use a higher discount rate, such as the rate suggested by Canada, because we assumed that all risk factors are reflected entirely in the agent fee, as explained above.

(vi) *Present value of the subsidy per aircraft model*

3.89 As set out in Table 2, we define the net PROEX subsidy per aircraft as a figure that is net of the agent fee (i.e. total PROEX financing minus the agent fee). This is in our view consistent with the definition of subsidy in Article 1 of the SCM Agreement.<sup>81</sup>

3.90 We have calculated the present value of the subsidy for an ERJ-135 and an ERJ-145 with financing at the PROEX interest rate equalization of 3.8% and with financing at the PROEX interest rate equalization of 2.5%. Therefore, the present value of a PROEX interest rate equalization payment of 3.8% of xxx% of the sale price of an ERJ-135 (US\$xxx million) is US\$xxx; and with a PROEX interest rate equalization payment of 2.5% is US\$xxx. The present value of a PROEX interest rate equalization payment of 3.8% of xxx% of the sale price of an ERJ-145 (US\$xxx million) is US\$xxx; and with a PROEX interest rate equalization payment of 2.5% is US\$xxx.

---

xxxxxxxx xxxx xx xxxxxx. The calculation of this rate is shown in the worksheets attached as Exhibit Br-A-13."

<sup>80</sup> Our calculations show that this implied discount rate is slightly lower than the xxx% rate used by Brazil. Our calculations show that the rate is between xxx and xxx%, depending on the assumptions used.

<sup>81</sup> See also the Illustrative List of Export Subsidies, Annex I to the SCM Agreement.

3.91 The above elements are set out in Table 2 below:

**Table 2: Calculation of the Present Value of the Subsidy:  
Repayment according to constant instalments (method used by Brazil)**

	Sale Price (US\$)	PROEX rate (percentage points)	Agent fee (%)	Net PROEX subsidy rate (after deducting the agent fee) (percentage points)	Present value of the subsidy per aircraft model (US\$)
<b>ERJ-135</b>	xxx	3.8	xxx/xxx	3.8-xxx = xxx	<b>xxx</b>
	xxx	2.5	xxx/xxx	2.5-xxx = xxx	<b>xxx</b>
<b>ERJ 145</b>	xxx	3.8	xxx/xxx	3.8-xxx = xxx	<b>xxx</b>
	xxx	2.5	xxx/xxx	2.5-xxx = xxx	<b>xxx</b>

(b) Calculation of the total present value of the subsidy

3.92 Based on the information set out in Tables 1 and 2 above, the average present value of the subsidy per aircraft is estimated by multiplying the total number of aircraft by model at 3.8% PROEX and 2.5% PROEX produced during the period 2000-2005 (see Table 1) by the average annual subsidy per model (see Table 2). The calculation is as follows:

**ERJ-135:** xxx aircraft @ 3.8% x US\$xxx = US\$xxx

**PLUS:**

xxx aircraft @ 2.5% x US\$xxx = US\$xxx

**EQUALS:**

US\$405,046,838

**ERJ-145:** xxx aircraft @ 3.8% x US\$xxx = US\$xxx

**PLUS:**

xxx aircraft @ 2.5% x US\$xxx = US\$xxx

**EQUALS**

US\$996,266,316

3.93 The total amount of the subsidy per year is then calculated by adding the above figures for the total number of ERJ-135 and ERJ-145 aircraft, i.e. US\$405,046,838 plus US\$996,266,316, to reach a total of US\$1,401,313,154 over the time-period 2000-2005. This figure is then divided by six (for the time-period of six years) to determine the average present value of the subsidy per year. This average in US dollars is then converted into Canadian dollars. In this process, we use the most recent exchange rate between the Canadian and the US dollar.<sup>82</sup> We therefore apply a rate of C\$1.474 to US\$1. The result is therefore as follows: US\$233,552,192.3 multiplied by 1.474 equals C\$344,255,931.4502. This figure can be rounded to C\$344.2 million.

<sup>82</sup> Exchange Cross Rates, 18 August 2000, *Financial Times*, Monday, 21 August 2000, p. 22.

#### IV. AWARD OF THE ARBITRATORS

4.1 For the reasons set out above, the Arbitrators decide that, in the matter *Brazil – Export Financing Programme for Aircraft*, the suspension by Canada of the application to Brazil of tariff concessions or other obligations under GATT 1994, the Agreement on Textiles and Clothing and the Agreement on Import Licensing Procedures covering trade in a maximum amount of C\$344.2 million per year would constitute appropriate countermeasures within the meaning of Article 4.10 of the SCM Agreement.

4.2 In this respect, the Arbitrators urge Canada to make sure that, if it decides to proceed with the suspension of certain of its obligations *vis-à-vis* Brazil referred to in document WT/DS46/16 other than the 100 per cent surtax, this will be done in such a way that the maximum amount of countermeasures referred to in the preceding paragraph will be respected.

4.3 Finally, the Arbitrators would like to emphasize 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. [...]"

ANNEX

ERJ-135, 2.5% PROEX financing

Aircraft price		
Down payment portion	PROEX equalization rate	2.50%
Equalization applicable portion	Agent fee year	
Down payment value	Agent fee year	
Total financing	Financing period – years	15
Discount rate	Semi-annual payments	30

Year	Capital Portion	Principal Balance	Equal. Total	Agent fee	Net EQ	EQ/Year	NPV
------	-----------------	-------------------	--------------	-----------	--------	---------	-----

1							
2							
3							
4							
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
		Agent fee					
		Nominal value of EQ					
		NPV of EQ					



ERJ-135, 3.8% PROEX financing

Aircraft price		
Down payment portion	PROEX equalization rate	3.80%
Equalization applicable portion	Agent fee year	
Down payment value	Agent fee year	
Total financing	Financing period – years	15
Discount rate	Semi-annual payments	30

Year	Capital Portion	Principal Balance	Equal. Total	Agent fee	Net EQ	EQ/Year	NPV
------	-----------------	-------------------	--------------	-----------	--------	---------	-----

1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
		Agent fee					
		Nominal value of EQ					
		NPV of EQ					

ERJ-145, 2.5% PROEX financing

Aircraft price		
Down payment portion	PROEX equalization rate	2.50%
Equalization applicable portion	Agent fee year	
Down payment value	Agent fee year	
Total financing	Financing period – years	15
Discount rate	Semi-annual payments	30

Year	Capital Portion	Principal Balance	Equal. Total	Agent fee	Net EQ	EQ/Year	NPV
------	-----------------	-------------------	--------------	-----------	--------	---------	-----

1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
		Agent fee					
		Nominal value of EQ					
		NPV of EQ					

ERJ-145, 3.8% PROEX financing

Aircraft price		
Down payment portion	PROEX equalization rate	3.80%
Equalization applicable portion	Agent fee year	
Down payment value	Agent fee year	
Total financing	Financing period – years	15
Discount rate	Semi-annual payments	30

Year	Capital Portion	Principal Balance	Equal. Total	Agent fee	Net EQ	EQ/Year	NPV
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
		Agent fee					
		Nominal value of EQ					
		NPV of EQ					

\_\_\_\_\_