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United States – Measures Affecting Trade in Large Civil Aircraft (Second Complaint) (DS353)

COMMENTS OF THE UNITED STATES ON THE RESPONSES OF THE EUROPEAN COMMUNITIES TO THE SECOND SET OF QUESTIONS FROM THE PANEL TO THE PARTIES

May 5, 2008

TABLE OF REPORTS AND OTHER DOCUMENTS

Short Form	Full Citation
Brazil – Aircraft (Panel)	Panel Report, *Brazil – Export Financing Programme for Aircraft*, WT/DS46/R, adopted 20 August 1999, as modified by the Appellate Body Report, WT/DS46/AB/R
Canada – Aircraft (AB)	Appellate Body Report, *Canada – Measures Affecting the Export of Civilian Aircraft*, WT/DS70/AB/R, adopted 20 August 1999
Canada – Aircraft (Article 21.5) (AB)	Appellate Body Report, *Canada – Measures Affecting the Export of Civilian Aircraft – Recourse by Brazil to Article 21.5 of the DSU*, WT/DS70/AB/RW, adopted 4 August 2000
EC – Asbestos (AB)	Appellate Body Report, *European Communities – Measures Affecting Asbestos and Products Containing Asbestos*, WT/DS135/AB/R, adopted 5 April 2001
EC – Chicken Cuts (AB)	Appellate Body Report, *European Communities - Customs Classification of Frozen Boneless Chicken Cuts*, WT/DS269/AB/R, WT/DS286/AB/R, adopted 27 September 2005
EC – Hormones (AB)	Appellate Body Report, *European Communities – Measures Concerning Meat and Meat Products (Hormones)*, WT/DS26/AB/R, WT/DS48/AB/R, adopted 13 February 1998
EC Comments on US RPQ1	Comments of the European Communities on the Response of the United States to the First Set of Questions from the Panel to the Parties (December 21, 2007)
EC FWS	First Written Submission of the European Communities, *United States – Measures Affecting Trade in Large Civil Aircraft (Second Complaint)(DS 353)* (Feb. 9, 2007)
EC OS1	Oral Statement by the European Communities at the First Substantive Meeting of the Panel with the Parties – Non-Confidential Session, *United States – Measures Affecting Trade in Large Civil Aircraft (Second Complaint)(DS353)* (September 28, 2007)
EC OS1 (conf.)	Confidential Oral Statement by the European Communities at the First Substantive Meeting of the Panel with the Parties – Non-Confidential Session, *United States – Measures Affecting Trade in Large Civil Aircraft (Second Complaint)(DS353)* (September 28, 2007)

EC OS2	Non-Confidential Oral Statement by the European Communities at the Second Substantive Meeting of the Panel with the Parties – Non-Confidential Session, *United States – Measures Affecting Trade in Large Civil Aircraft (Second Complaint)(DS353)* (January 16, 2008)
EC RPQ1	Response of the European Communities to the First Set of Questions from the Panel to the Parties (December 5, 2007)
EC RPQ2	Response of the European Communities to the Second Set of Questions from the Panel to the Parties (April 14, 2008)
EC SWS	Second Written Submission of the European Communities, *United States – Measures Affecting Trade in Large Civil Aircraft (Second Complaint)(DS 353)* (Nov. 19, 2007)
Japan – Agricultural Products (AB)	Appellate Body Report, *Japan – Measures Affecting Agricultural Products*, WT/DS76/AB/R, adopted 19 March 1999
Japan – Apples (AB)	Appellate Body Report, *Japan – Measures Affecting the Importation of Apples*, WT/DS245/AB/R, adopted 10 December 2003
Korea – Commercial Vessels	Panel Report, *Korea – Measures Affecting Trade in Commercial Vessels*, WT/DS273/R, adopted 11 April 2005
New Shorter Oxford English Dictionary	*The New Shorter Oxford English Dictionary on Historical Principles* (Clarendon Press, Oxford) (1993)
Turkey – Rice	Panel Report, *Turkey – Measures Affecting the Importation of Rice*, WT/DS334/R, adopted 22 October 2007
US – DRAMS CVD (AB)	Appellate Body Report, *United States – Countervailing Duty Investigation on Dynamic Random Access Memory Semiconductors (DRAMS) from Korea*, WT/DS296/AB/R, adopted 20 July 2005
US – Gasoline (AB)	Appellate Body Report, *United States – Standards for Reformulated and Conventional Gasoline*, WT/DS2/AB/R, adopted 20 May 1996
US – Softwood Lumber CVD Final (AB)	Appellate Body Report, *United States – Final Countervailing Duty Determination with Respect to Certain Softwood Lumber from Canada*, WT/DS257/AB/R, adopted 17 February 2004
US – Upland Cotton (AB)	Appellate Body Report, United States - Subsidies on Upland Cotton, WT/DS267/AB/R, adopted 21 March 2005

US – Upland Cotton (Panel)	Panel Report, *United States – Subsidies on Upland Cotton*, WT/DS267/R, adopted 21 March 2005, as modified by the Appellate Body Report, WT/DS267/AB/R
US – Upland Cotton (Article 21.5)	Panel Report, *United States – Subsidies on Upland Cotton – Recourse by Brazil to Article 21.5 of the DSU*, WT/DS267/RW, notice of appeal filed 12 February 2008
US – Wheat Gluten (AB)	Appellate Body Report, *United States – Definitive Safeguard Measures on Imports of Wheat Gluten from the European Communities*, WT/DS166/AB/R, adopted 19 January 2001
US – Wool Shirts (AB)	Appellate Body Report, *United States – Measure Affecting Imports of Woven Wool Shirts and Blouses from India*, WT/DS33/AB/R and Corr.1, adopted 23 May 1997
US Comments on EC RPQ1	Comments of the United States on the Response of the European Communities to the First Set of Questions from the Panel to the Parties (December 21, 2007)
US FWS	First Written Submission by the United States, *United States – Measures Affecting Trade in Large Civil Aircraft (Second Complaint) (DS353)* (July 6, 2007)
US OS1	Oral Statement of the United States at the First Substantive Meeting of the Panel with the Parties, *United States – Measures Affecting Trade in Large Civil Aircraft (Second Complaint) (DS353)* (September 26, 2007)
US OS2	Oral Statement of the United States at the Second Substantive Meeting of the Panel with the Parties, *United States – Measures Affecting Trade in Large Civil Aircraft (Second Complaint) (DS353)* (January 16, 2008)
US OS2 (conf.)	Confidential Oral Statement of the United States at the Second Substantive Meeting of the Panel with the Parties – Confidential Session, *United States – Measures Affecting Trade in Large Civil Aircraft (Second Complaint) (DS353)* (January 16, 2008)
US RPQ1	Response of the United States to the First Set of Questions from the Panel to the Parties (December 5, 2007)
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I. GENERAL ISSUES

A. BEST INFORMATION AVAILABLE AND ADVERSE INFERENCES

106. Is the European Communities of the view that the failure or refusal by a party to provide information requested by another disputing party may constitute non-cooperation, even if that information has not been requested by the panel?

1. The EC takes this question as an invitation to opine generally on its views as to adverse inferences, but offers little of relevance to the actual issue presented – whether one party's decision not to provide information requested by the other party constitutes non-cooperation. The EC does eventually assert that an adverse inference is permissible with regard to information requested only by another party, but this assertion finds no support in the *Agreement on Subsidies and Countervailing Measures* ("SCM Agreement").[1] In fact, creating such a consequence for failure to answer party questions would give the parties to a dispute authority properly vested in the panel, in direct contravention of the SCM Agreement and the *Understanding on Rules and Procedures Governing the Settlement of Disputes* ("DSU").

2. The only legal authority the EC cites for taking adverse inferences based on a failure to respond to another party's request for information is Article 12.7 of the SCM Agreement.[2] Before addressing the substance of this provision, it is important to note that it appears in Part V of the SCM Agreement and deals with countervailing duty *investigations* conducted by the *administering authorities* of a *Member*. Not only does the current dispute not involve a claim under Part V of the SCM Agreement, Article 12.7 is not relevant in dispute settlement proceedings. In particular, it has no relevance to dispute settlement proceedings conducted by a panel that involve not the private "interested parties," but rather the Members themselves.[3]

3. Moreover, the EC has misinterpreted Article 12.7,[4] which provides:

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[1] In this submission, all citations to Articles are to the SCM Agreement unless otherwise indicated.

[2] The EC also cites to Articles 6.6 and 6.8 of the SCM Agreement, but as the EC itself notes, these provisions do not address adverse inferences. EC RPQ2, para. 3. Rather, they only address information pertaining to changes in market share and pricing.

[3] Article 12.9 provides that

> For the purposes of this Agreement, "interested parties" shall include
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> (i) an exporter or foreign producer or the importer of a product subject to investigation, or a trade or business association a majority of the members of which are producers, exporters or importers of such product; and
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> (ii) a producer of the like product in the importing Member or a trade and business association a majority of the members of which produce the like product in the territory of the importing Member.

[4] The EC also refers to Article 6.8 of the *Agreement on the Implementation of Article VI of the General Agreement on Tariffs and Trade 1994* as providing "relevant context" for Article 6.8 of the SCM Agreement in the form of Annex II of that agreement, which expands upon the concept of "Best Information Available." The EC provides no explanation of why it considers this provision relevant to the question posed by the Panel and, in fact, it is not.

> In cases in which any interested Member or interested party refuses access to, or otherwise does not provide, necessary information within a reasonable period or significantly impedes the investigation, preliminary and final determinations, affirmative or negative, may be made on the basis of the facts available.

The EC is correct that this provision presupposes the existence of a request for "access" to information. However, Article 12.7 nowhere uses the term "adverse inference." Given that this term is used in paragraph 7 of Annex V, it is clear that the negotiators of the SCM Agreement distinguished between these terms and that Article 12.7 does not refer to an "adverse inference." Furthermore, even to the extent the EC really means "facts available" rather than "adverse inference" and has simply confused the two terms, the EC errs in concluding that because the text does not explicitly reference "the decision-maker," it would also apply in the case of requests from an interested party or another disputing party.

4. While Article 12.7 does not explicitly refer to the administering authorities, the context makes clear that the ability to use facts available becomes available only when the authorities make a request. For example, the placement within Part V indicates it only applies in the context of countervailing duty proceedings. This is confirmed by the limitation to "the investigation" and to "preliminary and final determinations" and the context of Articles 12.8 and 12.12. Furthermore, the references to "necessary information" and "within a reasonable period" necessitate action by the administering authorities, because only they are empowered to determine whether information is "necessary" and time periods "reasonable." Article 12.1 offers additional context, in providing that "{i}nterested Members and all interested parties in a countervailing duty investigation shall be given notice of the information which the authorities require . . . ." Thus, it is only the authorities that may "require" information. In contrast, the interested parties and interested Members may present "evidence," "information," and "arguments" under Articles 12.1 and 12.2, but do not receive the right to "require" or even "request" information.[5] Indeed, Members no doubt would be surprised to learn that in countervailing duty investigations – and, presumably, anti-dumping investigations, as well – a complaining domestic industry has the authority to trigger the use of facts available through its own requests for information.

5. In essence, the EC's analysis of Article 12.7 would allow a Member (and this would include a non-party or a Member that is not even a third party to a dispute) to make requests that, under the SCM Agreement, only administering authorities may make, and such non-party requests would trigger the use of "facts available." Transposition of this principle into dispute settlement by Panels would conflict directly with Article 13 of the DSU, which accords to panels, and not the parties or other Members, the formal "right to seek information." Moreover, Article 13 states only that a "Member should respond" to "any requests by a *panel* for such information as the *panel* considers necessary and appropriate." Thus, a Member has no obligation with respect to a request from a party.

[5] The United States notes that, as part of their evidence or argument, an interested Member or interested party in a countervailing duty investigation may *suggest* that the *authorities* request information. However, if the authorities do not adopt that suggestion, it has no status.

6. In sum, the SCM Agreement and DSU provide no basis for ascribing adverse inferences to a failure to respond to a party's request for information. In fact, doing so would intrude on powers accorded exclusively to panels.

7. In addition to its misplaced efforts to arrogate to itself the Panel's authority under Article 13, the EC makes a number of observations regarding adverse inferences that have nothing to do with the question posed by the Panel, but that do warrant some comment. First, the EC cites to the Appellate Body report in *Canada – Aircraft*, but provides no analysis of its applicability in this dispute.[6] The U.S. response to Question 108, however, explained how the "inferences" discussed by the Appellate Body in that dispute were qualitatively and quantitatively different than those sought by the EC in this dispute.[7] Here, the EC encourages the Panel to make inferences that are essentially punitive in nature, in that they would produce an outcome more adverse to the United States than the facts taken together would support. In contrast, *Canada – Aircraft (AB)* provided for inferences that could "logically" or "reasonably" be derived from the facts. Thus, the Appellate Body's reasoning in that report does not support the EC's views.

8. The EC also points to certain paragraphs of Annex V of the SCM Agreement in support of its arguments regarding non-cooperation. Annex V does allow for adverse inferences in the event of non-cooperation by a party.[8] However, it requires that there first be an information-gathering process under Annex V. In addition, paragraph 8 of Annex V requires a panel, before taking adverse inferences, to "consider the advice of the DSB representative nominated under paragraph 4 as to the reasonableness of any requests for information and the efforts made by parties to comply with these requests in a cooperative and timely manner." In fact, there was an Annex V process with regard to the EC's claims of actionable subsidization of large civil aircraft in the dispute *United States – Measures Affecting Trade in Large Civil Aircraft (First Complaint)* (DS317), with which the United States cooperated fully. The EC abandoned that proceeding and commenced this dispute instead. In this dispute, the United States proposed seeking a decision of the DSB making the Annex V record from DS317 available to this Panel, and empowering the representative of the DSB (referenced as the "Facilitator") to provide the advice mandated under paragraph 8 of Annex V. The EC refused to agree to this procedure. Thus, there is no Annex V process relevant to this dispute, and no Facilitator, which means that there is no way to satisfy the Annex V criteria for taking adverse inferences.[9]

9. Not only do the EC's legal citations fail to support its position, its list of alleged offenses of the United States is striking for its lack of documentation and inconsistency with the facts. The EC asserts that the United States has refused to provide information to the EC and the Panel in a timely manner, failed to cooperate in the development of evidence, and

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[6] EC RPQ2, para. 2.

[7] US RPQ2, paras. 1-4.

[8] US RPQ2, para. 5.

[9] The United States directs the Panel's attention to its response to Question 107, which further explains how the United States has cooperated fully with information gathering in this dispute.

failed to cooperate in the "information gathering process."[10] But the United States has made a tremendous volume of information available to the EC and the Panel in this dispute. The United States also submitted more than 40,000 pages of documents in the Annex V process in DS317, and proposed a mechanism to make that information available to the Panel and the EC in this dispute, as discussed above. The United States has also responded to every question from the Panel, including questions about the information and documentation that it has provided. That the EC cannot find support for its allegations in the wealth of information available to it is not the fault of the United States, but rather speaks more to the lack of merit in the EC's claims, as well as to the speculative nature of those claims.

10. The EC further alleges that the United States has "significantly impeded the Panel's investigations."[11] But, as the United States explained above, the EC is invoking concepts and language from Part V of the SCM Agreement that are not directly applicable to, nor reflected in, Part III of the Agreement;[12] a WTO panel does not conduct an "investigation."[13] And contrary to the EC's assertions that the United States has "refused to clarify relevant facts," it is the EC that has been unclear in its refusal to present information as to the benefit and value it ascribes to the financial contributions that it challenges.[14] Even assuming that a Panel does conduct an investigation in the same manner as a domestic authority, the United States has not "significantly impeded" the Panel from completing the task assigned to it by the Dispute Settlement Body.

11. In short, there is no merit to the EC's assertion that the Panel should rely on the information provided by the EC as the best information available and draw adverse inferences against the United States.[15] The United States has fully cooperated with the Panel in this dispute, providing a large volume of information that the EC has chosen not to acknowledge.

107. The European Communities alleges that the United States has failed to cooperate in the information gathering process "whether in Annex V proceedings or otherwise" (EC RPQ1. paras. 4, 93, 100). In referring to US non-cooperation in Annex V "proceedings", is the European Communities asking the Panel to find that the United States failed to cooperate in the DS317 Annex V process? What does the European Communities mean when it says "or otherwise"?

12. The EC's allegations that the United States obstructed the Annex V process in this dispute have no basis in the facts.[16] The United States offered to seek a decision from the

[10] EC RPQ2, para. 7.

[11] EC RPQ2, para. 7.

[12] *US – Upland Cotton (Panel)*, para. 7.1167.

[13] Under Article 7 of the DSU, a panel "examines" a matter rather than "investigates". Similarly under Article 11 of the DSU a panel is "making an assessment" of a matter before it, not conducting an "investigation."

[14] EC RPQ2, para. 7.

[15] EC RPQ2, para. 8.

[16] EC RPQ2, para. 9.

DSB making the results of the Annex V process in DS317 available in this dispute.[17] The EC, however, rejected this offer.[18] It then chose to proceed without the information from the DS317 Annex V process in this dispute. The EC further alleges that United States failed to cooperate in the DS317 Annex V process. But the EC's allegation is baseless because the United States fully cooperated. In any event, it would be inappropriate for the Panel to take any alleged non-cooperation of the United States in another dispute into account in this dispute, absent an Agreement by the Parties.

13. As for the EC's allegations of general non-cooperation by the United States, the United States refers the Panel to its comments on Questions 2 and 106, which provide a detailed response to the EC's specific allegations.

109. Would the parties agree that, in the absence of actual data regarding the amount of an alleged subsidy, a panel may base its findings on an estimate of the amount of the subsidy? How is the use of estimates consistent with a panel's requirement to make an "objective assessment of the facts of the case" within the meaning of Article 11 of the DSU? Must a panel find "non-cooperation" within the meaning of paragraph 6 of Annex V, justifying reliance on "best information available" or the drawing of "adverse inferences", in order to rely on estimates regarding the amount of an alleged subsidy?

14. The United States and the EC agree that a panel may base its findings on an estimate, including when that estimate pertains to the amount of an alleged subsidy in evaluating its magnitude for purposes of Article 5 and 6.3.[19] To this end, the United States has presented extensive evidence demonstrating that the subsidies alleged by the EC are not actionable subsidies, and that the amounts involved are in any event far less than the EC alleges. Where precise data are unavailable because of the passage of time or because the agencies involved organize their data in a way differently than the EC has structured its claims, the United States has made reasonable estimates based on the available facts. In each instance, the facts presented by the United States merit greater weight than the assumptions and allocations on which the EC relies, and the estimates made by the United States are based on more probative evidence and sounder methodologies.

15. Although the United States and the EC do not disagree about the permissibility of estimates as a general proposition, the EC's response to this question makes unfounded statements that warrant correction.

16. First, attempting to draw an analogy between this dispute and *Korea – Commercial Vessels*, the EC argues that it is "dependent on" the United States for information regarding the value of alleged R&D subsidies to Boeing, and that the U.S. challenge to the information and estimates provided by the EC should be rejected because it is not based on sufficient

[17] Letter from the United States to the EC (Jan. 14, 2007); Letter from the United States to the Panel, p. 2 (Jan. 23, 2007).

[18] Letter from the EC to the Panel, p. 2 (Mar. 5, 2007).

[19] US RPQ2, para. 7; EC RPQ2, para. 11.

factual information.[20] In fact, before this dispute began, the EC obtained a large volume of information regarding the challenged programs because the relevant federal, state, county, and municipal authorities provide a high degree of transparency in their dealings.[21] Within the context of this dispute, the United States has provided a huge volume of information that is not otherwise publicly available. In many cases, the EC has chosen to disregard this information, especially when the information demonstrates that the EC's allegations of subsidization are misplaced and that the values alleged by the EC are exaggerated.[22]

17. The EC also makes the general allegation that adverse inferences may be appropriate when a party fails to cooperate with a panel's development of information about the subsidies.[23] But there is no legal basis for the Panel to draw adverse inferences in this dispute. Rather the Panel is charged with making "an objective assessment of the matter before it."[24] The inquiry should end there. As an aside, the EC has provided no explanation as to why adverse inferences are appropriate based on the particular facts of this dispute. The United States has fully cooperated with the Panel. It has answered every question posed by the Panel, and the EC has not alleged otherwise. Accordingly, the full cooperation of the United States in this dispute demonstrates that it would not be appropriate to draw adverse inferences even if there were a legal basis for doing so.

18. Finally, the EC cites *Turkey – Rice* and *US – Wheat Gluten* in support of its argument that the Panel may draw adverse inferences. But both of those disputes involved only *appropriate*, rather than *adverse*, inferences, as the EC seeks here.[25] Moreover, the language quoted by the EC is inapplicable to the present situation because in both of those disputes, a party did not provide information requested by the *panel*. Here, on the other hand, the EC's arguments pertain to the alleged failure of the United States to provide information requested by *the EC*. As noted in the U.S. comments on Question 106, a request made only by a party does not – for good reason – trigger any obligation for the other party to respond, and is not

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[20] EC RPQ2, para. 13.

[21] The EC has submitted Exhibit EC-28, Summary of Denials to Requests for Government Information, in an effort to show that the United States has not provided the EC the information that it needs. But this exhibit actually demonstrates that the NASA, DoD, and the State of Illinois gave the EC large volumes of information, such as contracts, summary reports on IR&D and B&P expenses, reports on patent waivers, and numerous other documents. Furthermore, the EC's submissions in this dispute cite to additional materials its has obtained for NASA, DoD, DoC, the State of Kansas, the State of Washington, Snohomish County, the City of Everett, and the City of Wichita

[22] For instance, in response to Question 165, the EC specifically states that information related to contracts submitted to the Panel played essentially no role in its valuation of the alleged subsidies. EC RPQ2, paras. 270-274. Furthermore, in Questions 150 and 190, the Panel asked the Parties to direct the Panel to argument and evidence on the record regarding the process that NASA and DoD followed in selecting contractors in the R&D programs at issue and formulating the statement of work in the R&D contracts at issue. In response to these questions, the EC said that nothing on the record was responsive. EC RPQ2, paras. 196, 199, 318, 321. In fact, NASA and DoD submitted the relevant materials, as the United States explained in its response to these questions. US RPQ2, paras. 130-136, 226-228.

[23] EC RPQ2, para. 17.

[24] DSU, Art. 11.

[25] *Turkey – Rice*, para. 7.10; *US – Wheat Gluten (AB)*, para. 174.

sufficient to trigger adverse inferences of the type discussed in *Canada – Aircraft*. In this dispute, as noted above, the United States has thoroughly responded to all questions posed by the Panel. Furthermore, in order to assist the Panel, the documents submitted by the United States included all of the available relevant documents, even if they were not cited specifically.

B. TERMS OF REFERENCE

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C. "AS SUCH" VS. "AS APPLIED" CLAIMS

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D. MEASURE(S) AT ISSUE

112. At para. 29 of its OS2, the United States argues that:

> *"any benefit associated with DoD facilities and equipment used under an RDT&E contract cannot be evaluated independent of the contract because those assets form part of the basis of the exchange. ... All of the EC claims against NASA and DoD relate to the terms of those agencies' contracts with Boeing. Whether it is the availability of facilities, the involvement of personnel, the treatment of intellectual property rights, or the inclusion of certain indirect costs in the total prices, all are terms that become effective through the conclusion of contracts between the agencies and Boeing. ... Now, long after the fact, the EC seeks to pluck elements out of those transactions and treat them as free-standing "provisions" from the government to Boeing...."*

(a) How does the European Communities respond?

19. The EC does nothing in its response except to reassert that it has made a *prima facie* case that various elements of the R&D agreements between the DoD/NASA and Boeing constitute distinct financial contributions, and that the benefit from each is equivalent to the full value of each element of the government's obligations under the agreements. The United States has demonstrated, however, that these transactions represent the payment of money in exchange for the supply of services, information, and valuable intellectual property rights by the contractor. Thus, this is not a situation in which the government separately provided "funding," "facilities, equipment, and employees," intellectual property rights, and IR&D and B&P reimbursements under one instrument out of convenience or happenstance. To the contrary, each of these terms, along with a number of other terms, is an element of a single transaction for which the government provided compensation for the contractor's costs, and in some instances, facilities, equipment, or employees to advance the government objective. These terms of the transaction, which the EC challenges as independent measures, are elements of an integrated value provided by the U.S. government and its contractors in a

value-for-value exchange.[26] The EC has not demonstrated, in light of these facts, how the Panel could perform an objective assessment of whether the unified payment under each contract provided adequate remuneration if it treated the separate elements of the transaction as discrete financial contributions.[27]

20. The EC tries to avoid the need to address the transactions in the context of their actual structure by contending that they are not transactions at all, but simply a variety of measures that "often occur together through the terms of a contract."[28] To the contrary, under U.S. law and the terms of the challenged agreements, the alleged "provisions" of government facilities, equipment, and employees, intellectual property rights, and IR&D/B&P reimbursements, cannot be "provided" outside of a value-for-value exchange between the U.S. government and a private entity. This means that a procurement contract must specify any such provision as a term of performance[29] or it must be a specific term in a separate agreement drawn up for that purpose, such as a NASA Space Act Agreement, which sets out the negotiated remuneration.[30] The provision for the allocation between government and contractor of the intellectual property rights "pertains to inventions made in the performance of work under a Government contract or subcontract for experimental, developmental, or research work."[31] The provision for reimbursement of IR&D/B&P overhead costs is available only as part of the total payment to a contractor under a cost-based government contract, and only for those costs that are allowable and allocable to those contracts pursuant to U.S. government cost-accounting regulations.[32]

21. The EC never addresses these facts of government transactions. It instead focuses on statements from legislation or government policy papers supposedly indicating a goal to "{e}nhance the competitiveness" of the United States or "improve the position of the U.S. in world trade."[33] The United States has shown that the EC has misperceived the purposes of these contracting practices.[34] But, the more important point is that its analysis confuses the motive or effect of a measure with the financial contribution and benefit analysis. The effects of a payment may be relevant to the analysis under Article 6.3 – if it is found to confer a

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[26] US FWS, paras. 270, 277, and 283.

[27] *Japan-Apples (AB)*, para. 136 ("Undoubtedly, a party has the prerogative to pursue whatever legal strategy it wishes in conducting its case. However, that strategy must not curtail the right of other parties to pursue strategies of their own; nor can the strategic choices of the parties impose a straightjacket on a panel.")

[28] EC RPQ2, para 23.

[29] FAR Part 45.107 (referencing the clauses to be inserted in government contracts with respect to contractor use of government property) and 45.201 (requiring inclusion of a listing of the Government property to be offered in all solicitations where Government-furnished property is anticipated)

[30] See FAR Part 45.301 (governing the use of government facilities by contractors). The use of government facilities in performance of a contract are generally done on a rent-free basis; any commercial usage proposed a contractor is only permitted in exchange for additional consideration. See also US FWS, para 184.

[31] FAR Subpart 27.3.

[32] FAR 31.201-1(a). See also US FWS, paras. 277-282; Keenan Statement, para. 4 (Exhibit EC-1179).

[33] EC RPQ2, para. 25.

[34] US OS2, paras. 34-43.

subsidy – but they play no role in the benefit analysis. The ostensible motive of a transaction is simply irrelevant to the objective inquiry under Article 1.1(b) into whether the *terms* are more favorable than terms available in the market.

22. These R&D agreements memorializing a value-for-value exchange present a very different situation from the Master Site Agreement ("MSA"). The MSA does not represent an integrated value-for-value exchange; that is, the infrastructure and tax measures are not in-kind remuneration for goods or services provided by Boeing to the State, nor are the economic benefits generated by Boeing remuneration to the State for the infrastructure provisions and tax measures, such that the entire transaction must be assessed as an integrated transaction. Thus, the EC's attempt to analogize the MSA to NASA and DoD contracts is inapposite.

23. The EC asserts that IR&D and B&P reimbursements warrant separate treatment because they are "independent of the contract." The flaw in the EC's reasoning lies in its argument that IR&D/B&P reimbursements are not a part of the "value exchange" under government procurement contracts. As noted above, the facts and circumstances of these transactions indicate that IR&D/B&P is an element of overhead, which is in turn an element of the total cost of providing goods and services that is paid under a cost-based government contract. In addition, contractors do not receive "independent" IR&D or B&P reimbursements – they must have a contract providing for such reimbursements and actually incur costs that generate reimbursements. The double-counting that results from the EC approach reveals its fallacy. The EC challenges total IR&D and B&P reimbursements paid to Boeing under all of its contracts, as well as the full value of some of the contracts under which IR&D/B&P are paid as part of the total contract cost.

24. Finally, the United States recalls that its argument with respect to the appropriate methodology for assessing the "benefit" from the contract clauses does not rely on "raw assertions and assumptions", as the EC suggests.[35] The United States has shown that the transactions containing these terms are preceded by competition and subject to arm's length negotiations, and EC has not demonstrated otherwise. The United States has also provided the relevant contracts themselves, and demonstrated how they represent an integrated fair exchange of value for value.

> *(b) Is the European Communities' analysis consistent with the analytical approach set forth at paras. 63-65 of the Appellate Body report in EC – Asbestos?*

25. The EC's response to the Panel's question is that the Appellate Body's analysis in *EC-Asbestos* does not apply in this case because the EC "is challenging a series of individual measures", not artificially separating elements of an individual measure so as to affect the Panel's analysis. The complaining party in that dispute raised precisely the same argument,

[35] The United States has demonstrated that under U.S. law, these terms are all part of the government's obligations under a contract – that is., part of the remuneration. Therefore, where the government is providing that remuneration to purchase services, the individual clauses of the contract are not separate financial contributions that permit a separate benefit analysis.

but the Appellate Body found that facts did reflect an artificial separation, which led it to find that "the proper legal character of the measure at issue cannot be determined unless the measure is examined as a whole."[36] The evidence simply does not support the EC assertion that the various clauses of the contracts at issue are "clearly … a series of different measures".[37] Rather, the United States has shown that they are integrated terms of a single transaction and cannot be analyzed in isolation from a government contract.

26. To be clear, the real concern of the United States is not with the EC's definition of the measure(s) it seeks to challenge, but with the analytic framework the EC proposes for assessing whether the measure(s) constitute a subsidy under Article 1.1. Regardless of how the EC chooses to frame its case, the Panel is required, within its terms of reference, to determine whether each financial contribution confers a benefit and is specific. Such an assessment, in this case, requires consideration of each element of a value-for-value exchange in the context of the overall transaction of which it is an integrated part.

II. SUBSIDY PROGRAMMES

A. GENERAL INTERPRETATIVE ISSUES RELATING TO ARTICLES 1 AND 2

1. Financial Contribution

(a) "a government practice involves a direct transfer of funds (e.g. grants, loans, and equity infusion)"

114. Assume that a company mistakenly paid income tax in an amount exceeding that which was actually due under the applicable tax law, and that the authorities subsequently refunded the excess payment in the form of a direct transfer of funds into that company's bank account. Would the refund constitute a financial contribution in the form of a "direct transfer of funds" within the meaning of Article 1.1(a)(1)(i)? If the answer is no, please explain the legal basis for that view.

27. In response to the hypothetical posed by the Panel, the EC recognizes that a repayment by the government of the overpayment of income taxes via a direct transfer of funds to a company's bank account would not be a subsidy under the SCM Agreement because there is no benefit within the meaning of Article 1.1(b).[38] Implicit in the EC's recognition is a concession that that is inappropriate to view the individual pieces of an exchange transaction in isolation. The payment to the taxpayer could certainly be described in isolation as a government payment for "nothing in return," as the EC tries to characterize NASA and DoD purchases of R&D services. It is only by looking at its broader context that the nature of the exchange becomes clear. Despite the importance of considering the broad

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[36] *EC – Asbestos (AB)*, para 64. Although *EC – Asbestos (AB)* was not an SCM dispute, it is still helpful to note that in other contexts, the Appellate Body has recognized that when a party is challenging a measure with multiple provisions that modify each other, the party cannot make a claim by looking at one of those provisions in isolation.

[37] EC RPQ2, para. 28.

[38] EC RPQ2, para. 32.

context of a transaction, which the EC concedes for this hypothetical, it takes the opposite approach with respect to the NASA and DoD contracts at issue in this dispute. For those contracts, the EC erroneously attempts to extract certain portions of the contract and examine only one side of an exchange to create an appearance of subsidization when, in fact, there is none.

115. What is the relevance of the following provisions of the WTO Agreements to the question of whether transactions involving the "purchase of a service" fall within the scope of Article 1.1(a)(1):

(a) Article 14(d) of the SCM Agreement;

28. The United States explained in response to this question that Article 14(d) provides context demonstrating that purchases of services are not a financial contribution for purposes of Article 1.1(a)(1).[39] The EC's efforts to minimize the significance of the provision are unfounded.

29. The EC first notes that Article 14 addresses the calculation of the benefit of a subsidy, and argues that it accordingly does not "address the particular provision at issue – *i.e.*, Article 1.1(a)(1)."[40] This position evinces a misunderstanding of "context" because one provision may certainly serve as context for more than one other provision in an agreement. Moreover, there is a terminological linkage between Article 14 and Article 1.1(a)(1) in that it explicitly relates to various forms of financial contributions provided under Article 1.1(a)(1) and provides for their treatment in the context of a countervailing duty proceeding. The EC attempts to buttress its argument by noting that "financial contribution" and "benefit" are distinct concepts. However, that does not mean that each term is incapable of providing context potentially helpful in deriving the meaning of the other.

30. The EC argues that the omission from Article 14 of any reference to "purchases of services" is not relevant because that Article does not provide guidelines for the calculation of the benefit of other types of financial contribution explicitly recognized under Article 1.1(a)(1): grants under clause (i), government revenue foregone under clause (ii), or entrustment and direction.[41] However, the omission of purchase of services from Article 14(d) is significant, as that subparagraph addresses every other form of government purchase from or provision to private entities under clause (iii).

31. The EC also tries to explain the omission of a reference to purchases of services by recalling its argument that this type of transaction is an unlisted form of "direct transfer of funds" covered by Article 1.1(a)(1)(i). The United States has shown that the EC's conclusion is incorrect.[42] Moreover, in light of the specific references to the government "provid{ing} goods", "provid{ing} . . . services", and "purchas{ing} goods" in both Article 1.1(a)(1) and

[39] US RPQ2, paras. 15-17.

[40] EC RPQ2, para. 36.

[41] EC RPQ2, para. 38.

[42] US Comments on EC RPQ1, paras. 46-55; US RPQ2, paras. 14-20.

Article 14, it seems implausible that, had the negotiators of the SCM Agreement intended purchases of services to be a subset of "direct transfers of funds," they would have made no explicit reference to it, even as they did refer to grants, loans, equity infusions, and loan guarantees.

(b) Articles XIII and XV of the GATS; and

32. The EC suggests that Article XIII of the GATS creates a negative pregnant as to the SCM Agreement because it specifically excludes government purchases of services from some disciplines, while the SCM Agreement does not.[43] However, this difference does not suggest a drafting rule that purchases of services are within the scope of any agreement that does not explicitly exclude them. Rather, it is a function of the different structures of the two agreements. The GATS frames its scope in terms of coverage of all trade in services, and then excludes several classes of services. In contrast, the SCM Agreement frames its scope of coverage in Article 1.1(a)(1) in terms of an exhaustive list. Thus, there is no need to explicitly exclude transaction types that are not listed as financial contributions, because their very absence from an exhaustive list means they are not included. In short, the negotiators did not need explicitly to exclude purchases of services because it was never covered in the first place.

33. The EC provides nothing but speculation in support of its argument that Article XV of the GATS supports its position with regard to the treatment of purchases of services as a financial contribution. The first speculation is that the negotiators of the SCM Agreement assumed that government purchases of services typically affect trade in services.[44] The EC provides no support for this view and, in fact, it is hard to reconcile with the inclusion of the provision of services in Article 1.1(a)(1). The other speculation is that "subsidy" as used in Article XV has the same meaning as the defined term "subsidy" under Article 1.[45] However, the Article XV call for negotiations on substantive disciplines and countervailing measures with regard to services subsidies indicates exactly the opposite – that Members were not ready to simply import concepts from the SCM Agreement, an agreement regarding the trade in goods, into a distinct agreement covering trade in services.

(c) Article III:8(b) of the GATT 1994*.*

34. The United States has no comment on the EC's response to this question.

116. Article 31(2) of the Vienna Convention on the Law of Treaties ("Vienna Convention") provided that the context of a treaty comprises, among other things, certain agreements and instruments made in connection with the conclusion of the treaty (and, in the case of instruments, accepted by the other parties as an instrument related to the treaty). At para. 95 of its FWS, the United States refers to certain documents (e.g. United Nations Provisional Central Product Classification) that

[43] EC RPQ2, para. 43.

[44] EC RPQ2, para. 46.

[45] EC RPQ2, para. 47.

classify "R&D services" as "services". Should these documents be taken into account pursuant to Article 31(2) for the purpose of determining whether "R&D services" constitute a "service" for the purposes of Article 1.1(a)(1)?

35. The United States refers the Panel to its response to Question 116.[46] It also notes that it does not agree with the EC's characterization of the NASA and DoD purchases of R&D services as being the provision of such R&D services to Boeing.[47] The United States has explained at length why this is not the case.

117. Article 31(3)(a) of the Vienna Convention provides that there shall be taken into account, together with the context, "any subsequent agreement between the parties regarding the interpretation of the treaty or the application of its provisions". At para. 6 of its Oral Statement, Canada notes that Article XV of the GATS indicates that the regulation of subsidies in respect of services is a task for a future work programme of the Members and states that "the incomplete work programme of the Members in respect of service subsidies provides a good reason for the Panel to exercise caution in this area." Is the Panel correct in its understanding that the negotiations envisaged under Article XV of the GATS have not resulted in any "subsequent agreement" between WTO Members on the question of whether transactions involving the "purchase of a service" fall within the scope of Article 1.1(a)(1) of the SCM Agreement?

36. The United States and the EC agree that negotiations under Article XV of the GATS have not resulted in any subsequent agreement that is relevant to this dispute. The EC, however, goes on to speculate about the GATS subsidy disciplines that the Members may agree to in the future.[48] The Panel should give no weight to the EC's speculations, because they are legally irrelevant and have no basis in evidence.

118. Article 31(3)(b) of the Vienna Convention provides that there shall be taken into account, together with the context, "any subsequent practice in the application of the treaty which establishes the agreement of the parties". Is there any subsequent practice in the application of the SCM Agreement which establishes the agreement of Members on whether transactions involving the "purchase of a service" fall within the scope of Article 1.1(a)(1)?

37. The United States has identified subsequent practice in its response to Question 118, and otherwise has no comment on the EC's response.[49]

119. What is the relevance of the following to the question of whether transactions involving the "purchase of a service" fall within the scope of Article 1.1(a)(1):

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[46] US RPQ2, paras. 22-23.

[47] EC RPQ2, para. 51.

[48] EC RPQ2, para. 54.

[49] US RPQ2, para. 25.

(a) the "object and purpose" of the WTO Agreement;

38. The United States has noted that one of the recitals of the WTO Agreement states the Members' objective of "entering into reciprocal and mutually advantageous arrangements directed to the substantial reduction of tariffs and other barriers to trade."[50] This objective highlights the importance of preserving what the Appellate Body has described as the "delicate balance" of the SCM Agreement "between the Members that sought to impose more disciplines on the use of subsidies and those that sought to impose more disciplines on the application of countervailing measures."[51] The EC, however, sees the same preambular language as supporting its view that the Panel must reject the U.S. understanding of the SCM Agreement as one that creates a "loophole" that would "make irrelevant the entirety of the SCM Agreement."[52] The United States has already explained that the EC's alarmism is unfounded.[53] The United States is not proposing a "loophole," and trusts that panels will be able to detect transactions that are not properly treated as purchases of services.

39. The larger point, however, is that the EC's interpretation of the preamble as an anti-loophole provision disregards the references to "reciprocal and mutually advantageous arrangements" and the objective of "substantial reduction of . . . barriers to trade." Thus, the preamble does not take a maximalist position – it recognizes that the covered agreements seek "substantial reduction" and not complete elimination of barriers to trade. Thus, the "reciprocal and mutually advantageous arrangements" that it recognizes may involve less than full coverage. In that case, the "object and purpose" is the preservation of the less-than-complete liberalization the Members negotiated and not the conferral on one Member of a concession that it did not obtain through negotiation. Furthermore, the fact that GATS Articles XV and XIX:1 call for further negotiations is an express recognition that liberalization in services is incomplete.

(b) the "object and purpose" of the SCM Agreement;

40. The EC's response to this element of the Panel's question ignores the Appellate Body's articulation of the object and purpose of the SCM Agreement in terms of

> reflecting a delicate balance between the Members that sought to impose more disciplines on the use of subsidies and those that sought to impose more disciplines on the application of countervailing measures. Indeed, the Appellate Body has said that the object and purpose of the *SCM Agreement* is to "strengthen and improve GATT disciplines relating to the use of both subsidies and countervailing measures, while recognizing, at the same time, the right of Members to impose such measures under certain conditions."[54]

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[50] US RPQ2, para. 29.

[51] *US – DRAMS CVD (AB)*, para. 115, *quoting US – Softwood Lumber CVD Final (AB)*, para. 64.

[52] EC RPQ2, para. 57.

[53] US SWS, paras. 6-9, US RPQ1, paras. 36-38.

[54] *US – DRAMS CVD (AB)*, para. 115, *quoting US – Softwood Lumber CVD Final (AB)*, para. 64.

Instead, it relies on two older panel reports that note the objective of "disciplin{ing} subsidies which distort international trade"[55] and speculates that "{i}t could have been the intention of the drafters of the SCM Agreement" to define "financial contribution" so as to exclude purchases of services. The panel reports cited by the EC are not, in fact, inconsistent with the Appellate Body's findings – they just focus on one side of the "delicate balance" without in anyway suggesting that the other side is entitled to less weight. As for the EC's speculation regarding what the drafters "did not intend," the Panel should accord no weight to the EC's unsupported speculation.

(c) the "object and purpose" of Part III of the SCM Agreement; and

41. As a preliminary matter, for this and for subpart (d) below, the United States notes that the EC ignores the fact that under the customary rules of interpretation reflected in the VCLT, it is the object and purpose of the "treaty" and not some supposed object and purpose of individual components of the treaty that is relevant. The EC returns to its argument that the exclusion of purchases of services from the definition of a financial contribution would frustrate the purpose of the SCM Agreement. The United States has explained elsewhere why this is not the case.

(d) the "object and purpose" of Article 1 of the SCM Agreement.

42. The United States has no other comment on the EC's response to this question.

120. Article 32 of the Vienna Convention provides that recourse may be had to the "the preparatory work of the treaty and the circumstances of its conclusion" as supplementary means of interpretation. The United States has referred the Panel to certain preparatory work relating to Article 1.1(a)(1)(iii). (US FWS, para. 48 and footnote 42) To what extent do the "circumstances of the conclusion" of the SCM Agreement shed any light on whether transactions involving the "purchase of a service" fall within the scope of Article 1.1(a)(1)?

(a) The statements cited by the EC are not "circumstances of conclusion" of the SCM Agreement

43. As a threshold matter, the United States recalls that Article 32 of the Vienna Convention provides recourse to supplementary means of interpretation "in order to confirm the meaning resulting from the application of Article 31, or to determine the meaning when the interpretation according to Article 31: (a) leaves the meaning ambiguous or obscure; or (b) leads to a result which is manifestly absurd or unreasonable." The United States has demonstrated that the meaning resulting from the application of Article 31 of the Vienna Convention to Article 1.1(a)(1) is neither absurd nor unreasonable. Specifically, the text of the Art. 1.1(a)(1)(iii) includes provision of goods and services and purchase of goods, but unambiguously omits the purchase of services. Article 1.1(a)(1)(i), which covers direct transfers of funds, should not be interpreted to include purchases made for monetary

[55] EC RPQ2, para. 59.

remuneration, as that would render the purchase of goods provision under (iii) inutile.[56] Such an interpretation accords with the object and purpose of the SCM Agreement, and the entire WTO Agreement of which it is a part, to maintain the "reciprocal and mutually advantageous arrangements" entered into by the parties.

44. The EC nevertheless contends that certain facts constitute "circumstances of conclusion" under Article 32 of the Vienna Convention, and that they support an interpretation of Article 1 of the SCM Agreement contrary to the interpretation reached under Article 31 of the Vienna Convention. The facts that the EC cites are not relevant evidence of the "circumstances of conclusion" of Article 1 of the SCM Agreement, and do not have the meaning the EC asserts. Because Article 31 produces a conclusion that is neither ambiguous nor unreasonable, Article 32 would not justify their use to suggest a different interpretation.

(b) The statements cited by the EC are consistent with the U.S. view that NASA and DoD contracts are purchases of services that are not financial contributions.

45. The statements offered by the EC in its response to this question do not actually relate to "precisely the type of R&D support" that the United States has demonstrated to be a purchase of services excluded from Article 1.1(a)(1) of the SCM Agreement.[57] Therefore, they do not support the EC's contention that at the time of the Uruguay Round, the U.S. negotiators believed that the NASA and DoD purchases of research services were financial contributions within the meaning of Article 1.1(a)(1).[58]

46. The EC gives the place of prominence to the testimony of Ambassador Yerxa before a subcommittee of the U.S. House of Representatives. His point was that the renegotiation of the draft SCM Agreement championed by the incoming Clinton Administration had provided increased protection for certain U.S. programs:

> The 1991 Uruguay Round Draft Final Act on subsidies would not have provided green light safe harbor protection to important existing programs having broad bipartisan support, including:
>
> - Cooperative Research and Development Agreements ("CRADA's") in the Department of Energy and other agencies,
>
> - the Partnership for a New Generation of Vehicles,
>
> - the Advanced Technology Program at the National Institute of Standards and Technology, Sematech,

[56] The United States has also demonstrated subsequent practice in the application of the SCM Agreement which establishes that transactions involving purchases of services fall outside the scope of Art. 1.1(a)(1). US RPQ2, paras. 25-26.

[57] EC RPQ2, para. 78.

[58] EC RPQ2, para. 72.

- biomedical research and commercialization at the National Institutes of Health,

- NASA's aeronautics programs, and

- the Technology Reinvestment Project and other cost-shared dual use programs of the Defense Department's Advanced Research Project Agency ("ARPA").[59]

He identified two provisions of the renegotiated agreement that provided this heightened protection: the 50% and 75% permissible levels for government assistance, respectively, to basic industrial research and precompetitive activity and the use of the first non-commercial prototype as the cut-off for green light treatment.[60]

47. At the outset, it is important to note, Ambassador Yerxa expresses no view as to whether any of these programs were subsidies. His sole point is that, because of changes in the permissible levels of government assistance, they became eligible for the "safe harbor" from dispute settlement after previously being ineligible. Thus, his opinion as to the status of these programs under Article 8.2 has no legal or factual relevance for the Panel's evaluation of their coverage under Article 1.1(a)(1).

48. The EC tries to create an impression of relevance by arguing that there would have been "no need" for the United States to seek renegotiatiation of Article 8.2 to cover these programs if the United States considered them to be purchases of services outside the definition of "financial contribution."[61] But the EC fails to understand the significance of Ambassador Yerxa's list.

49. He mentions only three programs referenced in the EC's allegations: ATP, NASA aeronautics programs, and the DoD Technology Reinvestment Program and other "cost-shared dual-use" programs. It should be immediately obvious that, with respect to DoD, Ambassador Yerxa is addressing a much smaller set of programs than the EC has challenged: *cost-shared dual-use programs* by the agency then known as ARPA.[62] (The United States recalls that in DoD terminology, "dual-use" refers to the programs explicitly designed to leverage private investment for military purposes, and not to general aeronautics research or development of specific weapons systems.[63]) He did not list DoD procurement contracts (or

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[59] Testimony of Ambassador Rufus Yerxa, Deputy U.S. Trade Representative, Subcommittee on Trade of the U.S. House of Representatives Committee on Ways and Means, pp. 3-4 (Feb. 8, 1994) (Exhibit EC-1353) ("Yerxa Testimony").

[60] Testimony of Ambassador Rufus Yerxa, Deputy U.S. Trade Representative, Subcommittee on Trade of the U.S. House of Representatives Committee on Ways and Means, pp. 3-4 (Feb. 8, 1994) (Exhibit EC-1353).

[61] EC RPQ2, para. 72.

[62] ARPA (and its successor, the Defense Advanced Research Projects Agency, or "DARPA") is an agency within DoD that reports directly to one of the Undersecretaries of Defense, and is not part of the Air Force, Navy, or Army.

[63] The term "dual-use" refers to specific DoD efforts to leverage commercial technology development for military applications – not to any and all military R&D projects that may have a "potential" civil

cost-shared programs) maintained by the Air Force, Navy, or Army. Thus, contrary to the EC's view, Ambassador Yerxa's testimony reflects his understanding that there was no "need" to renegotiate Article 8.2 to protect DoD procurement contracts or cost-shared dual-use programs administered by the armed forces. Thus, to the extent his list reveals views as to consistency with the SCM Agreement, it reflects a conclusion that procurement contracts and cooperative agreements under the programs challenged by the EC – precisely the instruments that the United States has demonstrated to be purchases of services – were not subject to challenge.[64] In fact, the only DoD program referenced in Ambassador Yerxa's testimony – ARPA's dual-use programs – was not the subject of a subsidy allegation by the EC.[65]

50. Ambassador Yerxa's reference to the ATP program also provides no support for the EC assertions because the United States has always recognized that ATP funding provides a financial contribution. Thus, if his mention of the program signaled a "need" to renegotiate Article 8.2 to protect an otherwise actionable subsidy, that implication indicates nothing about whether Ambassador Yerxa considered purchases of services to be covered by the SCM Agreement.

51. Finally, even if Ambassador Yerxa's reference to NASA aeronautics programs in the Article 8.2 context signals a perceived "need" to protect NASA programs, that does not mean that he considered *all* of the programs to be subsidies. It is quite clear that *some* NASA programs are financial contributions, such as the grants that the agency awards to universities, independent research entities, and even sometimes to private enterprise.[66] Space Act Agreements provide goods and services in exchange for monetary or in-kind compensation. NASA also has cost-shared cooperative agreements.[67] There is no question that each of these confers a financial contribution. As grants, NASA's grants would be presumed to confer a benefit. Thus, a logical reading of Ambassador Yerxa's comment is that he sought a "safe harbor" for these types of instruments so that NASA would not have to

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applicability. US FWS, paras 75, 83, 125-126. DoD implemented these R&D efforts through a limited number of programs challenged by the EC, e.g., the Dual Use Science and Technology Program, and the Manufacturing Technology Program. For example, the Dual Use Science and Technology program referenced in the EC's first written submission US FWS, para. 132, *citing* DUS&T Funding (Exhibit US-39).

[64] As the United States has noted, programs that are "dual-use" as that term is used by DoD represent a tiny fraction of DoD's research. US FWS, para. 132, *citing* Exhibit US-32. Therefore, it is highly unlikely that Amb. Yerxa would have referenced only ARPA's dual-use cost-shared agreements if he believed that procurement contracts and other cost-shared/cooperative agreements had also been potentially at risk.

[65] The EC did challenge the *Air Force* dual use program, which was a separate program with different funding sources. EC FWS, paras. 692-694. The EC did mention the ARPA program in its first written submission, but only as historical background for its allegation with regard to the Air Force dual-use program. EC FWS, paras. 694 ("The Air Force's DUS&T Program was originally part of DOD's Dual Use Applications Program ("DUAP"), which was the successor to the Technology Reinvestment Project ("TRP") formerly administered by the Defense Advanced Research Projects Agency ("DARPA")"); 729, 731, 732.

[66] Boeing did not receive any NASA grants to conduct aeronautics research during the period covered by the EC allegations. US RPQ1, para. 46.

[67] NASA has only three cooperative agreements involving aeronautics research potentially covered by the EC allegations. The United States has demonstrated that two of these are, in fact, purchases of services. US RPQ1, paras. 46, 58-59. The other is small in value. US RPQ2, para. 139, n. 149.

undergo the time and expense of defending them in countervailing duty proceedings or WTO dispute settlement. There is, however, no basis to assume that his comment signaled a conclusion that NASA procurements contracts for the purchase of research services were a financial contribution.

52. In fact, it would be illogical to view Ambassador Yerxa's statement as signifying that Article 8.2 was necessary to immunize any NASA procurement contracts, including the R&D procurement contracts at issue in this dispute, from challenge, since Article 8.2 gave them no protection. As the United States has explained, the procurement contracts cover 100 percent of the costs of the project described in the contract, which makes the repayment greater than the 75 percent and 50 percent thresholds set by Article 8.2(a). Moreover, footnote 24 specified that Article 8.2(a) did not apply to R&D related to civil aircraft anyway.[68] Therefore, whatever the reason for Ambassador Yerxa's reference to NASA aeronautics programs, it did not imply that he had concluded that NASA procurement contracts for R&D services were a financial contribution.

53. The EC seeks support in other statements, but these are even less relevant to the issue of whether purchases of services are a financial contribution. The EC quotes a statement from Undersecretary Jeffrey Garten, of the U.S. Department of Commerce, who stated that "civil aircraft R&D subsidies are not eligible for protection from either multilateral or CVD action."[69] However, as the United States has shown that NASA and DoD purchases of R&D services, in particular, were not subsidies, Mr. Garten's discussion of "subsidies" sheds no light on his views with respect to those transactions.[70]

54. The EC also quotes a Boeing official who expresses satisfaction that aircraft subsidies "remain potentially actionable" under the Subsidies Code and U.S. countervailing duty law because they were excluded from the green light provisions.[71] The United States understands his comments as directed to European subsidization of Airbus, as any alleged U.S. subsidies would not be subject to U.S. countervailing duties. (It is also difficult to imagine why the Boeing official would express satisfaction with this situation if he thought that Boeing was receiving "potentially actionable" subsidies.) Thus, it is impossible to conclude that his comments reflected an implicit conclusion as to whether purchases of R&D services were covered by Article 1.1(a)(1).

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[68] Indeed, the statements of then-Undersecretary of Commerce Jeffrey Garten and then-Boeing Vice-President Lawrence Clarkson, cited by the EC in EC RPQ2, paras. 73 and 76, are limited to their respective views that "civil aircraft R&D subsidies", writ large, are not within the scope of Article 8.2.

[69] EC RPQ2, para. 73, *quoting* Garten Testimony, p. 6 (Exhibit EC-1354).

[70] The EC argues that if Mr. Garten believed that NASA and DoD purchases of research services were not a financial contribution, he would have raised the point during his testimony. EC RPQ2, para. 73. However, as Mr. Garten's testimony is not a treaty text, there is no reason to treat his silence on this subject as anything other than a decision that it was not relevant to the point he hoped to make.

[71] EC RPQ2, para. 76, *quoting* Testimony of Lawrence W. Clarkson, Vice President of Planning and International Development of the Boeing Company, before the Finance Committee of the U.S. Senate (Mar. 9, 1994) (Exhibit EC-1356).

55. Finally, the EC quotes a joint letter from the U.S. Trade Representative and Secretary of Defense explaining that DoD had designed a dual-use R&D program relating to flat panel displays to satisfy the Article 8.2(a) green-light criteria.[72] The EC argues that they would not have done this if they considered such a transaction to be a purchase of research services that was not a financial contribution for purposes of Article 1.1(a)(1). The EC fails to realize that qualification for a "safe harbor" from dispute settlement has attraction in and of itself. Moreover, the transaction appears to have been a cooperative agreement or Other Transaction Agreement, as either refers to private parties paying 50 percent of the cost. In that case, the EC argument betrays a fundamental misunderstanding of the U.S. position with regard to cooperative agreements. The United States has never argued that cooperative agreements are *always* purchases of services. Rather, it has expressed the view that it is necessary to look at the substance of such transactions to evaluate whether they are purchases of services.[73] There is no basis to conclude that Ambassador Kantor and Secretary Perry had determined the transaction was a purchase of services before DoD designed the program as it did.

56. In sum, the "circumstances of conclusion" evidence put on the record by the EC in its response to the Panel's question is neither legally nor factually relevant to the question before the Panel.

121. If the Panel were to find in favour of the United States on the legal issue of whether or not transactions involving the purchase of services are excluded from the scope of Article 1.1(a)(1), which party would bear the burden of proof on the factual issue of whether or not the transactions at issue involve the purchase of a service?

57. As the United States explains in its response to this question, the EC, as the complaining party, bears the burden of establishing a *prima facie* case. With respect to claims of an actionable or prohibited subsidy, this includes establishing the existence of a financial contribution. If a transaction is structured as a purchase of services, the question of whether there really is such a purchase is critical to any allegation that the transaction is something else, such as a "grant" or unspecified "direct transfer of funds," as the EC asserts. Therefore, the EC bears the burden of proof on this issue in the first instance.[74]

58. Even aside from the fact that the EC bears the burden of proof on whether the transactions at issue are purchases of services, the United States has already demonstrated that the payments to Boeing for the R&D services that it provided are purchases of services and, therefore, cannot be considered financial contributions within the meaning of Article 1.1(a)(1).[75]

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[72] EC RPQ2, para. 77, *quoting* Letter from Michael Kantor, U.S. Trade Representative, and William J. Perry, Secretary of Defense, to the Honorable John C. Danforth, U.S. Senate (15 June 1994), *reprinted in Inside US Trade* (Exhibit EC-1357).

[73] US RPQ1, paras. 48-60.

[74] US RPQ2, paras. 31-32.

[75] US FWS, paras. 90-98, 213-217; US SWS, paras. 31-36, 60-64; US RPQ1, paras. 45-59 and Exhibit US-1207.

122. Does the European Communities agree with the United States that "a grant exists for purposes of Article 1.1(a)(1)(i) when the government confers something on a recipient without receiving anything in return"? (US FWS, para. 43)

59. The United States disagrees with the EC's expansion of the definition of a grant to include those situations where there is a legal assignment of money with the expectation or promise of receiving something in return.[76] The EC offers no examples of this type of grant or any other support for its expanded definition. In fact, if the grantor receives something of value in return, there is a purchase.

60. The EC notes, correctly, that a grant may be equated with a donation, and that donations may come with conditions on their use.[77] But general parameters on how money must be used, which may accompany a grant, are quite different in substance from the legal obligation to provide something of value to the payor in return for money, which characterizes a purchase. It is true that when the government provides a grant, there are often general parameters on how the recipient may use the funding. This does not mean that the government expects or is promised something in return for the funding it provides.

61. The EC notes that a government may also require a grant recipient to comply with government policies, such as hiring minorities, paying a fee, or reporting back on its activities.[78] Compliance with government policies is, however, not the same thing as exchange that returns something of value to the government, and so such conditions would not disturb the conclusion that the payment is a grant. A fee would lessen the value of the grant to the recipient, such that any valuation exercise would have to subtract the fee from the face value of the grant. A report that is simply a matter of paperwork to determine compliance with conditions – e.g. accounting for funds or listing activities – would be a matter of administration, not something of independent value to the government. However, if the report were something that a government employee would otherwise have to generate for a government function, the transaction, however labeled, could in substance be a purchase by the government.[79] This would, of course, be a matter for evaluation by the Panel. Furthermore, it strains credibility to consider something as minor as an application fee or a progress report to be "something in return" that the government receives in exchange for that which it confers on a recipient. Finally, it is important to note that with the exception of ATP, the Department of Labor grant to Edmonds Community College, and the Illinois relocation expenses, none of the programs that the EC challenges are grants intended to fulfill a government purpose, as the EC suggests.

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[76] EC PRQ2, para. 81.

[77] EC RPQ2, para. 82. The EC describes this as happening "often," but provides no support for this characterization.

[78] EC RPQ2, para. 83.

[79] For example, if an environment ministry needed a report on pollution in a river, and awarded a charitable foundation a "grant" to fund the production of such a report for the ministry, the transaction would appear to be a purchase rather than a grant.

(b) "a government practice involves ... a potential direct transfers of funds or liabilities"

124. The United States argues that the Master Site Agreement does not involve a "potential direct transfer of funds" because it "does not provide with certainty" that an alternative measure will be provided in the event of such change in circumstance. (US RPQ1, para. 120) The European Communities responds that "the lack of "certainty" is precisely what makes this a situation "involv[ing] … potential direct transfers of funds …" within the meaning of Article 1.1(a)(1)(i)." In its Second Oral Statement, the United States argues that Article 10.4.1 does not amount to a "potential direct transfer of funds" because it is "entirely speculative" what, if anything, a Public Party could provide under the provision or what, if any, remedy a court might impose. (US OS2, para. 113) Could the parties please set out their respective interpretations of the terms "potential direct transfer of funds", taking into account the customary rules of treaty interpretation and any relevant panel and Appellate Body reports.

62. In response to Question 124, the EC appears to be arguing that the key element of a measure that confers a "potential direct transfer of funds" is "uncertainty" as to whether a direct transfer of funds will take place.[80] However, as the United States set forth in its response to Question 124, the EC's interpretation is inconsistent with the ordinary meaning of the phrase "potential direct transfer of funds," as clarified by relevant panel and Appellate Body reports.

63. First, the EC sets forth one of the definitions of "potential" as "possible as opposed to actual" or "capable of coming into being"[81] and asserts based on this that as long as it is possible that a direct transfer of funds will come into being, there is a "potential direct transfer of funds" under Article 1.1(a)(1)(i).[82] The EC goes on to assert that "{t}his notion of possibility captures a wide range of uncertainty over whether a direct transfer of funds will take place."[83] In fact, the EC misunderstands the ordinary meaning of "potential."

64. As the United States set forth in its response to Question 124, a review of the dictionary meaning of the word "potential" suggests a future possibility based on some current capacity or state, not a "lack of certainty"[84] or an entirely speculative outcome.[85] Indeed, this comes through even in the dictionary meaning of the word "potential" that the

[80] EC RPQ2, para. 88.

[81] EC RPQ2, para. 87.

[82] EC RPQ2, para. 87.

[83] EC RPQ2, para. 87.

[84] EC Comments on US RPQ1, para. 147.

[85] US RPQ2, para. 36 (The ordinary meaning of "potential" is "adj. possible as opp. to actual; capable of coming into being or action; latent." Indeed, among the definitions of the noun "potential" is "capacity for use or development, resources able to be used or developed", while "potentiality" is defined, e.g., as "2. The state or quality of possessing latent power or capacity capable of coming into being or action." New Shorter Oxford English Dictionary, p. 2310. Importantly, "latent", one of the dictionary synonyms for "potential" is itself defined as "Hidden, concealed …; present or existing, but not manifest, exhibited, or developed." New Shorter Oxford English Dictionary, p. 1538.)

EC refers to: "capable of coming into being."[86] It is even clearer in the synonym "latent" that is also mentioned as a dictionary meaning."[87] Accordingly, in order to establish that a measure constitutes a potential direct transfer of funds under Article 1.1(a)(1)(i), the complaining party must demonstrate that there are certain currently defined and committed circumstances under which the recipient of the alleged financial contribution is assured a direct transfer of funds by the granting authority.

65. This interpretation is confirmed by the example of a loan guarantee provided in Article 1.1(a)(1)(i). A loan guarantee typically sets forth certain defined contingencies and guarantees that the loan guarantor will transfer funds if those contingencies arise.[88] However, it is a current financial instrument. Contrary to the EC's contentions, it is the present commitment to transfer the funds, not the uncertainty as to whether the contingencies will arise that makes a loan guarantee a potential direct transfer of funds. The EC asserts that in the case of a loan guarantee, "there is uncertainty as to whether a direct transfer of funds will occur. It is precisely this uncertainty that makes a loan guarantee a 'potential direct transfer of funds' as opposed to a 'direct transfer of funds.' In other words, in order for both halves of Article 1.1(a)(1)(i) to have meaning, it must be the case that situations involving direct transfers of funds that are certain to take place fall within the scope of 'direct transfers of funds,' while situations involving direct transfers of funds that are not certain to take place fall within the scope of 'potential direct transfers of funds'."

66. The EC is correct that in the case of a potential direct transfer of funds, there is uncertainty as to whether a direct transfer of funds will take place. However, based on the ordinary meaning of potential, the uncertainty is not sufficient to establish a potentiality. A potential direct transfer of funds is not merely a measure under which a direct transfer of funds *may* take place. There must be presently existing capacity or state that creates a future possibility. In the case of a potential direct transfer of funds, there must be a present commitment to transfer funds in certain defined circumstances. Article 10.4.1 of the Project Olympus Master Site Agreement ("MSA") contains no such commitment to transfer funds.

67. The EC's reliance on past panel and Appellate Body reports is also unavailing. First, the EC notes the panel's statement in *Brazil – Aircraft* that "{i}f the determination whether a measure was a 'potential direct transfer of funds' depended on the degree of likelihood or probability that a payment would subsequently occur, then the drafters surely would have chosen an adjective more suggestive of high probability than 'potential.'"[89] But, the United States is not claiming that it is the degree of probability of a future transfer that is relevant;

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[86] EC RPQ2, para. 87 citing *Brazil – Aircraft (Panel)*, para. 7.69 citing *Shorter Oxford English Dictionary* (third edition).

[87] New Shorter Oxford English Dictionary, pp. 2310 and 1538.

[88] US RPQ2, para. 42.

[89] EC RPQ2, para. 87 citing *Brazil – Aircraft (Panel)*, para. 7.69. The EC also relies on the Appellate Body's interpretation of potential in the SPS Agreement, which has no bearing on this dispute. There again, the Appellate Body focuses on the concept that potential relates to possibility rather than probability. EC RPQ2, para. 87 citing *EC – Hormones (AB)*, para. 184. However, as stated above, the United States does not contend that a potential direct transfer of funds must involve a high probability that circumstances will arise funds will be transferred.

what is relevant is whether there are presently defined and committed circumstances under which a future transfer will occur. In other words, whether there is a high probability that the defined circumstances will arise is not relevant. The relevant question is whether those defined circumstances exist under which a transfer of funds is guaranteed. In the case of Article 10.4.1 of the MSA, there are no defined circumstances, under which a transfer of funds is guaranteed.

68. The EC's own description of Article 10.4.1 of the MSA makes clear that there is no potential transfer of funds of any sort. The EC states that Article 10.4.1 involves a potential direct transfer of funds "precisely because it will lead to direct transfers of funds to Boeing *if* there is 'a change in law, or any other act, event or circumstance, the result of which would be to materially diminish, impede, impair or prevent in connection with Project Olympus the full performance after the Effective Date of any or all of the obligations and Commitments made by the applicable Public Parties …,'[90] *and the Public Parties (or a court) determine that a transfer of funds is the best remedy*."[91] The EC goes on to state that "{s}pecifically, *if* these circumstances arise, Article 10.4.1 *requires* the Public Parties to 'provide Boeing either with an exemption from the law as so changed or otherwise with another obligation or Commitment acceptable to Boeing and having economic effect equivalent to the Commitment so lessened or removed,'[92] and "*one way for the Public Parties to satisfy this obligation* in Article 10.4.1 of the MSA is to transfer funds to Boeing in an amount equal to the economic value of the "Commitment so lessened or removed."[93]

69. In other words, even the EC's own understanding of Article 10.4.1 of the MSA is that there are no defined circumstances under which a direct transfer of funds is guaranteed. According to the EC, a direct transfer of funds is one possible way for Washington State to satisfy the obligation in Article 10.4.1; however, it is by no means required. Based on the plain language of Article 10.4.1, what the State of Washington would do to satisfy its obligation in that provision is indeterminate. Moreover, as the United States has explained previously, the Public Parties to the MSA could not, on their own, promise to transfer funds to Boeing, which would require an act of the State legislature. Thus, there is no basis to conclude that Article 10.4.1 involves a potential transfer funds to Boeing.

70. The EC also asserts that "potential direct transfer of funds encompasses situations like Article 10.4.1, where a direct transfer of funds is one possible course of action to be taken should some triggering event arise."[94] Again the EC misunderstands the ordinary meaning of "potential." Mere possibility that a direct transfer of funds will take place is not sufficient; there must be some present capacity or state that creates the future possibility of a transfer.

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[90] EC RPQ2, para. 85 (emphasis added) (citing MSA Article 10.4.1) (Exhibit EC-58).

[91] EC RPQ2, para. 85 (emphasis added).

[92] EC RPQ2, para. 85 citing MSA, Article 10.4.1 (Exhibit EC-58).

[93] EC RPQ2, para. 85 (emphasis added).

[94] EC RPQ2, para. 86.

71. Accordingly, in order to establish that Article 10.4.1 of the MSA constitutes a potential direct transfer of funds, the EC would have to establish that the provision sets forth certain defined and committed circumstances under which a direct transfer of funds *will* take place. Article 10.4.1 sets forth no such circumstances, and the EC has failed to establish otherwise.

72. In particular, we note again that the EC's approach reads the "best efforts" and "to the extent permitted by law" language out of Article 10.4.1. Moreover, the MSA provides for efforts to replace the impaired obligation or commitment with another "obligation" or "Commitment", *without specifying what that obligation or Commitment would be.* It is thus impossible to evaluate ex ante whether the any possible future "obligation" or "Commitment" would be a potential direct transfer of funds that confers a benefit. That is, the EC asks the Panel to assume not only that a future transfer of some sort *will* occur (which, as discussed is not at all certain), but also that the alternative measure will take the form of an actionable subsidy, or at least of a financial contribution covered by the provisions of Article 1.1(a)(1) of the SCM Agreement. In reality, there is no basis for such an assumption and the EC has not demonstrated that there is.

73. In conclusion, the EC's contention that mere "uncertainty" that a transfer of funds will take place is sufficient to establish a potential direct transfer of funds is inconsistent with the ordinary meaning of the terms in that phrase and with relevant panel and Appellate Body reports. Instead, in order to establish a potential direct transfer of funds, the EC must – but has failed to – demonstrate that Article 10.4.1 provides certain presently defined and committed circumstances under which a future direct transfer of funds is guaranteed.

(c) government revenue that is otherwise due is foregone or not collected"

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(d) "a government provides goods or services"

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(e) "other than general infrastructure"

129. At para. 138 of its SWS, the European Communities argues that "the general infrastructure exclusion in Article 1.1(a)(1)(iii) does not exclude improvements to infrastructure that have the potential to alter the competitive position of firms". What is the legal basis for that proposition?

74. In response to Question 129, the EC asserts an interpretation of general infrastructure that is unsupported by the text of the SCM Agreement, as construed in accordance with customary rules of interpretation of public international law. The EC asserts that the legal basis for the proposition that the general infrastructure exclusion in Article 1.1(a)(1)(iii) does not exclude improvements to infrastructure that have the potential to alter the competitive position of firms, is the ordinary meaning of the term "general."

75. According to the EC, because "general" means "including, involving, or affecting all or nearly all the parts of a (specified or implied) whole . . .; completely or nearly universal; not partial, particular, local, or sectional," infrastructure that enhances the competitive position of one firm vis-à-vis others is "partial" to that firm, "in that it favours that firm over others."[95] Under the EC's theory, infrastructure would have to be provided to all the companies in a particular industry regardless of where such companies are located in order for the infrastructure to be general. Thus, the State of Washington would have to provide the same infrastructure to that it provides to users in Washington State to their competitors outside the State (no matter where their operations are located) in order for the road and other improvements in Washington State to be considered general infrastructure. Such an interpretation is nonsensical. More significantly, the EC's leap from the ordinary meaning of "general" to the concept that general infrastructure does not alter the competitive position of firms is without basis. Most infrastructure will alter the competitive position of firms located in that area where that infrastructure is available. Under the EC's test, virtually all infrastructure even when available to everyone in a particular country or state would be non-general.

76. In addition, as the EC notes the concept that general infrastructure does not alter the competitive position of firms is based on the EC's submission to the SCM Agreement negotiating group. As the United States set forth in its response to the Panel's first set of questions, there is no basis for accepting this document as relevant to the interpretation of general infrastructure.[96]

77. The EC then asserts that its interpretation of general infrastructure is grounded in the object and purpose of the SCM Agreement, which according to the EC "does not discipline legitimate government choices that benefit the *population as a whole*, but it does discipline subsidies that favour a *particular company*."[97] As the United States explained previously, the EC does not substantiate this assertion with any citation to the text of the SCM Agreement or other authority. Instead, the EC appears to fabricate its proposed "object and purpose" solely for purposes of its general infrastructure interpretation in this dispute.[98]

78. In apparent agreement with the United States, the EC also states that "infrastructure with unlimited public access usually qualifies as 'general infrastructure'."[99] As the United States has demonstrated, infrastructure constitutes "general infrastructure" under the SCM Agreement where the infrastructure is universally available to all or nearly all users or potential users within the relevant area without limitation.[100] Based on both the EC and U.S. understanding, the infrastructure measures at issue in this dispute – the I-5 and SR-527 road

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[95] EC RPQ2, para. 92.

[96] US RPQ1, paras. 92-94.

[97] EC RPQ2, para. 93 (emphasis in original).

[98] US RPQ1, para. 95.

[99] EC RPQ2, para. 94.

[100] US FWS, para. 46; US RPQ1, para. 91.

improvements, the rail barge transfer facility, and the South Terminal – are general infrastructure because they are available to the entire public without limitation.[101]

79. The EC then appears to argue that even where infrastructure entails unlimited public access, such infrastructure may be non-general if the government "consciously favours one or more selected companies and distorts the level playing field, contrary to the object and purpose of the SCM Agreement."[102] Since the object and purpose of the SCM Agreement that the EC sets forth - i.e., not to discipline legitimate government choices that benefit the population as a whole – is not grounded in any citation, there is also no basis for the EC's assertion that a government's "conscious favouring" of a particular company should be relevant or even what it means for a government to "consciously favour" a company.

80. As the United States has set forth previously, it would be odd for a government not to take into account the needs of the potential users of infrastructure improvements, especially the larger users.[103] In the case of the I-5 and SR-527 road improvements, the State took into account the views of a wide range of potential users of the roads, including Boeing.[104] With respect to the rail barge transfer facility, the main rail line used by a wide range of companies faced significant traffic congestion because of the off-loading of oversized containers; the improvement to the rail line was designed to ease this congestion for all users.[105] However, this "taking into account" of certain users' needs must be distinguished from infrastructure that is tailor-made for the needs of one company, especially where the "taking into account" does not result in limitations on other users' access to the infrastructure.[106]

81. The EC also asserts that certain facts can rebut the existence of general infrastructure even where there is unlimited public access. "Such factual elements can be found, for example, in measures that, at their inception, single out a particular company over others and aim to enhance that company's competitive position vis-à-vis others."[107] However, the government's motive or goal in undertaking an infrastructure project is not determinative of the question of whether the infrastructure is general.[108] The relevant question based on the ordinary meaning of "general" is whether the infrastructure is universally available.

82. The EC seems to realize the pitfalls of its own interpretation and states that "{t}his is not to say that government-built infrastructure (with unlimited public access) that happens to be used by a particular company more than by others, or that is simply located near one particular company, necessarily cannot constitute "general infrastructure" . . . In fact, actual

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[101] US FWS, paras. 518-53; US SWS, paras. 141-43; US RPQ1, paras. 91-111; US RPQ2, paras. 407-419.

[102] EC RPQ2, para. 95.

[103] US RPQ1, para. 107.

[104] US RPQ2, para. 71.

[105] US RPQ2, para. 69.

[106] US RPQ2, paras. 62-75.

[107] EC RPQ2, para.. 95.

[108] US RPQ1, para. 105.

use of general infrastructure will often bring more benefit to a particular company (*e.g.*, to a company located close to the infrastructure at issue) than to others . . . However, as the Appellate Body observed, only "general" infrastructure is, because of its *generality*, excluded from the scope of Article 1.1(a)(1)(iii)."[109]

83. To the extent any sense is to be made of the EC's completely circular argument, the EC appears to be acknowledging that under its own theory of general infrastructure, any infrastructure that is near a particular company could be considered non-general. In order to address this absurdity in its own interpretation, the EC asserts that the relevant question in a general infrastructure analysis is whether infrastructure is general. This circular reasoning is meaningless and provides no guidance regarding the meaning of general infrastructure in the SCM Agreement.

84. In addition, in asserting that infrastructure located near a public company can still be in the public interest and therefore general, the EC provides an example of a "bridge in the vicinity of a particular company as part of a general governmental policy to develop roads and bridges."[110] As the United States has explained previously, the I-5 and SR-527 road improvements fall precisely into this category of infrastructure identified by the EC because they were conducted as part of a broad-based effort to improve infrastructure throughout Washington State.[111] Similarly, the rail barge transfer facility is an improvement to the rail line that is designed to improve the functioning of the rail line as a whole. It was the users of the rail line, rather than Boeing, that were inconvenienced before the construction of the rail barge transfer facility. In order to offload oversized containers from the trains onto barges, the rail line was shut down for approximately two hours before the construction of the rail barge transfer facility. The facility was designed to alleviate this problem for all of the users of the rail line, not just Boeing, who was able to and did offload its containers onto barges even before the construction of the facility. Thus, the EC's example fails to draw a distinction between general infrastructure and the infrastructure measures at issue in this dispute.

85. Finally, the EC states that "it is a fact that the disputed measures were consciously designed to provide Boeing with legal certainty with respect to the infrastructure at issue in several regards, and particularly with respect to specifications and performance requirements.[112] However, the EC mischaracterizes the fact that Washington State took Boeing's – and other users' – needs into account in designing the infrastructure as evidence that the infrastructure is non-general. As the United States set forth in response to Question 246 and previous submissions, this fact does not eliminate the generality of the infrastructure measures because it does not result in placing any limitations on others' use of the infrastructure.[113]

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[109] EC RPQ2, para. 96 citing *US – Softwood Lumber IV (AB)*, para. 60.

[110] EC RPQ2, para. 96, n. 92.

[111] US FWS, paras. 525-28.

[112] EC RPQ2, para. 98.

[113] US RPQ2, paras. 411-19.

86. The EC then states that "{t}here is no question that the competitive position of Boeing, vis-à-vis other users of the infrastructure at issue, has been altered as a result of these measures."[114] However, as we discussed above, most infrastructure will alter the competitive position of firms located in the area where that infrastructure is available. This does not make such infrastructure "non-general" in any way.

87. The EC's proposition that general infrastructure is infrastructure that does not alter the competitive position of firms has no basis in the ordinary meaning of the terms general infrastructure and is nonsensical because all infrastructure would be non-general under the EC's interpretation. Infrastructure is general and therefore excluded from SCM Agreement disciplines where it is universally available to all or potentially all users of the relevant area without limitation. As the United States has set forth previously, all of the infrastructure measures at issue in this dispute meet that definition and therefore constitute general infrastructure.[115]

(f) "a government ... entrusts or directs a private a body"

130. Please identify applicable US laws and regulations governing the use of sub-contracts, and in particular those aspects of the applicable laws and regulations that are germane to the question of whether any funding provided to Boeing/MD in its capacity as a sub-contractor would fall within the scope of Article 1.1(a)(1)(iv).

88. In response to this question, the EC correctly identifies regulations relating to subcontracting. However, it errs in concluding that these regulations constitute entrustment or direction for purposes of Article 1.1(a)(1)(iv).

89. The EC fails to perceive that the regulations and "flowdown" clause it cites exist to create a framework to protect the government by ensuring that the prime contractor does not attempt to escape its obligations to the government by passing work along to a subcontractor without requiring the subcontractor to conform to government conditions.[116] The regulations do not allow the government to dictate which entities the prime contractor chooses, what work it asks them to do, how much work it asks them to do, or how much it pays.

90. For example, prime contractors choose their own subcontractors. In limited circumstances, the government has the right to "consent" to a prime contractor's choices. Where the prime contractor has an approved purchasing system, as is the case with most major defense contractors like Boeing, that right is highly limited. And, even when the government has the right to consent and declines to accept a subcontractor, it is the prime contractor who picks a replacement.[117] The EC observes that "many factors must be

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[114] US RPQ2, para. 98.

[115] US FWS, paras. 518-53; US SWS, paras. 141-43; US RPQ1, paras. 91-111; US RPQ2, paras. 407-19.

[116] For example, one government clause prohibits contractors from using bribery. Absent the requirement to flow that clause down to subcontractors, the prime contractor might be able to avoid this obligation.

[117] The U.S. response to Question 132(iii) discusses this point in more detail.

considered"[118] before DoD declines to consent to a subcontractor, but these all feed into DoD's internal process. They are not instructions that DoD issues to the contractor.

91. The EC also notes various regulations that determine the types of accounting system that a prime contractor must use, and how the prime contractor will maintain and present information related to its subcontractors.[119] However, what it fails to recognize is that these are all process-oriented. They do not involve DoD telling prime contractors who to choose, what work to subcontract out, or how much to pay. They deal simply with how the contractor uses its payments to subcontractors when it seeks an overall cost reimbursement from DoD. For example, the EC notes that 48 C.F.R. § 32.504 regulates progress payments to contractors.[120] It fails to recognize that this regulation deals exclusively with how prime contractors use information given them by subcontractors to justify a reimbursement request from DoD. They are designed to ensure that the contractor does not seek reimbursement for expenses that it does not actually owe to the subcontractor.[121] The regulation explicitly recognizes that "the contractor, not the Government, awards the subcontract and administers the progress payment {under the subcontract}."[122]

92. The EC also cites quality assurance regulations, but these merely allow the government to *monitor* the quality of all work done to perform the contract, including by subcontractors. However, it is the *contractor* that remains responsible to the government. The regulation specifies that the government quality assurance process "does not relieve the prime contractor of any responsibilities under the contract."[123]

93. Finally, the EC notes the existence of "flowdown" clauses – clauses in a prime contract requiring the prime contractor to include certain clauses in its subcontracts. These include requirements for accounting systems, prohibitions on bribery, prohibitions on kick-backs, or allocations of intellectual property rights. Again, they do not entrust or direct the prime contractor to hire a particular subcontractor, allocate work among subcontractors in a particular manner, or pay a particular subcontractor a particular amount. They establish a framework for the prime contractor's dealing with *all* subcontractors.[124]

94. The framework established by these regulations does not result in entrustment or direction. As the Appellate Body recognized in *US – DRAMS CVD (AB)*, "{p}aragraph (iv) of Article 1.1(a)(1) . . . states that the private body must have been entrusted or directed to

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[118] EC RPQ2, para. 101.

[119] EC RPQ2, paras. 101-102.

[120] EC RPQ2, para. 101.

[121] Thus, a contractor may wait to seek reimbursement until it has paid the subcontractor, or it may seek reimbursement when it has a bill but has not yet paid.

[122] 48 C.F.R. § 32.504(e) (Exhibit EC-1285).

[123] 48 C.F.R. § 46.405(a) (Exhibit EC-1360).

[124] There are also instances of voluntary flowdown, where the prime contractor asks subcontractors to take clauses similar to those in the prime contract, even if the contracting agency does not require it to do so. If the subcontractor fails to do its job and DoD fines the prime contractor as a result, this type of flowdown clause may allow the prime contractor to seek damages from the subcontractor in a separate case.

carry out *one of the type of functions* in paragraphs (i) through (iii)."[125] In none of these clauses does the government direct the prime contractor to transfer funds to subcontractors or perform any of the other functions listed in the first three clauses of Article 1.1(a)(1). Rather, it provides a mechanism so that when *the contractor* decides to make use of subcontractor services or goods, the contractor does not do anything to harm *the government's* interests. The Appellate Body also recognized that "Article 1.1(a)(1)(iv) requires the participation of the government, albeit indirectly . . . . There must be a demonstrable link between the government and the conduct of the private body."[126] The subcontracting regulations do not allow the government to participate in the decision to subcontract, the selection of subcontractors, or the decision as to when and how to pay for subcontracted work. In short, none of these regulations transform a prime contractor's independent decision to subcontract into a government entrustment or direction of the transfer of funds.

131. Please identify any terms/elements of the NASA/DOD R&D contracts at issue that are germane to the question of whether any funding provided to Boeing/MD in its capacity as a sub-contractor would fall within the scope of Article 1.1(a)(1)(iv).

95. The EC declines to answer this question on the grounds that it has no access to subcontracts. The EC's response is a *non sequitur*, as the question asked for a response with regard to the "terms/elements of the NASA/DoD R&D *contracts* at issue" to which the EC does have access. The EC provides no explanation for why it chose to ignore the question the Panel actually posed. In any event, the United States has submitted evidence that serving as a subcontractor for prime contracts is not a meaningful portion of Boeing's business for the NASA and DoD programs challenged by the EC.[127]

132. Please respond to each of the following arguments made by the United States:

(i) there is no privity between the government and its contractors' subcontractors; (US Comments on EC RPQ1, para. 25)

96. In the EC's response, it does not actually dispute that the absence of privity between the U.S. government and its subcontractors breaks the link that would be required to demonstrate a direct transfer of funds. The EC argues, however, that the existence of "limited exceptions" to absence of privity between the U.S. government and the subcontractors of its prime contractors is a sufficient basis to infer that such an exception applies with respect to the subcontracts of Boeing. Thus, according to the EC, based upon this mere inference, payments from prime contractors to subcontractors should be treated as direct transfers of funds under Article 1.1(a)(1)(i).

97. The EC's argument is not supported by the facts. The exceptions to which the United States referred in paragraph 25, n. 41 of its Comment on EC RPQ1 are deviations from the

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[125] *US – DRAMS CVD (AB)*, para. 112 (emphasis original).

[126] *US – DRAMS CVD (AB)*, para. 112.

[127] US Comments on EC RPQ1, para. 33 (citing Affidavit of [***] (Exhibit US-1242); Affidavit of [***] (Exhibit US-1243)).

no-privity norm under government contracting regulations, and arise where U.S. courts have found privity of contract on the basis of specific factual circumstances.[128] The EC has provided no reason to believe that any such exception is applicable in situations where Boeing is a subcontractor. The United States notes, moreover, that its rebuttal of the EC's Article 1.1(a)(1)(i) argument is based first and foremost *on the absence of a direct transfer of funds between the government and the subcontractor*. The absence of legal privity between the government and subcontractors is a second and independent reason why a direct transfer did not occur.[129]

98. With respect to the contractual relationship created between the government and the subcontractor concerning intellectual property rights in inventions made by the subcontractor under the prime contract, the excerpt from U.S. law cited by the EC confirms that the exception is limited to the matters covered by the clause (i.e., rights in inventions made under the subcontract), and does not create a direct funding relationship.[130] To the contrary, the clause recognizes that the provision permitting the government to withhold payment from the contractor where its reporting of inventions is inadequate is not applicable to payments from subcontractors to the prime contractor precisely because there is no direct transfer of funds that occurs between the government and subcontractors.[131]

(ii) the European Communities misunderstands the purpose of the definition of the term "funding agreement" for purposes of U.S. law governing patent rights in inventions made under government contracts; (US Comments on EC RPQ1, para. 26)

99. In its response to this element of the Panel's question, the EC again argues that the "direct relationship between the government agency and the subcontractor" with respect to the allocation of patent rights (created by the required flowdown of intellectual property clauses from the prime contract to the subcontract level) supports a finding that the government is also directly transferring funds to subcontractors. As noted above, the law and the facts do not support this characterization. The prime contractor is the sole entity paying subcontractors for services performed for the prime contractor, and the sole entity with legal

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[128] *United States v. Johnson Controls*, 713 F.3d 1541, 1551 (1983) (finding that "{o}ver the years a number of exceptions have been recognized to the general rule that a subcontrator cannot bring a direct appeal to the government") (Exhibit US-1216). For example, U.S. courts have found privity of contract between the government and subcontractors where prime contracts clearly delineate that the prime contractor is merely acting as a "purchasing agent" for the U.S. government and the government is liable to subcontractors vendors for the purchase price of the item. *United States v. Johnson Controls*, 713 F.3d 1541, 1551 (1983) (Exhibit US-1216), *citing to Kern-Limerick v. Scurlock*, 347 U.S. 110, 120-121 (1954); *Western Union Telegraph Co. v. United States*, 66 Ct. Cl. 38 (1928). U.S. courts have also found privity where the prime contractor formally assigns the subcontract to the government and where direct dealings between the subcontractor and the government effectively create an implied contract. *United States v. Johnson Controls*, 713 F.3d 1541, 1553 (1983) (Exhibit US-1216), *citing to Brock & Blevins Co. v. United States*, 343 F.2d 951, 952 (1965); *Seger v. U.S.*, 469 F.2d 292, 301 (1972). All of these situations are deviations from the situation under standard government contracting procedures.

[129] US RPQ1, para. 10, n. 16; US Comments on EC RPQ1, para. 25.

[130] NASA Contract NAS1-20267, Section I(18)(h)(3)(Exhibit EC-360).

[131] NASA Contract NAS1-20267, Section I(18)(g)(Exhibit EC-360).

recourse against the subcontractor for performance under the contract.[132] The government requirement that its prime contractors include in their subcontracts a provision that entitles the government to certain rights in patented inventions made under the subcontracts does not transform a government-subcontractor relationship into one where there is a direct transfer of funds under Article 1.1(a)(1)(i).[133]

(iii) the European Communities exaggerates the significance of NASA/DOD's authority to approve subcontractors selected by prime contractors; (US Comments on EC RPQ1, para. 30) and

100. The EC continues to misunderstand the nature of the government's authority to approve subcontractors, suggesting that the government's right to consent to a prime contractor's choice of subcontractors is equivalent to a direction of the prime contractor's actions. In fact, the situations in which consent is required are limited. If the contractor has an approved purchasing system, consent is required only if the subcontract type, complexity or value is such that consent is required to protect the government's interests. If the contractor does not have an approved purchasing system, which is rare in the case of major government prime contractors like Boeing, consent is required for cost-reimbursement, time-and-materials or labor-hour subcontracts and fixed price subcontracts above a certain threshold value.[134] Furthermore, the "considerations" reviewed by the contracting officer under Federal Acquisition Regulations ("FAR") 44.202-2(a) and (b) do not result in a direction as to the "types and terms" of subcontracts into which prime contractors may enter.[135] Rather, they are factors used to ensure that the proposed subcontracts do not interfere with the cost-efficient and technically sound delivery of the service that the government is purchasing from the prime contractor.[136]

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[132] US Comments on EC RPQ1, paras. 24-26; US RPQ1, para. 10, n. 16.

[133] The U.S. Comments on the EC's response to Question 130 address flowdown clauses in greater detail.

[134] 48 C.F.R. § 44.201-1 (Exhibit US-1285).

[135] EC RPQ2, para 117.

[136] While lengthy, the considerations listed under 48 C.F.R. § 44.202-2 are directed primarily at process, such as whether there was adequate price competition, whether the subcontractor will comply with the prime contract's provisions on small business and businesses owned by disadvantaged individuals, whether the contract involves facilities or equipment that could have been obtained from government sources, and whether the contractor performed an adequate cost analysis.

These considerations are as follows: (a) The contracting officer responsible for consent must, at a minimum, review the request and supporting data and consider the following: (1) Is the decision to subcontract consistent with the contractor's approved make-or-buy program, if any (see 15.407-2)? (2) Is the subcontract for special test equipment, equipment or real property that are available from Government sources? (3) Is the selection of the particular supplies, equipment, or services technically justified? (4) Has the contractor complied with the prime contract requirements regarding— (i) Small business subcontracting, including, if applicable, its plan for subcontracting with small, veteran-owned, service-disabled veteran-owned, HUBZone, small disadvantaged and women-owned small business concerns (see Part 19); and (ii) Purchase from nonprofit agencies designated by the Committee for Purchase From People Who Are Blind or Severely Disabled (Javits-Wagner-O'Day Act (JWOD) (41 U.S.C. 48)) (see Part 8)? (5) Was adequate price competition obtained or its absence properly justified? (6) Did the contractor adequately assess and dispose of subcontractors' alternate

101. More important, however, the EC's argument is flawed as a matter of law. Even if the approval factors could be construed to "direct{} . . . contractors as to the types and terms of sub-contracts that the contractors may enter into," this "direction" does not constitute a "direction" of the transfer of funds under Article 1.1(a)(1)(iv). As the United States has explained, the government's authority to approve subcontractors under the referenced regulations does not extend to the direction of whether to subcontract, which subcontractors to select, what work to assign to particular subcontractors, payment of those subcontractors, or responsibility for performance under the subcontract.

> *(iv) the European Communities has neglected to cite any of the regulations that supposedly entrust or direct contractors in their relationship to subcontractors. (US Comments on EC RPQ1, para. 31)*

102. There is a single set of regulations that govern subcontracting under NASA and DoD prime contracts, and – as the EC notes – both the United States and the EC have directed the Panel to these regulations.[137] The EC argues that the regulations requiring that certain clauses be included in subcontracts and that the government consent to certain subcontracts demonstrates that the government is entrusting or directing its contractors to transfer government funds to subcontractors. The United States disagrees that the evidence supports the legal conclusion drawn by the EC. When the government enters into a prime contract, it pays the contractor to supply a service or a good, and leaves to the contractor the decision as to what and how much any particular subcontractor will do. The regulations simply create mechanisms that allow the government to protect its interest in receiving the services it has purchased at the best value to the government, regardless of how the prime contractor decides to perform the contract. They do not constitute an entrustment or direction of the provision of a financial contribution under Article 1.1(a)(1)(iv).

133. How does the European Communities respond to the contention of the United States that "subcontracting for other prime contractors is not a significant part of the business of Boeing's government contracting unit, Integrated Defense Systems ('IDS')

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proposals, if offered? (7) Does the contractor have a sound basis for selecting and determining the responsibility of the particular subcontractor? (8) Has the contractor performed adequate cost or price analysis or price comparisons and obtained accurate, complete, and current cost or pricing data, including any required certifications? (9) Is the proposed subcontract type appropriate for the risks involved and consistent with current policy? (10) Has adequate consideration been obtained for any proposed subcontract that will involve the use of Government-provided equipment and real property? (11) Has the contractor adequately and reasonably translated prime contract technical requirements into subcontract requirements? (12) Does the prime contractor comply with applicable cost accounting standards for awarding the subcontract? (13) Is the proposed subcontractor in the Excluded Parties List System (see Subpart 9.4)? (b) Particularly careful and thorough consideration under paragraph (a) of this section is necessary when— (1) The prime contractor's purchasing system or performance is inadequate; (2) Close working relationships or ownership affiliations between the prime and subcontractor may preclude free competition or result in higher prices; (3) Subcontracts are proposed for award on a non-competitive basis, at prices that appear unreasonable, or at prices higher than those offered to the Government in comparable circumstances; or (4) Subcontracts are proposed on a cost-reimbursement, time-and-materials, or labor-hour basis.

[137] US RPQ2, paras 78-82.

or its large civil aircraft unit, Boeing Commercial Aircraft ('BCA')"? (US Comments on EC RPQ1, para. 33)

103. Based on its response to Question 133, the EC accepts that Boeing's involvement as a subcontractor under NASA or DoD contracts with other contractors is not an issue that should affect the Panel's deliberations in this dispute.[138]

2. Benefit

134. Please explain your understanding of the meaning of the term "benefit" as used in Article 1.1(b). In particular:

(a) What is the relevance of whether the NASA and DOD R&D programmes at issue "relate to the production" of LCA to the question of whether or not those programmes conferred a "benefit" within the meaning of Article 1.1(b)? (EC FWS, paras. 526, 550, 574, 590, 605, 620, 633, 652, 764).

104. The EC's response acknowledges that the relationship of R&D programs to the production of large civil aircraft has no relevance to the question of whether or not one of the alleged financial contributions confers a benefit under Article 1.1(b). That is, even if the EC had succeeded in proving that some of the R&D done under the challenged NASA or DoD programs did have relevance for the production of Boeing large civil aircraft, that fact could not give rise to a benefit under Article 1.1(b) where the facts otherwise demonstrate, as they do in this dispute, that the terms of the transaction in question are no better than is available in the market.

(b) How does the European Communities respond to the US argument that "the EC's argument that Boeing/MD "pays" nothing to DoD in return for RDT&E funding is a non sequitur"? (US FWS, para. 101)

105. In response to this question, the EC expands upon in its response to Question 189(d) – that it does not have to consider the value of the services that Boeing provided to DoD because it has limited its benefit analysis to the portion of the funding the EC has "allocated" to large civil aircraft. As the United States explains in its comments on Question 189(d), the SCM Agreement calls for a benefit analysis of the entire financial contribution, not a portion that the complaining party attempts to separate from the rest.

106. The problem with the EC's approach is that it assumes away its own burden of proof with regard to the benefit. The EC recognizes that the research conducted under the contracts at issue is not divisible into civil and military "portions."[139] This means that in order to realize the military objective, *someone* must perform *all* of the research activities called for under any contract involving research into "dual-use" technology. The implication, then, is that the proper comparison to evaluate the benefit is between the total that DoD paid, and all of the research that Boeing performed in return. The United States has demonstrated that this

[138] EC RPQ2, para. 122.

[139] EC RPQ2, para. 346.

comparison reveals that DoD achieved this result on terms no more favorable to Boeing than are available on the market. The EC seeks to avoid this comparison by treating the military applicability of a transaction as something that it can allocate away to IDS, Boeing's defense segment, and then treating the remainder as a transaction related only to large civil aircraft. The SCM Agreement does not provide for the division of a transaction in this manner.

> *(c) Why is the question of "whether Boeing derives a commercial advantage from DOD-supported R&D" (EC SWS, paras. 412 and 444) germane to the analysis of the existence of a "benefit" within the meaning of Article 1.1(b)? Can a "benefit" within the meaning of Article 1.1(b) be found to exist based solely on the effect (actual or potential) of a measure on a firm's competitive position?*

107. The EC acknowledges that "the effect of {alleged} subsidies on the competitive position of Boeing is a distinct question" from "{t}he 'benefit' analysis with respect to NASA R&D and DoD RDT&E," which "is based on a comparison with a market benchmark of the terms of the direct transfer of funds, and provision of goods and services."[140] This is a significant concession from the EC, as the bulk of its argument regarding the "benefit" is based on misplaced and unsupported assertions that NASA and DoD programs were aimed at making Boeing "more competitive."[141]

108. Nevertheless, the EC maintains that it may use the "commercial advantage" supposedly conferred by a program to determine the relevance of a program to Boeing's commercial aircraft division, allocation of benefits to a program, and to define the scope of the EC claims.[142] The EC does not explain what it means by this statement. It may be that it is seeking to defend its allocation of NASA or DoD research expenditures to Boeing's large civil aircraft division, BCA, in advance of the evaluation as to whether those expenditures conferred a benefit. Under the EC's approach, this allocation step is outcome-determinative because the EC assumes that any money allocated to BCA results in nothing of value to the government or any other entity. Thus, even while the EC recognizes that "commercial advantage" has nothing to do with the analysis of the benefit under Article 1.1(b), it has framed its claims so as to make it the dispositive factor in the analysis. Thus, the EC's approach to the benefit analysis contravenes the very principles that the EC concedes should guide that analysis.

109. The United States also recalls that, in any event, the challenged measures do not confer a financial contribution under Article 1.1(a)(1) because they represent, in their entirety, a purchase of services. Moreover, the EC's recognition that the analysis of a "benefit" under Article 1.1(b) requires "comparison with a market benchmark" further highlights the inadequacies of the EC's allegations. The evidence demonstrates that the terms

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[140] EC RPQ2, para. 130.

[141] EC FWS, paras. 1, 8, 13, 20, 96, 100, 472, 480-482, 487, 492, 505, 507-508, 516, 532, 536, 540, 555-558, 562, 566, 569, 579, 583-584, 610, 647, 666, 670, 671, 731, 745, 757; EC OS1, paras. 1, 12, 57, 90-91; EC Comments on US RPQ1, paras. 81-83; EC OS2, paras. 41, 73; EC RPQ2, paras. 143, 338.

[142] EC RPQ2, paras. 129..

of the transactions were no more favorable than those available in the market. That is, the contracts are awarded subject to open competition and negotiated at arms length,[143] and commercial entities have purchased R&D services on terms no more favorable to the supplier.[144]

> *(d) In its response to Question 25 from the Panel, the European Communities states that the "knowledge and experience" that Boeing/MD acquires from engaging in the NASA/R&D programmes "constitute some of the "benefits" within the meaning of Article 1.1(b)", of NASA and DOD R&D programmes (EC RPQ1, para. 83).*
>
> *(i) How does the European Communities respond to the United States argument that the European Communities' analysis "confuses one potential effect of a subsidy with the benefit." (US Comments on EC RPQ1, paras. 91ff)*
>
> *(ii) Please clarify what the European Communities means when it refers to "some" of the "benefits" (in the plural) within the meaning of Article 1.1(b).*

110. Despite purporting to recognize the distinction between benefits of a subsidy and its effects in its response to subpart (c) of the Panel's question, the EC recollapses the two concepts in its response to this subpart of the question in an effort to further inflate its subsidy magnitude allegation. Specifically, the EC argues that the value of the "benefit" to Boeing under the NASA and DoD programs should be increased to reflect the value of the "knowledge and experience" Boeing derives as a result of the challenged transactions. But the numbers do not add up. The EC has already challenged the value of the funding that Boeing receives in exchange for its performance of R&D services under NASA and DoD programs. The knowledge and experience the company gains in the course of this work is not an additional element of value provided by the government – it is the result of Boeing's performance of the contracted work. Or, to look at the question through the lens of the benefit analysis, knowledge and experience would also result from what the EC recognizes as a proper benchmark – a commercial purchase of R&D services. Therefore, they are not a benefit in the sense of Article 1.1(b) if they accrue through a government purchase.

111. The EC has also alleged that any involvement of NASA and DoD personnel in these projects as an additional source of benefit. However, any commercial entity purchasing research would also bring its own knowledge to the transaction. Therefore, the agency personnel are not a source of benefit in the sense of Article 1.1(b).

112. In sum, the accrual of "knowledge and experience" under transactions of the sort challenged by the EC reflects a normal commercial situation. The United States has demonstrated, including through comparison with commercial benchmarks, that the value of the payments under the NASA and DoD programs and any facilities, equipment, or

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[143] US OS2, paras. 18-19, US RPQ2, para. 226.

[144] US RPQ1, paras. 64-65 and Exhibits US-1208, US-1209, US-1210 and US-1211.

employees available for performing agency research are not provided on terms more favorable to Boeing than would be available in the market simply because Boeing gained knowledge and experience from its work.

135. Are the parties in agreement that "benefit must be assessed at the time the transaction at issue takes place"? (EC SWS, para. 323; US FWS, para. 331) Please discuss the implications of the idea that benefit must be assessed at the time a transaction takes place for the Panel's analysis of whether NASA and DOD R&D measures challenged by the European Communities give rise to a "benefit" within the meaning of Article 1.1(b).

113. The EC appears at first blush to agree with the U.S. statement that benefit must be assessed at the time a transaction takes place. However, its response is actually framed as follows: the benefit analysis must be made by comparing the terms of a challenged transaction with the terms of what the recipient would have received in the marketplace "at the same time", whether that time is the moment that the subsidy is "committed or distributed", and it argues that the analysis of benefit in this case is the same regardless of whether it is assessed at the time a financial contribution is "committed", "disbursed", or "at some later point in time".[145]

114. The United States is concerned that despite appearing to agree with the U.S. statement, the EC is actually still arguing, as it has throughout its submissions, that the Panel can take into consideration the actual value of elements of a transaction over the course of a long-term contract, and even after the contract is concluded, in assessing the benefit of any financial contribution. That is, the EC seems to want the Panel to consider the actual value of the results of research done under an R&D agreement, rather than evaluate whether the terms of the R&D contract reflected market terms at the time the parties signed the contract.

115. The U.S. concern is reinforced by the last sentences of paragraphs 136 and 137 of the EC's response to Question 135, in which it refers not simply to an assessment of the terms of the transactions, but also *their results*. The "results" of a transaction are, however, irrelevant to the assessment of benefit under Article 1.1(b). They are inherently *ex post* and shed no light on whether the terms of the transaction are commercial in nature at the time they are agreed.[146] The United States has demonstrated that, at the time that NASA and DoD entered into the challenged transactions, the parties agreed to terms – including the allocation of intellectual property rights in inventions and data made under the transaction – that were no

[145] EC RPQ2, paras. 134-135.

[146] The actual market value that will result from a contract is particularly uncertain in the context of a transaction related to R&D services, where the parties do not know what the "results of the R&D" will be at the time they enter into their agreement. For example, they do not know whether the results will be patentable and whether they will yield useful results, either for their own products or for the products of other entities. The EC consistently and erroneously attempts to make the *ex post* "results" of R&D relevant to the subsidy analysis by asserting that they result in a commercial advantage to Boeing. This is not only irrelevant, but also incorrect. The evidence demonstrates that the results of the R&D at issue have actually provided no commercial advantage to Boeing's large civil aircraft operations. Statement of Michael Bair, paras. 33-36, 48-74 (Exhibit US-7); Affidavit of Douglas Ball, paras. 6-10 (Exhibit US-1257); Affidavit of Alan Miller, paras. 6-20 (Exhibit US-1258).

more favorable to the supplier than the terms available in the market. Thus, there is no basis for a finding of a benefit.

116. It goes without saying that the United States also disagrees with the EC assertion that Boeing receives financial contributions worth more than $10 billion from NASA and more than $2 billion from DoD. It also disagrees that NASA and DoD received less than adequate remuneration in exchange for the much more limited financial contributions (in the form of specific goods and services) they provided to Boeing. It has contested these allegations, at length, elsewhere in this submission and previous submissions.

136. In Question 21, the Panel asked the parties whether there exists a market benchmark against which the terms of any financial contributions provided to Boeing/MD under NASA/DOD R&D programs could be compared for the purpose of determining whether those financial contributions conferred a "benefit" within the meaning of Article 1.1(b). The European Communities responded that "the relevant market benchmark would be the terms of a commercial transaction in which one entity pays another entity to conduct R&D." (EC RPQ1, para. 76) In its Comments, the United States does not appear to disagree with the proposition that "the relevant market benchmark would be the terms of a commercial transaction in which one entity pays another entity to conduct R&D." (US Comments on EC RPQ1, paras. 78ff)

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(b) <u>To both parties</u>: What type(s) of evidence would support a determination on whether the terms of a financial contribution are more favourable than "the terms of a commercial transaction in which one entity pays another entity to conduct R&D"?

(i) Are there circumstances in which a Panel could find that it is "axiomatic" / self-evident that the terms of a particular financial contribution are more favourable than those that would be available to the recipient on the market?

117. The EC's response to the Panel's question suggests four factual circumstances in which, in its view, it is "self-evident" that the terms of a transaction are more favorable than those available in the market. However, the situations either do not exist in this dispute, or do not create a "self evident" benefit.

118. First, the EC argues that a benefit is self-evident where a company "receives a financial contribution . . . and is not expected to provide anything of value in return."[147] The United States has demonstrated that no such a situation exists in this case. Boeing provides valuable services, research results, and intellectual property rights in exchange for all payment, in money or in kind, that it receives under the challenged programs.

[147] EC RPQ2, para. 138.

119. Second, the EC argues that a benefit is self-evident where a "company receiving R&D funding is considered the 'customer'." It also cites to a press release in which NASA refers to Boeing as a customer, and an excerpt from Congressional testimony in which a Boeing official refers to his own company as the "customer" vis à vis NASA.[148] The United States does not consider that the roles that parties to a transaction perceive for each other have any relevance to the Panel's assessment of whether the terms of a transaction are more favorable than are available in the market. This is particularly true when the terms are used in a colloquial setting, outside the body of the relevant legal instrument. The United States notes that the award instruments themselves do not refer to Boeing as the "customer." NASA contracts relevant to this dispute characterize NASA as the "government" or "NASA," and Boeing as the "Contractor."[149] Nonreimbursable SAAs may refer to NASA as "NASA" and the private party as the "Buyer."[150]

120. Third, the EC argues that if an entity acts with the "primary purpose of aiding the recipient", then a benefit is self-evident.[151] To begin, as the United States has explained, the "purpose" or "objective" of a transaction is not relevant to the analysis of whether its terms were more favorable than are available in the market. The relevant evidence on the record with respect to "benefit" are the benchmarks that demonstrate the commercial terms on which the transactions at issue were actually done.

121. Moreover, the EC is wrong when it asserts that the "primary purpose" of these transactions is to help the recipient. The United States has presented extensive evidence proving that NASA commissions its aeronautics research to generate foundational research in aeronautics topics and makes the results know to a broad set of industries throughout the world. In its response to this question, the EC once again tries to prove the opposite by quoting NASA Administrator Dan Goldin. This time the quotation comes from 1993 testimony in which he stated that NASA developed its research program by "going to the industry and saying . . . what are the critical technologies that you need over the next 30 years?"[152] That NASA asked industry for guidance as to what areas were useful scarcely betrays some intent to subsidize. As the United States has shown, NASA consults widely to determine research priorities, obtaining input from universities, airlines, passenger groups, other agencies, and commercial enterprises both in and out of the civil aircraft industry.[153] The rest of Mr. Goldin's statement demonstrates this point. He emphasizes that NASA's focus:

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[148] EC RQP2, para 139-141.

[149] Exhibit US-597 (HSBI). One of the NASA cooperative agreements uses the same terminology. Exhibit US-477 (BCI).

[150] Exhibit US-109 (BCI).

[151] EC RPQ2, para. 142.

[152] EC RPQ2, para. 142, *quoting* Statement of Daniel S. Goldin, Administrator, National Aeronautics and Space Administration, U.S. Senate Committee on Commerce, Science, and Transportation, p. 33 (May 19, 1993 (Exhibit EC-1365).

[153] US FWS, para. 191; NASA Advisory Council Members List (Exhibit US-10).

> is more than to support just the aircraft and engine manufacturers. The whole infrastructure must be looked at. The number of airports are limited. In the United States, 90 percent of the passengers fly to 100 airports in 65 cities. Forty-three percent of the fixed-based operators in America are losing money. When an airport closes and becomes a shopping center or parking lot, it is irreversible. General aviation is as important as subsonic transport and commuter aircraft, and we have to look at the whole context. We have to look at the command and control and positioning. We have to look at the modern cockpit and the safety and the emissions. It is a broad-ranging program, and it is crucial.[154]

Thus, supporting aircraft and engine manufacturers by producing foundational aeronautics research is merely one among many NASA objectives. Safety, pollution, air travel infrastructure, and fixed-based operators (*i.e.*, airlines) are equally critical objectives.

122. Fourth, and finally, the EC argues that where the evidence shows that an entity "consciously fails" to recover a fair share of its investment in product development costs, that suggests that any transaction confers a benefit on the recipient of the funding. However, the "evidence" that the EC believes demonstrates such a "conscious failure" on the part of the U.S. government does not have the meaning that the EC ascribes to it. Specifically, the EC focuses on the "recoupment" regulations that DoD terminated 16 years ago.[155] The U.S. comments on question 196(ii) explain why these old rules are not relevant to the Panel's analysis of the EC's benefit allegations. In brief, recoupment is not a commercial practice such that its elimination is evidence of a benefit under Article 1.1(b). Moreover, the rules had a *de minimis* threshold,[156] and if the DoD policy had remained in effect during the period covered by the EC allegations, it would not have resulted in the payment of fees related to sales of large civil aircraft. DoD's decision to eliminate its recoupment policy is, therefore, irrelevant to the assessment of whether a benefit is conferred in the factual situation before this Panel. In fact, as DoD awarded most of the contracts at issue in this dispute under competitive procedures and negotiated them at arms length, the terms of the contracts are no more favorable than Boeing could have obtained in the market, and the EC has not presented any evidence to suggest otherwise.

123. In short, even if there are situations in which the existence of a "benefit" under Article 1.1(b) is axiomatic, or self-evident, the EC has not demonstrated that any such factual circumstances are present in this case.

> *(ii) Do sub-contracts concluded under the NASA and DOD R&D programmes at issue (including but not limited to sub-contracts*

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[154] Statement of Daniel S. Goldin, Administrator, National Aeronautics and Space Administration, p. 32 (Exhibit EC-1365).

[155] EC RPQ2, para 143 and n. 139-140 (citing Exhibits EC-412 and EC-416).

[156] US FWS, n. 102 and Exhibit EC-413 (No LCA have more than 10 percent commonality with a item of significant military equipment on the U.S. munitions list that has an R&D cost of more than $50 million or a total production cost of more than $200 million, including none of the technologies developed with the R&D funding challenged by the EC.)

entered into by Boeing/MD) constitute "commercial transactions in which one entity" (the prime contractor) "pays another entity" (the sub-contractor) "to conduct R&D"?

124. In its response to this question, the EC begins with a false premise. It asserts that contracts between government prime contractors and their subcontractors contain "certain terms which are, themselves, non-commercial", specifically referring to the intellectual property clauses that the U.S. government requires its prime contractor to flow down to their subcontractors. The United States has offered commercial benchmark evidence that demonstrates, to the contrary, that these terms are, in fact, available in the market.[157] Therefore, although the government intellectual property clauses are standard in all subcontracts, the result that the prime contractor pays for research and does not receive ownership rights in any patents to inventions made under the contract is not "non-commercial." Indeed, to the extent that the EC is arguing that standardized contract clauses are in and of themselves "non-commercial," it disregards evidence that Airbus itself has a standardized approach to intellectual property rights that it requires in any research contracts.[158]

125. Nevertheless, the United States has not put these sub-contracts forward as commercial benchmarks. Rather, as noted above, it has offered four commercial contracts for the purchase of R&D services entered into by Boeing completely outside of the government-contracting context. This evidence demonstrates that the terms of both the prime contracts and subcontracts are no more favorable to government R&D suppliers than terms available in the market when a commercial entity purchases R&D services.

(iii) Assuming that sub-contracts concluded under the NASA and DOD R&D programmes at issue could be found to constitute a possible market benchmark against which the terms of any financial contributions provided to Boeing/MD under NASA/DOD R&D programs could be compared for the purpose of determining the existence of "benefit", please explain how a comparison of the terms of prime contracts entered into by Boeing/MD with NASA/DOD with the terms of sub-contracts (including but not limited to sub-contracts entered into by Boeing/MD) supports the parties' respective positions on whether financial contributions made to Boeing/MD by NASA or DOD through prime contracts did or did not confer a "benefit" within the meaning of Article 1.1(b).

126. The United States has no comment on the EC's response to this question.

137. At paragraph 155 of EC Comments on US RPQ1, the European Communities indicates that it "agrees with the United States that it is the European Communities' burden to demonstrate pass-through of benefits from Spirit to Boeing".

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[157] US RPQ1, paras 64-65 and Exhibits US-1208, US-1209, US-1210 and US-1211.

[158] Affidavit of Regina Dieu, para. 4 (Exhibit EC-1178).

(a) To what extent does the Panel need to establish "pass through" in the context of a claim based on Articles 5 and 6?

(b) Please respond to the arguments of Brazil set out at paras. 17-19 of its Third Party Written Submission.

127. The United States notes that the EC seems to agree with the U.S. understanding that the relevant question is whether the allegedly subsidized product actually received subsidies.[159] Thus, as the United States explained in its response to Question 138, to the extent the Panel concludes that one of the programs challenged by the EC conferred a benefit to McDonnell Douglas prior to its merger with Boeing, the Panel may treat that benefit as conferred on Boeing's large civil aircraft division after the merger. No pass through would have to be demonstrated in order to establish the conferral of a benefit to Boeing because McDonnell Douglas produced the allegedly subsidized product, large civil aircraft. The United States recalls, however, that McDonnell Douglas did not produce any of the models that the EC alleges caused Airbus adverse effects. By contrast, when an entity receiving an alleged subsidy does not produce the subsidized product or is unrelated (*e.g.*, competitors, suppliers) to the producer of the allegedly subsidized product, a complaining party would have to establish that the benefit allegedly conferred upon that entity passed through to the allegedly subsidized product. Thus, for example, when an alleged subsidy is provided to one of Boeing's unrelated suppliers, the EC would have to demonstrate that such a benefit passed through to Boeing.

128. The EC recognizes that it bears the burden to demonstrate pass through for three alleged subsidies: the B&O tax rate reduction, Wichita IRBs, and Kansas State KDFA bonds. It continues to suggest that it "has provided evidence, including expert analysis, to demonstrate that pass-through to Boeing has occurred".[160] However, as the US has previously explained,[161] the EC has failed to make a *prima facie* case that the benefit associated with those transactions passed through to the large civil aircraft that are allegedly causing serious prejudice. With regard to B&O tax rate reductions applicable to companies that, among other things, are suppliers to Boeing, the EC has relied on purely hypothetical economic statements. These statements that bear no resemblance to the actual market situation in the markets at issue, are based on numerous unsupported assumptions, and disregard the commercial realities of the global supplier base with which Boeing works.[162] The EC has also alleged that when Onex Corporation purchased Spirit Aero Systems from Boeing, it somehow passed through to Boeing future subsidy benefits that it may or may not have expected at the time of the transaction. In doing so, the EC relies on irrelevant economic theory, consisting of one-and-one-half pages of general statements about company valuation. Its expert statements relate only to the "value", as the United States has previously

[159] EC RPQ2, paras. 148 ff.

[160] EC RPQ2, para. 148.

[161] US RPQ2, para. 106.

[162] US FWS, paras. 469-481; Dr. Gary J. Dorman, Reply to Reports of Professors Wachtel and Asker (July 2, 2007) (Exhibit US-186).

explained and not to the "price" actually paid by Onex to Boeing, which would have been the only possible mechanism for a pass through of any benefit to Boeing as the former owner.[163]

129. In addition, the United States notes that the EC attempts to increase the total magnitude of the subsidies challenged by attributing to Boeing $8 billion in R&D payments made to entities that do not make the allegedly subsidized product, Boeing large civil aircraft, and are not related to the company that does. The large majority of this amount consists of approximately $6.5 billion in NASA funding – more than 60 percent of the total subsidy magnitude the EC alleges from NASA programs – under R&D agreements with unrelated entities that do not produce large civil aircraft. These include Boeing competitors and suppliers such as Lockheed, Raytheon, and Honeywell, as well as a multitude of private research companies and universities.[164] The EC's efforts to "allocate" these alleged subsidies to Boeing large civil aircraft without any kind of benefit or pass-through analysis find no support in the SCM Agreement.

138. According to the European Communities, subsidies provided to McDonnell Douglas prior to its merger with Boeing "benefit Boeing's LCA division, and are reflected in the pricing and technologies of Boeing LCA". (EC FWS, para. 22)

(a) To the European Communities: Why does the European Communities consider that subsidies provided to McDonnell Douglas prior to its merger with Boeing "benefit Boeing's LCA division, and are reflected in the pricing and technologies of Boeing LCA"?

130. Although the United States does not agree with the EC's reasoning, for purposes of this dispute and for the reasons set out in the U.S. response to Question 138, the United States is not asking the Panel to find that any subsidies to McDonnell Douglas prior to its merger with Boeing provided no benefit to Boeing's LCA division. Accordingly, although the United States does not subscribe to the EC's rationale regarding the benefit to Boeing, there is no issue in dispute for the Panel to address.

3. Specificity

(a) General

139. In responding to the United States' argument that analysing specificity at the level of each ATP project would mean that "every government program would be specific, since particular disbursements by their nature go to a limited group of recipients", the European Communities states, at para. 187 of its Comments on US RPQ1, that "the European Communities does not argue, even in the alternative, that the Panel must evaluate specificity from the perspective of each individual disbursement." The Panel notes that, at paras. 528-530 of its SWS, the European Communities argues, in the case of ATP, that "it is appropriate to assess specificity at the level of each individual grant". At paragraphs 628-630 of its SWS, the European Communities

[163] US FWS, paras. 635-636.

[164] Exhibit US-1271.

appears to evaluate specificity at the level of the individual grant provided by DOL. Please explain how a disbursement-level analysis differs from a grant-level analysis.

131. Although the EC concedes that it is inappropriate to analyze specificity at the level each disbursement, it continues to incorrectly maintain that for ATP and DoL, specificity may be analyzed at the "level of the overall grant."[165] The EC also states that "{i}n the case of ATP, a 'grant' is synonymous with a 'project.'" [166] But the two terms are not synonymous. A "grant" is only a particular type of funding instrument that may be used to fund a "project," whereas an ATP "project" is the broad term used to describe research the endeavor by an ATP funding recipient.[167] In any event, ATP uses cooperative agreements, not grants, as the funding instruments for ATP projects. To the extent that the EC argues that specificity may be analyzed at the project level for ATP or the individual grant level for DoL, the United States disagrees. As the United States has previously explained, it is inappropriate to examine specificity for ATP at the project level because the EC has put forth no reasoned basis for doing so and the Department of Commerce makes no sub-program distinctions in awarding ATP funding.[168] Likewise, the EC has offered no reasoned basis for examining the specificity of DoL's High Growth Job Training Initiative at the individual grant level because no such basis exists.[169] In fact, grants awarded pursuant to this program are not specific because they are broadly available across 14 different industry sectors that cover a wide swath of the U.S. economy.[170]

(b) "an enterprise or industry or group of enterprises or industries .... within the jurisdiction of the granting authority"

141. At para. 520 and footnote 834 of its SWS, the European Communities argues that despite US claims to the contrary, ATP funding is limited to only US companies. What is the legal relevance, for the purpose of Article 2, of whether funding is limited to "only US companies"?

132. As evidenced by the EC response to this question, it agrees with the United States that ATP's funding limitation to companies incorporated in the United States is not relevant for purposes of the Article 2 specificity analysis.[171] The EC, however, is incorrect in asserting that this limitation is relevant to an analysis under Articles 5 and 6. The funding limitation causes no adverse effects because, as the United States has previously demonstrated, U.S. incorporated subsidiaries of foreign companies are eligible to participate in ATP projects, and

[165] EC RPQ2, para. 158.

[166] EC RPQ2, para. 158.

[167] It should also be noted that ATP primarily uses cooperative agreements, rather than grants, to fund ATP projects. US RPQ2, para. 342.

[168] US RPQ1, paras. 147-149.

[169] US RPQ2, para. 367.

[170] US FWS, para. 417-421.

[171] EC RPPQ2, para. 159.

have actually done so.[172] These subsidiaries are generally free to share the knowledge and other benefits of their participation in the ATP projects with their foreign parent companies. More than 50 U.S. subsidiaries of parent companies located in EU Member States have participated in ATP projects, and nothing prevents Airbus from participating in an ATP project through its U.S. subsidiary.[173]

(c) "the granting authority, or the legislation pursuant to which the granting authority operates"

To both parties:

144. Article 2.1(a) states that where "the granting authority, or the legislation pursuant to which the granting authority operates" explicitly limits access to a subsidy to certain enterprises, such subsidy shall be specific. For the purposes of Article 2.1(a), what is the "subsidy", what is "the granting authority", and what is "the legislation pursuant to which the granting authority operates", in the case of each of the following:

(a) HB 2294: B&O tax rate reduction;
(b) HB 2294: B&O tax credits;
(c) Master Site Agreement: provision of coordinators;
(d) Master Site Agreement: road improvements;
(e) Illinois: EDGE tax credits;
(f) Illinois: local property tax abatements;
(g) NASA "direct R&D funding" to Boeing/MD;
(h) NASA "facilities, employees, and equipment" to Boeing/MD;
(i) DOD "direct R&D funding" to Boeing/MD;
(j) DOD "facilities, equipment, and employees" to Boeing/MD;
(k) NASA/DOD intellectual property right waivers/provisions;
(l) NASA/DOD reimbursement of IR&D and B&P costs; and
(m) DOL grant.

133. The EC erred in several respects in its response to this question. Most importantly, it declined to indicate the "legislation pursuant to which the granting authority operates" when it considered that information to be not "relevant" to the Panel's analysis of the EC's arguments.[174] The United States notes that the Panel simply asked the parties to provide the requested information, and did not ask them to do so only with regard to information that they considered relevant to their own arguments.

[172] US RPQ2, para. 119, US FWS, paras. 370-373.

[173] US FWS, para. 373 (citing Connie K.N. Chang, *ATP Eligibility Criteria for U.S. Subsidiaries of Foreign-Owned Companies: Legislation, Implementation, and Results*, NISTIR-6099A, pp. 21-29 (March 2004) (Exhibit EC-535)).

[174] EC RPQ2, para. 161.

134. More to the point, the EC's responses to this question evinced a serious misunderstanding regarding the operation of the measures it challenged. The remainder of the comment on this question will address its errors.

135. **Washington State project coordinators and road improvements.** The EC misunderstands the relevant laws applicable to the Washington State provision of project coordinators and the Washington State road improvements. As a threshold matter, the United States has established that neither the provision of project coordinators nor the road improvements constitute subsidies under the SCM Agreement. Even if they are subsidies, they are not specific under Article 2 of the SCM Agreement.

136. The EC states that its *de jure* specificity argument with respect to both of those measures is that "the granting authority explicitly limits access" to the alleged subsidies, not that "the legislation pursuant to which the granting authority operates explicitly limits access" to the alleged subsidies.

137. However, in both of those instances, Washington State was acting pursuant to legislation. With respect to the project coordinators, as Article 3.1 of the MSA notes, the provision of project coordinators is contingent on the designation of a project as a "Project of Statewide Significance." And, Washington State law,[175] not the MSA, sets forth the criteria for designation as a Project of Statewide Significance. Thus, the MSA on its own does not provide for project coordinators; the coordinators are provided pursuant to the provision of Washington State law for Projects of Statewide Significance.[176] Moreover, the provision of Washington State law relating to project coordinators is not specific under Article 2.1(a) of the SCM Agreement, as set forth by the United States previously.[177]

138. With respect to the road improvements, the Public Parties to the MSA could not on their own "grant" the road improvements. The funds necessary for the improvements needed to be appropriated by the Washington State legislature. Accordingly, Washington State was acting pursuant to legislation[178] when it undertook the road improvements. Moreover, the United States has established that the road improvements are not specific under Article 2 of the SCM Agreement.[179]

139. **Department of Labor Grant to Edmonds Community College.** As with the State of Washington road improvements and the provision of project coordinators, the EC also misunderstands the applicable law pursuant to which the Department of Labor awarded a grant to Edmonds Community College. At the outset, it is important to note that this grant is not a subsidy to Boeing, nor is it specific. Furthermore, the EC takes the position that the

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[175] RCW 43.157.030 (Exhibit US-238).

[176] US FWS, para. 571, n. 759; RCW 43.157.030 (Exhibit US-238).

[177] US FWS, para. 571; US RPQ2, paras. 388-90. The project coordinators are also not *de facto* specific under Article 2.1(c) of the SCM Agreement. US RPQ2, para. 290.

[178] Washington State Engrossed Substitute House Bill 1163, 58th Leg. 2003 Reg. Sess. (Wash 2003)(Exhibit EC-121).

[179] US FWS, paras. 538-42.

Department of Labor acted of its own accord in giving the alleged subsidy to the Edmonds Community College.[180] In fact, the Department of Labor provided the grant to the college pursuant to specific statutory authority.[181]

140. **NASA "direct R&D funding" and "facilities, employees, and equipment" to Boeing/MD.** The EC asserts that the NASA Appropriations Acts were "legislation pursuant to which the granting authority operates."[182] However, this legislation simply authorizes the use of funds from the U.S. Treasury by the agency for a particular use during a given period. It is the agency organic statute, cited in the U.S. response to this question, that governs how the agency operates.

141. **DoD "direct R&D funding" and "facilities, employees, and equipment" to Boeing/MD.** For these alleged financial contributions, the EC only "legislation" referenced by the EC are the appropriations acts and the ManTech authorizing statute.[183] It disregards 10 U.S.C. §§ 2358 and 2371, referenced in the U.S. response to this question, which are the provisions authorizing DoD to conduct R&D activities, including through procurement contracts, cooperative agreements, and Other Transaction Agreements.

142. **NASA/DoD intellectual property right waivers/provisions.** The EC disregards the relevance of the U.S. patent law, the Presidential Memorandum, and Executive Order 12591, all of which provide the guidelines under which NASA and DoD handle the attribution of patent rights under their contracts. With regard to data rights, the EC correctly references 48 CFR §227.7100 *et seq*. However, it neglects 48 CFR §27.400 *et seq*., general provisions of the Federal Acquisition Regulations that apply to NASA and, as modified by 48 CFR § 227.7100 *et seq.*, to DoD, too.

143. **NASA/DoD reimbursement of IR&D and B&P costs.** The EC references the NASA and DoD appropriations acts, which do not specifically provide for the reimbursements of IR&D and B&P costs. For NASA, the EC references the Space Act, without indicating which provision. However, the Space Act does not provide for IR&D and B&P costs, either. The EC omits 48 CFR §31.205-18, which are the general provisions of the Federal Acquisition Regulations that apply to NASA's reimbursement of IR&D and B&P costs and, as modified by 48 CFR § 231.205-18, which the EC does reference, also applies to DoD's reimbursements of these costs.

144. As a general matter, the references to the appropriations acts that funded NASA and DoD activities are funding measures, and are not the legislation under which the granting authorities operate. For IR&D and B&P and intellectual property rights, they do not indicate how and when NASA or DoD provide the treatment challenged by the EC. With regard to the alleged "direct R&D funding," they do not provide the rules for how the agencies decide

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[180] Exhibit EC-1366.

[181] Exhibit US-1268 and 29 U.S.C. §§ 2916 and 2916(a) (Exhibits US-1293 and 1294).

[182] Exhibit EC-1366.

[183] The United States does dispute the relevance of the ManTech legislation to the Panel's inquiry.

to award a contract or cooperative agreement, how they structure the work, or how they make payments under those instruments. Thus, the have little relevance to the Panel's analysis.

(d) "objective criteria or conditions"

* * * * *

(e) "the granting of disproportionately large amounts of subsidy to certain enterprises"

146. At paras. 25-26 of its SWS, the United States observes that the European Communities has taken a different approach to the interpretation of "disproportionately large" amounts of subsidy in submissions. Is this correct? If so, what is the continuing relevance of the arguments and evidence on this element of Article 2.1(c) presented by the European Communities in its FWS?

145. The United States disagrees with the EC's view that the EC has not changed its position on the *de facto* specificity analysis under Article 2.1(c), and particularly the issue of "the granting of disproportionately large amounts of subsidy to certain enterprises." As the United States explained in its second written submission, the EC's disproportionality analysis in its first written submission compared Boeing's use of each alleged subsidy with total spending on the alleged subsidy by the relevant agency.[184] Yet, in the EC's first oral statement and its answer to Question 51, the EC argues that the disproportionality analysis must compare the actual use of the alleged subsidies by Boeing with the company's economic position in the United States.[185] This is certainly a change in approach.

108. As for the EC's original argument – that Boeing's use of each alleged subsidy was disproportionate as compared to total spending by the relevant agency – the United States demonstrated that the share of each of the alleged subsidies paid to Boeing by DoD or NASA was proportionate to Boeing's share of the total value of contracts awarded to members of the relevant baseline group by NASA or DoD during the relevant period. For example, the United States showed that the most appropriate baseline in the case of DoD RDT&E are suppliers of military systems, as those are the products that DoD seeks to develop through RDT&E. The United States demonstrated that Boeing's share of total RDT&E contracting is not disproportionate to that baseline.[186] The United States further demonstrated that, as a sector, the aircraft industry did not receive a disproportionate amount of contracting.[187]

109. But in the EC's first oral statement and its answer to Question 51, the EC went in a different direction and alleged that what is relevant as a baseline is not the total spending of the relevant agency (or all spending under its contracting, e.g., military systems in the case of DoD RDT&E), but the entire economy of the United States, because, according to the EC,

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[184] US SWS, paras. 24-26 (citing EC FWS, paras. 530, 554, 578, 594, 609, 624, 637, 656, 770, 854-855, and 887-888).

[185] EC OS2, paras. 77 and 87; EC RPQ1, paras. 153-170.

[186] US FWS, para. 121.

[187] US FWS, para. 121.

that is "the jurisdiction of the granting authority."[188] The United States has explained in detail why this baseline is incorrect.[189] Even when given an additional opportunity in response to this question posed by the Panel, the EC has failed to address the inadequacies of its disproportionality analysis.

B. NASA AERONAUTICS RESEARCH & DEVELOPMENT

1. Existence of a specific subsidy

147. In its FWS, the European Communities states that NASA and DOD directly transferred funds to Boeing's LCA division in the form of "grants". (EC FWS, paras. 524, 548, 572, 588, 603, 618, 631, 650, 762) In its SWS, the European Communities states that NASA and DOD contracts result in "direct transfers of funds" and notes, "[i]mportantly, according to Article 1.1(a)(1)(i) of the SCM Agreement, a "grant" is just one example of a "direct transfer of funds," as evidenced by the "e.g."" (EC SWS, footnote 571)

(a) Is the Panel correct in its understanding that the European Communities is no longer asking the Panel to find that NASA or DOD directly transferred funds to Boeing's LCA division in the form of "grants"?

146. The EC maintains its position that the NASA payments to Boeing are "grants," but without providing any explanation for this assertion beyond noting in a general fashion that grant recipient may carry with it a legal obligation to use the funds for a certain purpose. However, the EC provides no basis for the Panel to conclude that the NASA and DoD payments were grants in this sense. In fact, later in its responses, the EC concedes that DoD's payments to Boeing actually were purchases[190] – a position at odds with its statement in response to this question. In contrast, the United States has demonstrated that the NASA and DoD transactions were not grants, but transactions that resulted in NASA and DoD obtaining services and information relevant to their operations, as well as valuable rights in any patentable inventions that the contractor's employees might make under the contract, which they would not otherwise have had. Therefore, there was plainly a purchase.

(b) Is it possible to conclude that a government practice involves a "direct transfer of funds" within the meaning of Article 1.1(a)(1)(i) without specifying the form (e.g. loan, equity infusion, grant) of the transfer of funds at issue? How would a panel conduct a benefit analysis in terms of "a direct transfer of funds"?

147. The EC asserts that Article 1.1(a)(1)(i) contains no requirement to identify the form of a direct or potential direct transfer of funds. It is mistaken.

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[188] EC OS2, paras. 77 and 87; EC RPQ1, paras. 153-170.

[189] US SWS, paras. 24-26; US Comments on EC RPQ1, paras. 160-167.

[190] EC RPQ2, para. 226.

148. With regard to the analysis of the financial contribution, the EC's assertion disregards the presence of the other clauses of Article 1.1(a)(1). The type of return made by the recipient in exchange for funds from the government will determine whether a transaction falls properly under clause (i) or clause (iii) of Article 1.1(a)(1). If the recipient provides goods to the government in return, there is a purchase of goods, and not a "direct transfer" for purposes of clause (i). If the recipient provides a promise of later repayment for interest, there is a loan, and the transaction falls into one of the examples of a "direct transfer" under Article 1.1(a)(1)(i). Thus, an analysis of a transaction that addressed only the presence or absence of a payment of funds by the government would risk mischaracterizing the transaction, as the EC has done.

149. The EC's assertion also disregards the role that proper identification of the financial transaction plays in the evaluation of the benefit. The EC simply asserts that this consideration is irrelevant because "regardless of the specific type of the 'direct transfer of funds,' the basic analysis of benefit is exactly the same," namely, whether the transaction is on terms more favorable than is available in the market.[191] This is incorrect. Identifying the transaction correctly is critical to the selection of an appropriate benchmark. Moreover, the EC oversimplifies the reasoning in *Canada – Aircraft* when it contends that the benefit analysis is always "exactly the same." The Appellate Body found that availability in the market is a guiding principle, but did not suggest that this principle supplanted the standards set out in Article 14 for evaluating benefit, which differ among the various types of transactions. Therefore, the correct characterization of a financial contribution matters, including with respect to purchases of goods. Article 14 goes beyond a simple "market" test by calling for a consideration of the adequacy of remuneration that is evaluated "in relation to" prevailing market conditions, and specifies factors to consider – price, quality, availability, etc. The EC notes that Article 14 is relevant to analysis of Article 1.1(a)(1) in a dispute under Part III of the SCM Agreement primarily as context, but that does not change the conclusion that it envisages identification of the type of a transaction before evaluating the benefit.

148. Could the European Communities please clarify the scope of its claim regarding "institutional support", "goods and services", and "facilities, equipment, and employees". In particular:

150. Before addressing the Panel's specific questions on this topic, the EC sets out an introduction that tries to provide greater clarity regarding its treatment of NASA facilities, equipment, and employees. This introduction only exposes the weaknesses in the EC approach.

151. The United States has established based on evidence that NASA has formal mechanisms for providing facilities, equipment, and employees to outside entities, which it does through Space Act Agreements that require a commensurate contribution by the outside entity.[192] In reimbursable Space Act Agreements, NASA provides services for a payment,

[191] EC RPQ2, para. 167.

[192] US FWS, paras. 231-234.

but the EC has agreed that these are not subsidies.[193] NASA may also make facilities, equipment, and employees available under its contracts with outside entities, but again, these are formally recorded in the contracts or in a modification to a contract.[194] NASA also assigns employees to monitor contractors' work.[195] In situations related to contracts, the employees are there to do *NASA*'s work.[196] They are not performing services for the contractor, but performing services for NASA to ensure that the contractor does what it is supposed to do. A good example of this type of activity is the DCAA auditor, referenced in the EC's responses to the second set of Panel questions, who noted that Boeing had mistakenly sought reimbursement for a barbecue, and disallowed the expense.[197] This type of activity is obviously not a service to Boeing and, in fact, may result in a revenue *loss* for the company.

152. The EC's subsidy allegations nevertheless go beyond NASA's actual payments to Boeing and provisions of services under Space Act Agreements. In its first written submission, the EC alleged that NASA "directly transferred funds in the form of grants to Boeing's LCA division" and "furnished government-owned property, provided institutional support, and dedicated federal scientists, engineers and research facilities to support" its programs.[198] In its introduction to this section, the EC clarifies that it uses the term "facilities, equipment, and employees" as a "shorthand" for this element of its allegation.[199] At this point in the proceeding, the EC asserts that it is not challenging "institutional support in and of itself as a subsidy" but that it does use NASA's institutional support budget as a basis for "quantifying" the alleged subsidy.[200] This appears to be a concession that the EC is including in its valuation calculation expenses that it concedes are not subsidies. In any event, the EC's discussion of "institutional support" does nothing to increase the clarity of its position on this element of its argument.

153. The EC frames the remainder of its discussion of alleged subsidies in terms of NASA facilities, equipment, and employees, so the United States will do the same. The EC asserts that these represent "goods and services" provided to Boeing "in conjunction with"[201] procurement contracts and Space Act Agreements, and that the terms of the contractual instruments and "objectives" of NASA programs establish that the agency receives less-than-adequate remuneration. The United States has demonstrated that, in fact, the value of any NASA facilities, equipment, and employees made available under a contract is factored into

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[193] EC RPQ2, para. 237.

[194] US Comments on EC RPQ1, para. 39; U.S. comments on Question 112, *supra*.

[195] U.S. Comment on Question 148(d), *infra*.

[196] US OS1, para. 66.

[197] EC RPQ2, para. 225. NASA pays DCAA to audit its contracts.

[198] EC FWS, paras. 538, 572, 588, 603, 618, 631, and 650.

[199] EC RPQ2, para. 172.

[200] EC RPQ2, para. 170.

[201] The EC expanded on the concept of "in conjunction with" in its responses to the Panel's second set of questions, and the United States will address its points in more detail in its comments on question 156, *infra*.

the value of the contract, so that there is no benefit.[202] As for Space Act Agreements, NASA receives compensation either in the form of monetary reimbursement or in-kind contributions useful to NASA.[203] The EC concedes that provisions in exchange for monetary reimbursement do not confer a subsidy,[204] but maintains its claim with regard to in-kind reimbursements.

154. The EC attempts to explain the alleged benefit of this activity by stating that

> If NASA did not provide these "facilities, equipment, and employees," Boeing would be required to pay *all* of the costs associated with these "goods and services" itself (whether direct costs such as the cost of a particular computer workstation, or indirect costs such as the overhead costs required to run a particular research centre).[205]

This statement is both incorrect and indefensible. The United States recalls that the EC has allocated to large civil aircraft producers, in essence, the entirety of NASA's employment and facilities costs associated with aeronautics research. It should be obvious that, without NASA funding, Boeing would *not* bear the costs of maintaining a government-financed research center whose employees perform research, release the results to the world at large, and attend conferences to disseminate their work further. And, there is also no reason to conclude that Boeing would maintain NASA's wind tunnel infrastructure. This statement alone establishes that the EC's approach to estimating facilities, equipment, and employees to Boeing has no basis in the evidence.

155. The EC attempts to defend its use of "institutional support" to value the alleged subsidies by noting that NASA abolished this category of expense in 2004 when it converted

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[202] Memorandum from 3350/Contract Specialist to 1300/Computer Services Division (July 2, 1990) (Exhibit US-581(HSBI), p. 7/7). In this document, the Contract Specialist assigned to Procurement Contract NAS3-25963 notes:

> The Contractor, Boeing, has requested the use of LeRC's Cray computer while performing the subject contract. Allowing Boeing to use the Cray will result in an overall lower cost to the Government. The use of the Cray by Boeing will also facilitate research.

The Specialist then issues an instruction that:

> We can grant Boeing access to LeRC's Cray YMP under the subject contract. However the YMP was just released to the general user community August 1, 1990. It is much too early to analyze the system load and estimate any effect on priority turnaround. Therefore, Boeing cannot be granted any particular number of hours or priority. They will be subject to the same competition for resources as other users.

Thus, it is clear that NASA makes its facilities available to advance *NASA's* objectives, gives Boeing access only for those purposes, and affords it no preferential treatment.

[203] US FWS, paras. 241-250, 257-260; Exhibit US-74; US RPQ1, para 39; US RPQ2, paras. 151-154.

[204] EC RPQ2, para. 257. The United States notes, however, that it does not remove such agreements from its subsidy value calculation.

[205] EC RPQ2, para. 172 (emphasis in original).

to "full cost accounting."[206] It appears that, in the EC's view, the 2004-2006 "full cost" program budgets reflect all relevant expenses, and that it purports to achieve the same result by allocating a share of pre-2004 institutional support budgets to pre-2004 program budgets. However, the documents on which the EC relies demonstrate that the EC's exercise is invalid. NASA's explanation of its full cost budgeting system states:

> Once NASA transitions to full cost, direct traceability back to previous budgets, especially at the project level, is not possible. Previous years' budgets cannot be recalculated and presented in full cost since there is not a one-to-one relationship of previously used cost categories to the new full cost categories (Direct with Service Pools and G&A).[207]

Thus, if the EC means that NASA's 2004-2006 "full cost" is the correct way to reflect the value of aeronautics research, then its efforts to duplicate that approach by allocation of data gleaned from pre-2004 budgets do not create a "full cost" equivalent for pre-2004 programs.[208] If the EC's point is that NASA's 2004-2006 "full cost" budgeting validates the EC's allocations of pre-2004 data, NASA's observation that the two systems cannot be interchanged disproves that notion. In any event, treatment of institutional support costs as a financial contribution or benefit to Boeing is inappropriate as both a legal and factual matter.[209]

156. Finally, the EC attempts to defend its failure to provide separate valuations for the separate financial contributions it alleges on the basis that it has conducted a "top-down methodology" to derive alleged subsidy values from NASA's budgets. It tries to blame this methodology on a lack of information from the United States. However, the documents before the Panel contain a wealth of information that the EC could have used. The U.S. response to Question 179 describes how the United States used the available data to calculate a reliable value for payments to Boeing under R&D contracts.[210] With more than 2500 separate documents currently submitted as exhibits, it was not lack of data that forced the EC to adopt its "top-down" calculation at the outset, or to maintain that calculation in spite of its admitted flaws.

157. Moreover, nothing about the "top down" approach prevented the EC from taking the final step of calculating separate values for each alleged financial contribution. In fact, the EC has shown no compunction against making estimates, albeit thoroughly unsupported ones, in a number of other situations. However, the EC's decision to present its valuation of multiple alleged financial contributions as a single lump sum has made it more difficult to

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[206] EC RPQ2, paras.173-174. As part of this discussion, the EC characterizes NASA's R&D workforce as an indirect cost. This was never the case, and the EC provides no support for this assertion.

[207] NASA Full Cost Budgeting, p. S&AP2-4 (Exhibit EC-315).

[208] The United States notes that this is yet another reason to rely on procurement data, which measures actual dollars expended, and does not change from year to year depending on accounting conventions.

[209] US FWS, paras. 262-267; US RPQ1, paras. 207-208; U.S. comments on Questions 148(b), 148(d), 148(e), and 156, *infra*.

[210] US RPQ2, para. 181.

judge the accuracy of EC calculated values by comparison with data on actual expenditures. It has also tended to disguise the fact, which the EC now admits, that the large majority of what the EC describes as financial contributions that benefited Boeing were in fact made to other entities with no basis to conclude that they conferred a benefit on Boeing.

158. In sum, the EC's introduction to this question confirms that its treatment of "facilities, equipment, and employees" (or "provision of goods and services" or "institutional support" or whatever other term the EC uses) is fraught with contradiction and contrary to the evidence.

(a) In item 2(b) of its Panel Request, the European Communities states that NASA provides subsidies to the US LCA industry by:

"providing the services of NASA employees, facilities, and equipment to support the R&D programmes listed above and paying salaries, personnel costs, and other institutional support, thereby providing valuable services to the US LCA industry on terms more favourable than available on the market or not at arm's length" (emphasis added)

In item 2(d) of its Panel Request, the European Communities states that NASA provides subsidies to the US LCA industry by:

"allowing the US LCA industry to use the research, test and evaluation facilities owned by the US Government, including NASA wind tunnels, in particular the Langley Research Center."

What is the relationship between the elements of item 2(b) joined by the word "and", and what is the relationship between items 2(b) and 2(d)?

159. In its response to this question, the EC reiterates is contention from the introductory section that Boeing would have to pay a share of NASA's institutional support costs if NASA did not engage in transactions with Boeing. As the United States has pointed out, there is *no* evidence that, in the absence of NASA funding, Boeing would bear the costs of maintaining a government-financed research center whose employees perform research, release the results to the world at large, and attend conferences to disseminate their work further. Therefore, the EC's contention is contrary to the evidence.

(b) At para. 499 of its FWS and at para. 398 of its SWS, the European Communities asserts that "institutional support" includes "costs for NASA employee salaries, benefits, travel expenses, facilities, business management functions, and basic centre operations". Please clarify whether these cost items are identical to the items identified in Exhibit EC-25, footnote 1, where the European Communities relies on NASA's definition of "institutional support" as including "costs related to: (1) research and program management (R&PM), which includes civil service salaries, benefits, and

travel; (2) research operations support (ROS); and (3) construction of facilities".

160. The EC's response to this question reveals the absurdity of its allocation exercise. The EC admits that, as part of its "facilities, equipment, and employees" estimate, it included the cost of salaries and benefits for NASA civil service staff that performed aeronautics research. Under the EC's calculations, NASA devoted 36,995 person-years to aeronautics research from 1989 to 1999.[211] The EC calculation's allocation of the NASA R&PM data results in 21,286 of these being devoted solely to the "provision of services" to Boeing.[212] That would mean that these workers did not assist other government agencies in their work, did not conduct any research of interest to the U.S. government, did not publish their work or discuss it with outsiders, and did nothing to ensure that Boeing complied with its contractual obligations to NASA.

161. The EC provides *no* evidence that such a large group of NASA employees removed themselves from the agency's governmental functions for such a long time. To the contrary, as the remainder of the comment on Question 148 details, under NASA research programs, agency employees produce a huge number of publications for general distribution, with applicability far beyond the contractors who provide research services in furtherance of NASA's objectives. They provide information to assist other agencies in their safety and regulatory functions. They devote time to overseeing out-of-house work to make sure that contractors and grant recipients do what they have committed to do. None of this would happen, if, as the EC alleges, 57.5 percent of NASA's aeronautics employees could be treated as providing services only to Boeing.[213]

(c) *In Section VI.E.2 of its FWS the European Communities states that "NASA also furnishes government-owned property, provides institutional support, and makes federal scientists, engineers and research facilities available to support the (...) program. The provision of these goods and services by the US Government constitutes financial contributions within the meaning of Article 1.1(a)(1)(iii) of the SCM Agreement". (EC FWS, paras. 524, 548, 572, 588, 603, 618, 631 and 650) On the other hand, in Section VI.H of its FWS the European Communities asserts that "institutional support" consists in the provision to Boeing/MD of free access to NASA's facilities, equipment and employees. (EC FWS, para. 891) How should the Panel interpret the relationship between "institutional support" in Section VI.E.2, where it is distinguished from the provision of government-owned property and access to scientists, engineers and research facilities, and "institutional support" in*

[211] 1999 is the last year for which the EC used the NASA aeronautics research employment data in its calculation.

[212] Exhibit EC-25 provides data on the number of "Full-Time Equivalent Work Years" for aerospace technology, which can be equated with "Aerospace Technology Person-Years," and the percentage of NASA's institutional support budget (which includes the R&PM budget) that it allocated to Boeing each year.

[213] In fact, since the EC allocates the remainder of NASA R&PM civil service workers to other enterprises in the U.S. civil aviation industry, it is in essence assuming that *none* of NASA's civil service workers do anything for the U.S. government or for the broader scientific community.

Section VI.H, where it refers to Boeing/MD's free access to NASA's facilities, equipment and employees?

162. In response to this question, the EC states that "institutional support" is "*part of*, or *a subset of* the value of NASA's provision of 'goods and services' (*i.e.*, 'facilities, equipment, and employees') to Boeing for LCA-related research."[214] Of course, as the EC challenges the entirety of these alleged provisions that it outlines, that means it challenges the entirety of NASA's institutional support budget – exactly the position that it claimed in the introduction to this question (EC RPQ2, para. 170) that it is not taking.

163. The EC also asserts that this approach is forced upon it by the "top-down methodology" it chose for valuing the alleged subsidies. The U.S. comment on Question 156 demonstrates that this is not correct.

(d) Does "institutional support" cover anything other than the provision of access to NASA's facilities, equipment and employees?

164. The EC declines to answer the question posed by the Panel, instead stating that institutional support is a subset of facilities, equipment, and employees that NASA allegedly supplies to Boeing. However, it is worth quoting at length from the NASA budget documents on which the EC relies, which show how thoroughly the EC has misrepresented this expense. As the EC explained in response to Question 148(b), R&PM costs are one element of institutional expenses. NASA defines these as follows:

> The Research and Program Management (R&PM) appropriation provides funds for NASA's civil service workforce, both salaries and the essential support without which they could not function. It also provides for total support of those *buildings and facilities that are basically administrative in function*. Finally, it provides a very considerable amount of direct support to NASA's Research and Development (R&D) Programs and activities. . . .
>
> The civil service workforce is the underpinning of the successful accomplishment of the Nation's civil aeronautics and space programs. These are the *people who plan the programs; conduct and oversee the research; select and oversee the contractors; manage the various research, development, and test activities; and oversee all of NASA's operations*. The salaries and related costs of this workforce comprise over 62 percent of the requested appropriation. Slightly over two percent is required to fund the travel necessary to manage NASA and its programs. The remaining amount of the R&PM appropriation provides vital support to the civil service workforce and to the Centers physical plant. This includes funding the basic work environment of the workforce – *furniture; telephones; mail; typewriters; the utility bills; janitorial and fire protection services; and maintenance of the roads and grounds*. It also includes all necessary support—Support Contractors; ADP systems and other equipment and supplier – that provide the

[214] EC RPQ2, para. 184 (emphasis in original).

> *basic administrative support services of personnel; payroll; procurement; accounting; budget; and industrial and environmental medicine*.
>
> For the facilities that are primarily administrative in function, including all of the very extensive utilities systems, the R&PM appropriation funds the operations, preventive maintenance, and rehabilitation projects under $100,000. . . .
>
> In addition to the above essential support to NASA's workforce, the R&PM appropriation funds a number of items that are clearly and directly in support of R&D activities. A most obvious example of this support is the electricity to operate NASA's many wind tunnels. *The library at each of the centers* is also R&PM funded and is a major research tool. *The photo lab, print shop, and graphics capability are absolutely necessary to document research results, to publish and present the research*, and print checkout procedures. Security and fire protection are heavily R&D driven but are R&PM funded. Many *special purpose vehicles* are R&PM funded, *including cranes that lift test articles into place and large trucks that haul models to the wind tunnels*.[215]

As this quotation demonstrates, *most* of the institutional support referenced by the EC has *nothing to do* with providing contractors (including Boeing) access to NASA's facilities, equipment, and employees. It is instead money spent on NASA employees who either perform research themselves and publish the results or oversee research performed at NASA's request with its funding, leading up to the publication of results.

165. Research and Operations Costs ("ROS"), another element of NASA's institutional support budgets, consisted of costs "used to support business management functions and basic center operations."[216] These, too, serve a NASA function, and are not facilities, equipment, or employees provided to Boeing.

166. The EC provides no evidentiary basis for its assertion that Boeing would pay these NASA internal expenses if NASA did not. In particular, it has not demonstrated that Boeing would perform each of these R&D tasks. Even if the particular activity were something that Boeing would perform, the EC has not demonstrated that it would incur additional overhead beyond what the company already carries for its own current operations. Thus, there is no basis to consider NASA's internal expenses to constitute a financial contribution to or confer a benefit on the U.S. civil aircraft industry in general, or Boeing in particular.

> *(e) Are the European Communities claims relating to NASA's provision of goods and services to Boeing/MD limited to the provision of goods and services under Space Act Agreements and other types of contracts (EC SWS, para. 388), or is the European Communities arguing that NASA also provides goods and services to Boeing/MD outside of the framework of Space Act Agreements*

[215] NASA, Research and Program Management, Fiscal Year 1991 Estimates, pp. SUM 1-SUM 2 (Exhibit EC-316 pp. 230-231/439) (emphasis added).

[216] NASA Full Cost Budgeting, p. S&AP2-4 (Exhibit EC-315).

> *and other types of contracts? If so, please identify specific transactions through which NASA has provided goods and services to Boeing/MD other than in the context of Space Act Agreements and other types of contracts.*

167. The EC's answers to this question are: (1) yes, it is challenging provision of goods and services outside the framework of Space Act Agreements and other types of contracts;[217] and (2) rather than identify specific transactions, it will make allegations based solely on its interpretation of the "purpose" of various programs and excerpted quotations.[218]

168. The EC notes under Space Act Agreements, NASA may undertake to provide facilities, equipment, and employees to an outside entity. These agreements always provide for monetary or in-kind compensation. Contracts sometimes provide for NASA to make available facilities, equipment, or employees for specific uses in achieving the agency research goals set out in the contract. NASA *always* records any facilities, equipment, or employees in a formal document. When NASA provides such resources, it will formalize and record them in a Space Act Agreement, even for activities as small as bolting a composite panel to the roof of a NASA building for exposure testing or paying $4,810 for measuring atmospheric ionizing radiation under the HSR Program.[219] The same holds true for contracts – when NASA agrees to furnish equipment, it itemizes expenses as small as $302 for a "rib clip shear assembly."[220] Thus, the EC's assertion that NASA provides facilities, equipment, and employees "not explicitly stated" in contracts is inconsistent with the evidence.

169. There are multiple reasons for this care. NASA, as a steward of public funds, has an obligation to ensure that its assets are used properly for its purposes. The contractor, on the other hand, needs specific listing of government property because the contract obligates it to perform the required research within the specified time for the specified reimbursement. In fact, a standard clause states "{t}he Contractor shall, to the extent specified herein, furnish all personnel, facilities, services, supplies, equipment, and materials necessary for performance of" the work."[221] Therefore, if a contractor's proposal relies on NASA-furnished equipment or facilities, the contractor needs formal assurance that NASA will provide what it has promised. Otherwise, the contractor will have to pay for the equipment or facilities itself, which could delay completion or cause it to go over budget. NASA keeps records of such events, which it shares with other agencies.[222] Black marks can lead to a contractor losing subsequent bids. The contractor also needs to be certain that it knows whether equipment

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[217] EC RPQ2, para. 188.

[218] EC RPQ2, paras. 190-192.

[219] *E.g.*, Exhibit US-1256, referencing SAA1-344; SAA DFRC-056, p. 1 ("Boeing desires to conduct an in-service evaluation of graphite-epoxy material. The material has been fabricated into two feet by two feet test panels. These test panels are to be mounted on the roof of Building 4870 and will be exposed to the elements.") (Exhibit US-444, p. 4/9).

[220] *E.g.*, Procurement Contract NAS1-20014, Modification 85, Attachment (Exhibit US-540 (HSBI), p. 179/233).

[221] *E.g.*, Procurement Contract NAS1-20014, p. 2 (Exhibit US-541(HSBI)).

[222] *E.g.*, Evaluation of Performance Record, p. 1 ([***]).

belongs to NASA, as it must account for any property periodically over the course of the contract and at its end.[223]

170. In its second written submission, the EC stated that "the bulk of NASA's provision of goods and services likely does occur *through* Space Act Agreements."[224] However, in its responses to this question, the EC states that it is challenging the alleged provision of facilities, equipment, and employees that is not "explicitly" under a contract or Space Act Agreement.[225] In fact, the large majority of the value of the EC's allegations regarding NASA relates to facilities, equipment, and employees "not explicitly stated" in any contract or Space Act Agreement with Boeing. As estimated by the EC, those allegations account for alleged subsidy values of approximately $6.5 billion in funding paid to entities unrelated to Boeing for research they perform, and approximately $3 billion in "institutional support" that, as discussed above, does not cover the costs of anything provided to Boeing.[226] These activities do not constitute financial contributions to or confer benefits on Boeing within the meaning of Article 1.1.

171. In any event, NASA does not engage in the "not explicitly stated" provision of goods and services to Boeing or any other contractor that the EC alleges. Its regulations require that any provisions be recorded through a Space Act Agreement, and that any activity to assist a contractor in performing the work under a contract be recorded in the contract.[227]

172. Moreover, the EC has provided *no* credible evidence that NASA engages in off-the-books provisions of goods and services. To support its assertion that "provisions of goods and services may not always be explicitly revealed within the four corners of the contracts,"[228] the EC once more relies most heavily on a few quotations. It gives greatest prominence to a statement by William Webb, an executive at engine-maker Pratt & Whitney. What Mr. Webb said in full was:

> We have been working {on the high speed civil transport} as a four-party industry group, with NASA being the fifth member of a very close-knit collaboration. It is a partnership – *the only partnership that exists is between Pratt & Whitney and General Electric. That is an agreement. Everything else is a collaboration aimed at defining the precompetitive technology requirements with no decision made relative to collaboration on product development or product and service.*[229]

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[223] *E.g.*, Procurement Contract NAS1-20014, p. 27 (Exhibit US-541(HSBI)).

[224] EC SWS, para. 389 (emphasis added).

[225] EC RPQ2, para. 190.

[226] This figure contrasts with the $75 million value of facilities, equipment, and employees covered by NASA's non-engine aeronautics Space Act Agreements with Boeing.

[227] US FWS, paras. 231-234.

[228] EC RPQ2, para. 188.

[229] Hearing before the Subcommittee on Technology, Environment and Aviation of the Committee on Science Space and Technology, U.S. House of Representatives, p. 179 (Apr. 27, 1993) (Exhibit EC-1367).

The EC omitted the italicized text, creating the impression that Mr. Webb viewed work with NASA as a "partnership," which was plainly not the case. Moreover, the EC quotation skips over the point that the research is foundational – the type of work that NASA can use for its own research purposes and of potential interest to a wide range of industries throughout the world when the results are published.[230]

173. The EC also notes that Mr. Webb stated that "{t}he industry is depending on NASA in-house efforts as an integral part of developing the technologies that we are depending on to meet the economics and environmental needs for the product."[231] Once again, it is useful to look at the remainder of Mr. Webb's testimony to understand what, in his view, NASA was doing:

> The current program that is envisioned to be funded by the proposed legislation was a comprehensive planning effort between NASA and the industry. We believe that that proposal for the development of technology to address the emissions, the environmental noise area, and the life issues associated with the economics or the economical operation of the airplane is it contains all of the elements necessary to decide that there is the technology possible or that it's not possible.[232]

Thus, Mr. Webb's statements, when read in full, demonstrate that he considered NASA's work to be precompetitive. The industry "depended" on that work not to develop the aircraft – Mr. Webb is quite clear that NASA had not decided to "collaborate" on that effort – but to identify whether it was "possible" to develop technology that would enable an aircraft to meet pollution and noise standards. (As the United States explains in response to Question 163(d) and 163(g), one of the key objectives of NASA's work was to research the noise and pollution impact of a high-volume commercial supersonic transport and to identify what standards such flights would have to meet.[233])

174. The United States also recalls that the HSR Program, which Mr. Webb was discussing, was unusual in that NASA was conducting research in tandem with industry's conceptual baseline configuration, known as the HSCT, for studying the various implications of a potential commercial supersonic aircraft. Such research was necessary because of the

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[230] The EC also omitted Mr. Webb's caveat that he viewed NASA's work as precompetitive – that is, not useful in the producing a competitive product – and that neither the commercial entities nor NASA had taken any decision to collaborate on product development. In fact, NASA never took such a decision, and *all* of its research activities during the 1989-2006 period were foundational in nature.

[231] EC RPQ2, para. 190, *quoting* Hearing before the Subcommittee on Technology, Environment and Aviation of the Committee on Science Space and Technology, U.S. House of Representatives, p. 179 (Apr. 27, 1993) (Exhibit EC-1367).

[232] Hearing before the Subcommittee on Technology, Environment and Aviation of the Committee on Science Space and Technology, U.S. House of Representatives, p. 179 (Apr. 27, 1993) (Exhibit EC-1367).

[233] U.S. comments on Question 163(d) and 163(g), *infra*.

recognition that a high-volume, regular-fare supersonic transport would present regulatory issues very different from existing aircraft.[234]

175. The EC also attempts to justify treatment of NASA in-house efforts under the HPCC Program's Computational Aerosciences ("CAS") effort as a provision of goods and services to Boeing because a NASA PowerPoint presentation refers to a goal of "facilitat{ing} the adoption and use of this technology by the U.S. aerospace industry" and notes that one "code/process" had been "exported to Boeing for their internal use."[235] However, these statements do not support the EC's assertion that NASA's internal efforts were an off-the-books provision of services to Boeing. The document cited by the EC refers to development occurring under an "MOU" (another name for a Space Act Agreement),[236] and NASA had four contracts with Boeing related to the work.[237] Moreover, the pages that the EC decided to omit from the version of the HPCC CAS presentation that it submitted as an exhibit demonstrate that the work had relevance to engines and in broader high-powered computer applications.[238] Although the EC concedes that research with engine applicability should be subtracted from its estimate of funding of Boeing, the only subtraction it made in this instance was of the pages showing that HPCC CAS was applicable to engines. It made no such adjustment in its initial estimate based on the assertion, now demonstrably untrue, that "there is no indication that any HPCC research was engine-specific.[239]

176. Thus, the evidence indicates that any facilities, equipment, and employees provided by NASA as in-kind contributions to Boeing were memorialized in a Space Act Agreement, and that any NASA facilities, equipment, or employees made available to advance the work listed under a contract would be listed in that contract. There is, accordingly, no basis to conclude that NASA provided "non-explicit" facilities, equipment, or employees.[240]

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[234] NASA, HSR Program Plan, p. 3 (Exhibit EC-1208). The EC-built Concorde was grandfathered so that it was subject to more lenient noise and pollution standards than would apply to a new aircraft.

[235] EC RPQ2, para. 192.

[236] NASA High Performance Computing and Communications Program, 1997 Independent Annual Review, p. 24 (June 10-12, 1997) (Exhibit EC-1368).

[237] Exhibit US-1305.

[238] Computational Aerosciences (CAS) Project: Independent Annual Review (June 10-12, 1997) (Exhibit US-1318). When the EC submitted this document as Exhibit EC-1368, it omitted pages of this document indicating that CAS was applicable to engines, which it concedes should be excluded. *Ibid.*, pp. 20-21, and 55. The report indicated that CAS resulted in adaptations to OVERFLOW, a code disseminated widely in industry and academia. *Ibid.*, pp. 19, 25, 28, and 37. Finally, CAS was used in studying problems of STOVL aircraft, a capability not used for large civil aircraft. *Ibid.*, p. 28. NASA expected its work to have applications throughout the high-performance computing sector. *Ibid.* pp. 40, 43, and 45.

[239] Exhibit EC-25, p. 12, note 2.

[240] In addition, the evidence indicates that any research under the HPCC CAS effort was not restricted to civil aviation, the "allocation base" used by the EC. One of NASA's largest contract with Boeing under this program, NAS2-14096, aimed at software related to "high performance STOVL aircraft." "STOVL" means "short take-off vertical landing," a capability not relevant to civil aircraft. Thus, the evidence does not support the EC's assertion that NASA's in-house work was conferred exclusively to the civil aircraft industry. (Exhibit US-1305).

177. Finally, the EC cites passages from previous submissions as support for its assertion that the provision of goods and services "may not always be explicitly revealed within the four corners of the contract."[241] However, these paragraphs contain primarily descriptions of the *explicit* terms of Space Act Agreements, which do not support the EC's assertions that NASA provides additional non-explicit facilities, equipment, or employees.[242] The only remaining support put forward by the EC consists of assertions that "NASA employees and facilities were an integral part of NASA resources provided to industry under the HSR program" and that NASA and Boeing employees sometimes work in "teams."[243] The first assertion is simply the EC's mischaracterization of NASA planning documents indicating that NASA used both "inhouse" resources and contracts with "out-of-house" suppliers to achieve program goals.[244] To be clear, that NASA uses its employees and facilities to advance program goals is not a provision of goods and services to industry, especially when those employees are researching topics of interest to the U.S. government, writing articles for public dissemination of results, and overseeing contractors to ensure that they are properly completing the contracted work. And, as for NASA and Boeing employees sometimes working in "teams," that is one of the ways NASA obtains contractor contributions to NASA's objective of developing knowledge for dissemination. It does not indicate that NASA team members are supplying services to the contractor.

178. In sum, the EC provides no basis for its assertion that NASA provides goods and services to Boeing outside of the Space Act Agreements submitted to the Panel. There is also no basis for the EC's assertion that NASA makes facilities, equipment, or employees available to carry out work under a contract, without listing those resources in the contract.

> *(f) Please explain the distinction, made at paragraphs 398-399 of the EC SWS, between the part of the value of goods and services provided to Boeing/MD that according to the European Communities is reflected in NASA's institutional budget and the part of the value of these goods and services that is reflected in NASA's programme budgets.*

179. The EC asserts that prior to the implementation of full cost accounting, "program budgets" included "'in-house' R&D spending by NASA researchers working in collaboration with, and thereby providing their services to, Boeing."[245] This is not correct.[246] The document on which the EC relies states:

> NASA's program/project budgets have historically only captured direct R&D costs including supporting costs called program support. The Agency costs

[241] EC RPQ2, para. 188.

[242] EC FWS, para. 892, EC SWS paras. 288-390 and 392-396.

[243] EC SWS, para. 391, *citing* EC FWS, paras. 499-502. (Paragraphs 501 and 502 of the EC FWS discussed explicit terms of Space Act Agreements).

[244] NASA HSR Program Plan, pp. 26-32 (Exhibit EC-1208).

[245] EC RPQ2, para. 194.

[246] NASA employees provide services to NASA, and not to contractors or grant recipients. US FWS, para. 265.

> for both direct and indirect civil service workforce and travel dollars (previously budgeted under Research and Program Management (R&PM)), and other institutional infrastructure costs such as Research Operations Support (ROS) (used to support business management functions and basic center operations) have not been included.[247]

Thus, program budgets prior to 2004 did not include the "cost" of civil service employees (such as researchers) working on NASA research programs. These civil servant costs were included elsewhere in NASA's budgets, which have always captured all of the agency's expenditures.

149. In items 2(a) and 3(a) of its Panel Request, the European Communities states that NASA and DOD provide subsidies to the US LCA industry by allowing the US LCA industry to "participate" in research programmes. Please clarify.

180. The United States has no comment on the EC's response to this question.

150. Please direct the Panel to the arguments and evidence on record concerning:

(a) the process followed in selecting contractors under the NASA R&D programmes at issue; and

(b) the process followed by NASA in formulating the "statements of work" contained in the R&D contracts at issue, including the extent of Boeing/MD's involvement in that process.

Please indicate whether the same processes were followed in the case of Procurement Contracts and Cooperative Agreements.

Question 150(a)

181. The EC declines to answer the question posed by the Panel, asserting that the relevant information is "for the most part, exclusively in the control of the United States."[248] This is untrue. The United States provided information on NASA's process for selecting contractors in the exhibits submitted at the time of the US FWS. There was no ambiguity – the relevant documents had titles that indicated their function, such as "Solicitation, Offer and Award"[249]; "Selection Statement"[250]; and "Prenegotiation Procurement Review Committee Report."[251] The list of NASA contracts requested by the Panel and submitted on January 10, 2008, indicated each of these materials and how they relate to the various contracts. The U.S.

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[247] NASA Full Cost Budgeting, p. S&AP2-4 (Exhibit EC-315).

[248] EC RPQ2, para. 196.

[249] *E.g.*, Exhibits US-403, US-406, US-411, US-416, US-428, US-431, and US-448.

[250] *E.g.*, Exhibits US-404, US-407, US-414, and US-430.

[251] *E.g.*, Exhibits US-408, US-415, US-419, and US-422.

second written submission contained a detailed description of the process.[252] Moreover, the EC itself submitted materials that described this process.[253] In short, the evidence necessary to respond to the Panel's question was in front of the EC, which simply chose to ignore it. The United States reviewed these materials in its response to this question.

182. The EC does quote a single source selection statement, noting that NASA decided not to pay the fee on a contract involving research for which the contractor would derive benefits.[254] The EC misses the point. Normally, an agency buying research services will pay a "fee," which covers the profit that a commercial entity expects. The example presented by the EC merely indicates that NASA and contractors may negotiate reduced compensation when they consider that the foundational research under a NASA project may have relevance to a contractor's commercial business.

183. The EC does not dispute that NASA chooses contractors on the basis of technical competence and cost competitiveness. However, it asserts that the purpose of the eight challenged NASA programs was to assist the U.S. civil aircraft industry and that accordingly "it should come as no surprise that Boeing and McDonnell Douglas are awarded the contracts."[255] Here again, the EC is wrong. The United States has demonstrated that the "purpose" of NASA aerospace programs is to conduct foundational research for the use of the U.S. government and to build a general knowledge base through public dissemination.[256] Moreover, NASA's data show that Boeing received only ten percent of NASA's funding for outside research during the 1989-2006 period, with the remainder going to universities, private research entities, and unrelated enterprises both inside and outside of the civil aviation industry.[257] Additionally, this record of broad participation in NASA aeronautics research programs, both in terms of formulating goals and conducting research on behalf of the agency, [258] provides further evidence that NASA does not formulate these programs with the objective of aiding Boeing in particular, or the U.S. civil aircraft industry in particular.[259]

Question 150(b)

[252] US SWS, para. 62.

[253] *E.g.*, Exhibits EC-300, EC-323, EC-356, EC-371, EC-569, EC-570, EC-588, EC-589, and EC-613.

[254] EC RPQ2, para. 197.

[255] EC RPQ2, para. 198.

[256] US FWS, paras. 186-194, 221; US SWS, paras. 62, 64; US OS1, paras. 56-64.

[257] Exhibit US-1271, Exhibit US-1255.

[258] US FWS, paras. 190-193; US SWS, para. 62-64; US RPQ2, para. 148; Exhibits US-1187, US-1188, US-1189, US-1190, US-1191, US-1255.

[259] The EC notes that Airbus did not receive any funding under the NASA programs. What it fails to realize is that foreign-owned subsidiaries of U.S. companies *can* participate in NASA research. For example, Canadian Commercial Corp. and BAE Systems were both among NASA's top 100 contractors in 2005. NASA, Annual Procurement Report: Fiscal Year 2005, pp. 17-20 (Exhibit US-1135). As Airbus has a facility in Wichita, Kansas, it would have been eligible to bid, but apparently has either failed to do so, or has not made a competitive offer.

184. The EC declines to answer the question posed by the Panel, ostensibly because relevant information "has generally been withheld by the United States."[260] However, as the United States explained in its comment on Question 150(a), the United States submitted to the Panel materials describing the formation of NASA statements of work at the beginning of this proceeding. The EC obtained additional information from its own sources. The United States also submitted copies of modifications to the various contracts, which indicated how the statements of work evolved over the course of the work. Thus, the evidence necessary to respond to the Panel's question was in front of the EC, which chose to ignore it. The United States reviewed these materials in its response to this question.

185. Although the EC did not answer the Panel's question, it took the opportunity to expound on several discredited notions from its past submissions. It once again asserted that Boeing's role on NASA committees allowed it to "tailor the use of government funds for its own needs."[261] The United States has shown before that NASA set its research goals in response to government objectives, including public safety and environmental protection. Boeing was merely one voice among many members of these committees, which included representations of the public, academia, and industry that NASA consulted in an effort to identify useful areas of research to achieve its goals.[262] The EC attempts to bolster its argument by noting that NASA's Aeronautics Enterprise stated that a goal of "actively involving customers and partners in the identification of technology requirements and opportunities."[263] However, this document does not signal some preferential role for Boeing. It explains NASA's consultation process by stating that "{i}n order to make the best possible investment decisions on behalf of our ultimate stakeholder and customer – the American citizen – it is critical that we understand the relative importance and benefits of various transportation investments."[264] That NASA bases its priorities on the needs of its "customers" – U.S. citizens – only serves to demonstrate that Boeing does not dictate agency policy. And as for NASA's "partners," the document is clear that these are other agencies, universities, and all of industry – not just Boeing.[265]

186. The EC again tries to use its much-quoted statement by NASA Administrator Daniel Goldin that NASA consulted with industry to identify technology it would need "over the next 30 years."[266] As the United States explained at the second panel meeting, those consultations were part of NASA's broader outreach effort. Moreover, Administrator Goldin's testimony only serves to show further that Boeing does not "tailor" U.S. programs

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[260] EC RPQ2, para. 199.

[261] EC RPQ2, para. 201.

[262] US FWS, paras. 190-191; US SWS, para. 62.

[263] EC RPQ2, para. 201, *quoting* Achieving Aeronautics Leadership, p. 16 (Exhibit EC-302).

[264] Achieving Aeronautics Leadership, p. 4 (Exhibit EC-302).

[265] Achieving Aeronautics Leadership, p. 1 (Exhibit EC-302) ("Under the auspices of the National Science and Technology Council, and in conjunction with the domestic industry, universities, the Department of Defense, and the Federal Aviation Administration – our partners in aeronautics – we propose to provide that leadership, and this document is our plan.").

[266] EC RPQ2, para. 202.

to its needs – the technologies on which he focused served safety and air traffic management needs relevant to the entire flying public, and conferred no advantage on Boeing.[267]

187. The only new assertion that the EC puts forward to support its view that Boeing dictated the content of NASA research programs is an extended quotation from Boeing Vice President Robert Spitzer, which notes that NASA consulted with "Boeing, Douglas, Lockheed, Rockwell, Northrop, Vought, Honeywell and other suppliers" to discuss the AST and HSR programs.[268] As the United States has explained, NASA routinely seeks a broad range of input in formulating its programs,[269] so it should come as no surprise that its process included these entities. The surprise is that the EC is quoting Mr. Spitzer's observation, as it shows conclusively that NASA does not design its programs exclusively for Boeing or the civil aircraft industry. Lockheed and Northrop are Boeing competitors in military aircraft sales, while Vought and Honeywell are important suppliers to both Boeing and Airbus, as well as business jets, general aviation, and commuter aircraft.

188. The EC ends with another of its favorite points, namely that NASA had to terminate the HSR Program when Boeing ceased to participate. It quotes Administrator Goldin, who said

> We were working on a high-speed civil transport. Boeing was putting in significant money into that. They had market pressures from Airbus, which caused them to say, we better focus on the near term. So, they made a decision that we concurred with. We were putting in $1 billion over four years into high-speed civil transport. When they backed out, we had no industrial partner.[270]

The United States has already explained that other evidence cited by the EC shows that NASA actually tried to keep the program alive after Boeing withdrew.[271] But perhaps more importantly, this quotation only serves to show that NASA's research was not designed to tip the competitive balance between Boeing and Airbus. If it were, one would expect this "market pressure from Airbus" would lead NASA to conduct *more* aeronautics research, and direct that research to particular Boeing aircraft. Instead, NASA terminated the HSR program and drastically scaled *down* aeronautics research. Thus, Boeing's choice to stop working on supersonic civil aircraft and NASA's reaction merely provide more evidence that NASA conducts its aeronautics research not to help Boeing manufacture particular aircraft or to make Boeing more competitive against Airbus, but instead to add to the global based of aeronautics knowledge.

151. It is the Panel's understanding that, under US law, Procurement Contracts are to be used "only when the principal purpose is the acquisition of supplies or services <u>for the</u>

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[267] US OS2, paras. 40-41.

[268] EC RPQ2, para. 202.

[269] US FWS, paras. 190-191.

[270] 2001 Senate Aeronautics Hearing, p. 16 (exhibit EC-292).

[271] US OS2, para. 50.

> *direct benefit or use of the Federal Government". (48 C.F.R. §35.005(a) (Exhibit US-23))*
>
> *(a) What do the terms "direct benefit or use" mean in this context?*

189. The EC seeks to use a NASA handbook to interpret general U.S. law. However, it misunderstands both the handbook and its relation to U.S. law. Almost all of the instruments at issue for NASA are either procurement contracts or Space Act Agreements. Therefore, the Grant and Cooperative Agreement Handbook is essentially irrelevant.[272]

190. Regardless, the Handbook does not support the point the EC seeks to make. The EC argues that "direct benefit or use" is a malleable concept, and that "the acquisition of a cursory 'report' about an R&D project could be considered an acquisition of supplies or services for the direct benefit of NASA, even though NASA has no actual need for the report." In fact, the Handbook actually states the opposite. It provides that a contract is of direct benefit or use to the government, thereby making a procurement agreement the appropriate instrument, "if the principal purpose of a transaction is to accomplish a NASA requirement, i.e., to produce something for NASA's own use."[273] The Handbook then continues to explain that:

> In applying the principal purpose test, it must be determined whether the Government is the direct beneficiary or user of the activity. *If NASA provides the specifications for the project; or is having the project completed based on its own identified needs*; or will directly use the report or result of the project for a scheduled NASA mission, then, *in most cases, the principal purpose is to acquire property or services for the direct benefit or use of NASA*, and thus, a contractual relationship exists.

Interestingly, the EC quoted only the italicized text in its response. The remainder – which the EC omitted from its analysis[274] – makes clear that a report that NASA does not intend to use for its own purposes would *not* justify a procurement contract. The United States notes that NASA *did* use the reports commissioned under its research contracts for NASA purposes, namely, addressing broader U.S. government research needs and building the general aeronautics knowledge base by disseminating the results to the public. That is one reason that the instrument funding the research that led to issuance of the reports could be a procurement contract.

191. The EC also asserts that NASA would be able to commission research for use "in a context in which use of the supplies or services is not by the government itself, but by another party, whether a contractor, sub-contractor, or a third party."[275] This is incorrect. The

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[272] NASA and Boeing had three cooperative agreements related to civil aeronautics. The United States has explained why these should not affect the Panel's evaluation of the EC's claims. US RPQ1, paras. 58-59.

[273] NASA Grant and Cooperative Agreement Handbook, NPR 5800.1, § 1260.12(f)(1) (Exhibit EC-1369, 9/10).

[274] EC RPQ2, para. 208.

[275] EC RPQ, para. 207.

"principal purpose" test would be met only if that contractor were itself doing something of direct benefit or use to NASA. In short, the scenario identified by the EC – of NASA buying something of no use to NASA to give it to a contractor for the contractor's own use – would not be permissible under a procurement contract.

192. The EC also contends that under this legal framework, "anything that NASA does to fulfill the mission of advancing the United States' preeminent position in aeronautics" could qualify as of "direct benefit and use" to NASA. This is not correct. A transaction designed to achieve this statutory objective would still have to comply with all of the regulations for that type of transaction. Thus, NASA could not give away money, services, or technology to a private supplier under a procurement agreement simply because doing so would "advance the United States' preeminent position in aeronautics". As the Grant and Cooperative Agreements Handbook states quite plainly "{W}hen NASA, within its authority, enters into a transaction where the principal purpose is to accomplish a public purpose of support or stimulation *authorized by Federal statute*, a grant or a cooperative agreement is the appropriate instrument."[276] Thus, the type of research that the EC describes – which NASA did not perform – could not be funded through a procurement contract.

(b) Without limiting the generality of the foregoing question:

(i) What is the difference between "direct" and "indirect" (US RPQ1 para. 45) benefit or use in this context?

(ii) Is the test for determining whether certain R&D activities were for the "direct benefit or use" of NASA whether or not the R&D activities were linked to NASA's specified missions? If so, would it follow that NASA would be required to use a Procurement Contract if a particular R&D project was linked to NASA's mission of "[t]he preservation of the United States preeminent position in aeronautics and space through research and technology development related to associated manufacturing processes"?

193. The EC asserts that the distinction between "direct" and "indirect" benefits or uses is "ambiguous" because it relies on a determination whether the benefit or use is "immediate, uninterrupted, or specific."[277] The United States disagrees with this characterization. The criteria are clear, and NASA's officials have experience in their application. Thus, there is no ambiguity.

[276] NASA Grant and Cooperative Agreement Handbook, NPR 5800.1, § 1260.12(f)(1) (Exhibit EC-1369, 9/10). The United States notes that this is not the only situation in which use of a cooperative agreement in permitted. For example, DoD uses cooperative agreements when it envisages a benefit to DoD, but one that is not sufficiently immediate to permit use of a procurement contract.

[277] EC RPQ2, para. 211, *quoting* NASA Grant and Cooperative Agreement Handbook, NPR 5800.1, § 1260.12(f)(2) (Exhibit EC-1369, 9/10).

194. The EC also asserts that the goal of the programs at issue is "to develop specific technologies to benefit the US LCA industry."[278] As in most cases, it provides no citation for this proposition. In fact, the evidence indicates that the objective of NASA's program was generally to conduct foundational research, and to leave the development of specific technologies to industries, including but not limited to the large civil aircraft industry, in the United States and other countries.[279]

152. What is the difference between a Space Act Agreement and a Cooperative Agreement? Are non-reimbursable Space Act Agreements "assistance" instruments under US law?

195. As the United States explained in its answer to this question, Space Act Agreements are not assistance instruments under U.S. law. The EC's response to this question provides no reason to conclude otherwise.

154. Please elaborate on why the European Communities considers that consideration of the types of instruments through which the payments and other funding were made may be "too formalistic" to guide the analysis of whether or not the transaction constitutes the purchase of a service. (EC RPQ1, paras. 73-74) Is the European Communities arguing that the Panel should ignore that certain funding provided to Boeing-MD was provided through Procurement Contracts, notwithstanding that under US law, Procurement Contracts may be used only when the principal purpose is the acquisition of supplies or services for the direct benefit or use of the Federal Government? How does the European Communities respond to the United States statement that "the EC accuses NASA of illegally treating its transactions with Boeing/MD as procurement contracts when they should have been treated as grants or cooperative agreements." (US Comments on EC RPQ1, para. 77, italics original)

196. In response to this question, the EC abandons its previous position that the form of the transaction is irrelevant to the consideration of whether it is a purchase, and concedes that it is a factor that the Panel should consider.[280] Like the United States, the EC has always recognized that the substance of the transaction is also a relevant factor.[281] However, the EC in response to this question advocates an additional examination of the "circumstances surrounding the transaction" including four factors that it first enunciated in its response to Question 15(b).[282] The United States noted in its Comments on EC RPQ1 that the EC never provided any legal justification for the use of these factors. The United States also demonstrated that none of the factors proposed by the EC address the issue posed by Article

[278] EC RPQ2, para. 211.

[279] US SWS, para. 64, US OS1, paras. 56-64, US OS2, paras. 34-36 and 41, and U.S. Comment on Question 158, *infra*.

[280] EC RPQ2, para. 217.

[281] EC RPQ2, para. 215.

[282] EC RPQ1, paras. 54-59.

1.1(a)(1)(iii) – whether the government has purchased services.[283] The EC has never disputed the U.S. analysis. Therefore, the Panel should disregard the EC's four-factor test.[284]

197. The EC's concession with regard to the relevance of the form of a transaction has an important implication for the parties' burdens of proof. If the form of a purchase indicates that a transaction is in fact a purchase, which the United States considers a logical inference, a party seeking to prove that such a transaction is *not* a purchase must provide evidence to overcome the weight of the evidence that the transaction took that form. The United States considers that a party might do that by showing that the transaction was in substance a different type of transaction.

198. The EC, however, asks the Panel to look not at the substance of the transactions or their form, but instead at their supposed "actual purpose."[285] As the United States pointed out in its Comments on EC RPQ1, the "purpose" of a transaction does not determine its status as a financial contribution.[286] Article 1.1(a)(1)(iii) frames its standard in terms of *what* the government does (namely, purchase a good or provide a good or service) not *why* the government did so.[287] To give a concrete example, if the "purpose" of a government program were to provide general infrastructure, but the government actually used the funds to build a road accessible to only one enterprise, there would be a financial contribution. So, from the outset, the EC's effort to elucidate the "actual purpose" of NASA's transactions with Boeing provides little to assist the Panel's evaluation of the EC claims.

199. Even if they were relevant, the EC's assertions regarding the "actual purpose" of NASA contracts fail for a lack of evidence. The EC asserts, based on two-sentence excerpts from two NASA contracts, that the "actual purpose" of the transactions was "to help Boeing/MD to develop the technology necessary to build the composite wing of a new type of LCA, similar to the current Boeing 787," as well as a "composite fuselage."[288] The evidence shows otherwise.

200. The first contract addressed by the EC is NAS1-20546. The EC correctly quotes that contract as stating that:

> The objectives of this contract are to perform design, analysis, fabrication and testing verification of a full-scale composite wing structure for commercial transport aircraft. The contract results are expected to provide the technical

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[283] US Comments on EC RPQ1, paras. 57-64. The United States notes that the EC test posits that whether a service is for "the direct benefit and own use of the government" is a factor in identifying a purchase of a service, but then insists that the U.S. "direct benefit and use" standard for procurement agreements is irrelevant. The EC does not attempt to explain this inconsistency.

[284] The EC itself repeats the four factors, but makes no explicit use of them in its analysis.

[285] EC RPQ2, para. 217.

[286] US Comments on EC RPQ1, para. 60.

[287] US Comments on EC RPQ1, para. 60.

[288] EC RPQ2, paras. 220 and 222.

> data required for the application of composite wing structures in new 21st Century commercial transport aircraft.[289]

Although the EC describes the objective of this contract as helping "Boeing," it is framed in general terms, as providing technical data for "21st Century" composite wing structures. The specific technical objectives are largely not product-specific, but generic, most of them directed to proving in a laboratory setting general performance characteristics of composites, such as their ability to reduce weight, whether they could be manufactured in a cost-effective way, and whether they could withstand likely flight stresses.[290] Equally important, NASA sought to build general confidence in composites (which would accrue to anyone proposing to use composite structures in aircraft) and to develop a scientific basis for eventual regulatory certification of composite aircraft wings.[291] This type of activity would relate first to government safety certification objectives and ultimately to all users of composites, including Airbus, which at that point made greater use of composites in its aircraft than Boeing did.

201. The theoretical and general nature of the research performed under this contract is evidenced by the fact that Boeing did not use the technology studied – stitched composites – in designing the 787.[292] In fact, the equipment supplied by NASA to carry out the research was judged of no use by Boeing and sold for scrap.[293]

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[289] NASA Contract NAS1-20546, p. 3 (Exhibit EC-324). The stated objectives were as follows:

> 1. Demonstrate mature design technology through processing scale-up and structural testing of full-scale wing box structures.
> 2. Demonstrate manufacturing processes that consistently produce composite wing structures meeting transport aircraft quality requirements.
> 3. Demonstrate the robustness of composite primary wing structures by durability testing and repair of subcomponents.
> 4. Develop airline confidence in the use of composite wing structures through their participation in maintenance related developments such as repair.
> 5. Develop the scientific basis required to support FAA certification of composite wing primary structures.
> 6. Verify through a re-sizing analysis that an aircraft incorporating full-scale composite primary structures will meet the NASA ACT Program targets of 20-25 percent reduction in acquisition costs and 30-50 percent reduction in structural weight compared to an aluminum aircraft designed for the same range and payload.
> 7. Verify that an aircraft incorporating a full-scale composite wing primary structure will meet the targets of 5-20 percent reduction in acquisition cost and 25-40 percent reduction in structural weight compared to an aluminum-composite-winged aircraft designed for the same range and payload. Further, verify that the composite-winged aircraft will achieve a 5-10 percent reduction in Direct Operating Cost (DOC) compared to its aluminum-winged counterpart.

[290] NASA Procurement Contract NAS 1-20546, p. 3 (Exhibit EC-324).

[291] NASA Procurement Contract NAS 1-20546, p. 3 (Exhibit EC-324).

[292] Procurement Contract NAS1-20546, p. 5 (Exhibit US-412); Statement of Michael Bair, para. 55.

[293] Statement of Michael Bair, para. 55 (Exhibit US-7). Although the projected contract value was $135 million, NASA terminated the work in 1999, when Boeing had performed only $74 million in work

202. The EC also asserts that the objective of Procurement Contract NAS1-20553 was to help Boeing,[294] but in truth, its objectives are framed in generic language almost identical to that used for Procurement Contract NAS1-20546, with the exception that it addressed a composite fuselage.[295] NASA terminated work on this contract when Boeing had performed only $1.8 million in work.[296]

203. The EC asserts that many of the activities called for in the Statements of Work for these contracts "would not seem to be any different than the steps that Boeing/MD would take on its own."[297] The EC should know better. The amounts spent on these contracts – $74 million and $1.8 million – are far too small for developing a configuration for a commercial aircraft. The documents themselves indicate NASA sought "a baseline definition and configuration" for "tests."[298] Such a "baseline" is designed not to become part of an actual aircraft, but to provide a common basis to test hypotheses and compare the results.[299] And, again, when Boeing decided to proceed with the 787, it did not use the results of this research.

204. In sum, the stated "purpose" asserted by the EC for these contracts does not reflect the breadth of activities conducted under them, their relation to government functions like aircraft certification, public safety, and environmental protection, or their general and theoretical nature. In any event, the purpose as seen by the EC does not change the fact that by entering into the contracts under the challenged programs, NASA expanded the base of aeronautics knowledge by generating hundreds of scientific publications used by scientists around the world to no particular advantage to the U.S. aircraft industry, and developed knowledge useful to the U.S. government in its efforts to regulate and improve the safety of air travel.

155. At para. 336 of its SWS, the European Communities asserts that the "United States' characterization" of NASA's R&D contracts is a purchase of services "is a sham". At para. 346 of its SWS, the European Communities refers to "the sham nature of NASA R&D contracts". At para. 403 of its SWS, the European Communities states that the United States' "argument" is a "sham". Is the Panel correct in its understanding that the European Communities is asserting not only that the United States' characterization of NASA and DOD R&D contracts and agreements in this dispute

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NASA Procurement Contract NAS1-20546, Modification 39, p. 3 (Exhibit US-561 (HSBI), p. 83/83); Exhibit US-1305.

[294] EC RPQ1, para. 219.

[295] Procurement Contract NAS1-20553, pp. 2-7 (Exhibit EC-334).

[296] Exhibit US-1305.

[297] EC RPQ2, paras. 220 and 222.

[298] *E.g.*, Procurement Contract NAS1-20546, pp. 9, 11, and 12 (Exhibit US-412).

[299] *E.g.*, Affidavit of Alan Miller, para. 6 ("We investigated a limited set of the costs and benefits associated with a selected concept for the design and manufacture of panels for the studied composite fuselage section. The research addressed none of the substantial design and cost challenges that designing an entire commercial aircraft based on these concepts would have entailed.") (Exhibit US-1258).

settlement proceeding is a "sham", but also that NASA and DOD engaged in "sham transactions" with Boeing/MD?

205. In response to this question, the EC concedes that the NASA and DoD contracts with Boeing were not "sham" transactions. The United States agrees. Thus, it is plainly the terms of these transactions that govern any payments to Boeing. Therefore, it is those terms, as evidenced by the U.S. acquisitions regulations and the contracts themselves, and not some "purpose" of the research program, as divined by the EC, that governs the analysis of whether they were financial contributions or conferred a benefit.

206. The EC, however, has not yet abandoned its "sham" argument, asserting now that the U.S. position with regard to the challenged NASA and DoD contracts is a "sham." The United States does not understand this characterization as adding any substance to the EC argument, and will address it no further.

156. The United States argues that "Articles 1 and 2 Require an Individualized Assessment of Each Alleged Financial Contribution" (US SWS, paras. 10ff) and criticizes the European Communities for "lumping" (US FWS, paras. 177, 211) its claims regarding "direct R&D funding" together with its claims regarding "R&D support". How does the European Communities respond?

207. The EC does not dispute that Articles 1 and 2 require an individualized assessment of each financial contribution. Rather, it asserts that its approach of lumping together various allegations is acceptable, and can be disentangled so as to allow an individualized assessment. The EC is mistaken.

208. The EC begins by trying to rebut the U.S. observation that the EC financial contribution and benefit allegations for each program are only a few short paragraphs that lack substance and fail to relate the facts to the legal standard.[300] The EC does not dispute that the formal discussion of the legal basis for each allegation is short and lacks substance, but argues that these brief and formulaic passages must be read together with the "factual aspects" section related to each program. The EC asserts that the "various facts presented . . . all serve as the basis for the legal conclusions drawn in the respective 'financial contribution' and 'benefit' sections.[301] Actually, the EC itself has admitted that this is not true. In its response to Question 134, the EC recognizes that "{t}he fact that the subsidies 'relate to the production of one or more models of Boeing LCA is not strictly relevant to the ultimate question of whether or not a "benefit' is conferred."[302] Similarly, the EC concedes that "the effect of {alleged} subsidies on the competitive position of Boeing LCA is a distinct question" from the analysis of the benefit by comparison with a market benchmark.[303] However, these are exactly the kinds of assertions that comprise the bulk of the EC "factual

[300] US SWS, paras. 11-12.

[301] EC RPQ2, para. 228.

[302] EC RPQ2, para. 123. Issues of whether alleged subsidies "related to production" obviously have no relevance to the financial contribution analysis, and the EC does not argue otherwise.

[303] EC RPQ2, para. 130.

analysis" section. That means that, by the EC's own admission, large portions of its "factual analysis" sections provide nothing to not support the EC's financial contribution or benefit allegations.

209. More importantly, the EC's presentation does nothing to relate the facts it alleges to the legal standards it advances. It simply sets both down, and leaves it to the Panel to draw connections. That does not constitute a *prima facie* case. Indeed, it is essentially asking the Panel to make the case for a party – something that the DSU does not allow.[304]

210. The EC also argues that it made an individualized assessment by presenting a separate section in its first and second written submissions relating to the alleged provision of facilities, equipment, and employees by NASA and DoD.[305] Moreover, these discussions are cursory and fail to separate what the EC now makes clear are four different types of transactions:

(1) Facilities, equipment, and employees provided under Space Act Agreements (relevant only to NASA);

(2) Facilities, equipment, and employees explicitly stated in procurement contracts (and presumably cooperative agreements);[306]

(3) Facilities, equipment, and employees "not explicitly stated" in an agreement or contract; and

(4) Goods and services purchased from other contractors, which the EC characterizes as "out-of-house expenditures".

Each of these types of transactions presents different factual, legal, and evidentiary considerations. By failing to discuss them separately, the EC fails to address those issues, and fails to make a *prima facie* case with regard to any of them.

211. The EC argues that this "lumping" of different transactions was necessary because it chose a "top-down" method for valuing the alleged subsidies.[307] The EC fails to realize that, although valuation depends on the results of the financial contribution and benefit analyses, it is a subsequent step. Even if an agglomerated valuation analysis of different types of subsidies were permissible, which the United States believes is not the case, that would not relieve a complaining party of its burden to identify each financial contribution separately, and establish the existence of a benefit with regard to each. Moreover, nothing compelled the EC to choose a top-down valuation calculation or, prevented it from carrying that

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[304] *Japan – Agricultural Products (AB)*, para. 129.

[305] EC RPQ2, para. 229.

[306] The United States notes that it does not view the NASA and DoD practice of allowing the use of agency facilities or equipment in fulfillment of a contract as a financial contribution separable from the rest of the contracts that allow such use. However, if the EC seeks to allege this practice as a subsidy, it must provide a separate allegation, with separate evidence.

[307] EC RPQ2, para. 229.

methodology forward to indicate the value associated with each of the alleged financial contributions.

212. In short, the EC's aggregate approach to its allegations regarding provision of facilities, equipment, and employees prevents it from making a *prima facie* case.

213. The EC next attempts to identify the portions of its submissions that, if strung together, would support its various allegations with regard to direct transfers of funds and provisions of goods and services.[308] The United States does not dispute that the EC's assertions with regard to direct transfers of funds at least make separate, albeit incorrect, arguments as to the existence of a financial contribution and an alleged benefit. (The EC, however, bundles the alleged transfers with other alleged financial contributions in its calculation of the *value* of the alleged benefit conferred by such payments, but that is a separate matter.)

214. However, the EC fails in its efforts to construct individualized assessments of its claims regarding the provision of goods and services. With regard to NASA, it contends that it established the existence of financial contributions in its first and second written submissions. However, the only support it provides for this assertion is a reference back to the discussions in the first and second written submissions that lumped together the various types of transactions.[309] While the second written submission contained a short section discussing particular Space Act Agreements, the United States has explained elsewhere that it failed to establish the existence of a financial contribution or benefit. Moreover, these sections provided no independent information on facilities, equipment, or employees listed in contracts or allegedly to have been "not explicitly stated" in documents. The only support it provides for the existence of a discussion of the benefit from these alleged contributions consists of the assertion that the "objectives and policies of NASA" dictate that NASA receives nothing of value in exchange for any services it provides.[310] The United States notes that this assertion is entirely incorrect – the EC misstates the objectives of NASA programs and neglects the voluminous data showing that NASA received a great deal of value in return for the money it paid.[311] Thus, the EC fails in its attempt to string together portions of past submissions to create an individualized assessment of alleged NASA provisions of goods and services through contracts and not explicitly stated in contracts, and does not make a *prima facie* case of an actionable subsidy with regard to such transactions.

215. With regard to DoD, the EC once again refers to the first and second written submissions. To this point, the EC has provided no clarity as to what it is challenging in addition to DoD payments to Boeing for RDT&E services.[312] The EC's presentation in the

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[308] EC RPQ2, paras. 229-233.

[309] EC RPQ2, para. 231, *referencing* EC FWS, section VI.H.2.a; EC SWS, section III.F.1.b.i.2 and III.F.2.a.

[310] EC RPQ, para. 231, *referencing*, EC FWS, section VI.H.2.b; EC SWS, section III.F.2.b.

[311] US OS1, paras. 56-64; US SWS, paras. 64 and 67-70; US OS2, paras. 34-36 and 41, and the U.S. Comment on Question 158, *infra*.

[312] US FWS, paras. 177-182.

first written submission with regard to financial contributions provided to DoD consists entirely of four paragraphs following a factual section that discusses only NASA.[313] This obviously does nothing to establish the existence of a financial contribution or benefit on the part of *DoD*. The second written submission makes a generalized assertion based on budgetary documents that DoD conducts R&D activities. However, the statement does not in any way suggest that this activity involves the provision of goods or services to any entity *outside* of DoD, let alone *to Boeing* in particular.[314] The EC also references five individual contracts that reference use of facilities to conduct research related to the contract.[315] However, this highly limited evidence, reflecting only five of the 42 DoD contracts before the Panel, does not support the EC's assertions as to generalized DoD provision of goods and services under contracts with Boeing. It certainly does not indicate the provision of goods or services "not explicitly stated" in the contract. With regard to the allegation of a benefit, the second written submission provides only assertions that ignore the fact that certain facilities, equipment, and services were included in contracts that were subject to competitive procedures.[316] Thus, the EC fails in its attempt to string together portions of past submissions to create an individualized assessment of alleged DoD provisions of goods and services through contracts and not explicitly stated in contracts, and does not make a *prima facie* case of an actionable subsidy with regard to such transactions.

216. Thus, to date, the EC has made at most a highly limited set of allegations in this area, exclusively regarding "facilities" allegedly provided by DoD in a small number of contracts. The United States notes that, while the EC Panel Request refers to "facilities, equipment, and employees" with regard to NASA, with regard to DoD, it claims only that DoD "allow{ed} the US LCA industry to use research, test and evaluation facilities owned by the US Government, including the Major Range Test Facility Bases."[317] Thus, it appears that the EC's claim with respect to DoD "support" is limited to "facilities," by reason of both the terms of reference and the absence of any evidence with regard to "equipment and employees."

157. The European Communities states "the commercial benchmark for the non-reimbursable Space Act Agreements (through which NASA provides valuable goods and services to Boeing) is the same as the commercial benchmark for other types of NASA and DOD R&D contracts – i.e., a company purchasing R&D services from another entity acting in a commercial manner", (EC Comments on US RPQ1, para. 82, emphasis added) and that Boeing's relationship with colleges and universities "is certainly not a relationship that can be referred to in order to identify commercial benchmarks for purchases of R&D services". (EC Comments on US RPQ1, para. 87) Is there a contradiction between the European Communities argument that: (i) the

[313] EC FWS, paras. 890-897.

[314] EC SWS, para. 498.

[315] EC SWS, para. 500.

[316] EC SWS, paras. 502-509.

[317] Request for the Establishment of a Panel by the European Communities, WT/DS353/2, item 3.b (20 January 2006).

transactions at issue do not constitute the "purchase of a service"; and (ii) the commercial benchmark for determining whether non-reimbursable Space Act Agreements and other types of NASA and DOD R&D contracts is "a company purchasing R&D services"?

217. The EC asserts that there is no inconsistency because it argues for treating the NASA and DoD RDT&E contracts as direct transfers for purposes of the financial contribution analysis, and only argues for use of "purchases of R&D services" as a benchmark. This hair-splitting only emphasizes the weakness of the EC's argument. If a purchase of R&D services is the best market analog the EC can find for the challenged transactions, that is strong evidence that they are, in fact, purchases of services. Moreover, the United States is aware of nothing in the SCM Agreement that would allow a Panel to treat a transaction as having one characterization for purposes of Article 1.1(a)(1) and a different characterization for purposes of Article 1.1(b). In fact, Article 14 appears to presuppose that the form of the financial contribution *dictates* the form of the analysis of the benefit.

158. How does the European Communities respond to paras. 58 and 59 of the US OS2, which read:

"Of these SAAs, nine have reimbursable elements. The United States summarized these transaction in Exhibit US-74, and reported the amounts that Boeing paid to NASA for use of its facilities. The EC has never ... provided any reason to conclude that they represented less than adequate remuneration for the facilities, equipment, or employees provided by NASA. Therefore, it has failed to present a prima facie case that the reimbursable SAAs confer a benefit.

As for the SAAs that are "non-reimbursable" – that is, those in which NASA supplies services in exchange for a fair and reasonable in-kind contribution from the other party – the EC asserts that the facilities, equipment, employees, and data provided by Boeing to NASA are "of no real value to NASA because NASA is not in the business of manufacturing LCA or its parts." The sole support it provides for this assertion is a citation to earlier arguments regarding the NASA contracts (which have no bearing on the exchange under the SAAs) and a single reference to one of the SAAs submitted by the United States. Otherwise, the EC has nowhere disputed the demonstration in the U.S. first written submission of why NASA's non-reimbursable SAAs with Boeing provide just what NASA's rules require – that "the respective contributions of each Agreement Partner must be fair and reasonable compared to any NASA resources to be committed, NASA program risks, and corresponding benefits to NASA." Nor has it disputed the descriptions in Exhibit US-74, taken from the agreements themselves, which detail the facilities, equipment, employees, data, and other resources that Boeing put forward in exchange for NASA's provision of facilities, equipment, or employees under SAAs. In short, the EC has provided no support for its contention that the provision of facilities, equipment, or employees under SAAs confers a benefit." (footnotes omitted)

218. In its response to this question, the EC concedes that reimbursable Space Act Agreements do not confer a benefit, although it does not adjust its subsidy valuation calculation accordingly. However, it maintains its argument that nonreimbursable Space Act Agreements with Boeing conferred a benefit, asserting that Boeing's in-kind contribution has "little to no value."[318] The EC is wrong. NASA's value comes from the knowledge it learns in performing activities under Space Act Agreements, which it can then use to support its missions of conducting research related to governmental concerns, such as safety and environmental standards, as well as building aeronautics knowledge by producing and disseminating knowledge. For example, data gathered under a nonreimbursable Space Act Agreement can form the basis for an article on aerodynamic properties, or any of the large number of other topics that NASA employees research. It can help NASA to understand the properties of aircraft so it can focus its work on environmental and noise issues, and improve its internal systems analysis to forecast better which research areas will best advance the public good. And finally, it can help NASA to calibrate its wind tunnels so it knows they are functioning properly when used for other purposes.

219. The EC disputes this value to NASA on the basis that information developed under Space Act Agreements is of value only because NASA's "mission" is to "'improve{} . . . the usefulness, performance, speed, safety, and efficiency of aeronautical . . . vehicles' and preserv{e} . . . the United States preeminent position in aeronautics."[319] It then asserts that no commercial entity would find value in these objectives.[320] The United States fails to see the relevance of the EC's point regarding a commercial entity. Governments often find themselves in the position of having use for goods and services relevant to a government function that have no private sector equivalent. For example, governments might purchase research or statistics on highway safety to evaluate new safety regulations, or might seek studies on how to operate their armies more efficiently. That private entities would have no commercial use for such services does not make them valueless to the government.

220. The same holds true for NASA's objectives in conducting research. The objective of improving the usefulness, performance, safety, and efficiency of a vehicle used in the public transport network is of obvious utility to any government. But, more to the point, the EC completely disregards NASA's objectives of expanding human knowledge and "utilization of aeronautical and space activities for peaceful and scientific purposes."[321] It also disregards NASA's statutory mandate to "provide for the widest practicable and appropriate dissemination of information concerning its activities and the results thereof."[322] NASA's aeronautics programs achieve these goals by conducting foundational research for itself and for dissemination to enterprises and researchers throughout the world. The generation of this knowledge base by the United States, just like any general knowledge infrastructure,

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[318] EC RPQ2, para. 237.

[319] EC RPQ2, para. 239 (ellipses and bracketing in original).

[320] EC RPQ2, para. 239.

[321] Space Act, § 102(d)(1) and (4). US SWS, para. 64, US)S1, paras. 56-64; US OS2, and paras 34-36 and 41.

[322] Space Act, § 203(a)(3); *e.g.*, US OS2, paras. 35-36; Exhibit US-1140 (revised) and US-1253 (revised).

advances the general "competitiveness" of the United States and the "preeminence" also sought by the statute. However, it is up to industry to build upon that base of knowledge to advance its own interests and increase its own competitiveness. Thus, the statutory objectives cited by the EC do not somehow signify that NASA's work has "little to no value" or "manufactured value" to the U.S. government because it has utility to U.S. industry, as the EC asserts.

221. The EC also attempts to minimize the value of Boeing's contribution under Space Act Agreements by cross-referencing an eight-page section of its second written submission.[323] The arguments in those sections do not support the EC's approach.

222. The EC first argues that, under the Space Act Agreements at issue in this dispute, NASA engineers work collaboratively with Boeing.[324] In fact, the definition of a nonreimbursable Space Act Agreement is one that "involve{s} NASA and one or more partners in a mutually beneficial activity that furthers NASA's mission, where each party bears the cost of its participation and there is no exchange of funds between the parties."[325] Thus, the EC's observations that NASA provides valuable services under Space Act Agreements and that "deliverables . . . will directly benefit Boeing"[326] miss the point. The value to Boeing is precisely the reason that the company is willing to compensate NASA by providing company resources to the collaborative activity under the agreement. In fact, it is hard to imagine why Boeing would participate in these efforts if it received nothing of value in return.

223. The EC SWS also argues that the Boeing contribution under some SAAs had no value to NASA because it was applied toward research programs that the EC considers subsidies to Boeing.[327] The United States has shown that these programs were not subsidies, and resulted in the generation of a vast body of scientific knowledge available to and used by a variety of industries and researchers across the world.[328]

224. The EC highlights SAA2-400262, under which NASA agreed to maintain the confidentiality of data acquired during the project.[329] The EC neglects to mention that NASA entered into this Space Act Agreement not to generate data, but to gain Boeing's assistance in checking the accuracy of a wind tunnel that had been taken off-line for modernization. NASA proposed to check its accuracy by re-running a series of tests conducted for Boeing before the shut-down, using a model built by Boeing for the earlier exercise.[330] Since the tested model represented a configuration developed by Boeing with existing flight data, the

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[323] EC RPQ2, para. 237, note 229, and para. 240.

[324] EC SWS, para. 390.

[325] NASA Advisory Implementing Instruction 1050-1, p. 11 (Dec. 15, 2006) (Exhibit US-110).

[326] EC SWS, paras. 390 and 395.

[327] EC SWS, para. 393.

[328] US RPQ1, paras 73-78.

[329] EC SWS, para. 394.

[330] SAA2-400262, pp. 1-2 (Exhibit EC-616).

data was proprietary. However, for this agreement, the data per se were not the objective of the project. It was Boeing's ability to compare wind tunnel data before and after the tunnel modification to flight data in order to check the success of wind tunnel repairs that NASA received in exchange of its contribution of wind tunnel time.

225. The EC also highlights aspects of a series of Space Act Agreements that conferred something of value to Boeing.[331] Again, this is only to be expected in an agreement under which Boeing makes an in-kind contribution without payment from NASA. Nor does the fact that Boeing found value in the results of the project mean that there was none for NASA. SAA214 explained that it was part of a joint effort by the FAA (the U.S. air safety regulator) and NASA "aimed at providing a technological basis for ensuring the continued safe operation of the U.S. commercial airplane fleet."[332] (The U.S. air fleet contains a large number of Airbus aircraft, so there is clearly no objective of helping Boeing alone.) The agreement specified that the work with Boeing was "synergistically leveraging ongoing activities to develop fatigue crack and corrosion detection, and quantification technologies and environmentally assisted fatigue crack growth prediction methodology."[333] SAA228 similarly aimed at "technology that may be used by the U.S. airline operators and aircraft manufacturers to economically extend the life of high-time airplanes in the commercial jet transport fleet."[334] Again, as that fleet contains many Airbus aircraft, the effort was relevant far beyond Boeing. SAA2-B0001.3 aimed to use Boeing's expertise to help NASA develop multidisciplinary computational tools usable in a variety of aeronautics and space applications.[335]

226. In sum, the EC's arguments do nothing to detract from the evidence that Boeing's contributions under nonreimbursable Space Acts had value to NASA in the conduct of its operations. Therefore, they are not, as the EC asserts, provisions of goods and services in exchange for nothing in return.

2. Value of payments under NASA R&D contracts and agreements and of goods and services provided by NASA

163. The European Communities explains, in its First Written Submission, that it has estimated the amounts of the financial contributions to Boeing's LCA Division under most of the NASA R&D programmes at issue by multiplying (a) "the amount of non-engine LCA related funding from [the programme at issue] to the US civil aircraft

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[331] EC SWS, para. 395.

[332] SAA214, p. 2 (Exhibit US-500). The agreement references as the genesis of the research a 1988 Aloha Airlines crash in which "a large section of the upper fuselage ripped open and separated from the aircraft. The failure resulted from multiple-site damage (MSD) and corrosion. MSD is the link-up of small fatigue cracks extending from adjacent rivet holes in a fuselage longitudinal lap joint." SAA214, p. 2 (Exhibit US-500). Such disasters – and their prevention – is obviously a public safety concern, and any knowledge to prevent them of great value to the government.

[333] SAA214, p. 5 (Exhibit US-500).

[334] SAA228, p. p. 3 (Exhibit US-501).

[335] SAA2-B0001.3 (Exhibit US-512).

industry, including institutional support" by (b) "a proportion equal to Boeing's non-engine LCA and parts sales as a percentage of total US civil aircraft industry non-engine aircraft and parts sales each year." (EC FWS, footnotes 828, 882, 925, 959, 987, 1021, 1041 and 1072) In this connection, the Panel also notes the statements in Exhibit EC-25 that funding under programmes challenged by the European Communities "related to the entire US civil aircraft industry" and that "[a]s such, the percent allocated to the Boeing/MD LCA division is estimated to be Boeing/MD LCA and parts sales (non-engine) in a given year as a percent of total US civil aircraft and parts sales (non-engine) in that year". (Exhibit EC-25, p.9, footnote 3, p.10, footnote 3, p. 11, footnote 3, p.12, footnote 3, p.15, footnote 3, p. 16, footnote 3, p. 17, footnote 3, p. 18 footnote 2)

227. The EC sets out a brief overview of its response to the various parts of this question. The United States responds to the individual elements below.

(a) What is the definition of the "US civil aircraft industry" in Exhibit EC-25?

228. The United States does not object to defining the U.S. civil aircraft industry as consisting of the producers of large civil aircraft, smaller civil aircraft, civil rotorcraft, and components of those aircraft. It is not clear whether the statistics on which the EC relies accurately measure the value of products produced by this industry.[336] The United States also emphasizes that, for reasons discussed in its comments on Question 164, the EC's use of that value as an allocation base improperly inflates the magnitude of the alleged subsidy benefits allocated to producers of civil aircraft.

*(b) With respect to the notion of "non-engine LCA related funding", please explain what the European Communities means by, and what is the factual basis of, the statements in Exhibit EC-25 that the R&D programmes at issue, or particular elements of these programmes, "**related to** the entire US civil aircraft industry".*

229. In response to this question, the EC asserts that it tried to use "allocation methodologies" to remove engine-related research from the total value of NASA's budget that it allocated to Boeing. The United States has explained elsewhere that its efforts failed, and that its subtractions failed to account for major amounts of engine, air traffic, and other research spending unrelated to large civil aircraft.[337]

230. The EC also asserts that based on NASA's "budgets themselves and other available facts, it was clear that the non-engine civil aircraft portions of the budgets supported US development of civil aircraft airframes and components."[338] NASA's aeronautics research does provide a foundation which on all aircraft producers, in all countries, build when they do

[336] US FWS, paras. 206-207.

[337] US RPQ2, paras. 171-172.

[338] EC RPQ2, para. 248.

their product-specific research and development.[339] Other disciplines also benefit from NASA's aeronautics work.[340] Thus, the EC's observation that NASA's work is "related" to civil aircraft does not mean – as the EC seems to think – that it is *exclusively* devoted to the U.S. civil aircraft industry, and should be treated as a financial contribution (or benefit) to that industry.

> *(c) Please explain why the fact that the programmes at issue, or particular elements thereof, "related to" the entire US civil aircraft industry logically leads to the conclusion that the share of Boeing's LCA Division of this non-engine LCA related funding in a given year is identical to Boeing/MD's share of total US civil aircraft industry non-engine aircraft and parts sales in that year. Is the European Communities arguing that since the purpose of the programmes at issue was to benefit "the entire US civil aircraft industry" it follows that "the entire US civil aircraft industry" was the actual recipient of the funding provided under these programmes, and that is therefore reasonable to estimate Boeing/MD's share of this funding on the basis of Boeing/MD's share of the US civil aircraft industry's sales?*

231. In its response to this question, the EC simply repeats arguments it makes elsewhere. It notes that its approach to subsidy valuation treats the entire U.S. civil aircraft industry as the sole recipient not just of NASA funding, but also of any goods or services (that is, facilities, equipment, or employees) that NASA supplies. The only support the EC asserts for this approach is its assertion that the "purpose" of the eight challenged programs "was to enhance the ability of the US civil aircaft industry . . . to build better aircraft."[341] As the United States has explained, the "purpose" of a program has no bearing on the financial contribution or benefit analyses. Moreover, as the United States explains in its comment on Question 158, NASA's objective under these programs was to perform foundational research for government use and to build the base of aeronautics knowledge by making that information available to a wide variety of industries around the world.[342] The United States also explains in its response to Question 159 that NASA's research is, in fact, useful to a wide variety of enterprises and universities,[343] so that there is no basis for treating funding as a benefit to the civil aircraft industry alone.

> *(d) If this understanding of the argument of the European Communities is correct, please explain why, assuming that the purpose of the programmes was to fund R&D that would benefit "the entire US civil aircraft industry", this necessarily means that the actual recipients of funding under the programmes consisted only of firms in the US civil aircraft industry.*

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[339] The U.S. Comment on Question 163(d) provides further information on this point.

[340] US RPQ2, paras. 148, 173.

[341] EC RPQ2, para. 250.

[342] US OS1, paras. 56-64; US SWS, para. 64; US OS2, paras. 34-36 and 41; U.S. comment on Question 163(g), *infra*.

[343] US RPQ2, para. 148.

232. In its response to this question the EC recognizes that funding under the eight challenged programs went to entities outside the U.S. civil aircraft industry, thereby conceding that there is no basis to assume that it went proportionately to the "U.S. civil aircraft industry." However, it attempts to defend its allocation by arguing that NASA made these expenditures to entities outside the U.S. civil aircraft industry to buy equipment and R&D and then "gave Boeing access to purchased equipment" and "made the results of R&D available to Boeing."[344]

233. The United States notes that this is the first time that the EC has explicitly asserted that it considered funding to entities outside the civil aircraft and parts industry to confer a benefit exclusively on that industry. Prior to this time, it allocated to Boeing funds actually paid to other entities, but this appeared to be the result of a badly conceived calculation, rather than a specific claim for which the EC has provided no evidence.[345]

234. The claim, as the EC now appears to make it, is that NASA provided a financial contribution to entities outside the civil aircraft and parts industry – universities, producers of military aircraft or components, producers outside the aviation sector, etc. – that conferred a benefit on the civil aircraft industry. To begin with, this claim is outside the Panel's terms of reference. The EC states that the phrase "participate in research programs" in item 2 of its Panel Request "encompasses all of the different types of financial contributions and benefits that it challenges," and that "{t}he particular financial contributions and benefits resulting from the NASA and DoD programs are specified in the remainder of item 2 and 3, respectively, of the Panel Request."[346] The transactions listed are:

(a) "making payments to the US LCA industry under those programmes;"

(b) "foregoing or waiving of valuable patent rights;"

(c) "the granting of limited exclusive rights data ("LERD") or otherwise exclusive or early access to data;"

(d) "providing the services of NASA employees, facilities, and equipment to support the R&D programmes listed above and paying salaries, personnel costs, and other institutional support, thereby providing valuable services to the US LCA industry on terms more favourable than available on the market or not at arm's length";

(e) "providing NASA Independent Research & Development, and Bid & Proposal Reimbursements";

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[344] EC RPQ2, para. 252.

[345] The United States addressed this issue in its first written submission as a matter of erroneous allocation. The EC never responded, creating the impression that it was a matter of valuation, rather than a separate allegation of subsidization.

[346] EC RPQ2, para. 195.

(f) "allowing the US LCA industry to use the research, test and evaluation facilities owned by the US Government, including NASA wind tunnels, in particular the Langley Research Center";

(g) "entering into procurement contracts with the US LCA industry for more than adequate remuneration";

(h) "granting the US LCA industry exclusive or early access to data, trade secrets, and other knowledge resulting from government funded research"; and

(i) "allowing the US LCA industry to exploit the results of government funded research, including, but not limited to, the foregoing or waiving of valuable patent rights or rights in data as such".[347]

235. Nowhere in this list does the EC mention the payments to enterprises *outside* the U.S. large civil aircraft industry that it now states as part of its challenge. The only contracts it mentions are those "with the US LCA industry." Moreover, it clearly frames its claim with regard to "provision" as being with regard to "the services of *NASA* employees, facilities, and equipment" and "allowing the US LCA industry to use the research, test and evaluation facilities owned by the US Government." Thus, the EC claims do not extend to NASA payments to or contracts with enterprises outside the "US LCA industry" or provisions by NASA of services related to non-NASA facilities, equipment, or employees. As framed by the EC, the claim made in its panel request does not cover the purchase by NASA of facilities or equipment – merely any use NASA allows Boeing to make of such items once they are purchased. Thus, in accordance with DSU Articles 6.2 and 7.1, any payments to entities outside of the U.S. large civil aircraft industry, or the alleged transfer to Boeing of goods or services supplied by those entities, are outside of the Panel's terms of reference.

236. The United States notes further that the EC has provided no support for its allocation of any benefit arising from these contracts exclusively to the U.S. civil aircraft and parts industry. The implication of such an allocation is that the work was irrelevant to the entity performing the research, or to any other entity in the United States or elsewhere in the world. The EC has provided absolutely no evidence to justify such a conclusion.

237. Moreover, the EC has provided absolutely no evidence that any of NASA's payments to entities unrelated to Boeing had any relation to Boeing.[348] The only support it even attempts to put forward is the assertion that the "purpose" of all NASA research programs "was to develop technologies specifically for use by Boeing and other entities in the U.S. civil aircraft industry, regardless of the precise recipient of NASA funding."[349] The United States has demonstrated that the purpose of a program has no bearing on the analysis of

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[347] EC Panel Request, item 2.

[348] In fact, the EC *concedes* that it has no evidence for this assertion. EC RPQ2, para. 252, note 263. It attempts to excuse this conspicuous absence by asserting that the United States is at fault for the absence of evidence for transfers that have not occurred. Its assertions are entirely baseless. See U.S. Comments on Questions 163(f) and 163(h).

[349] EC RPQ2, para. 253.

financial contribution or benefit. As a factual matter, the EC provides no citation at all for its broad statement that NASA sought only to help Boeing. In fact, the evidence shows the opposite. NASA's work has broad general usefulness to U.S. government safety, environmental, and air traffic management objectives. NASA's technical reports server contains thousands of scientific reports on aeronautics generated by NASA's scientists and its contractors.[350] They have widespread utility, far beyond Boeing and far beyond the United States. For example, just one research project, the Integrated Wing Design Project, under one program (AST), produced research that resulted in 67 publications by NASA employees, which were cited in 369 additional publications, including 40 in Europe.[351] As part of its effort to expand the aeronautics knowledge base, NASA also requires contractors to publish reports of their results. The agency's contracts with Boeing alone under the eight challenged programs produced 291 published scientific reports that were cited 1036 times, including 250 citations in Europe.[352] If the purpose of these programs was "to develop technologies for the U.S. civil aircraft industry," NASA would scarcely have made the results public, or have ensured that they contained the volume of information that made them usable by a broad range of scientists throughout the world.

238. The EC again attempts to use the HSR program as an example of how NASA programs supposedly seek to help Boeing. However, this was only one program, and an atypical one, in that it was conducted in tandem with industry's efforts toward developing a specific aircraft, the "High Speed Civil Transport" or "HSCT." The EC attempts to demonstrate "the entire purpose of the HSR Program" by quoting a budget document indicating that its "goals" were to "'develop{} the technologies that industry needs to design and build an environmentally compatible and economically competitive HSCT for the 21st century'."[353] However, the evidence shows otherwise. The budgetary document goes on to explain that, as part of the "environmentally compatible" element, NASA "defined HSCT environmental compatibility requirements in the critical areas of atmospheric effects, community noise and sonic boom."[354] The document also explains that NASA shared data generated by the HSR Program with "the Environmental Protection Agency, Federal Aviation Administration, National Oceanic and Atmospheric Administration, National Science Foundation and Department of Defense." In addition, the FAA/NASA Coordinating Committee used the results to "provide{} the framework for developing and defining HSCT certification requirements."[355] In other words, the HSR Program helped the U.S. government to determine the regulatory criteria for a supersonic transport, should one ever be produced. This was a *government* purpose, not a Boeing purpose, and one that industry's plans to develop a supersonic transport made critical for the government. Moreover, the EC's single quotation disregards that NASA research programs all aim for "the expansion of human

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[350] US SWS para. 64.

[351] US SWS, para. 61; Exhibit US-1140(revised).

[352] *Reports and articles published by Boeing/McDonnell personnel pursuant to aeronautics research contracts*, (Exhibit US-1253); US OS2, para. 35.

[353] EC RPQ2, para. 253.

[354] NASA HSR Budget Estimates, FY 2000, p. SAT 4.1-29 (Exhibit EC-343).

[355] NASA HSR Budget Estimates, FY 2000, p. SAT 4.1-30 (Exhibit EC-343).

knowledge."[356] To this end, the HSR Program resulted in the publication of several reports that were cited widely in subsequent research, including in Europe[357] – scarcely the hallmark of a program whose "entire purpose" was to help Boeing.

239. In sum, even the HSR Program does not support the EC's assertion that the "purpose" of NASA's aeronautics programs was to advance the U.S. civil aircraft industry. As the United States has explained, NASA's aeronautics R&D programs aim at building foundational knowledge for the entire scientific community. This has the effect of enabling technological development in a variety of industries, all around the world. As with any knowledge infrastructure, there is every expectation that it increases the general competitiveness of the United States. But none of this supports the EC assertion that the eight challenged programs conferred a benefit exclusively on the U.S. civil aircraft industry.

(e) How does the European Communities address the argument of the United States (e.g., US SWS, paras. 72-3; US Comments on EC RPQ1, para.4; US OS2, para. 60) that there is no basis to assume that NASA apportions funding to Boeing's large civil aircraft division based on Boeing's share of the US civil aircraft industry?

240. In its response to this question, the EC states once again that it is challenging as a subsidy to Boeing: alleged direct transfers to Boeing; alleged provision of NASA facilities, equipment, and employees to Boeing,[358] and funding to entities outside the civil aircraft industry. In defense of these arguments, the EC asserts that there is insufficient evidence for a "bottom-up" analysis and that the "purpose" of the eight challenged programs was "to support the US civil aircraft industry."[359] The United States demonstrated in its response to Question 171 that it has provided more than enough evidence for a "bottom up" analysis consistent with the requirements of the SCM Agreement and DSU. In addition, the United States has shown repeatedly that the EC's views as to the "purpose" of the programs is one-sided, legally irrelevant to the financial contribution and benefit analyses, and disregards the evidence that NASA undertook these programs to develop knowledge of use to the U.S.

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[356] Space Act, § 102(d)(1) (Exhibit EC-268).

[357] Contracts NAS 1-9360, 1-20013, 1-20220, and 1-9345 were funded through the HSR Program, and resulted in 60 reports by Boeing or McDonnell Douglas, which were cited 230 times in other scientific publications, including in Europe. Exhibits US-1202, US-1253, and US-1305.

[358] As the United States noted in its comments on Question 156, the EC's allegation with regard to provision of facilities, equipment, and employees actually encompasses three alleged financial contributions:

(1) Facilities, equipment, and employees provided under Space Act Agreements (relevant only to NASA);

(2) Facilities, equipment, and employees explicitly stated in procurement contracts (and presumably cooperative agreements); and

(3) Facilities, equipment, and employees "not explicitly stated" in an agreement or contract.

[359] EC RPQ2, paras. 255-256.

government and build the aeronautics knowledge base by publishing the results and making them available to a wide range of industries all over the world.[360]

241. The United States also showed in response to Question 163(d) that the EC's claims with regard to funding of entities outside the large civil aircraft industry are outside this Panel's terms of reference and unsupported by any evidence. In addition, the EC has not shown that funding constitutes a financial contribution to Boeing and has ignored the obligation to establish pass-through with regard to benefits arising from financial contributions to entities outside the allegedly subsidized industry. Other than a blanket (and incorrect) assertion that the objective of the programs in question was to help Boeing, the EC does not even attempt to explain how payments to entities other than Boeing conferred a benefit on Boeing. Nor does it explain why the Panel should treat the research in question as having no value to the non-civil-aircraft entities that performed it, which is the logical corollary of its allocation of all of the value of NASA out-of-house contracts and NASA in-house facilities, equipment, and employees to enterprises in the civil aircraft industry.

242. Finally, the United States notes that the EC's treatment of NASA payments to non-civil-aircraft entities under contracts, cooperative agreements, intra-governmental agreements, and grants simply assumes a pass-through of any benefit from the actual recipient to Boeing. In so doing, it fails to satisfy the requirements of the SCM Agreement with regard to establishing the existence of a benefit.[361]

> *(f) How does the European Communities reconcile the allocation to Boeing/MD of funding proportionate to Boeing/MD's share of the US civil aircraft industry with the lists of participants in these programmes at para. 193 of the US FWS?*

243. The EC does not actually answer this question. It first repeats its assertion that NASA's budget represents a provision of goods and services "to the US civil aircraft industry" because its "objectives" were to improve the competitiveness of U.S. aircraft producers. The United States has shown that this is not the case, and that allegations as to the purpose of a program are not relevant to the financial contribution and benefit analyses.[362] It has also demonstrated that the group of entities that accesses and uses NASA research goes far beyond the United States, and far beyond the production of civil aircraft.[363]

244. With regard to the list of participants in NASA programs, the EC does not attempt to reconcile its allocations with the broad-based participation in NASA programs evidenced by the lists of participants. Instead, it asserts that they are entitled to "no weight" because NASA has not provided citations to supporting documents.[364] The United States notes that

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[360] US SWS, para. 64; US OS1, paras. 56-64; US OS2, paras 34-36 and 41.

[361] US FWS, para. 229.

[362] The U.S. comment on Question 158 addresses this issue in more detail; *See also* US SWS, para. 64, US OS1, paras. 56-64; US OS2, paras. 34-36 and 41.

[363] US RPQ2, paras. 146-149; Exhibits US-1140 (revised), US-1253, US-1270.

[364] EC RPQ2, para. 258.

the EC provides no reason to disbelieve NASA's information as to which entities had representatives on its steering committees or personnel in attendance at NASA workshops and presentations. There is none. The lists, as is the nature of such lists, look very much like the lists presented in the US FWS, albeit in a somewhat different format and, in some cases, with additional information as to who attended and, therefore, would add little to the Panel's analysis.[365] In any event, materials currently before the Panel make abundantly clear that individuals from a large variety of industries and institutions, including academic institutions, all over the world are aware of and use the results of NASA research.[366]

245. The EC also asserts that the United States has offered no basis to conclude that program participants received funding under the NASA programs.[367] In the first place, the United States has presented evidence that many of these participants did receive funding.[368] But, more importantly, the EC misunderstands the point made by these lists, and by the other evidence of broad-based interest in NASA's research. They show that the NASA programs challenged by the EC were *not* exclusively relevant to the U.S. civil aircraft industry or specifically geared toward their product development, but were of interest to the many universities and enterprises outside of the civil aircraft sector and in other countries that attended conferences to learn from NASA employees and read their reports. Thus, there is no basis for the EC to treat NASA's aeronautics research as exclusively relevant to the U.S. civil aircraft industry, or to allocate the cost of the research to that industry. Whether or not these program participants received funding is irrelevant to the point the United States sought to make.

> *(g) Do the NASA Budget Estimates relied upon by the European Communities as the basis for its estimates of the amount of the financial contributions to Boeing's LCA Division (Exhibits EC-321, EC-328, EC-343, EC-357, EC-373, EC-382, EC-384, EC-396 and EC-398) contain information that supports this allocation of funding to Boeing's LCA in proportion to Boeing/MD's share of total US civil aircraft industry non-engine aircraft and parts sales?*

246. In its response to this question, the EC once again asserts that "the goal of each of the programmes at issue was to provide support to and increase the competitiveness of the US civil aircraft industry."[369] This time, it cites a table of statements from NASA budget estimates first set out in the EC second written submission. However, this table suffers from the same flaws as the EC's other efforts to establish subsidization based on excerpted quotations – it ignores most of what the programs seek to accomplish, and actually do accomplish.

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[365] If the Panel considers that copies of the lists used to generate the lists referenced in para. 193 of the US FWS would be useful in its deliberations, the United States would be willing to provide copies.

[366] US FWS, para. 209; US SWS, para. 62; Exhibits US-86, US-87, US-1187, US-1188, US-1189, and US-1190.

[367] EC RPQ2, para. 258.

[368] *E.g.*, Exhibit US-1255. The EC also submitted the HSR Program Plan, which discusses other NASA contractors on pages 37-38 (Exhibit EC-1208).

[369] EC RPQ2, para. 259.

247. The United States has already demonstrated that the true purpose of NASA aeronautics R&D programs is to conduct foundational research for the use of the U.S. government and to build a general knowledge base through public dissemination of the results. More specifically, the public purposes include ensuring a safe and more efficient national aerospace system and protection of the environment.[370] Precisely because these programs have a broad, government-driven purpose, they take into account the technologies relevant to a wide array of U.S. government agencies and private aerospace (and non-aerospace) entities, and the results are widely distributed to throughout the U.S. government, to industry and academia.[371]

248. The EC's Figure 2 contains a selection of quotes intended to emphasize the relationship between NASA R&D programs and their anticipated connection to Boeing LCA, and suggest that the primary purpose of the programs is to assist Boeing in developing particular LCA models.[372] As the following chart demonstrates, the EC has selectively quoted from the evidence it cites, as well as the broader array of evidence on the record, in such a manner as to ignore – as it must to sustain its arguments regarding financial contribution, benefit and specificity – the broader goals, anticipated outcomes and benefits of the challenged NASA programs. The full view of the record demonstrates the breadth and government purpose of the NASA programs that the EC has challenged.

[370] US FWS, paras. 186-194, 221; US SWS, para. 64.

[371] US FWS, paras. 193, 209; US SWS, para. 64 and associated footnotes.

[372] EC SWS, para 318, Figure 2 - NASA Aeronautics R&D Programmes Helped Boeing Build LCA.

NASA Program	**Statements selected by EC to show NASA Goal to "Help Boeing LCA"[373]**	**Statements by NASA Illustrating Broader Program Goals**
ACT	• "The goal of the Advanced Composites Technology (ACT) program is *to increase the competitiveness of the U.S. aeronautics industry* by putting the *commercial transport manufacturers* in a position to expand the application of composites beyond the secondary structures in use today to wings and fuselages by the end of {the 1990s}."[374] • "U.S. government research funding, such as the NASA ACT program, is *crucial to helping Boeing* and other U.S. aircraft manufacturers develop advanced technology and remain competitive in world markets."[375]	• "As shown in Figure 3, the ATCAS program also developed teaming relationships *with numerous industries and universities throughout the U.S.*"[376] • "The NASA ACT program was set up in 1989 to improve the efficiency of composite structures and to reduce their manufacturing costs. . . {t}he program will help *accomplish one of NASA's new technology goals for aeronautics – to reduce the costs of air travel* by 25 percent within 10 years, and by 50 percent within 20 years."[377]
HSR	• HSR aimed to "develop{} the technologies that *industry* needs … to establish the viability of an economical and environmentally sound High Speed Civil Transport (HSCT), a vehicle that—if built by *U.S. industry*—could provide U.S. leadership in the long-range commercial air travel markets of	• "The high speed research program is *addressing . . . barrier environmental issues* {such as concerns about atmospheric impact, airport noise, and sonic boom} and *developing the basis for evaluating technology advances that can provide the necessary environmental compatibility*."[380]

[373] EC SWS, para 319.

[374] NASA ACT Budget Estimates, FY 1997, p. SAT 4-21 (Exhibit EC-321) (emphases added).

[375] L. Ilcewicz, et al., *Advanced Technology Composite Fuselage*, printed in *Sixth NASA/DOD ACT Conference*, p. 22 (Exhibit EC-279) (emphasis added).

[376] L. Ilcewicz, et al., *Advanced Technology Composite Fuselage*, 6th NASA/DOD ACT Conference, 23-24 (Exhibit EC-279) (emphasis added) (listing the ATCAS team members as: Lockheed, Northrup/Grumman, Hercules, ICI Fiberlite, Intec, Fiber Innovations, Sikorsky, Dow-UT, Cherry Textron, Zetec, Sundstrand, EBCO, Alliant Techsystems, E.I.DuPont de Nemours, BP Chemicals, American Airlines, Northwest Airlines, United Airlines, Draper Laboratories, Materials Science Corp., University of Washington, Oregon State University, Drexel University, University of Iowa, MIT, University of California-Santa Barbara, Stanford University, University of Utah, University of Wyoming, and Brigham Young University).

[377] NASA Facts Online, The Advanced Stitching Machine: Making Composite Wing Structures of the Future, p. 2 (Exhibit EC-336) (emphasis added).

NASA Program	Statements selected by EC to show NASA Goal to "Help Boeing LCA"[373]	Statements by NASA Illustrating Broader Program Goals
	the next century ...."[378] • "The projected High-Speed Civil Transport (HSCT) market is substantial, and successful development and production of an HSCT by foreign competitors would significantly reduce the *U.S. aerospace industry* world market share of civil transport aircraft. Technology development is essential. The NASA HSR program is being conducted in two phases with the ultimate objective of helping to assure *U.S. industry's* continued preeminence in aeronautics well into the next century by developing technology that will enable an environmentally compatible and economically viable HSCT aircraft."[379]	• "The possibility that HSCT engine emissions might cause *depletion of stratospheric ozone has been specifically addressed* in Phase I {of HSR} through *development of improved atmospheric models and their application in assessing the effects of a large fleet of aircraft under realistic operating scenarios*. These activities involved direct participation of internationally renowned scientists and regulatory officials to *provide as strong a technical basis as possible for establishing suitable standards*."[381] • "To *understand better the potential environment effects* {of high speed flight}, we are working in close coordination with NASA's Office of Mission to Planet Earth, the international scientific community, the FAA, the Environmental Protection Agency, the United Nations Environment Program, and the International Civil Aviation Organization. These studies will eventually *lead to environmental certification requirements for future high speed transports*."[382] • "{A}lthough studies indicate a {HSCT} will be economically viable without flying supersonically over land, we are working on ways to soften the sonic

[380] NASA HSR Budget Estimates, FY 1991, p. RD 12-35; FY 1992, p.RD 12-22; and FY 1993, p. RD 12-23, (Exhibit EC-343) (emphasis added).

[378] NASA HSR Budget Estimates, FY 1999, p. SAT 4.1-29 to 4.1-30 (Exhibit EC-343) (emphases added).

[379] NASA High Speed Research Program Plan, April 1998, p. 1 ("NASA HSR Program Plan") (Exhibit EC-1208) (emphases added).

[381] NASA High Speed Research Program Plan, April 1998, p. 4 ("NASA HSR Program Plan") (Exhibit EC-1208) (emphasis added).

[382] Prepared Statement of Daniel S. Goldin (Exhibit EC-1365) (emphasis added).

NASA Program	Statements selected by EC to show NASA Goal to "Help Boeing LCA"[373]	Statements by NASA Illustrating Broader Program Goals
		boom to *ensure minimal or no harmful effects on human and animal life from its operation*."[383]

[383] Prepared Statement of Daniel S. Goldin (Exhibit EC-1365) (emphasis added).

NASA Program	**Statements selected by EC to show NASA Goal to "Help Boeing LCA"[373]**	**Statements by NASA Illustrating Broader Program Goals**
AST	• "NASA's objective in the Advanced Subsonic Technology (AST) program is to *provide U.S. industry with a competitive edge to recapture market share*, maintain a strongly positive balance of trade, and increase U.S. jobs."[384] • AST's Integrated Wing Design ("IWD") element aimed to "{c}onduct an assessment of the technology needs of the *U.S. commercial transport-aircraft industry* that would allow that industry to design and manufacture their products at significantly lower cost and less time than today."[385]	• "The objective of the advanced subsonic technology program is to accelerate the development of nondestructive technology *to ensure the safe operation of aging transport aircraft in the National Airspace System* and *to provide the technology base for confident* application *and certification* of Fly-by-light/Power-by-wire control systems to civil transport aircraft."[386]
HPCC	• "The goal of the CAS project is to accelerate the development, availability and use of high-performance computing technology by *the U.S. aerospace industry* …."[387]	• The NASA HPCC is a critical component of {a} government-wide effort; it is dedicated to working with American businesses and universities to increase the speed of change in research areas *that support NASA's aeronautics, Earth, and space missions*…. NASA's HPCC Program will: Further gains in U.S. productivity and industrial competitiveness – especially in the aeronautics industry; Extend U.S. technology *leadership in high performance computing and communications*; Provide *wide dissemination and application of HPCC technologies; and Facilitate the use and technologies of National Information*

[384] Harris Statement, p. 5 (Exhibit EC-359) (emphasis added).

[385] Task Assignment No. 15, NASA Contract NAS1-20267, Integrated Wing Design, 26 July 1995 (Exhibit EC-362) (emphasis added); Task Assignment No. 9, NASA Contract NAS1-20268, Integrated Wing Design, 26 July 1995 (Exhibit EC-363) (emphasis added). The United States notes that these statements come from particular R&D tasks assigned to Boeing and McDonnell Douglas under the AST program.

[386] NASA AST Budget Estimates, FY 1992, p. RD 12-25 (Exhibit EC-357) (emphasis added).

[387] HPCC Fact Sheet (Exhibit EC-372) (emphasis added).

NASA Program	Statements selected by EC to show NASA Goal to "Help Boeing LCA"[373]	Statements by NASA Illustrating Broader Program Goals
		Infrastructure (NII) – especially within the American K-12 educational systems."[388]
		• "The {HPCC} program is focused on accelerating high performance computing technologies *to meet our national engineering and science needs*, and accelerating the implementation of the National Information Infrastructure."[389]

[388] HPCC Fact Sheet (exhibit EC-372) (emphasis added).

[389] Statement of Wesley L. Harris, NASA Associate Administrator for Aeronautics, House Subcommittee on Technology, Environment, and Aviation. February 10, 1994, p. 7 (Exhibit EC-359) (emphasis added); *See also* NASA HPCC Budget Estimates, FY 1997, p. SAT 4-16.

NASA Program	**Statements selected by EC to show NASA Goal to "Help Boeing LCA"[373]**	**Statements by NASA Illustrating Broader Program Goals**
Aviation Safety	• "The Aviation Safety Program will emphasize rapid and effective dissemination of the {aviation safety} technology to the *U.S. industry* .... AvSP resources fund R&D contracts and grants, which help ensure direct transfer of technology to the *U.S. industry* and thus increase the likelihood of direct input into near-term products."[390]	• "To aggressively address {air safety} issues, President Clinton announced in February 1997 a *national goal to reduce the fatal accident rate for aviation* by 80 percent within 10 years…. NASA immediately responded with a major *program planning effort to define the appropriate research to be conducted by the Agency*…. The planning effort lasted from February 1997 to April 1997, and *involved over 100 industry, government, and academic organizations*." • "Current customers and partners for the Aviation Safety Program include FAA, airlines, operators, airframe manufacturers, engine companies, airframe systems manufacturers, material suppliers, DoD and academia."[391] • "The AvSPP will provide research and technology products needed to help the Federal Aviation Administration (FAA) and the aerospace industry achieve the President's challenge to improve aviation safety in the coming decade and then move even further to a far-reaching challenge {to reduce the aircraft accident rate by a factor of 5 in 10 years and by a factor of 10 within 25 years}. The NASA approach to contributing to the national goal is to develop and demonstrate technologies and strategies to improve aviation safety by reducing both aircraft accident and fatality rates…. Program planning will give high priority to strategies that address factors determined to be the

[390] NASA Aviation Safety Program Plan, 1 August 1999, p. 35 ("NASA Aviation Safety Program Plan") (Exhibit EC-1209) (emphases added).

[391] NASA Aviation Safety Program Plan, 1 August 1999, p. 4 ("NASA Aviation Safety Program Plan") (Exhibit EC-1209) (emphases added).

NASA Program	Statements selected by EC to show NASA Goal to "Help Boeing LCA"[373]	Statements by NASA Illustrating Broader Program Goals
		largest contributors to accident and fatality rates as well as those that address multiple classes of factors."[392] • "*Protecting air travelers and the public* is the focus of the Aviation Safety and Security Program (AvSSP) which develops technologies for both the National Aviation System and aircraft that are aimed at preventing both *intentional and unintentional events that could cause damage, harm, and loss of life*; and minimizing the consequences when these types of events occur."[393] • "AvSSP directly addresses the safety and security needs of the National Airspace System (NAS) and the aircraft that fly in the NAS . . .AvSSP will also be developing concepts and technologies which *reduces the vulnerability of aircraft and the NAS to criminal and terrorist attacks* while dramatically improving the efficiency of security."[394]

[392] NASA Aviation Safety Program Plan, 1 August 1999, p. 2 ("NASA Aviation Safety Program Plan") (Exhibit EC-1209) (emphases added).

[393] Statement of Dr. J. Victor Lebacqz, NASA Associate Administrator for Aeronautics Research, House Subcommittee on Space and Aeronautics, March 16, 2005, p. 5 (Exhibit EC-289) (emphases added).

[394] *Ibid.*, p. SAT 15-11 (emphasis added).

NASA Program	Statements selected by EC to show NASA Goal to "Help Boeing LCA"[373]	Statements by NASA Illustrating Broader Program Goals
QAT	• QAT, along with its predecessor Noise Reduction program under AST, focused on "developing noise reduction technology for *the US commercial aircraft industry* to enhance its competitiveness to meet national and international environmental requirements and to facilitate market growth."[395]	• "The goal of the Quiet Aircraft Technology program {to reduce perceived noise levels of future aircraft by a factor of four} is the next step in achieving the very ambitious and desirable 25-year goal {one of NASA's Global Civil Aviation goals} *for the public good*. Achievement of the 25-year goal will fulfill *NASA's vision of a noise constraint-free air transport system with objectionable noise contained within airport boundaries*. Part of this vision is a transportation system with no need for curfews, noise budgets, or noise abatement procedures. Benefits to the public of achieving these goals include increased quality of life, readily available and affordable air travel, and continued U.S. global leadership…. NASA is unique in its expertise, facilities, and *inherent government role to lead the technology development necessary to meet national community noise impact reduction requirements*."[396] • "The goal of the Quiet Aircraft Technology program is to *develop technology that, when implemented, reduce the impact of aircraft noise to benefit airport neighbors, the aviation industry, and travellers*. QAT will directly improve the quality of life of our citizens by reducing their exposure to aircraft noise, thereby eliminating constraints on the air transportation system."[397]

[395] NASA Memorandum to Research and Focused Branch, p. 4 (Exhibit EC-365) (emphasis added).

[396] NASA QAT Budget Estimates, FY 2001 and FY 2002, p. SAT 4.1-74 (Exhibit EC-384) (emphases added).

[397] NASA Vehicle Systems Budget Estimates, FY 2003, p. SAT 4-24 (Exhibit EC-396) (emphasis added).

NASA Program	**Statements selected by EC to show NASA Goal to "Help Boeing LCA"[373]**	**Statements by NASA Illustrating Broader Program Goals**
Vehicle Systems	• Vehicle Systems, *inter alia*, "investigates and develops breakthrough technologies to maintain the superiority of *U.S. aircraft* …."[398]	• Vehicle Systems, inter alia, "investigates and develops breakthrough technologies to … ensure the *long-term environmental compatibility of aircraft systems*, and to *improve their safety and efficiency*."[399] • "As the nation and the world have become more dependent on moving goods and people faster and more efficiently by air, important and difficult challenges have emerged. Saturation of the civilian air transportation system is causing *delays and disruptions in air service*. *Military challenges have become more complex*…. The technology advances discussed will help *solve today's impending crises and create a new level of performance and capability in aviation*."[400] • "Vehicle Systems Technologies will be developed in collaboration with the Department of Defense to *ensure National security* through various air vehicle applications. Longer term research on technologies for next generation vehicles will focus on embryonic technologies to *further increase the quality of life for our citizens*."[401] • "The Vehicle Systems program is transforming itself to better focus on demonstrations of breakthrough of

[398] NASA Vehicle Systems Budget Estimates, FY 2003, p. SAT 4-23 (Exhibit EC-396) (emphasis added).

[399] NASA Vehicle Systems Budget Estimates, FY 2003, p. SAT 4-23 (Exhibit EC-396) (emphasis added).

[400] NASA Vehicle Systems Budget Estimates, FY 2003, p. SAT 4-22-23 (Exhibit EC-396) (emphasis added).

[401] NASA Vehicle Systems Budget Estimates FY 2004, p. SAT 15-19 and FY 2005, ESA 16-16.

NASA Program	Statements selected by EC to show NASA Goal to "Help Boeing LCA"[373]	Statements by NASA Illustrating Broader Program Goals
		aeronautics technologies for *protecting the Earth's environment and enabling science missions*."[402]
R&T Base	• "Through basic and applied research," R&T Base developed "critical high-risk technologies and advanced concepts for *U.S. aircraft* and engine industries."[403]	• "Work within the R&D Base lays the foundation for future focused programs to address the long term goals of the {NASA} enterprise's three pillars. This work constitutes a national resource of expertise and facilities that responds quickly to critical issues in safety, security, and the environment."[404] • "The {R&T Base} program also provides the capability for NASA to respond quickly and effectively to critical problems identified by other agencies, industry or the public. Examples of these challenges are found in: aircraft accident investigations, lightning effects on avionics, flight safety and security, wind shear, crew fatigues, structural fatigues, and aircraft stall/spin."[405]

In short, the EC is simply wrong to assert that "the goal" of these programs was to increase the competitiveness of the U.S. industry.[406]

249. The United States also notes that the table of quotations is simply another way of trying to assess the nature of NASA spending under Article 1.1(a)(1) not on what the agency actually does, but on some asserted purpose. As the United States has noted above, such evidence has little relevance to the analysis of a financial contribution under Article 1.1(a)(1).[407] The "purpose" for one party's participation in a transaction has even less

[402] NASA Vehicle Systems Budget Estimates FY 2006, p. SAT 11-14

[403] NASA R&T Base Budget Estimates, FY 1999, p. SAT 4.1-2 (Exhibit EC-398) (emphasis added).

[404] NASA R&T Base Budget Estimates, FY 1999, p. SAT 4.1-2 (Exhibit EC-398) (emphasis added).

[405] NASA R&T Base Budget Estimates, FY 1999, p. SAT 4.1-2 (Exhibit EC-398) (emphasis added).

[406] The United States also notes that the budget estimates are basically political documents. The weight given to individual accomplishments within a program in the budget estimates may not reflect the scientific weight it carries within that program.

[407] The U.S. comments on Question 154 explains in greater detail the reasons why the "purpose" of a transaction is of little weight in determining whether it is a "purchase" for purposes of Article 1.1(a)(1)(iii). US RPQ1, para. 43, US Comments on EC RPQ1, para. 60.

relevance in the analysis of benefit under Article 1.1(b), which is based on whether the terms of the transaction are more favorable to the recipient than would be available in the market.[408]

250. Finally, the EC attempts to defend its allocation of NASA program funding to Boeing by asserting that "the actual consequence of these NASA programmes was to allow Boeing to incorporate innovative technologies that otherwise would not have existed" into large civil aircraft.[409] The sole support it provides for this assertion consists of two statements compiled by Airbus engineers based on their readings of NASA reports.[410] The United States, in contrast, has provided affidavits from individuals in a much better position to know – Boeing engineers who participated in the NASA programs challenged by the EC, and later worked on the 787. For example, Boeing engineer Douglas Ball explains:

> Generally speaking, the HSR program was aimed at developing concepts for NASA for a next generation *supersonic* passenger aircraft that could fly at speeds of more than 1,500 miles per hour (sustained supersonic flight at Mach 2.4) at 60,000 feet, resulting in outside aircraft skin temperatures of 350º Fahrenheit. Under the HSR contract, Boeing (along with McDonnell Douglas and 40 other major subcontractors) conducted research focused on technologies that would allow an aircraft to fly at these conditions over a non-stop transpacific flight, while reducing sonic boom engine noise and emissions to environmentally acceptable levels. The results of the research (indeed, the research itself) has no applicability to the challenges of designing the 787, which is a *subsonic* aircraft that flies under very different conditions, and accordingly is designed with a different fundamental structure and made of very different materials than the high speed civil transport (HSCT) aircraft studied under HSR.[411]

Boeing engineer Alan Miller addresses the ATCAS project, one of the largest efforts under the ACT Program challenged by the EC:

> I would like to emphasize that the research done under the ATCAS contract was limited to designing and studying a generic technology concept for a constant, simple panelized fuselage section. We investigated a limited set of the costs and benefits associated with a selected concept for the design and manufacture of panels for the studied composite fuselage section. The research addressed none of the substantial design and cost challenges that designing an entire commercial aircraft based on those concepts would have

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[408] *Canada – Aircraft (AB)*, para. 157.

[409] EC RPQ2, para. 259.

[410] EC RPQ1, para. 259, note 268. The United States notes the inconsistency of the EC insisting that NASA reports are "useless," but at the same time asserting that Airbus engineers can discern from them exactly what Boeing is doing. The truth lies in between these extremes – NASA-sponsored publication provide a huge volume of foundational research, but provide little information on how to build an aircraft for the simple reason that Boeing does not build working aircraft under NASA research programs.

[411] Affidavit of Douglas N. Ball, para. 4 (Exhibit US-1257).

> entailed. In any event . . . the 787 is not based on the technology concepts studied under the ATCAS contracts; accordingly even those preliminary studies have not been utilized for 787 development.[412]

The United States does not question that the Airbus engineers believe what they have said in their statements. However, the Boeing engineers are in a better position to know. Therefore, their unqualified statements that the company's work on NASA contracts did not lead to technology used in the production or development of the 787 are entitled to great weight. The statements of the Airbus engineers, who based their conclusions on their evaluation of reports of foundational research that, however detailed, was conducted too far in advance of the design of the aircraft in question to reveal anything about whether the results would actually be used.

> *(h) How does the European Communities respond to the argument of the United States (US FWS, paras. 207-208) that the European Communities has ignored the fact that US (non-engine) aerospace suppliers (including Airbus suppliers), military aircraft manufacturers and universities have received R&D contracts under the programmes at issue?*

251. The EC's answer to this question is that it has ignored the role of military aircraft manufacturers and universities. Its disregard for this evidence does not lessen its relevance to the Panel's evaluation of the EC's claims.

252. The EC first accuses the United States of not providing evidence as to the amounts provided to other entities under these programs, or what those entities have done with funding they received.[413] However, the EC's claim – at least as the United States understood it – was that NASA had provided Boeing "grants" in the form of RDT&E funding and goods and services in the form of NASA "facilities, equipment, and employees." Thus, the United States bore no burden to quantify the amounts paid to other entities, let alone explain how entities other than Boeing used any funding they received from NASA.

253. In any event, even though it bore no burden to do so, the United States did present evidence of the amount NASA paid to other entities.[414] It explained that money under the NASA program budgets consisted of payments to contractors and payments for facilities. Therefore, anything not paid to Boeing must have been paid to other entities, indicating a total of $6.48 billion payments to non-Boeing entities.[415] As for what these other entities do with NASA funding, the burden is on the *EC*, as the complaining party, to demonstrate how payments to entities that do not make civil aircraft are financial contributions that confer benefits to large civil aircraft. The EC cannot make this case simply by asserting, as it has,

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[412] Affidavit of Alan G. Miller, para. 6 (Exhibit US-1258).

[413] EC RPQ2, para. 261.

[414] Exhibit US-1255, submitted at the time of the Panel's second substantive meeting with the parties, provides information on this topic with regard to two representative research programs. The U.S. response to question 188 addresses this issue in more detail. US RPQ2, paras. 215-225.

[415] US FWS, para. 198, note 279; US RPQ2, para. 171.

that all the research is related to large civil aircraft, or that the purpose is to help large civil aircraft manufacturers.

254. Specifically, the EC also returns to the alleged "purpose" of the NASA aeronautics research to justify allocating NASA's entire "non-engine" budget to the civil aircraft industry. The United States has shown that the EC misstates this "purpose."[416] In any event, the "purpose" is not relevant to the evaluation of financial contribution or benefit, or to allocation of benefit when the United States has presented ample evidence that entities outside the civil aviation industry and outside of the United States have interest in and make use of NASA's aeronautics research.[417]

255. The EC closes by asserting that the evidence shows that universities receive little funding under the eight challenged programs. This is incorrect. At the second panel meeting, the United States presented evidence that universities accounted for between 6 and 10 percent of recent representative research projects.[418] The EC simply ignores this evidence, to focus instead on a 1992 letter from a university professor who wants Congress to allocate even more NASA funding to university research.[419] Rather than support the EC's view that NASA funding to universities was small, the letter notes the existence of "large NASA-sponsored university 'centers of excellence'" near the various NASA research centers.[420] The professor does assert that *HSR*, only one of the eight challenged programs, did not have as much university involvement as that professor desired. However, that does not mean that the amount was not significant. Moreover, HSR is only one program. In response to Question 175, the United States presented evidence from NASA's procurement database showing that grants – NASA's primary funding vehicle for universities – accounted for 13 percent of NASA's total spending on R&D services performed by non-NASA entities.[421]

164. The United States asserts in its FWS that:

> *"The EC's calculation rests on flawed assumptions, including: (1) an overstatement of the amount of NASA aeronautics R&D that is even potentially applicable to production and development of large civil aircraft-as opposed to rotorcraft, general aviation, supersonic and hypersonic aircraft, unmanned vehicles and air traffic management systems; (2) an understatement of the amount of engine-related R&D, which the EC concedes is not a benefit to Boeing; (3) a failure to recognize that, like engine-related research, research directed to other large civil aircraft components produced by U.S. suppliers, and available to both Boeing and Airbus, should be excluded,*

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[416] US FWS, paras. 186-194, 221; US OS1, paras. 56-64; US SWS, paras. 62, 64.

[417] US FWS, para. 209; US SWS, paras. 64 and 67; US OS2, paras. 35-36; Exhibit US-1140(revised) and US-1253.

[418] Exhibit US-1255.

[419] EC RPQ2, para. 262.

[420] Letter from Gary S. Settles, p. 1 (Exhibit EC-1373).

[421] Exhibit US-1271.

including aero structures, avionics, and landing gear; and (4) an understatement of the wide range of non-LCA manufacturers that participate in and benefit from the NASA-funded R&D." (US FWS, para. 195)

Can the European Communities address each of these four "flawed assumptions"?

256. The EC response to the flawed assumptions identified by the United States in its first written submission and discussed in subsequent submissions[422] is cursory and devoid of substance.

257. **Research unrelated to large civil aircraft.** With regard to the U.S. observation that the EC included in its estimate funding of research entirely unrelated to large civil aircraft, the EC attempts to show that some of the categories listed by the United States are in fact related to large civil aircraft, and that it properly subtracted everything else. These assertions are mistaken. In the most obvious example, the EC's own consultants have conceded that hypersonic aircraft have no relevance to civil aircraft,[423] and the EC subtracts the value of *some* research on that topic from NASA's R&T Base program.[424] Therefore, it is difficult to see how the EC can contend in response to this question that "fundamental technologies related to . . . hypersonic aircraft . . . are equally applicable to LCA."[425] The EC also asserts once more that research on rotorcraft and unmanned vehicles is relevant to its allegations. The United States also demonstrated in its response to Question 208 that the aeronautics text used by the EC's consultant demonstrated that rotorcraft research is not generally applicable to large civil aircraft.[426] As for unmanned vehicles, the EC has provided no evidence indicating that the research NASA conducts on how to operate such aircraft has anything to do with large civil aircraft.

258. Moreover, the evidence shows that the EC did not, as it contends, exclude the research it identified as unrelated to large civil aircraft "whenever such spending was clearly identifiable in the publicly available NASA budgets."[427] The EC ignored evidence identified by the United States at the second panel meeting showing that NASA conducted air traffic management and safety research conducted under the Aviation Safety and Security Program.[428] The U.S. response to Question 176 identified numerous examples of research

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[422] *E.g.*, US SWS, paras. 72-77; US OS2, para. 62.

[423] Exhibit EC-1176, p. 29 ("High temperature airframe structures would generally be more important in high supersonic, or hypersonic aircraft, for instance. The funding in this case was therefore excluded from the CRA analysis.").

[424] Exhibit EC-25, p. 10, note 2; p. 11, note 2; and p. 19.

[425] EC RPQ2, para. 266.

[426] US RPQ2, para. 306.

[427] EC RPQ2, para. 266.

[428] US OS2, para. 62.

into air traffic management, hypersonic aircraft, and safety that the EC did *not* exclude from its estimate of the value of the challenged programs.[429]

259. **Research related to engines.** In its response to Question 176, the United States noted numerous examples of engine-related research conducted under components of the R&T Base Program that the EC treated as applicable only to civil aircraft.[430] As recently as its response to the second set of panel questions, the EC deleted information from an exhibit indicating that it had failed to subtract engine-related aspects of the HPCC CAS research.[431] On a more important note, the EC method for removing engine related research from the HSR, AST, QAT, and VSP programs based on the number of stated research topics related to engines, is highly imprecise.[432] The HSR Program Report recently submitted by the EC shows that it knew this methodology was incorrect. The report reveals that engine-related research accounted for 49 percent of the HSR budget, but the EC used a figure of 33 percent instead.[433] The United States approach achieves this result with much greater precision by valuing only payments to Boeing related to aeronautics research, and then individually excluding contracts relating to engine research. Contract NAS3-01140 is an example of a contract excluded for this reason.[434]

260. **Underestimate of research related to components.** The EC asserts that it removed funding of component manufacturers by allocating research expenses to both manufacturers of complete aircraft and components in proportion to their revenues.[435] The EC ignores that there is no evidence that NASA apportions its spending in this way. Moreover, it has never addressed the U.S. observation, first raised in the US FWS, that the EC approach allocates to Boeing expenses related to the value of components.[436] The United States provided a numerical example in its response to Question 176.[437] By way of further explanation, Boeing is to a large extent an integrator of aircraft components produced by its suppliers. The EC approach allocates subsidies to suppliers based on the revenue they receive from selling components. The approach also allocates subsidies to Boeing based on its revenue, which consists of the value of the components it buys and the value added by Boeing's in-house components and integration activity. Thus, under the EC approach subsidies are allocated to components twice – once over their value as produced by their original manufacturers, and once to their value as included in Boeing aircraft. Since the second treats as subsidies to

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[429] US RPQ2, paras. 165-167, Exhibit US-1272. The United States notes that the list of research improperly counted by the EC in its estimated value of the R&T Base Program are only *examples* that were obvious upon a quick review of those materials. Review by an expert would undoubtedly reveal more.

[430] US RPQ2, para. 169, Exhibit US-1272.

[431] The US Comment on Question 148(e), above, discusses this issue in more detail.

[432] For example, the EC assumes that because one of 13 AST components addressed engines, that $^{1}/_{13}$ of funding under that program covered engine research.

[433] *Compare* HSR Program Report, p. 27 (Exhibit EC-1208) *with* Exhibit EC-25, p. 10, note 2.

[434] Exhibit US-577 (HSBI).

[435] EC RPQ2, para. 268.

[436] US FWS, para. 207.

[437] US RPQ2, para. 172.

Boeing amounts allocated based on the value of components incorporated in its aircraft, which has the result of under-allocating alleged subsidies to components manufacturers and, therefore, overallocating to Boeing.[438] Therefore, the EC's methodology fails in its stated objective of excluding alleged subsidies related to suppliers. The United States approach achieves this result with much greater precision by valuing only payments to Boeing, and simply not including research conducted by component manufacturers.

261. **NASA contracts with entities outside the civil aircraft and parts industry.** The EC does not deny that it allocates to Boeing NASA research funding that went to other entities, including universities and manufacturers of products outside the civil aviation sector. Its only defense of this practice is to argue that the "objectives" of the eight NASA programs confirm that spending was followed by a provision of goods and services to the U.S. civil aviation sector.[439] The United States has shown that, in fact, the objective of these programs was to conduct foundational research and make the results available to enterprises and researchers in a multitude of industries around the world.[440] Moreover, the claim with regard to funding of entities outside the large civil aircraft industry is outside the Panel's terms of reference, was raised for the first time in the EC RPQ2, and is unsupported by any legal argument or evidence whatsoever.[441] Thus, the Panel should reject the EC estimate because it too lacks legal or factual support, and contains a vast amount of spending – approximately $6.5 billion – irrelevant to the claims properly before this Panel.

165. The Panel notes that some of the calculations in Exhibit EC-25 take into account information on the value of contracts between NASA and Boeing/MD. (Exhibit EC-25, p. 9, footnotes 2 and 3; p.11, footnote 3, p. 19, footnote 3) Do these calculations reflect all the contracts submitted by the European Communities in this proceeding?

262. In its response to this question, the EC concedes that, with the exception of some small adjustments made to its estimate of the value of the ACT program, the EC's subsidy value calculations disregarded not only the contracts submitted by the United States, but the contracts and other contract-related documents submitted by the EC itself. This additional example of the EC's refusal to address the substance of the transactions that it challenges provides yet another reason for the Panel to reject the EC's analysis.

166. In support of its argument that "[t]he contracts submitted by the EC with regard to the programs in question show that CRA greatly exaggerated the subsidy values" (US Comments on EC RPQ1, para. 4), the United States compares the value of NASA Contract NAS1-2020 with the amount estimated by the European Communities of the payment to Boeing/MD under the HSR programme. Please comment on this comparison.

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[438] In fact, this can be described as treating the alleged subsidy as *both* a benefit to the recipient *and* a benefit passed through to the downstream user. There is no support in the SCM Agreement for such an assumption.

[439] EC RPQ2, para. 269.

[440] US SWS, para. 64, US OS1, paras. 56-64; US OS2, paras. 34-36 and 41.

[441] EC RPQ2, para. 253.

263. The EC accuses the United States of making an apples-to-oranges calculation, but the EC misses the important point. A party seeking to estimate subsidy values – whether through a top-down, bottom-up, or other methodology – must deal with the evidence. The EC proposed a methodology that attributed $896 million of the HSR program budget to NASA when the data showed that NASA had budgeted a maximum of $311.8 million for Procurement Contract NAS1-20220.[442] The United States considered this a reasonable rough comparison because this contract was Boeing's main HSR contract, and the program budgets consist primarily of payments to outside entities under contracts, cooperative agreements, intra-governmental agreements, and grants. The point the U.S. sought to make was that an "estimate" that cannot explain such a large difference should be rejected.

264. In response to this question, the EC makes a number of arguments to explain away the gap between its allocated program budget and the value of Procurement Contract NAS1-20220. The EC first argues that NAS1-20220 was not the only contract with Boeing funded through the HSR Program. However, if one considers all of the contracts primarily funded under the HSR Program, based on the maximum value of HSR Program contracts that NASA identified in the response to Question 188,[443] that would bring the total value of R&D contracts under the HSR Program to $372 million – still $524 million short of the amount of the program budget that the EC allocated to Boeing.[444]

265. The EC then tries to explain the remaining difference by noting that the U.S. comparison addressed contract values, while the EC considers that the program budgets contain both contract values and an element of its "provision of goods and services" allegation (which the EC also references as facilities, equipment, and employees).[445] The NASA HSR Program Plan, which the EC submitted, provides a breakdown of the total program budget, divided between "out-of-house" funding through "industry contracts and university grants" and "inhouse" expenses. These indicate that for the HSR Program, NASA spent $0.52 of inhouse funding for every dollar of out-of-house contracts and university grants.[446] Assuming arguendo that these program costs could be allocated to contracts based on value, as the EC attempts to do, would result in $193 million with regard to Boeing

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[442] Modification 152 to NASA Contract NAS1-20220, p. 2 (Dec. 15, 1999) (Exhibit US-550, p. 344 of 352). In fact, the actual amount disbursed under the contract was $307.4 million. Exhibit US-1305. This figure is slightly different from the one reported in Exhibit US-1202 because a small amount of Procurement Contract NAS1-20220 was funded from a non-HSR source.

[443] Exhibit US-1305.

[444] As the United States noted in its response to Question 188, the additional contracts identified by NASA represent the maximum value that Boeing could have received under the HSR program. US RPQ2, para. 222. The United States notes that the methodology used in compiling this contract list assigned the full value of each contract to the program that provided its primary funding. Thus, contracts with minority HSR funding were not included in the total value of the HSR program, while contracts with minority funding from other programs were included. The United States believes that this combination of underattribution and overattribution roughly cancels out.

[445] EC RPQ2, para. 277.

[446] NASA HSR Program Plan, p. 27 (Exhibit EC-1208). As a conservative estimate, the United States is treating the category "Model Fab for Industry" as an "Inhouse" expense.

contracts worth $372 million.[447] The United States notes that this inhouse spending paid for the materials and facilities usage by NASA employees over the course of the program. The United States has explained that (1) these expenditures were not financial contributions to Boeing, and (2) they conferred no benefit on Boeing. However, even if these expenses could be allocated to the Boeing contracts, they would account for at most $193 million, leaving $331 million of the gap between program costs and actual contract values unaccounted.

266. The EC also tries to explain the gap by falling back on its assertions that payments to other contractors should be allocated to Boeing.[448] However, the other HSR Program prime contractors were General Electric, Pratt & Whitney, and Honeywell.[449] General Electric and Pratt & Whitney are engine manufacturers, and the EC is clear that none of NASA payments related to research relevant to engines should be treated as benefits to Boeing. Honeywell is a supplier of avionics for civil aircraft, and the EC is clear that funding to suppliers of civil aircraft components should not be allocated to Boeing. Thus, the total value of R&D funding for the HSR Program did not contain payments to other contractors that, under the EC's logic, should not be allocated to Boeing. That means that there is simply no explanation that accounts for the huge gap between what NASA actually paid to Boeing and the amount of the program budgets that the EC allocates to Boeing.

267. The comparison between the EC estimated payments to Boeing and actual spending on the HSR Program contracts is actually more favorable to the EC than most. The gaps between the maximum amount paid to Boeing (as calculated in response to Question 188) and the amount of each program budget allocated to Boeing by the EC are much, much larger for most other programs:[450]

Program	EC Allocation of Program Budget (Exhibit EC-25)	Max. disbursements under contracts (Exhibit US-1305)	EC overestimate
ACT (without ACEE)	$274.7	$132.1	110%
HSR	896.3	$371.6	140%
AST	$483.9	$87.4	450%
R&T Base	$3,763.6	$148.5	2,400%
HPCC	$237.5	$1.7	14,000%
QAT	$83.5	$8.1	930%
Aviation Safety	$631.6	$19.6	3,100%
VSP	$810	$4.4	18,000%

All program values in $1 million; all percentages rounded to two significant digits

[447] The United States notes under NASA's accounting, the value of facilities, equipment, or employees provided under SAAs is treated as an in-house expense, so they would not be part of the allocation base.

[448] EC RPQ2, para. 277.

[449] HSR Program Plan, pp. 37-38 (Exhibit EC-1208).

[450] The United States notes that this is a comparison comparable to the one in the Panel's question, without an allocation of the institutional support budget.

If the EC's explanations did not account for the gap between the $896 million in HSR program budgets allocated to Boeing and the $375 million in contracts awarded to Boeing, then they would be even less successful in filling the much, much larger gaps related to the AST, R&T Base, HPCC, QAT, Aviation Safety, and VSP Programs. This provides yet another reason to reject the EC estimates.

268. To consider the issue in another light, the United States has shown that NASA paid Boeing no more that $775 million for research contracts potentially related to the EC allegations between 1989 and 2006.[451] That leaves approximately $9.5 billion in other kinds of "support" that the EC explains only as "goods and services" that NASA supposedly supplied to Boeing. The EC has provided *no* plausible explanation of how NASA's activities conferred such a value to *Boeing* when it was funding work by other entities capable of using aeronautics knowledge, when it was generating vast quantities of research publications and making them available to the general public, and when it was gathering information related to its government objectives of improving aircraft safety and the efficient operation of the air traffic system.

167. Please explain the statements that "[t]he EC estimates are intended to capture all funding and support flowing from NASA to all divisions within Boeing and McDonnell Douglas for LCA-related research" and that "[t]his total represents all funding and support for LCA-related research provided by NASA to all divisions within Boeing and McDonnel Douglas." (EC SWS, paras. 371 and 373 (italics in original))

269. The EC's response to this question raises a fundamental question. If the EC really believes that aeronautics research is fungible between military and civil aircraft – its position with regard to DoD's military research – why does it not allocate a proportionate share of the value of NASA research to Boeing military aircraft? But instead, the EC reverses the situation. Even though DoD's military research focuses on topics of no relevance to civil aircraft, it treats that research as dual use. In contrast, it treats NASA's foundational research into general aeronautics knowledge as applicable only to civil aircraft. The EC's position is both internally contradictory and inconsistent with the evidence.

168. Can the European Communities comment on the following arguments of the United States:

> *"Although the $3.3 billion in 'institutional support' that the EC challenges includes an allocated portion of NASA's full cost of building and constructing its wind tunnels, this activity is a financial contribution relevant to this proceeding only to the extent those facilities are provided to Boeing." (US FWS, para. 237)*
>
> *"...although the EC has challenged $3.3 billion in 'institutional support,' which includes full direct and indirect labor costs, as well as other NASA overhead*

[451] That would rise to $861 million if the $66 million estimate of pre-1989 ACEE spending is included.

expenses, the financial contribution relevant in this case is limited to the provision of particular services to Boeing." (US FWS, para. 253).

"The United States cannot, however, correct the EC's aggregate estimate of institutional support without greater specificity as to the particular transactions the EC is challenging." (US RPQ1, footnote 217)

270. Throughout this dispute, the EC's refusal to state with clarity exactly what "provisions" of goods and services it was challenging has hampered the U.S. ability to address the EC's claims. In its response to this question, the EC attempts to blame the United States for the EC's lack of clarity, and the lack of evidence for the EC's assertions. However, it is not the job of the responding party to guess at the complaining party's claims or provide evidence to support the complaining party's arguments.

271. In the first place, the United States has provided a huge volume of evidence with regard to the EC's allegation that NASA provided facilities, equipment, and employees to Boeing. The U.S. comments on Question 171 list some of this evidence. Instead of examining these materials, the EC has chosen instead to simply assert the existence of the transactions it challenges based on a small number of excerpts from budget materials and inaccurate assertions as to the "purpose" or "objectives" of NASA's programs.

272. Second, even in the limited realm of materials that the EC uses in its calculations, the EC ignores the evidence that most of the "institutional support" budget consisted of the expenses of administering contracts and conducting in-house research that NASA published for the world to see. Thus, the materials cited by the EC do not support its claim that the entire NASA institutional support benefit constitutes facilities, equipment, and employees provided to Boeing.

273. Finally, as the United States explains in response to Question 156, the "top down" approach does not represent the best information publicly available. The EC's decision to rely on this approach for its valuation calculation does not absolve it of its burden as a complaining party to state its claim with clarity, and make a *prima facie* case on each element of its claim. When the claim is of a subsidy, it requires an individualized assessment of financial contribution, benefit, and specificity for each alleged subsidy.

169. Please provide a detailed response to the criticism by the United States at paras. 200-201 and 262-268 of its FWS of the European Communities' calculation of the amount of "institutional support" and of its treatment of this "institutional support" as a financial contribution to Boeing/MD.

274. In response to this question, the EC declines to provide the detailed response requested by the Panel. Instead, it accuses the United States of mischaracterizing its arguments, and repeats statements made elsewhere with regard to the EC treatment of institutional support.

275. The United States notes that its characterization of the EC arguments was based on a good faith reading of a set of inconsistent and often self-contradictory assertions put forward

by the EC. These appear to have prompted the Panel to seek clarification. As a result, the EC has finally made clear that when it alleges that NASA provided "goods and services" to Boeing it covers four categories of expenses:

(1) NASA Facilities, equipment, and employees provided to Boeing under Space Act Agreements;

(2) NASA Facilities, equipment, and employees explicitly listed in procurement contracts (and presumably cooperative agreements) with Boeing;

(3) NASA Facilities, equipment, and employees "not explicitly" listed in an agreement or contract with Boeing; and

(4) Goods and services purchased from other contractors, which the EC characterizes as "out-of-house expenditures," that NASA then provides to Boeing.

276. The EC describes the first three categories in its responses to Question 148, and the fourth in its response to this question. The EC is quite clear that categories (1), (2), and (3) together represent the sum of every expense incurred by NASA other than contracts or agreements with an outside supplier, which the EC allocates proportionately to all U.S. producers of civil aircraft and parts.[452] The EC also proposes to allocate to participants in the civil aircraft industry a proportionate share of the fourth category, goods and services purchased from suppliers outside of the civil aircraft industry, but that is a matter that the United States addresses in its comment on Questions 148(e), 163(d), and 201(a).

277. Based on NASA's work in response to Questions 175 and 188, the Panel can know "with a high degree of confidence" – to use the EC's phrasing[453] – that Boeing received no more than $1.05 billion in awards from NASA aeronautics centers from 1989 to 2006,[454] of which a maximum of $775 million was related to the EC subsidy allegations.[455] The United States also provided evidence that the value of nonreimbursable Space Act Agreements and nonreimbursable portions of partially reimbursable agreements related to the EC claims (category (1) on the list of EC facilities, equipment, and employees allegations) was $75 million from 1993 to 2006.[456] NASA financial records do not allow an estimate of categories (2) and (3), facilities, equipment, and employees listed in contracts and "not explicitly stated" in those contracts. The best information available to the United States is that the value is zero, as the category (2) allegations were not separate transactions, and therefore, are not a

[452] EC RPQ2, para. 177.

[453] EC RPQ2, para. 291.

[454] This figure relates to all awards to Boeing originating from the four NASA research centers responsible for aeronautics research, and includes some research related to space exploration, as well as research related to engines and air traffic management, all of which the EC recognizes as irrelevant to its allegations. EC RPQ2, para. 266.

[455] US RPQ2, paras. 215-223.

[456] US RPQ2, paras. 183 and 193.

separate financial contribution, and the category (3) transactions did not occur. In any event, neither would have conferred a benefit. The category (2) allegations are not separable from the overall transaction in which they took place, while the category (3) allegations did not exist.

278. At the end of its response to this question, the EC attempts to justify its approach to NASA in-house expenses and payments to contractors outside the civil aircraft industry by asserting that "NASA's work is of course identical to Boeing's work."[457] As the United States explains in its comment on Question 158, this is false. For example, NASA is not doing "Boeing's work" when it releases the results of its own research projects to the world, when its own scientists publish the results of their work and explain it at conferences, or when its employees manage Boeing's contracts to ensure that it performs the work to *NASA*'s specifications. Nor is NASA doing Boeing's work when it pays another contractor, including competitors for DoD contracts like Lockheed Martin and Northrop Grumman, or a university to perform research to its specifications for its use.

279. The EC closes its response to this question by asserting that it has used the best information available. As the United States showed in its response to Question 176[458] and in the U.S. comments on Question 164, the EC has routinely and consistently disregarded information – some of which the EC itself submitted – showing that its estimate was grossly exaggerated.

170. In its SWS and in its comments on US RPQ1, the European Communities reiterates that the United States has failed to provide full disclosure of all types of contracts and sub-contracts pursuant to which NASA made payments to Boeing/MD under the eight programmes at issue. (EC SWS, para. 370; EC Comments on US RPQ1, para.6) In this connection, the European Communities states, inter alia:

> *"To produce a truly accurate figure, these documents would need to be cross-checked with overall budget figures (or other relevant sources) to verify that all contracts and sub-contracts had been provided. They would then need to be reviewed and analyzed by experts that could draw conclusions regarding issues such as whether a particular R&D project relates exclusively to engines, or might also be of use to airframes." (EC SWS, para. 370)*
>
> *"..the United States must fully disclose (i.e., without redactions or omissions) all types of contracts and sub-contracts pursuant to which Boeing and McDonnell Douglas received funding and support (including goods and services) under the eight NASA programmes at issue, related documentation (e.g., statements of work and cost estimates), and some means to verify whether all contracts and sub-contracts had in fact been provided." (EC Comments on US RPQ1, para. 6).*

[457] EC RPQ2, para. 284.

[458] US RPQ2, paras. 163-177.

(a) Please explain the rationale for the review by experts proposed by the European Communities. How does the European Communities respond to the argument of the United States (US Comments on EC RPQ1, paras. 16-17) that this proposal for the conduct of a contract-level analysis is both unnecessary and unprecedented?

280. In its response to this question, the EC does not even attempt to argue that there is any precedent for the contract-level review it proposes, let alone any support for such an approach in the DSU or SCM Agreement.[459] Instead, it seeks to blame its extensive demands for "verification" on the "fact-intensive" nature of this dispute and a supposedly "unprecedented . . . lack of cooperation by the United States." The first assertion is no justification for the "verification" that the EC demands, and the second is untrue.

281. To begin with, although the EC presents a large volume of documents, its efforts to build a *prima facie* case are not "fact-intensive" at all. The EC bases its argument as to a financial contribution and benefit on a limited number of quotations from a limited set of the documents it submitted. It makes little use of the materials submitted by the United States.

282. This lack of reference to facts is especially noteworthy with regard to the EC's valuation of the alleged subsidies – the purpose for which it seeks its unprecedented contract review. The EC even concedes that its calculation of the value of alleged NASA subsidies "do not generally reflect the contracts submitted by the European Communities in this proceeding."[460] Those contracts represent the bulk of the information currently before the Panel. Thus, while the EC's calculations do contain page after page of tables,[461] the allocations do not reflect the available evidence. The real driver of the huge subsidy magnitude alleged by the EC is its assumption that all of NASA's budget (including payments to entities other than Boeing) must be allocated to U.S. producers of civil aircraft and parts proportionate to their share of U.S. production of civil aircraft and components. With regard to DoD, the subsidy values rest upon a highly subjective analysis performed by its consultants, CRA and an assumption that more than half of any DoD research into dual-use technologies by Boeing's defense division is in fact a financial contribution and benefit to the civil aircraft division. Thus, at least as presented by the EC, neither analysis can be

[459] EC RPQ, para. 289. The United States notes that the process described by the EC is vastly larger and more intrusive than Annex V of the SCM Agreement envisages. Annex V, paragraph 2, provides for a procedure to "obtain such information from the government of the subsidizing Member as *necessary* to establish the existence and amount of the subsidization." (emphasis added) The information sought by the EC, however, is manifestly *un*necessary to "establish" the value of subsidization. By the EC's own characterization, this vast expansion in the volume of documents submitted to the Panel would only "verify" the evidence already before the Panel, which, in the U.S. view, is already more than adequate. And, in seeking every Boeing contract with DoD and NASA, the huge majority of documents would be irrelevant to the Panel's analysis. Even the EC concedes that 90 percent of the value of DoD's RDT&E contracts with Boeing relates to military-only research, and 80 percent of NASA's work had nothing to do with aeronautics. EC RPQ1, para. 342; Exhibit EC-25, p. 6. This verification process is particularly unnecessary in light of the Appellate Body's finding in *US – Upland Cotton* that "{a} precise, definitive quantification of the subsidy is not required" for an analysis under Article 6.3(c). *US – Upland Cotton(AB)*, para. 467.

[460] EC RPQ, para. 270.

[461] *E.g.*, Exhibit EC-25.

accurately characterized as "fact-intensive". In truth, both rest heavily on a strategy of disregarding the facts as to actual amounts paid to Boeing in favor of estimates that greatly inflate the amounts. Thus, the factual situation does not support the EC proposal, which would only increase the burden on the Panel and on the United States.

283. There is also no support for the EC contention that the United States failed to cooperate. The United States has provided an immense volume of documents to the Panel in relation to the EC's arguments. It agreed to information-gathering procedures under Annex V, agreed to an extended period for those procedures, and cooperated fully during that process.[462] The United States agreed to seek a DSB decision making these materials available to the Panel, but *the EC* refused.[463] The EC tries to bolster its assertions as to U.S. cooperation by accusing the United States of having "heavily redacted" documents. This is untrue. Most of the documents have few or no redactions. The EC tries to suggest otherwise by cross-referencing its arguments regarding a limited number of redactions necessary to delete references to military-only technologies – which the EC concedes are outside the scope of this proceeding – necessary to comply with U.S. export control laws for weapons-related information. They all relate to *DoD* contracts.[464] (The EC provides no examples of allegedly heavy redactions in NASA documents.) Thus, the EC's contentions of U.S. non-cooperation are as groundless as ever.

284. In its efforts to downplay the lack of precedent for the review that it proposes, the EC asserts that "experts" would "help resolve any issues and clarify any disagreements" about whether research under individual contracts relates to large civil aircraft, and if so, how much.[465] It asserts that these "experts" would spend most of their time on reviewing DoD contracts, "an opportunity that has not yet been granted to the European Communities."[466] However, the EC has had this opportunity with the huge volume of contracts submitted by the United States, as well as the public summaries submitted by the United States of material that it had to redact to comply with U.S. export control laws.[467] Finally, the assertion that review by EC "experts" would resolve issues and clarify disagreements is optimistic in the extreme. As the Panel is aware, the United States has found the conclusions of the EC's consultants, CRA, biased, cursory, and unsupported by facts. Based on this record, it seems likely that any review by CRA would create additional irrelevant issues and generate more disagreements.

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[462] Response of the United States to the Request for Preliminary Rulings Submitted by the European Communities, paras. 7-15 (March 22, 2007).

[463] Response of the United States to the Request for Preliminary Rulings Submitted by the European Communities, paras. 18-19 (March 22, 2007).

[464] The United States discusses the invalidity of the EC arguments regarding redactions in its comments on Question 190(b).

[465] EC RPQ2, para. 287.

[466] EC RPQ2, para. 289.

[467] The U.S. Comments on Question 190(b) discuss this issue in more detail.

285. In short, the verification process suggested by the EC has no basis in the DSU, the SCM Agreement, or the findings of the Appellate Body or any Panel. It would also create needless work for the Panel, its staff, and the United States. It should, therefore, be rejected.

(b) Is the review by experts proposed by the European Communities a review within the meaning of Article 13.2 of the DSU?

286. In response to this question, the EC asserts that it seeks to give its own chosen experts "access . . . to comprehensive *information* about the NASA and DoD programs."[468] The United States has two observations in this regard. First, the EC's experts have already had access to a huge volume of information, and have chosen not to use it. The EC has provided no indication that it would make more productive use of a greater volume of information. Second, the DSU refers to "experts" only under Article 13 as necessary to help the Panel. The procedures for establishing experts groups, provided under Appendix 4 to the DSU, aim to ensure expertise and impartiality. The DSU gives experts *of the parties* no special status. In fact, the notion of "experts" chosen by one party would appear to be antithetical to the concept of an impartial "expert" set out in Article 13 and Appendix 4 of the DSU.

(c) Please explain what the European Communities means by "verification" in this context and what would constitute an adequate means of verification. Please explain how one could verify that all relevant contracts and sub-contracts had been submitted. Would it be necessary for the United States to provide all contracts and sub-contracts with all entities that received payments under contracts and sub-contracts concluded pursuant to these programmes?

287. Elsewhere in its responses to the Panel's questions, the EC asserts that data submitted by the United States should be accepted by the Panel only if it is capable of "verification." In response to this question, the EC explains that, by "verification," it means a "review of all contracts and sub-contracts with *all* entities that receive payments, and a full description of *all* goods and services provided to all entities, in connection with the NASA programmes and DoD PEs at issue."[469] With regard to DoD, the EC considers that this review must extend even to Boeing contracts funded under PE numbers that the EC has not challenged. This concept of "verification" has nothing to do with the DSU and nothing to do with the SCM. In fact, the EC makes no effort to connect this review with any covered agreement or any finding of the Appellate Body or any panel. There is none.

288. Under the DSU, the party asserting a fact must make a *prima facie* case – "one which, in the absence of effective refutation by the defending party, requires a panel, as a matter of law, to rule in favour of the complaining party presenting the prima facie case."[470] With regard to the question of the magnitude of a subsidy, the Appellate Body noted in *US – Upland Cotton*, that

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[468] EC RPQ2, para. 290 (emphasis in original).

[469] EC RPQ2, para. 291.

[470] *EC – Hormones (AB)*, para. 104

> {R}eading Article 6.3(c) in the context of Article 6.8 and Annex V suggests that a panel should have regard to the magnitude of the challenged subsidy and its relationship to prices of the product in the relevant market when analyzing whether the effect of a subsidy is significant price suppression. In many cases, it may be difficult to decide this question in the absence of such an assessment. Nevertheless, this does not mean that Article 6.3(c) imposes an obligation on panels to quantify precisely the amount of a subsidy benefiting the product at issue in every case.[471]

The EC agrees that, for purposes of the analysis under Article 6.3(c), "{a} precise, definitive quantification of the subsidy is not required" for an analysis under Article 6.3(c).[472]

289. Thus, the EC, as the party asserting that Boeing's large civil aircraft production benefited from subsidies worth $10.4 billion from NASA and $2.4 billion under the 23 challenged DoD RDT&E PEs, bears the burden of proof. The United States has shown that, even taken alone, and in light of the Appellate Body's conclusions regarding "precise, definitive quantification," the EC valuation exercise has no credibility.

290. In addition, the United States has presented its own estimates of the values of the various transactions at issue. Nothing in the SCM Agreement or the DSU suggests that the standard for the U.S. valuation exercise is any different than that for the EC. Thus, there is no requirement for the United States to provide as evidence every contract between the relevant agency and all of its contractors. Nor is there any requirement to identify "the recipient of every dollar spent under these programmes," and provide "an indication of what was done with each dollar of spending."[473]

291. Should the Panel decide that it needs to consider the U.S. evidence regarding the value of the transactions at issue, the question will be the one posed by DSU Article 11: whether "an objective assessment of the facts of the case" supports the allegations made by the complaining party. Thus, the issue is not whether one party or the other has provided evidence capable of the sort of "verification" that the EC proposes. The issue is whether the evidence and argumentations of the EC, when taken in light of the evidence and arguments presented by the United States, support the value asserted by the EC. The United States has shown that the EC subsidy allegations fail when taken by themselves and that, in any event, the U.S. valuation is based on better evidence and better methodology, and accords more fully with the SCM Agreement, DSU, and the relevant panel and Appellate Body reports.

171. What information would be necessary in order to conduct what the European Communities' refers to as a "bottom up" analysis of the value of all of the "goods and services" (including "institutional support" and "facilities, equipment, and employees") provided to Boeing/MD under the NASA/DOD R&D programmes at issue?

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[471] *US – Upland Cotton (AB)*, para. 467.

[472] EC RPQ2, para. 11, *quoting US – Upland Cotton (AB)*, para. 467.

[473] EC RPQ2, para. 265.

292. The EC's response to this question highlights the asymmetric burden of proof it seeks to impose on this proceeding. In the EC's view, its only obligation as complaining party is to present "estimates" in light of "imperfect information" that provide an indication of the amount of subsidies that may be "inexact."[474] In contrast, the EC's view of the burden on a responding party goes beyond exactness – to provide "a detailed accounting of every dollar spent" indicating "not only where NASA and DoD spent this money, but also precisely what was done with this money."[475] In the EC's apportionment of burdens, it is irrelevant that information may not exist because of the vast span of time covered by the EC claims, or may not be available in the form demanded by the EC because government accounting systems were not designed to address its assertions. The standards it seeks to impose on the Panel's evaluation have no basis in the DSU, the SCM Agreement, or the findings of the Appellate Body or any panel.

293. The issue before a panel considering any party's proposed valuation of alleged subsidies is whether the evidence adduced in support of that valuation meets the party's burden of proof. The EC's approach to valuation of goods and services allegedly provided to Boeing is that no discrete valuation is necessary – it can simply treat NASA's aeronautics budget as a whole and allocate it proportionately to producers of civil aircraft and parts, after making partial subtractions to account for research that the EC concedes is not related to civil aircraft. The United States has explained that this approach is inconsistent with the SCM Agreement and with the evidence.[476]

294. A valuation consistent with the SCM Agreement would look at each type of alleged financial contribution and examine the evidence as to its existence and value. It would examine the relevant documents, and reach a conclusion. The United States has done this with regard to each of the provisions of facilities, equipment, and employees that the EC alleges for NASA:

(1) **NASA Facilities, equipment, and employees provided under Space Act Agreements**: NASA has identified all available relevant instruments related to aeronautics research by consulting hard copy files and its electronic databases,[477] identified those funded under the challenged programs, and provided the values recorded in NASA's records.[478] *This is the only information on these provisions*. The EC has suggested no alternative value for these transactions.

(2) **NASA Facilities, equipment, and employees explicitly listed in procurement contracts (and cooperative agreements)**: The United States has provided available copies of the contracts, along with modifications to

[474] EC RPQ2, paras. 11 and 14.

[475] EC RPQ2, para. 294.

[476] US FWS, paras. 198, 208, 226; US SWS, paras. 72-77.

[477] Exhibit US-74.

[478] Exhibit US-1256 (revised).

those documents, which record any goods or services that NASA makes available pursuant to the instrument.[479] The United States has explained that these have no independent value because NASA made them available to advance NASA's own objectives, and that doing so reduced the cost to the agency of obtaining the research supplied under the contract. Thus, they are factored into the compensation that NASA pays to its contractors. The EC has suggested no alternative value for these transactions.[480]

(3) **NASA Facilities, equipment, and employees "not explicitly" listed in an agreement or contract**: The United States has explained that these do not exist, and that they accordingly have a value of zero.[481] As the Panel is aware, it is rare to have documents establishing the nonexistence of something. In any event, the EC has suggested no value other than zero for these transactions.

(4) **Goods and services purchased from other contractors, which the EC characterizes as "out-of-house expenditures"**: The United States has explained that goods and services purchased from other contractors are outside the Panel's terms of reference, and that the EC did not challenge these expenditures in any of its submissions prior to the EC's responses to the second set of Panel questions.[482] Moreover, the EC still has provided no evidence that NASA conveyed goods and services to Boeing that the agency purchased from other entities under the eight challenged programs. The United States has presented evidence that these transactions had a value of approximately $6.5 billion. The EC has suggested no alternative value for these transactions.

A Panel could verify the value ascribed to a financial contribution by examining evidence indicating its maximum extent.

295. With regard to DoD contracts, the EC has supplied *no* information to demonstrate that the agency provided equipment or employees to Boeing. With regard to facilities, equipment, and employees made available to Boeing under contracts, the United States has provided available copies of the procurement contracts and cooperative agreements, along with modifications to those documents, which record any goods or services that DoD makes

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[479] The United States notes that even if the EC were correct that NASA mistakenly omitted *some* aerospace contracts from its tally, the greatest possible value of payments for aeronautics research was $1.05 billion from 1989 to 2006. If that were the case, the value of contracts submitted to the Panel would account for three-quarters of the total, a coverage sufficient to draw conclusions as to the whole. US RPQ2, paras. 219 and 223.

[480] The EC has noted that a stitching machine made available under Contract NAS1-20546 was worth $330,000. Exhibit EC-324. The United States explained that NASA determined at the end of the work that the machine had no continued value, and it was scrapped by the contractor. US FWS, para. 231 and n. 333.

[481] To the extent the EC means to cover in-house expenditures for NASA's own purposes, these are not provisions to Boeing.

[482] The U.S. Comments on Question 163(d) discuss this issue in more detail.

available pursuant to the instrument. The United States has explained that these facilities, equipment, and employees confer no independent benefit because DoD made them available to advance DoD's own objectives, and that doing so reduced the price the agency paid to obtain the research supplied under the contract. Thus, they are factored into the compensation that DoD pays to its contractors. The EC has suggested no alternative value for these transactions. It has also failed to supply any information to demonstrate that DoD made facilities, equipment, or employees available to Boeing in addition to those explicitly listed in the relevant contracts.

296. The additional information that the EC insists upon is plainly unnecessary to any calculation of subsidy value, however characterized:

- **Unredacted copies of all contracts between Boeing and NASA or DoD funded by one of the eight challenged NASA programs or 23 challenged PE numbers**.[483] The EC has identified *no* NASA document in which redactions affected its ability to understand the substance of the transactions. The United States explains in its comments on Question 190(b) that any redactions to DoD contracts documents are irrelevant to the Panel's analysis. Nor is it even necessary to provide *all* contracts. Many are not available because of the immense period of time covered by the EC claims or ordinary imperfections in file maintenance. What the Untied States and the EC provided is sufficient to provide an understanding of the whole.[484]

- **Contracts related to goods and services obtained from other entities.** The concerns identified above with regard to category (4) of the EC's facilities, equipment, and employees allegations make these documents irrelevant.

- **Subcontracts in which Boeing serves as subcontract to another prime contractor.** The United States has explained that the EC has failed to present any evidence of a financial contribution or benefit by reason of Boeing's participation as a subcontractor to another prime contractor.[485] Moreover, the United States is not in possession of these documents, as they are agreements between private parties that are not submitted to the agencies.

- **Copies of solicitations and requests for proposals, evaluation plans, negotiation memoranda/analyses, and cost analyses related to contracts and subcontracts.** The EC has provided no explanation as to why these materials would be relevant to the valuation or identification of transactions relevant to this dispute.[486] All of them relate not to what the relevant agencies

[483] EC RPQ2, para. 293.

[484] The United States notes that in many instances, it decided that it was unnecessary to submit documents that the EC had already provided to the Panel with its first written submission.

[485] US RPQ1, para. 10.

[486] Such materials may, however, be relevant to other points at issue, particularly the extent of competition for contracts, and the United States has provided examples of such documents in support of these points.

actual paid or provided to Boeing, but to the evolution of each transaction prior to its finalization in a contract. As such, they are irrelevant to a valuation exercise.

297. In sum, the information supplied by the United States is sufficient to demonstrate values for the provisions of facilities, equipment, and employees challenged by the EC, and the EC has suggested no alternative value for these transactions. Therefore, the Panel should accept the U.S. figures.

172. Please comment on Exhibit US-1256 ("Value of NASA Facilities, Equipment, and Employees Under Selected Space Act Agreements").

298. In response to this question, the EC launches a number of unwarranted attacks on the data in Exhibit US-1256. None should detract from reliance on NASA's data.

299. The EC first asserts that the values in the exhibit "come out of *thin air*."[487] The EC knows this is not true. Several of the values came directly from Exhibit US-74. The EC stated in response to Question 158 that it "does not dispute the United States' ability to summarize those {SAA} obligations in exhibit US-74."[488] Moreover, the values reported in that exhibit came from documents submitted to the Panel.[489] With regard to the rest of the values in Exhibit US-1256, the U.S. second oral statement explained that these came from NASA databases, and the US RPQ2 indicated the precise source in the NASA TechTrackS database.[490]

300. The EC then asserts that Exhibit US-1256 fails to tabulate 21 known Space Act Agreements.[491] The United States explained at the second panel meeting that Exhibit US-1256 was not final. In response to a question from the Panel, the United States submitted a final version of the list, which contains all of the Space Act Agreements for which the United States has value information.[492] Of the 21 agreements referenced by the EC, six of them were signed prior to 1993, when the TechTrackS database came on line. At that time, NASA centers were given the option of whether to enter historical data into the system. While NASA Langley Research Center had comprehensive data in the system, other centers did not. However, since Langley is the center that originated the greatest number and of contracts related to the EC allegations, with a far greater value than those originated by other centers,

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[487] EC RPQ2, para. 296.

[488] EC RPQ2, para. 238.

[489] *E.g.*, Exhibit US-70 (BCI), pp. 6-7, 40-42, 44-45, 48-49; Exhibit US-109 (BCI), pp. 14-18, 41-43; Exhibit US-113 (BCI), pp. 9, 12-13; Exhibit US-120 (BCI), pp. 6-7, 9-10, 20-21, 34-35, 54; Exhibit US-122 (BCI), p. 10.

[490] US OS2, para. 63; US RPQ2, para. 190.

[491] EC RPQ2, para. 297.

[492] US RPQ2, para. 193.

the United States believes that the data is substantially complete.[493] TechTrackS indicates that nine of the remaining 17 Space Act Agreements were sponsored by a NASA office that provided general support for programs putting such agreements into effect. These were valued at a total of $8.1 million. It is possible that they were related to one of the eight challenged programs. The United States notes that adding them to the Space Act Agreement total value expressed in Exhibit US-1256(revised) would not change the conclusion that the value of services provided pursuant to these agreements was not large.

301. The EC also asserts that NASA excluded Space Act Agreements that make explicit reference to the HSR, AST, and HPCC Programs. As the EC itself alleges that only the Computational Aerosciences project was the only part of the HPCC Program relevant to large civil aircraft,[494] it is difficult to understand how it can assume that a reference to HPCC in a Space Act Agreement is proof of relevance to large civil aircraft. As for references to one of the eight challenged programs, that does not mean that it was funded by that program or provided data used in that program. For example, the references to other programs in SAA2-B0001.3 were simply to indicate that

> {t}his work will be done in direct collaboration with Dr. Guru P. Guruswamy, the lead scientist for HiMAP activity at NASA who is also involved in the multidisciplinary analysis of NASA's focus programs High Performance Computing and Communication (HPCC), High Speed Research (HSR) and Advanced Subsonic Transport (AST).[495]

That Dr. Guruswamy also worked on those projects does not mean that this Space Act Agreement was funded through one of them.

302. The EC asserts that the data supplied by NASA are "unverifiable" and "incomplete," and that the EC has "no way of knowing how many other LCA-related SAAs may be missing."[496] This is incorrect. NASA has conducted two searches for Space Agreements, one manual and one electronic. The EC has apparently obtained them through other means. However, based on NASA's repeated checking, the Panel can have a high degree of confidence that the United States has identified all of the available Boeing Space Act Agreements that are related to the eight challenged programs. In fact, as the United States has explained, the set is *over*-inclusive, as several of the agreements submitted to the Panel were not related to the challenged programs. Should the Panel consider that any Space Act Agreement was improperly excluded, the United States suggests that it assign a value to that agreement equal to the average value of those listed in Exhibit US-1256(revised) – $4.7

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[493] DFRC-056, signed in August 1992; SAA2-401068, signed in October, 1992; SAA2-401072, signed in November, 1991; and SAA2-401097, signed in June, 1992. Exhibits US-444, EC-1314, EC-1315, and EC-615.

[494] Exhibit EC-25, p. 12.

[495] SAA2-B0001.3, p. 2 (Exhibit US-512).

[496] EC RPQ2, paras. 295 and 297.

million.[497] (Including the nine Space Act Agreements worth $8.1 million, which were discussed earlier in the U.S. comment on this question, would bring the average to $3.1 million.)

303. Finally, the EC repeats that it is challenging facilities, equipment, and employees specifically listed in contracts, and facilities, equipment, and employees not explicitly indicated in contracts. The United States addressed these allegations in its comments on Question 169.

173. The European Communities refers (EC Comments on US RPQ1, para. 9) to a report of the US GAO as support for its view that "any data taken from NASA's financial databases is unreliable for purposes of estimating the value of NASA's R&S subsidies to Boeing".

(a) Does the GAO report cited by the European Communities contain information on the inadequacy of NASA's "financial databases" specifically with respect to procurement transactions?

304. In response to this question, the EC quotes the "Highlights" section of the report, to the effect that NASA has "failed to effectively oversee its contracts, due in part to the agency's lack of accurate and reliable information on contract spending."[498] However, GAO was not criticizing NASA's data on the value of disbursements under its contracts, or funds obligated to those contracts. Rather, it was addressing NASA's ability to use cost data to monitor progress against program plans:

> NASA consistently develops unrealistic cost and schedule estimates, which at least in part, contributes to the cost growth and schedule increases in many of its programs. To adequately oversee NASA's largest and most complex programs and projects and mitigate potential cost growth and schedule increases, managers need well-defined processes for estimating the cost of programs and monitoring progress against those estimates.[499]

In fact, as the United States noted in its response to Question 186, when GAO checked NASA's system for making payments, it found that NASA had "properly designed" controls "to prevent and detect payment errors." It found further that the only error detected in a sample of 110 contracts was both "insignificant" and "corrected promptly."[500] This opinion was delivered by the same GAO director, Gregory Kutz, who delivered the report cited by the EC.

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[497] See Exhibit US-1256(revised). The United States omitted from this calculation the two fully reimbursable Space Act Agreements listed.

[498] EC RPQ2, para. 300.

[499] National Aeronautics and Space Administration: Long-standing Financial Management Challenges Threaten the Agency's Ability to Manage Its Programs, p. 4 (Exhibit EC-1313).

[500] US RPQ2, para. 201, *quoting* General Accounting Office, Report GAO-02-642R NASA Contract Payments (Exhibit US-1273).

(b) Does the European Communities agree with the contention of the United States (US RPQ1, para. 12) that the Federal Government Procurement Data Base is "the only reliable and comprehensive source for data on NASA procurements".

305. In response to this question, the EC cites a portion of a one-paragraph summary of concerns regarding the FPDS, including the conclusion that the "FPDS is not a reliable database."[501] However, the EC fails to note the reasons cited for this conclusion – that DoD did not participate consistently, that there was human error in data entry, and different agencies "vary in the degree to which they fill out the fields in the database, resulting in data of uneven quality."[502] DoD's participation is not an issue in evaluating *NASA's* disbursements and variability among agencies is not an issue because the U.S. calculations use FPDS data only with regard to one agency – NASA. As for human error, that will be an issue with any data collection exercise.

306. Thus, the United States reiterates its earlier observations. The FPDS data are reliable, in that they are used by the U.S. government to represent its total expenditures.[503] They are particularly reliable for the purpose used in this dispute – to value procurements by a single agency over a course of years. The FPDS data are also comprehensive in that they cover *all* transactions with *all* contractors.

307. The United States also notes that these concerns do not affect the critical conclusions the Panel should draw from the FPDS data: (1) that the four aeronautics research centers paid Boeing only $1.05 billion from 1989 to 2006, of which *at most* $775 million[504] was related to the eight programs challenged by the EC;[505] (2) that contracts, cooperative agreements, intra-government agreements and grants to entities other than Boeing accounted for at least $6.67 million,[506] and (3) that Boeing accounted for no more than ten percent of NASA "out-of-house" spending on aeronautics research.[507]

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[501] EC RPQ2, para. 301, *quoting* Garrett Leigh Hatch, The Federal Funding Accountability and Transaparency Act: Background, Overview, and Implementation Issues, CRS Report for Congress, p. 8 (Oct. 6, 2006) (Exhibit EC-1375).

[502] Garrett Leigh Hatch, The Federal Funding Accountability and Transaparency Act: Background, Overview, and Implementation Issues, CRS Report for Congress, pp. 8-9 (Oct. 6, 2006) (Exhibit EC-1375).

[503] FPDS data form the basis for NASA's Annual Procurement Reports, and the basis for agency reporting of annual procurement data to the Office of Management and Budget in the Executive Office of the President.

[504] If the $66 million estimate for the ACEE Program and the $75 million in nonreimbursable Space Act Agreements are included, the total would come to $916 million.

[505] US RPQ2, paras. 216-224.

[506] US RPQ2, para. 159.

[507] US RPQ2, para. 159. The United States notes that as there is no evidence that any errors within the FPDS database are contractor-specific, so that they would not effect an evaluation of Boeing's share of total contracts.

308. The Panel should be aware that any concerns raised with regard to the FPDS data and disbursement data apply with even greater force to the options favored by the EC. Its "top-down" approach relies on data from NASA's budget requests, which represent either amounts authorized by Congress (which NASA may or may not spend in full) or planning budgets that use the same financial and procurement data that the EC criticizes so fiercely. However, unlike the FPDS data, its top-down approach is highly aggregated, so there is no way to determine proper attribution of expenditures to particular contractors or particular uses within NASA. The same holds true for the "all contracts" verification that the EC proposes. The only way NASA has to identify relevant documents is through its databases. As the existing document sets show, with the age of the programs challenged by the EC, some of the documents will be unavailable. Thus, recourse to electronic records would be necessary in any event.

309. In sum, the question is not whether the FPDS is perfect. It is not. However, the facts show that it is better than any of the alternatives. Thus, it provides the best basis for an objective assessment of the facts related to the EC's claims.

174. The European Communities argues that in situations of sub-contracting, NASA/DOD funds are "channelled" or "flow" through prime contractors to sub-contractors. (EC RPQ1, paras. 17, 19) If that is the case, why does the European Communities include the entirety of payments that were made directly to Boeing/MD in its capacity as a prime contractor in its overall subsidy estimates? How does the European Communities respond to the United States' assertions that "[w]hen subcontractors perform work related to a Boeing contract, the company simply takes money it receives from DoD and passes it along to the subcontractor" (US FWS, para. 151), and that "much of the less than $750 million that was provided directly to Boeing was actually passed along to other companies"? (US FWS, footnote 328)

310. The EC's position on subcontracting is completely self-contradictory. On the one hand, the EC would treat a payment received by Boeing under a subcontract as a "direct payment," even though there is an intermediary between the government and Boeing that is not entrusted or directed to make a financial contribution. On the other hand, the EC would treat a payment that *Boeing* makes to *its subcontractor* as a direct transfer to Boeing. In its response to this question, the EC tries to avoid this self-contradiction by reiterating its argument that the HSR Program aimed only to help Boeing, so that there is no need to worry about the details of who received what.[508] The United States has shown that the underlying premises of the EC's assertion are wrong. The alleged "purpose" of a program does not determine whether it is a financial contribution, what type of financial contribution it is, or whether it confers a benefit.[509] And, in any event, NASA's aeronautics research programs (including the HSR Program) sought to perform foundational research for broader U.S.

[508] EC RPQ2, para. 306.

[509] US FWS, para. 209; US SWS, paras. 64-67; US OS2, paras. 35-36.

government use and to build the aeronautics knowledge base by disseminating the results to a broad group of industries throughout the world.[510]

311. The EC also repeats its arguments that "all support" to Boeing is a subsidy with a total value of $10.4 billion.[511] The United States has shown elsewhere that the evidence does not support these assertions, and will not repeat that analysis here.

C. DOD AERONAUTICS RESEARCH & DEVELOPMENT

1. Existence of specific subsidies

189. In its FWS, the European Communities stated that DOD provided approximately $2.4 billion in "R&D funds" to Boeing's LCA division. (EC FWS, para. 657) In its FWS, the United States responded that DOD contributed "no funds" to Boeing's large civil aircraft division. (US FWS, para. 98) In its SWS, the European Communities responds that:

> *"the United States' point that Boeing Commercial Airplanes has no contracts with DOD is immaterial. The European Communities' claims are not simply about funding that may have gone directly to BCA, or that may have been passed along from IDS to BCA through Boeing's corporate headquarters. Rather, they are about dual-use technology developed anywhere within Boeing with DOD RDT&E funding and support that was transferred to Boeing's LCA division and used toward the design or development of Boeing LCA, whether directly or through the knowledge and experience of employees that moved amongst Boeing's different divisions.*
>
> *As such, the European Communities allocates this funding amongst Boeing's different divisions based on the ratio of each division's sales to total Boeing sales. This methodology results in $2.4 billion out of the total $4.3 billion in dual-use DOD RDT&E funding and support to Boeing being allocated to Boeing's LCA division." (EC SWS, paras. 468-469)*
>
> *(a) What does the European Communities mean when it says that its claims are not about RDT&E "funding" that went directly or was passed along to BCA, but rather with dual-use technology that was developed with RDT&E funding?*

312. The EC provides a lengthy and convoluted response that boils down to a statement that its claims involve (1) alleged financial contributions in the form of "funding" (*i.e.*, payments under RDT&E contracts) and "support" to Boeing; and (2) alleged benefits in that DoD "did not demand anything in return" when that contribution supposedly lessened the cost Boeing incurred to develop its large civil aircraft. The assertions the EC makes do not establish a subsidy within the meaning of Article 1, and find no support in the evidence.

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[510] US SWS, para. 64; US OS1, paras. 56-64; US OS2, paras. 34-36 and 41; and US Comment on Question 158.

[511] EC RPQ2, paras. 303 and 307.

However, the somewhat greater clarity with regard to the EC's claims will provide a useful framework for the Panel's evaluation.

313. The United States notes that the EC remains vague as to what constitutes activities that fall within the "support" that it is challenging. In its first written submission, the EC stated its claim in terms of DoD "facilities, equipment, and employees,"[512] but the terms of reference of this Panel and the evidence to date have covered only a small number of facilities referenced in five contracts.[513] Therefore, the EC's allegations with regard to "support" should be understood as covering only facilities, and not equipment and employees.

314. The EC makes one prefatory point that warrants further comment. It states that it "is of no consequence" whether DoD funding went directly to BCA, Boeing's large civil aircraft division, or IDS, Boeing's military contracting division. The United States does not agree. The business unit within an enterprise that performs work under a contract, while of limited relevance, is not irrelevant. That the $4.3 billion in DoD payments for military research went directly to IDS, Boeing's defense unit, indicates that advancing the interests of BCA or large civil aircraft was not part of DoD's agenda.

> *(b) If the European Communities' claims are not about "funding", why does it allocate "funding" to BCA? Is the European Communities using the term "funding" in the same sense in paras. 468 and 469 of its SWS?*

315. In response to this question, the EC indicates that "funding" sometimes means "funding" in the form of monetary payments for R&D services, and sometimes means both those monetary payments *and* "support" (for DoD allegations, limited to facilities). Although the scope of the EC's "provision of goods and services" claim has been unclear in submissions up to this date, the EC has apparently tried to be more precise in its responses to the Panel's second set of questions. From the responses to Question 156, it appears that the EC's "support" allegation covers three types of alleged financial contributions:

(1) "Support" (*i.e.*, facilities) referenced in contracts between DoD and Boeing;[514]

(2) "Support" (*i.e.*, facilities) "not explicitly stated" in contracts;[515] and

(3) "Support" in the form of DoD payments to other entities (such as universities) that supposedly constituted transfers from DoD to Boeing.[516]

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[512] EC FWS, para. 896.

[513] The US Comments on Question 156 discuss the EC's omissions in greater detail.

[514] EC RPQ2, para. 233.

[515] In response to Question 156, the EC refers to its "support" allegation as encompassing "facilities, equipment, and employees." EC RPQ2, para. 233.

[516] EC RPQ2, para. 357.

Given the EC's limited clarification, the Panel should use this framework in evaluating the EC subsidy allegations.

> *(c) If the European Communities' claims are not about RDT&E "funding" that went directly or was passed along to BCA, but rather with dual-use technology that was developed with RDT&E funding, why does the European Communities characterize the financial contributions as a "direct transfer of funds"?*

316. The EC's response to this question confirms that it has two sets of claims, one regarding funding, namely payments to Boeing under RDT&E contracts, and the other regarding "support."[517] The EC describes its support claim as covering "facilities, equipment, and employees effectively provided to Boeing's LCA division."[518] As the United States explains in its response to Question 156, the EC's Panel Request and the evidence provided to date address only "facilities," meaning that it has no viable allegation against DoD provision of equipment or employees. Moreover, the United States has shown that provision of facilities to advance the completion of work under a contract is not a distinct financial contribution, and does not confer a benefit.[519]

> *(d) Does the European Communities' analysis presuppose that the entirety of the $4.3 billion constitutes a subsidy to Boeing, out of which $2.4 billion should be allocated to Boeing's LCA division? If so, what is the basis for that premise?*

317. The EC explains that it alleges financial contributions covering all of the dual use RDT&E funding and "support" allegedly provided to Boeing. It then goes on to state that it "is only the LCA-related portion that the European Communities is concerned with" and that the EC "does not perform a 'benefit' analysis with respect to the remainder of the $4.3 billion (*i.e.*, $1.9 billion), which ultimately relates to Boeing's IDS division."[520] This statement misperceives the benefit analysis.

318. Article 1.1 provides that a subsidy exists if "there is a financial contribution by a government or any public body within the territory of a Member" and "a benefit is thereby conferred." The EC has conceded that the research services purchased by DoD cannot be divided into a civil "portion" and a military "portion."[521] Thus, there is only one financial contribution, which the EC concedes is a purchase. Under Article 1.1(b), the analysis of a benefit examines the financial contribution as a whole, and whether it confers a benefit. It does not break the contribution into pieces and evaluate them separately. Thus, the question in evaluating whether the purchase of research and development services challenged by the

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[517] EC RPQ2, paras. 314-315.

[518] EC RPQ2, para. 315.

[519] U.S. Comments on EC RPQ1, para. 39.

[520] EC RPQ2, para. 317.

[521] EC RPQ2, para. 346.

EC confers a benefit is whether DoD paid more than adequate remuneration for what it bought, namely, the entire package of research services.

319. This is an important point because, by dividing the alleged financial contribution[522] into "civil" and "military" portions, the EC seeks to frame the analysis in a way that accepts as given the unproven assertion that there is a civil portion of the research that can and would be separately recompensed in a commercial transaction. An analysis that focuses on the entire transaction alleged to confer a subsidy is neutral as to that issue, and allows a more neutral evaluation of the points raised by the parties.[523]

190. Please direct the Panel to the arguments and evidence on record regarding:

(a) the process that was followed in selecting contractors under the DOD R&D programmes at issue; and

(b) the process followed by DOD in formulating the "statements of work" contained in the R&D contracts at issue, including the extent of Boeing/MD's involvement in the process of formulating the "statements of work".

Please indicate whether the same process was followed in the case of Procurement Contracts and Cooperative Agreements.

Question 190(a)

320. The EC declines to answer this question, asserting that the information in question is "exclusively in the control of the United States."[524] This is incorrect. The information before the Panel includes examples of solicitation documents that outline the process for choosing contractors in great detail.[525] These documents state with great precision the technical description of the work, the length of time allowed to complete it, the budgetary funds to pay for it, how to prepare a proposal, whether the government expects to provide any property (*i.e.* facilities), the necessary contents for the technical description, including the statement of work. These documents also indicate the criteria the government will use to choose an offeror or offerors as supplier(s) of the project.[526] It is, therefore, difficult to understand how

[522] The United States recalls its view that the transaction is a purchase of R&D services, which is not a financial contribution within the meaning of Article 1.1(a)(1). US FWS, paras. 2, 4, 44-48, 90-98; US SWS, para. 8-9, 31-36.

[523] The EC also makes tangential assertions with regard to alleged overpayments by DoD of incentive fees on some contracts. These assertions have not been part of the EC's financial contribution or benefit analyses, so the United States has not addressed them. To the extent that the Panel considers them relevant, it should note that the EC provides no evidence that the report's findings apply to any of the research at issue in this dispute. Moreover, to the extent that the report suggests that DoD's transactions do not always work as planned, that simply conforms to commercial transactions, which often prove more or less favorable to a party than the party initially expected.

[524] EC RPQ2, para. 318.

[525] The list in paragraph 226 of the US RPQ2 lists these sources.

[526] *E.g.*, Composite Repair Aircraft Structures Program, PRDA, Commerce Business Daily (March 31, 1997) (Exhibit US-1251, pp. 2-7/12).

the EC could complain that these materials "provide no insight into the actual process by which Boeing has been selected to participate in the RDT&E project elements."[527] In fact, the United States reviewed the relevant evidence in response to this question.

321. Moreover, DoD publishes Broad Agency Announcements, Program Research and Development Announcements, and notices that RFPs are to be issued in the Commerce Business Daily or, as of 2008, in FedBizOpps and Grants.gov. All of these are available on-line. Moreover, as the EC's experts on U.S. government contracting law should know, important facts about the selection process are recorded in the resulting contract, most particularly whether competitive processes were used.[528] In fact, documents related to several of the contracts listed in Exhibit US-41(revised) are available on-line.[529]

322. The EC also notes that the United States discussed the effect of competition in its oral statement at the second panel meeting, but argues that there is no evidence of competition with regard to the contracts referenced in Exhibit US-41(revised). This is incorrect. The United States reported to the Panel that DoD's databases indicated that this was the case,[530] and the EC has provided no reason to believe otherwise. The United States identified the regulations that require agencies to "promote and provide for full and open competition." and provide formal justification is they cannot do so.[531] DoD solicitation and contract forms contain boxes in which the contracting agency must indicate whether it is invoking an exception to full and open competition. Those boxes in the contracts submitted by the United States indicate that almost all of the contracts listed in Exhibit US-41 were, in fact, subject to competitive procedures.[532] The EC states that it retained "experts" on DoD contracting, who should have known these facts. In short, the evidence relevant to the Panel's question was available to the EC, which chose for its own reasons not to discuss that evidence.

323. Finally, the EC argues that the evidence of competition does not indicate "how those alleged competitive forces resulted in selecting the contractors for the DOD RDT&E project elements at issue."[533] To the contrary, the examples of Broad Agency Announcements and Program Research and Development Announcements submitted by the United States indicate explicitly how the selection process works, namely, by considering the degree to which each offeror's proposal meets the agency's technical and cost objectives.[534] The EC has stated that it "does not doubt" that "NASA selects contracts from among bidders that "'are technically qualified to perform the project based on the value of its cost proposal, the quality of its ideas or concepts and its level of competence in the specific field of science or technology

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[527] EC RPQ2, para. 319.

[528] US RPQ2, para. 226, note, 246.

[529] The United States did not submit these with US RPQ2 because the question requested direction to "evidence on the record."

[530] US OS2, para. 19.

[531] US OS2, para. 18.

[532] US RPQ2, para. 226, note 246.

[533] US RPQ2, para. 319.

[534] *E.g.*, Exhibit US-1251.

involved.'"[535] The EC provides no reason to believe that DoD, which is subject to the same Federal Acquisition Regulations that apply to NASA, operates any differently. Moreover, there is no need for a detailed explanation of how competition affects market participants. It works on purchases by DoD the same way it would in any other market – by shaping how potential suppliers react to business opportunities. An important part of this effect will occur before suppliers even submit offers, as the knowledge of competition will affect what they offer and how they propose to achieve the objectives of the solicitation.

Question 190(b)

324. The EC declines to answer the question posed by the Panel, ostensibly because U.S. exhibits "failed to provide sufficient information."[536] However, as the United States explained in its comment on Question 150(a), the United States provided the Panel with materials describing the formation of NASA statements of work at the beginning of this proceeding. The United States also submitted copies of modifications to the various contracts, which indicated how the statements of work evolved over the course of the work. Thus, the evidence necessary to respond to the Panel's question was in front of the EC, which chose to ignore it.

325. The EC also asserts that the United States "made efforts to actively redact the statements of work from the DoD contracts that have been submitted."[537] In fact, the United States sought the greatest possible release of information. However, export control authorities at DoD and the State Department determined that in light of the military nature of some of the research discussed in the contracts, the U.S. International Traffic in Arms Regulations ("ITAR") prevented export of detailed descriptions, even under the heightened protections of HSBI. The documents submitted by the United States indicated the existence of ITAR-controlled information and the redactions necessary to protect it as evidence that it would not be possible to incorporate the resulting technologies into large civil aircraft for all the reasons described in prior submissions.[538] Most particularly, if it is impossible to export even a description of the technology in a document with limited distribution, it would clearly be impossible to export the technology itself as part of a large civil aircraft, or share that technology with foreign workers or foreign component makers. Where possible, the DoD scientists provided non-controlled summaries of the work performed under these contracts.[539]

326. In fact, the United States supplied statements of work (or did not need to supply them because the EC already had) for half of the contracts listed in Exhibit US-41(revised), and the redactions of which the EC complains pertain to just eight contracts. One was Cooperative Agreement F33615-97-2-3220, which the U.S. response to Question 208 explained was the same work covered by the SOW provided for Procurement Contract F33615-97-C-3219.[540]

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[535] EC RPQ2, para. 198.

[536] EC RPQ2, para. 321.

[537] EC RPQ2, para. 323.

[538] US FWS, paras. 166-176; US SWS, paras. 55-59.

[539] *E.g.*, US FWS, para. 162 and US RPQ2, para. 290.

[540] US RPQ2, para. 290.

One was only partially redacted, with the remaining portions sufficient to indicate the nature of the work.[541] Three of the redactions related to Procurement Contracts F33615-92-C-3406 and F33615-97-C-5270 and Cooperative Agreement F33615-01-2-3110,[542] which were summarized in the U.S. first written submission.[543] Most of the remaining redactions related to a single contract, Procurement Contract F33615-00-D-3052. The descriptions of the work indicate why the redacted materials are of a type irrelevant to the EC's claim:

- "Automated Aerial Refueling Precision Navigation" (Exhibit US-676) – large civil aircraft are not refueled in flight;
- "Strike UAV {Unmanned Aerial Vehicle} Gap Analysis" (Exhibit US-677) – large civil aircraft are not unmanned, and do not engage in "strike" missions;
- "UAV Mission Area Assessment for GWOT/HLS {Global War On Terror/Homeland Security}" (Exhibit US-679) – large civil aircraft are not UAVs, and are not designed for missions in the Global War On Terror;
- "Mission Area Assessment (MAA) Application of Unmanned Systems to USAF Mission Capabilities" (Exhibit US-680) – large civil aircraft are not unmanned, and do not have U.S. Air Force missions;
- "Directed Energy Beam Improvement Using Binary Control for the Advanced Tactical Laser" (Exhibit US-683) – tactical lasers are not relevant to large civil aircraft;
- "Integrated Adaptive Guidance and Control for Reusable Launch Vehicles during Reentry" (Exhibit US-685) – large civil aircraft are not "launch vehicles" and do not undergo "reentry";
- "ACAST" (Exhibit US-686) means Advanced CNS Architecture System and Technologies, and is an air traffic management technology;
- "Revolutionary Hunter-Killer Design Development" (Exhibit US-689) – Large civil aircraft do not "hunt" or "kill"; and
- "Control Effectors for Supersonic Tailless Aircraft Concept Demonstration (ESTA-CD)" (Exhibit US-692) – large civil aircraft are neither tailless nor supersonic.

Thus, the information available to the Panel indicates both why U.S. law prevents the export of detailed descriptions of these contracts for weapons research and why that research was irrelevant to the Panel's inquiry.

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[541] Exhibit US-705. The SOW was related to Cooperative Agreement F33615-97-2-3400, which contained additional information regarding the work. Exhibit US-612, p. 19/57.

[542] Exhibits US-702 (HSBI), US-703 (HSBI) and US-704 (HSBI).

[543] US FWS, para. 162.

196. The United States argues that the potential civil uses for military technologies are irrelevant to the analysis under the SCM Agreement of whether a specific subsidy exists. In this respect, the United States submits that the existence of knowledge synergies between different units of an enterprise is consistent with market practices, and that the alleged existence of dual use for a technology does not affect the application of the adequate remuneration standard. Can the European Communities respond to (i) the arguments made by the United States at paras. 78 and 116 of the US FWS, and at paras. 50-51 of the US SWS; and (ii) the arguments made by the United States at paras. 155-157 of the US SWS?

327. The EC provides a general introduction laying out its approach before answering the separate parts of the Panel's question. It states that it is challenging both funds and "support" as financial contributions to Boeing as a whole.[544] The United States agrees that the EC has made allegations with regard to "funds" in the form of payments to Boeing under DoD RDT&E contracts. However, as the United States has explained, these are purchases of services and, therefore, not financial contributions within the meaning of Article 1.1(a)(1).[545] In fact, as the EC concedes that Boeing gets "something of value" with regard to military technology under these contracts, it is difficult to see how they can be characterized as anything other than purchases of services.[546] With regard to "support" – which the United States understands to refer to the alleged provision of facilities – the EC has not presented sufficient evidence to establish that any such transactions occurred.[547]

328. The EC does not dispute that knowledge synergies exist between different units of an enterprise, or that such synergies are consistent with market practices. However, it argues that the "real issue" is that DoD pays Boeing to develop technologies that have both military and civil applications, but does not receive anything back for the value of the civil application.[548] This statement of the "issue" is simply a narrative description of a knowledge synergy, which the EC does not dispute is consistent with commercial practices. Specifically, enterprises with multiple business units often find that activities conducted by one of them produce knowledge useful in another. That is one of the reasons that enterprises have multiple business units – to exploit synergies among them. It is a fact of life, and not one for which customers expect to obtain some sort of payment from their suppliers, as the EC alleges. Therefore, it is difficult to understand how the EC can dismiss the commercial nature of synergies as an attempt to "shift attention away" from the "real issue." In fact, the commercial nature of any inter-divisional synergies appears to be conclusive proof that any civil applicability of DoD-funded research – which is much less prevalent than the EC alleges – does not confer a benefit to civil aircraft.

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[544] EC RPQ2, para. 323.

[545] US FWS, paras. 2, 4, 44-48, 90-98; US SWS, paras. 8-9, 31-36.

[546] EC OS1, para. 76; EC SWS, para. 471.

[547] US Comments on EC RPQ1, paras. 38-39; US OS2, paras. 29-32.

[548] EC RPQ2, para. 324.

329. The United States addresses the individual arguments made by the EC in its comments on the remainder of the question.

Question 196(i)

330. The EC states that, under its theory, "{t}he source of the benefit lies with the non-commercial nature of the agreement between Boeing and DoD," and not with any "advantage" Boeing takes from the "situation" that technologies resulting from some RDT&E contracts allegedly had both civil and military applications.[549] To the extent that this analysis involves a consideration of whether DoD provided Boeing with more than adequate remuneration for the R&D services that it purchased, the United States agrees. Previous submissions have shown that analyzing the transactions on this basis reveals that they are not financial contributions and do not confer a benefit. It is difficult to understand what the EC means when it states that the "advantage" allegedly accruing to Boeing large civil aircraft from dual-use technology is not the "source of the benefit" that the EC alleges, as the EC benefit arguments repeatedly mention the supposed "advantage" to large civil aircraft conferred by DoD RDT&E. The United States disagrees with the EC analysis, and will address that point as the EC raises it.

331. The United States has shown that DoD's purchases of R&D services from Boeing involve no more than adequate remuneration to Boeing, and are made on terms no more favorable than are available in the market. All of them were subject to competitive procedures,[550] and involved reimbursements of costs actually incurred by Boeing that were themselves market-determined.[551] Thus, any remuneration DoD paid was no more than adequate.

332. The EC advances three arguments to suggest otherwise. It first contends that commercial purchasers of Boeing aircraft do not purchase R&D separately from their aircraft, and that they are "indifferent as to the extent of Boeing's R&D spending."[552] The fact that airlines rarely ask Boeing to conduct specific research for them does not mean that DoD's RDT&E contracts are non-commercial. Airbus and Boeing themselves both purchase R&D services from other entities, demonstrating that such purchases can be made in the market.[553] Moreover, there is no truth to the notion that customers are "indifferent" about R&D. The evidence before this Panel shows conclusively that customers do not hesitate to press the

[549] EC RPQ2, para. 325.

[550] US OS2, paras. 17-19; US RPQ2, para. 226.

[551] For example, a large portion of the cost of any RDT&E contract will consist of the salaries of scientists. The salaries of Boeing scientists are market-determined. US FWS, paras. 108-110.

[552] EC RPQ2, para. 326.

[553] Affidavit of Regina Dieu, para. 3 (Exhibit EC-1178) ("Airbus is a major player in the market for R&D services"); *e.g.*, Contract A, Contract B, Contract C, and Contract D (Exhibits US-1208, US-1209, US-1210, and US-1211).

aircraft producers to conduct the R&D necessary to achieve the capabilities that the customers seek.[554]

333. The EC also asserts that a commercial entity purchasing R&D services "generally does so only when it plans to retain the full rights to the technologies that result."[555] The United States agrees that contractual agreements regarding rights in patents made during work on the contract must be part of the evaluation of the overall transaction, and not pulled out for separate analysis. However, the EC's assertion regarding rights in technologies does not support its contention that DoD RDT&E contracts are non-commercial. The United States has demonstrated that the "general" practice alleged by the EC does not exist, and instead, there is a wide variety of commercial practices regarding intellectual property rights arising from research contracts. There are commercial transactions with patent provisions comparable to, and in some cases, even more favorable to the supplier than, DoD's. Therefore, the EC assertions regarding "general" practice indicate nothing about the commercial nature of DoD RDT&E contracts.

334. Finally, the EC presents the findings of the U.S. GAO in its report *Best Practices, Increased Focus on Requirements and Oversight Needed to Improve DOD's Acquisition Environment and Weapon System Quality*.[556] The EC correctly notes that GAO compared DoD's practices with those of five firms (including Boeing's Commercial Aircraft division) and concluded that DoD would perform better if it adopted some of the practices of those firms.[557] However, the EC is wrong to treat this report as evidence that DoD transactions are not consistent with market practices. Commercial enterprises are continually reevaluating their practices to improve their quality or efficiency. Most commercial firms have probably received reports similar to the GAO report from their management consultants, containing similarly worded – or even harsher – findings. That does not mean that their transactions are non-commercial. To use just one example, Airbus recently realized that it was using computer design systems incorrectly, creating huge delays in the commercial entry into service of the A380.[558] Shortly afterward, Airbus concluded that it needed to improve efficiency by reducing total employment and selling off some of its components production facilities.[559] That does not mean that Airbus is acting in a "non-commercial" manner until it remedies these flaws.

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[554] Hazy crystal-clear on A350, 747-8, Everett Herald (March 23, 2006) ("Airbus . . . has to address whether they keep refining this A330 line and calling it an A350 or instead to make serious upgrades to the design.") (Exhibit US-1173); Affidavit of Michael Bair, para. 11 (Exhibit US-7); US SWS, HSBI Appendix, para. 20.

[555] EC RPQ2, para. 327.

[556] GAO-08-294 (Feb. 2008) (Exhibit EC-1380).

[557] *Best Practices, Increased Focus on Requirements and Oversight Needed to Improve DOD's Acquisition Environment and Weapon System Quality*, GAO-08-294, p. 4 (Feb. 2008) (Exhibit EC-1380).

[558] US FWS, paras. 925-927.

[559] Pierre De Bausset, "Letter to our Shareholders," pp. 6-7 (Exhibit US-328); EADS Annual Review 2006, pp. 28-39 (Exhibit US-369).

335. The GAO report cited by the EC is only one example of an input used by DoD in its on-going efforts to improve its procurement processes. When DoD received GAO's report, it acted as a commercial enterprise would have done – it reviewed the results, decided to implement some of the recommendations, and declined to implement others.[560] Thus, DoD's willingness to reconsider its practices does not suggest that the terms of its transactions are more favorable than those available in the market.

Question 196(ii)

336. The EC's response to this part of the question seeks to establish the existence of a benefit by reference to government practices, namely, the DoD's long-defunct recoupment policy. The EC's proposal is contrary to the relevant authorities regarding the identification of a benefit. It is also contrary to the evidence before the Panel.

337. The EC's government-based approach finds no support in Article 14(d), which advises that a purchase "shall not be considered as conferring a benefit unless the . . . purchase is made for more than adequate remuneration." It further provides that "{t}he adequacy of remuneration shall be determined in relation to prevailing market conditions for the good or service in question in the country of provision or purchase."[561] The Appellate Body found with regard to Article 14 that "{a} 'benefit' arises under each of the guidelines if the recipient has received a 'financial contribution' on terms more favourable than those available to the recipient in the market."[562]

338. The EC's *theory*, expressed over and over, is that "a profit-seeking entity would have ensured that it received a return on any portion of that R&D funding that ultimately benefits Boeing's own commercial business."[563] The EC has never provided a single piece of evidence of a commercial entity requiring such a return. In fact, it has conceded that there is no benefit when the divisions of market based companies recognize synergies from each other's transactions.[564] This absence of a commercial transaction requiring the seller to repay the buyer when another one of the seller's divisions realizes advantages because of the transactions by itself warrants rejecting the EC argument.

339. Nonetheless, the EC seeks to support its benefit argument with what is in essence a benchmark from the government sector, namely, the "recoupment" regulations that DoD terminated in 1992. From the outset, this example is not the evidence of "prevailing market conditions" that is the focus of the adequate remuneration analysis called for by Article 14.

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[560] *Best Practices, Increased Focus on Requirements and Oversight Needed to Improve DOD's Acquisition Environment and Weapon System Quality*, GAO-08-294, pp. 27-30 (Feb. 2008) (Exhibit EC-1380).

[561] As noted above, the DoD RDT&E transactions challenged by the EC were purchases of services, which are not financial contributions. US FWS, paras. 2, 4, 44-48; US SWS, paras. 8-9, 31. However, if the Panel finds that they were financial contributions, the United States and EC agree that the "adequate remuneration" standard provides the proper basis for evaluating the existence of a benefit. EC RPQ2, para. 331.

[562] *Canada – Aircraft (AB)*, para. 158.

[563] EC SWS, paras. 481, 483. EC RPQ2, para. 344. The EC makes the same point in paragraphs 348.

[564] EC RPQ2, para. 325.

As a government-imposed regulation, recoupment was not a "market condition" in and of itself, and its demise in 1992 meant that it was not "prevailing" at the time of most of the transactions challenged by the EC.

340. Furthermore, even when they were in effect, the regulations cited by the EC would not have required recoupment for any synergies that Boeing's civil aircraft division realized from dual-use technologies (to the extent they actually exist). Under those rules, DoD required recoupment fees only for commercial sales of a "DoD developed item or a derivative of a DoD developed item."[565] A "DoD developed item would be a weapons system itself or other product whose development costs DoD paid, while a "derivative" of a DoD developed item was defined as one that "consists of common parts equal to, or more than 10 percent of the Defense item."[566] DoD does not develop large civil aircraft, and Boeing's large civil aircraft do not have a commonality of more than ten percent with any DoD-developed article. Therefore, the old recoupment rules would not have applied to sales of large civil aircraft.[567]

341. These minimum thresholds for recoupment demonstrate that DoD's policy did not aim at capturing the kind of basic synergies that result from the advantages different divisions of an enterprise may realize from each other's businesses. But that is exactly what the EC's allegations regarding dual use technologies represent, to the limited extent that such synergies exist. Even at the greatly inflated levels calculated by CRA, their value was well under one percent of the value of Boeing civil aircraft and parts sold in the 1991-2006 period.[568]

342. The only example of recoupment that the EC could produce – a 1975 payment that Boeing made because it used the KC-135 tanker as the starting point for its 707 large civil aircraft, highlights the irrelevance of recoupment to this dispute.[569] The obligation arose because Boeing used a finished military-developed product, the KC-135, as the basis for its 707. As the United States has explained, that is the type of military-to-civil transition that recoupment sought to address – conversion of a weapons system to civil use.[570] But in the period covered by the EC allegations, such transitions were very much a matter of history. Even the EC does not allege that any of the civil aircraft sold by Boeing during the 1991-2006 period are adaptations of military airframes. Indeed, the flow goes in the other direction today, with civil airframes being adapted to use as tankers.

343. The EC notes that DoD considered that the recoupment regulations provided it a "fair share" of products created using its investment or a "fair price" for its contribution to development of a technology.[571] The EC asserts – without any support – that these

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[565] 48 C.F.R. § 271.004(c) (Exhibit US-1123).

[566] 48 C.F.R. § 271.001 (Exhibit US-1124).

[567] The United States made these observations in its second written submission, and the EC has never disputed them. US SWS, para. 41.

[568] *Compare* Exhibit EC-25 (alleging RDT&E subsidies worth $2.4 billion for 1991-2006) *with* Exhibit EC-18 (alleging Boeing and McDonnell Douglass combined sales of $406.5 billion for 1991-2006).

[569] EC RPQ2, para. 337.

[570] US SWS, paras. 40-43.

[571] EC RPQ, para. 336.

characterizations "are basically another way of saying that the principle of recoupment was viewed as necessary to ensure that adequate compensation was received by DoD." They say nothing of the kind. They merely indicate that recoupment was *one* tool DoD used in limited circumstances (sale of DoD-developed products or derivative products to commercial customers) to achieve a "fair" result. Its ability to use that tool for products based on a large amount of DoD-funded input does not mean that other tools, like the competitive processes, cooperative agreements, or Other Transaction Agreements used by DoD to fund RDT&E activities with Boeing, failed to achieve a fair result for the lower levels of normal commercial synergy that the EC has challenged.

344. When DoD terminated the application of the recoupment in 1992, it explained:

> *This final rule recognizes that requiring contractors to pay a fee to the Government for products and technologies sold to non-U.S. Government parties unnecessarily imposes a financial burden on U.S. industry and an administrative burden on both the Department of Defense and U.S. industry. This final rule* will assist the U.S. defense industry to be more competitive on a global basis by reducing contracting costs through economies of scale, pricing incentives, and reduced administrative burdens.[572]

The EC, quoting only the nonitalicized portion of this explanation, attempts to portray it as an acknowledgement that ending the recoupment policy "would simply not be 'fair' in a commercial sense."[573] The text does not actually say that. Moreover, the full text makes clear that DoD sought to reduce its own administrative burden – the recoupment rules were quite complex. DoD also viewed the change as likely to reduce contracting costs through such market-based mechanisms as price incentives, economies of scale, and reduced administrative burdens, which would result in lower acquisition costs on cost-based contracts for DoD. Thus, the end of recoupment was not a move away from "fair" or "market-based" principles, but a shift to a less burdensome set of rules and incentives to achieve a fair result more efficiently.

345. The EC has also noted that the U.S. Department of Energy has a system to seek recoupment for its expenditures on environmentally friendly coal-based technology, and that the U.S. Department of Commerce has debated seeking repayment when an ATP recipient "nets considerable gains from technology developed under ATP."[574] These two examples do not indicate a consensus that recoupment is a "fair" or "market-based" approach. In fact, ATP is a grant program, so "adequate remuneration" is not an issue. Moreover, the small number of such examples indicates only that it is a tool used in rare circumstances, and by the government rather than by private parties.

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[572] Recoupment of Nonrecurring Costs on Sales of U.S. Items, 58 Fed. Reg. 16497 (Mar. 29, 2993) (Exhibit EC-416).

[573] EC RPQ2, para. 338.

[574] EC RPQ2, paras. 339-340.

346. Thus, the EC's arguments do not indicate that recoupment is a practice of commercial enterprises (it is not), nor that the U.S. government considers recoupment necessary to achieve a price commensurate with market considerations (it does not). Therefore, these arguments do nothing to advance the EC's contention that the transactions in question conferred a benefit on Boeing.

197. The European Communities acknowledges that DOD received "value" from the R&D contracts at issue. What "value" did DOD receive from the R&D contracts at issue? Did DOD receive "value" from Procurement Contracts, Cooperative Agreements, and Other Transactions?

347. The EC concedes that DoD received value in exchange for its payments to Boeing for RDT&E activities under procurement contracts, cooperative agreements, and Other Transaction Agreements. It also recognizes that the instrument used to confer a benefit is not decisive in deciding whether it conveys a financial contribution.

198. At para. 470 of its SWS, the European Communities argues that "Boeing pays nothing in return for the portion of dual-use DOD RDT&E funding and support that benefits its LCA division". At para. 33 of its SWS, the United States argues that "[t]he research performed (and, for that matter, any technologies generated) cannot be artificially divided into a portion done for military purposes and a portion done for civil purposes. Accordingly, the EC cannot challenge any alleged civil portion of the research contract as something that DOD separately conveys to Boeing, discrete from the military portion of the research contract, and that the Panel can analyze in isolation from its military applicability." At para. 13 of its OS2, the United States reiterates that "the technologies that the EC highlights do not have separate civil "portions" – they are individual military technologies with alleged civil uses. And, accordingly, the payments for services under these contracts do not have separate military and civil "portions" either." How does the European Communities respond?

348. In response to this question, the EC summarizes the arguments used in its response to Question 196(ii). However, as the United States noted in its comments on that question, commercial entities frequently experience beneficial synergies when one division's transactions produce something helpful in the transactions of another division. The EC has provided *no* evidence that a commercial enterprise would seek recoupment when one of its suppliers had an alternative use for the experience gained or the results of the work funded by the enterprise. In fact, as the United States has noted, private firms in knowledge transactions typically do not demand recoupment for subsequent uses of knowledge they funded, as shown in the benchmark research contracts between Boeing and its research suppliers.[575]

349. The EC also asserts that a commercial enterprise in DoD's position of funding research into dual-use technologies would have demanded repayment not just for a share of the money spent, but of any profits, too.[576] But, as the United States explains in its comment

[575] Contract A (Exhibit US-1208); Contract B (Exhibit US-1209); Contract C (Exhibit US-1210); and Contract D (Exhibit US-1211).

[576] EC RPQ2, para. 345.

on Question 219, the use of competitive procedures leads offerors to reduce their prices for alternative applications of any technology. The compensation level for the winning offeror would represent a market-based price, so DoD would have no basis to demand an additional price reduction (applicable to Boeing, but not its competitors) to reflect the EC's concept of recoupment. Similarly, there would be no reason for Boeing to accept a less-than-market price.

199. At paras. 476-477 of its SWS, the European Communities argues that:

> *"In the commercial market, the cost of R&D that is directly applied toward developing or building a particular product is generally linked to the cost of that product. In other words, R&D directly used toward the development of a military aircraft would be recovered through the price of the military aircraft, and R&D directly used toward the development of a commercial aircraft would be recovered through the price of the commercial aircraft.*
>
> *DOD practice, however, departs from this commercial benchmark. As explained above, DOD does not simply pay one purchase price for its goods; rather DOD first pays for R&D through its RDT&E budgets, and then pays for acquisition costs through its procurement budgets. In theory, one could construct a total purchase price for the goods that DOD acquires by summing up the amounts DOD pays through its RDT&E and procurement budgets."*

Could the European Communities please explain the reasoning in paras. 476-477. Is the European Communities arguing that DOD's practice results in DOD paying twice for the same R&D?

350. Most of the EC's response to this question consists of the repetition of arguments it made in response to previous questions, and that the United States has addressed in its comments on those questions. The EC notes that its position is that DoD overpays for R&D "when it fails to claim entitlement to repayment of the portion of the R&D that benefits Boeing's LCA division."[577] In the first place, there is no "entitlement" to recoupment outside of regulations that no longer exist. Moreover, the EC simply asserts that that recoupment is a commercial practice, but provides no evidence that this is the case. The United States has explained that buyers of knowledge services simply do not seek recoupment for subsequent advantages their suppliers gain from participating in a transaction. If that were the case, law firm clients would be seeking "recoupment" each time their lawyers reused a legal argument or piece of legal research. Patients diagnosed with a disease would demand payment each time their doctors diagnosed other patients with the same disease. Automobile owners paid for repairs would demand payment from mechanics every time they made a similar repair on another car. These things do not happen because the "recoupment" described by the EC is not a commercial practice.

351. The EC also notes that DoD's contracting practices have the effect of shifting to DoD some of the risk associated with some types of research and development, and quotes a U.S.

[577] EC RPQ2, para. 248.

GAO report to that effect. The EC fails to note, however, that GAO was addressing "cost-reimbursement contracts . . . for the development of weapons systems."[578] Where DoD is buying general research services, as was the case for many of the contracts at issue, there is no "risk" of failure to shift. DoD seeks the answer to a general question, rather than development of a product, and must either pay its own scientists to do the work, or pay an outside entity.

352. Moreover, with regard to research and development related to procurement of weapons systems, DoD's risk shifting is consistent with commercial practice. What the EC (and to some extent GAO) fails to recognize is that DoD is a risky proposition for its suppliers. The armed forces demand the most up-to-date technology, and weapons systems cost an immense amount of money to develop. It is either the only purchaser or far and away the largest purchaser for many of the weapons systems it buys. If DoD decides not to buy a system, all of the development costs for that system are essentially lost. Therefore, if it insisted that suppliers develop products at their own expense, they would be unlikely to do so because the potential downside would be billions of dollars spent with essentially no return if DoD decided not to choose their product.[579]

353. The United States notes that producers also attempt to mitigate the risk of civil aircraft development, in that case by getting "launch customers" to commit in advance to buy a certain number of a new aircraft. They also continue selling an aircraft after launch to fill production slots. Thus, the potential downside for introducing a new civil aircraft is much less severe than for a military aircraft. Civil aircraft never sell zero units, which would be a realistic outcome for a military aircraft development program, and even a relatively unsuccessful model like the A340 can sell more than 300 units.[580] Thus, when it comes to research directed toward a particular product, the risk-shifting element of DoD's R&D contracts addresses a commercial problem in a commercial manner, by reapportioning risks between the buyer and seller.[581] It does not provide DoD suppliers with terms more favorable than are available in the market.

2. Value of payments under DoD R&D contracts and agreements and of goods and services provided by DoD

200. In its FWS, the European Communities estimates that the amount of dual use aircraft-related funding provided by DOD to Boeing/McDonnel Douglas through FY 2006 under the RDT&E programme elements at issue is $2.4 billion. (EC FWS, para. 763)

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[578] EC RPQ, para. 349, *quoting Best Practices, Increased Focus on Requirements and Oversight Needed to Improve DOD's Acquisition Environment and Weapon System Quality*, GAO-08-294, p. 17 (Feb. 2008) (Exhibit EC-1380).

[579] The Joint Strike Fighter ("JSF") procurement is one example of this problem. DoD wanted a new-capability fighter, and wanted to test multiple ideas on prototypes. Boeing and Lockheed Martin each spent hundreds of millions of dollars getting to that point. If they had had to fund that huge cost, with the potential downside of no return at all, it is unlikely that either would have spent the money.

[580] Exhibit US-348.

[581] The United States would differentiate this situation from one in which the government was not a purchaser, but enacted measures to lower a supplier's risk vis à vis its non-government customers.

Can the European Communities explain to what extent this estimate takes into account actual data on payments received by Boeing under the programme elements at issue? Related to this, can the European Communities explain why, as indicated in footnote 3 of Exhibit EC-7, certain available information on company-specific funding was considered to be "inconsistent and unreliable for the purposes of drawing general conclusions"?

354. The EC responds as if the question asked whether the EC should base its estimate of the value of allegedly dual-use RDT&E contracts on the Boeing-specific data available for funding under the ManTech and Aging Aircraft PE numbers. The United States understood the Panel as asking a broader question, namely, why the EC felt it could not use the information in question to reach *any* general conclusion. By addressing only whether it was possible to base a calculation of the total value of DoD "dual-use" RDT&E on that actual funding data taken in isolation – an argument the United States never made – the EC evaded dealing with the real problem in its calculations, namely, that the actual funding data reveal an irremediable flaw in the EC's methodology.

355. A critical point that the EC misses is that it is the EC itself, as the proponent of the assertion that its methodology accurately estimates payments to Boeing funded through the "general aviation" PE numbers, that bears the burden of proof with regard to that methodology. If the evidence shows that the methodology is wrong, it is for the EC to devise a more accurate methodology, or to accept evidence put forward by the other party as correct. In the case of DoD's allegedly dual-use RDT&E, those are the data presented by the United States in Exhibit US-41(revised).[582]

356. With regard to DoD RDT&E payments, the methodology devised by CRA, the EC's consultants, produces results that are immensely higher than the reported actual values in 15 of 17 available comparisons, by between 128 and 768 percent.[583] The EC tries to dismiss these huge and consistent disparities as insignificant, but when almost ten percent of the 196 comparisons reveal a consistent pattern of huge overestimates, that is strong evidence that the EC's methodology is wrong.

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[582] In fact, as the United States has demonstrated, only a small number of those contracts involved actual dual-use technology. US SWS, paras. 48-49. Those technologies were not used in the production or development of Boeing's 787. US FWS, para. 932; Statement of Michal Bair (Exhibit US-7).

[583] US OS2, para. 22, Exhibit US-1252. The EC asserts that there were only "actual data" with regard to 11 years because in some years, DoD's budget data does not list Boeing as a funding recipient. EC RPQ2, para. 364, note 295. However, as the results list either McDonnell Douglas or consortia in which Boeing participated in those years, it was reasonable to conclude that Boeing received no direct funding. The EC also points to data from the 2004 budget indicating that Boeing had received $20.990 million prior under that PE number prior to 2002. *Ibid*. The EC assumes without any explanation that this figure is a total of Boeing spending for 1999, 2000, and 2001, years when the budget reported no funding to Boeing. However, the $20.990 million figure is actually quite close to the sum of that PE's payments to Boeing, payments to its subsidiary McDonnell Douglas, and their estimated share of the amount paid to the CAI consortium in the 1997-2001 period. Exhibit US-1252. Thus, the $20.990 "pre-2002" figure reported in the 2004 budget does not call into question the conclusion that Boeing received no direct payments under the PE number in 1999, 2000, and 2001.

357. Rather than address this stark mismatch between the actual data and its estimates, the EC argues that the actual data are "inconsistent and unreliable for the purposes of drawing general conclusion" because they would not, by themselves, support any conclusions as to the total value of the subsidies alleged by the EC.[584] The EC is correct that these data cannot, in isolation, be extrapolated to produce a total amount paid to Boeing under all of the "general aviation" PE numbers. However, the fact that the actual data on amounts paid to Boeing taken alone are not useful for one general purpose does not support the EC's contention that these data, even when used in context with other information, are useless for *all* "general purposes." In fact, as noted above, they provide a highly useful "reality check" on the CRA estimating methodology.

358. The EC also asserts that it could not rely on the actual data reported in the DoD budgets because "DoD RDT&E budgets are known to contain incomplete and inaccurate information."[585] The EC bases this assertion on a report by the U.S. Government Accountability Office. However, the United States has shown that the EC misinterprets that report.[586] But the more important point is that if the EC really believed this argument, it would have to abandon its entire reliance on the data for the PE numbers. The EC's use of the PE budget data when they produce a high subsidy estimate, and dismissal of those data when they show the high estimate to be wrong is yet another self-contradiction within the EC position that justifies rejection of the CRA estimate.

359. Finally, the United States notes the EC observation that the budget information for particular military aircraft report actual data on funds paid to Boeing.[587] This is correct. However, while CRA started with Boeing-specific data in this context, it relied on a different set of erroneous assumptions, which manipulated those data in ways that yet again resulted in exaggeration of the amount of dual-use technology funded by DoD. In this case, it simply assumed with little or no support that large portions of the research on fighter aircraft and rotorcraft were also applicable to large civil aircraft. The United States has demonstrated the flaws in this reasoning in past submissions, and addresses each of CRA's erroneous assertions in its response to Question 208. [588]

201. The United States contends that the estimates contained in Exhibit EC-07 of the amounts of dual use aircraft-related funding ignore DOD funding of government employees, research institutions and universities (US FWS, paras. 149-150; US Comments on EC RPQ1, para. 5). The European Communities rejects this criticism (EC SWS, para. 467; Exhibit EC-1176).

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[584] The EC asserts that the U.S. argument is "essentially" that the difference between CRA estimates and actual values can be applied to the CRA estimates for which no comparison is available to produce an accurate estimate of the total value of the subsidies alleged by the EC. EC RPQ2, para. 354. The United States has never made this argument, "essentially" or otherwise.

[585] EC RPQ2, para. 355.

[586] US RPQ2, paras. 339-340; the U.S. comment on Question 196(i), *supra*, also discusses this GAO report.

[587] EC RPQ2, para. 352.

[588] US FWS, paras. 147-152; US SWS, para. 45.

(a) Can the European Communities explain in greater detail how the analysis in Exhibit EC-07 actually takes into account DOD funding of government employees, research institutions and universities?

360. The EC asserts that CRA's allocation of the full value of spending on research into allegedly "dual-use" technologies is appropriate because it captures both direct transfers of funds and provisions of goods and services, including those supposedly rendered to Boeing by government employees. As the United States has explained, the EC provides absolutely no evidence of DoD provision of equipment and employees to Boeing. Nor does the EC explain how DoD payments to universities and unrelated companies would constitute a benefit to Boeing. Thus, the EC has not met its burden of proof with regard to the assertion that any payments to universities, payments to other contractors, salaries of government employees, or costs of government equipment in the RDT&E budgets represented provisions of goods and services *to Boeing* or conferred a benefit *to Boeing*.

361. The EC also attempts to build comfort with CRA's results by noting that Boeing's share of overall DoD spending on RDT&E contracts is lower than the CRA-derived estimate of Boeing's share of spending funded under the "general aviation" PE numbers, which includes universities. In the EC's view, Boeing's share of aviation research should be higher than its share of total research.[589] This assumption is doubly wrong. CRA relies on a DoD report on RDT&E "contract awards,"[590] which signifies the exclusion of grants, a major source of funding for universities. Therefore, the figures on which the EC relies understate universities' share of research spending. A second and independent error is that funding under the "general aviation" PE numbers included a significant amount of early stage research,[591] which is a particular expertise of universities. In fact, as the United States has noted, more than 90 percent of the funding under PE number 0601102F went to universities, research institutions, and other government entities.[592] Thus, the facts do not support the EC's assumption that Boeing should represent a greater share of research funded through these PE numbers than it does of total RDT&E financing.

(b) How does the European Communities address the criticism by the United States (US Comments on EC RPQ1, para. 5) of the argument made by the EC's consultants on pp.33-34 of Exhibit EC-1176 that their analysis did not ignore funding flows to government employees, research institutions and universities?

362. The EC asserts that if it excluded universities, research institutions, and government employee costs, the value CRA ascribes to general aviation research would fall by only 35 percent, and the total value ascribed to DoD RDT&E by only 10 percent. The EC bases this assertion on data from the U.S. National Science Foundation indicating that industry

[589] EC RPQ2, para. 358.

[590] Although CRA does not provide the document or a citation to an exhibit in support of its contention, the relevant DoD reports appear in Exhibit EC-529.

[591] US RPQ2, para. 276, note 338.

[592] US FWS, para. 150, note 198.

accounted for 67 percent of *all* research from 1991 to 2002.[593] What the EC fails to realize is that funding through the "general aviation" PE numbers involved primarily *early stage* research. This is an area of focus for universities, to the extent that under one PE number, 90 percent of funding (far more than the 35 percent estimated by the EC) went to entities other than companies.[594] Thus, the EC has *underestimated* the value of university, research institution, and government employee research funded through the "general aviation" PE numbers, invalidating its conclusion that removal of this research from the estimate "would not change the results materially."[595]

(c) Is the argument that the estimates in Exhibit EC-07 take into account funding of government employees, research institutions and universities consistent with the allocation to Boeing of a portion of the dual use aircraft-related funding under the general aircraft programme elements on the basis of "Boeing's share of the relevant supplier market, as defined to be the output of relevant segments of the U.S. aerospace and defense industrial base"?

363. The EC cross-references its arguments regarding the amount of university funding CRA incorrectly included in its estimate and the validity of CRA's allocation of DoD RDT&E financing to Boeing regardless of the actual recipient.[596] The United States has explained in its comments on Questions 201(a) and (b) why those arguments are invalid.

(d) How does the analysis in Exhibit EC-07 take into account the value of R&D contracts with producers of components?

364. The EC asserts that its allocation of research budgets over a base representing producers of finished weapons systems and parts takes care of the value of R&D contracts attributable to producers of components.[597] However, as the United States noted in its comments on question 164, the EC's methodology mistakenly allocates R&D spending to components twice, and treats the second (and erroneous) allocation as funding to Boeing. Thus, the allocation does not solve the problem of R&D contracts with producers of components and, in fact, results in an overallocation of spending being treated as a financial contribution and benefit to Boeing.

202. The United States asserts that "the very evidence on which the EC relies proves that its methodology is thoroughly wrong". (US FWS, para. 148) Please respond to the argument made by the United States (US OS2, para. 22) (with reference to Exhibit US-1252) that "CRA's estimates overstated the actual value of Boeing RDT&E

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[593] EC RPQ2, para. 360.

[594] The US Comments on Question 201(a) discuss this issue in more detail.

[595] EC RPQ2, para. 360. Of course, the EC characterization of a 35 percent or 10 percent change alleged subsidy values as "immaterial" contradicts its position that a failure by NASA or DoD to account for every single dollar of their funding would invalidate their data.

[596] EC RPQ2, para. 361.

[597] EC RPQ2, para. 362.

> *contracts by between 128 and 768 percent in 15 of 17 comparisons, and on average between 266 and 715 percent".*

365. The EC first attempts to minimize the flaws with the CRA analysis by arguing that the 17[598] comparisons between actual DoD spending figures and CRA did not provide sufficient evidence to extrapolate a total value for all of the research into allegedly dual-use technologies that the EC suspects. It provides no evidence or support for this assertion. But, more to the point, the EC assertion is irrelevant to the separate question of whether those 17 comparisons are sufficient to provide a reality check for CRA's analysis. They cover slightly less than one-tenth of the number of yearly PE number estimates calculated by CRA. But what is most striking is the frequency with which they reveal overestimates – in 15 of 17 comparisons – and the margin of overestimation – between 128 and 768 percent. The number of comparisons and the consistency with which they show huge overestimates demonstrates conclusively that the CRA estimation methodology does not work. It may be the case that, in light of this failure, the EC might wish to use a different calculation, rather than rely on the information submitted by the United States. The EC's belief that the 17 examples of data on actual expenditures are not sufficient by themselves to make an alternative estimate does not change the initial conclusion that they prove the CRA estimate to be wrong.

366. The EC comments on a hypothetical posed by the United States at the Panel's second substantive meeting with the parties. That hypothetical posited a methodology that estimated the heights of individuals, and produced huge overestimates for a small set of people. The United States noted that no reasonable person would place credence in such a methodology, and would certainly not suggest that applying that demonstrably wrong methodology to a larger group of people would produce accurate results.[599] The EC asserts that the hypothetical height estimating methodology is not analogous to the situation with CRA's value estimating methodology because everyone would know from their own experience that the height estimating methodology produced inaccurate results. The EC's point, however, does not identify any flaw in the comparison with CRA's expectation that the Panel rely on its demonstrably wrong methodology for estimating values in a number of programs for which no extrinsic evidence is available. It has merely pointed out an aspect of the exercise that makes it a hypothetical.

367. The EC then attempts to validate the CRA estimating methodology by stating that:

> there is no basis to conclude that in the case of the 185 data points for which DoD does not provide Boeing-specific payment information, Boeing did not receive substantially higher percentages of the payments than it received in the

[598] The EC argues that there are only 11 actual comparisons. The United States explains in its comments on Question 200, there is evidence as to spending by Boeing or the CAI consortium, of which it was a part, for each of the 17 comparisons identified by the United States. The United States notes that even if the Panel accepts the EC allegation that there are only 11 comparisons, those data points by themselves demonstrate that CRA consistently overestimated actual values of payments to Boeing by huge amounts, and by themselves would necessitate rejection of the CRA analysis.

[599] US OS2, para. 24.

case of the 11 data points for which DoD does not provide Boeing-specific payment information.

The critical point is that the EC has provided absolutely no reason to believe that Boeing received a greater percentage of funding for the other research projects identified by CRA. Indeed, its reasoning reverses the burden of proof. As the proponent of the CRA estimation, the EC does bear the burden to establish a *prima facie* case. Where the data shows that the actual amount paid by DoD is far lower than estimated values, the burden lies with the party proffering that estimates to produce evidence that the value for the remainder of the comparisons would be high enough to justify the estimate on an overall basis. The EC has failed to do so.

368. Moreover, there *is* evidence that allows an extrinsic comparison, similar to the knowledge that people's heights vary within a certain range. That evidence comes from the contracts listed in Exhibit US-41(revised), whose total value is far lower than the CRA estimate of DoD funding of Boeing large civil aircraft. (In addition, the United States has noted that many of these contracts have nothing to do with large civil aircraft and, therefore, should not be treated as relevant to the EC's claims.)[600]

369. Thus, the EC's response to this question does nothing to address the U.S. criticisms of the CRA valuation of alleged subsidies.

203. How does the European Communities respond to the argument of the United States (US FWS, para. 152) that the analysis in Exhibit EC-7 erroneously assumes that potentially dual use research is related only to the "non-engine aerospace industry"?

370. The EC answers this question by stating that "CRA made no assumptions and drew no conclusions about the potential applicability of these same technologies beyond the non-engine aerospace industry."[601] But by allegedly making "no assumptions" and "drawing no conclusions," CRA did not even allow for the possibility that the research funded through the "general aeronautics" PE numbers might have application to an industry other than the aerospace industry. CRA's allocation of such funding exclusively to the "non-engine aerospace industry" then had the effect of treating the research as related exclusively to that industry without even inquiring whether that might be wrong. In short, the methodology embodied an assumption of an exclusive relationship to the "non-engine aerospace industry" without even the formal step of stating that assumption, let alone providing evidence that it was warranted.

371. In paragraph 152 of its first written submission, the United States identified nine areas of research included in CRA's estimate that clearly had application *beyond* the non-engine aerospace industry. In response to this observation, the EC presents an extended discussion of why these examples were relevant to the non-engine aircraft industry.[602] The United

[600] US FWS, paras. 129-130, 139-145.

[601] EC RPQ2, para. 368.

[602] EC RPQ, para. 370.

States never disputed that each of these topics had *some* relationship to aviation. The point it raised was that "there is no basis for the assumption" that those topics are "related *only* to the 'non-engine aerospace' industry."[603] The EC's observation that there is some relationship to that industry does nothing to disprove the broader relevance of research on that topic, or justify CRA's allocation of research involving these topics exclusively to the "non-engine aerospace" industry.

372. The EC makes two additional arguments to defend CRA's implicit assumption of exclusivity. First it asserts that seven of the nine topics were researched in 1991-1996, a period for which CRA made an overarching adjustment to adjust for its inability to identify "non-engine aerospace" projects with the same specificity as it claims to have applied in 1997-2006.[604] However, the EC has conceded, and the evidence shows, that CRA never considered the possibility that research it identified as applicable to the "non-engine aerospace" industry might have application beyond that industry. Thus, the post-1996 analysis would not have removed or accounted for the possibility of such broader applicability, and adjusting the pre-1996 data based on the post-1996 data would not address the problem of research applicable beyond the "non-engine aerospace industry." It would not remedy the fact that – if there is to be an allocation[605] – these expenses should be allocated to a broader base of companies.

373. The EC also notes that CRA did not make upward adjustments to deal with the possibility that research outside the non-engine aerospace sector might have applicability in that sector. However, since the EC has not challenged research into non-engine aerospace topics as subsidies to U.S. large civil aircraft, it would have been inappropriate for CRA to include such topics in its estimate. Therefore, this possibility would not in any way offset the EC's failure to allocate the research it identified over a proper base.

204. In its Oral Statement at the First Meeting, the European Communities submitted that, based on certain "public reports", "NASA and DOD support to just Boeing Phantom Works for LCA-related research averages between $300 million and $400 million each year, or between $5.4 billion and $7.2 billion over the 18 years from FY 1989 through FY 2006 that are at issue." (EC OS1, para. 73) Please respond to the criticism of this calculation at para. 48 of the US SWS.

374. The EC defends its treatment of half of DoD's payments to Phantom Works as being related to large civil aircraft on its assertion that "Boeing Phantom Works conducts cross-cutting work for the benefit of the entire Boeing Company."[606] Its only support for this assertion is a citation to paragraph 63 of the EC OS2, which makes the same assertion, supported only by a citation to paragraph 73 of the EC OS1. That passage makes the same

[603] US FWS, para. 152 (emphasis added).

[604] EC RPQ2, para. 371.

[605] The United States notes that, as it has submitted actual data on DoD's payments under RDT&E contracts involving potentially LCA-related research, there is no basis to rely on inherently less accurate "allocations" based on DoD's budgets.

[606] EC RPQ2, para. 374.

assertion, this time with a citation to several paragraphs in the U.S. first written submission that have nothing to do with Boeing's Phantom Works or the nature of its research. Thus, there is no real support for the EC's assumption about Phantom Works spending – just a trail of unsupported assertions. That said, the United States does not deny that Phantom Works does *some* cross-cutting research. However, that does not mean that the *only* thing it does is cross-cutting research. Therefore, there was no basis in the evidence supporting the EC assumption that one-half of the Phantom Works research purchased by DoD related to large civil aircraft.[607] In fact, the United States and EC are in rare agreement that the large majority of DoD's RDT&E purchases from Boeing were of research services relevant *exclusively* to military applications. Thus, the EC's assumption is also self-contradictory.

205. In its SWS and in its Comments on US RPQ1, the European Communities reiterates that the United States has failed to provide full disclosure of all of the contracts and sub-contracts pursuant to which the DoD made payments to Boeing and McDonnell Douglas under the 23 programme elements at issue. (EC SWS, para. 464; EC Comments on US RPQ1, paras. 18-19) In this connection, the European Communities states, inter alia:

"To produce a truly accurate figure, these documents would need to be cross-checked with overall budget figures (or other relevant sources) to verify that all contracts and sub-contracts had been provided. They would then need to be reviewed and analyzed by experts who could draw conclusions regarding issues such as which R&D projects relate exclusively to military or space technology, and which might also be of use for LCA." (EC SWS, para. 464)

"..the United States must fully disclose (i.e., without redactions or omissions) all types of contracts and sub-contracts pursuant to which Boeing and McDonnell Douglas received funding and support under the 23 DOD RDT&E PEs at issue, related documentation (e.g., statements of work and cost estimates), and some means to verify whether all contracts and sub-contracts had in fact been provided." (EC Comments on US RPQ1, para. 20)

(a) Please explain the rationale of the review by experts proposed by the European Communities.

(b) Is this proposed review a review within the meaning of Article 13.2 of the DSU?

(c) Please explain what the European Communities means by "verification" in this context and what would constitute an adequate means of verification. Please explain how one could verify that all contracts and sub-contracts had been provided based on a comparison with budget figures. Would it be necessary for the United States to provide all contracts and sub-contracts with <u>all</u> entities that received payments under contracts and sub-contracts concluded pursuant to these programme elements?

[607] The U.S. response to this question discusses this point in greater detail.

375. The EC addressed these questions in its response to Question 170 (a), (b), and (c). Therefore, the U.S. comments on that question apply equally to this one.

206. Please address the argument of the United States (US Comments on EC RPQ1, paras. 38-40) that the inability of the European Communities to separate alleged direct transfers of funds from the alleged provision of goods and services is another reason for the Panel to reject CRA's estimates of the amount of R&D subsidies received by Boeing/McDonnell Douglas under the 23 programme elements at issue.

376. The EC as the complaining party has the obligation to satisfy the requirements of the SCM Agreement with regard to each of the financial contributions it alleges. Throughout this proceeding, the EC has sought to evade this responsibility by making omnibus allegations covering multiple different types of financial contributions. A good example of this is its insistence that payments for research services under DoD RDT&E contracts and facilities made available under those contracts are separate financial contributions that can be treated as the same when it comes to calculating the amount of the subsidy. At other times, it has sought to remove elements of an integrated value-for-value exchange (such as alleged provisions of goods or services) from the context of the underlying transaction to manufacture financial contributions. It does this both with IR&D/B&P reimbursements and also with the alleged provision of facilities, equipment, and employees listed in contracts, even though they form part of a single transaction with a single compensation package. Sometimes this treatment leads to double counting. For example, in the most recent submission, the EC alleges the standard U.S. government patent rights clause as evidence that alleged patent "waiver/transfers" confer a benefit, but then also as evidence that alleged funding and provision of facilities confer a benefit. With regard to DoD contracts, it alleges that the face value of each contract is a subsidy, and then separately challenges the IR&D/B&P reimbursements made as part of those payments.

377. These overlapping and ensnarled allegations have made it difficult for the United States to discern exactly what the EC is challenging, which will make it more difficult for the Panel to evaluate those allegations. The EC tries to excuse its poorly organized claims by repeating its unsupported (and unsupportable) assertion that the United States failed to cooperate in information gathering.[608] The United States has explained that these EC complaints are unfounded, as the United States has cooperated fully with every information request by the Panel.[609] In any event, there is clearly a wealth of information before the Panel, comprising more than 2500 exhibits and many thousands of pages. The EC has never explained why, when it has proposed various methodologies and estimates that had the effect of driving up the alleged subsidy value, it could not have used the available information to associate values with its separate alleged financial contributions. This is not simply a technical matter. Many of the EC's allegations revolve around adequacy of remuneration, and it is difficult to see how the Panel could evaluate the EC's arguments regarding the alleged benefit when the EC refuses to indicate how much value it associates with each

[608] EC RPQ2, para. 376.

[609] The United States discusses this point in more detail in its comments on Question 106 and 107, as well as in 24 through 29 of its first written submission.

alleged financial contribution and refuses to address the financial contributions in the context of their transactions.[610]

378. Thus, the EC has tried to minimize the significance of its failure to separate its allegations with regard to individual financial contributions and to analyze those contributions in the context of the transactions from which they arose. However, this presentation of the arguments related to its claims prevents a reasoned conclusion as to whether the EC has made a *prima facie* case that the challenged programs were subsidies within the meaning of Article 1.

D. DOC AERONAUTICS RESEARCH & DEVELOPMENT

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E. INTELLECTUAL PROPERTY RIGHTS

215. In item 2(a) of its Panel Request, the European Communities states that NASA provides subsidies to the US LCA industry by, inter alia, "enabling the US LCA industry to exploit the results thereof by means including but not limited to the foregoing or waiving of valuable patent rights, the granting of limited exclusive rights data ("LERD") or otherwise exclusive or early access to data, trade secrets and other knowledge resulting from government funded research." (emphasis added)

(a) Is the Panel correct in its understanding that the European Communities has narrowed the scope of its claims to the subsidies as defined in its subsequent written submissions to the Panel, and is no longer asking the Panel to find that NASA/DOD provided subsidies to the US LCA industry by "enabling the US LCA industry to exploit the results thereof" other than through the means of transferring/waiving "patent rights", "trade secrets", and "data rights", as explained in Section VI.F of the European Communities' FWS?

379. The EC restates here the arguments it made in response to Panel Question 134(d) – that is, that the knowledge and experience of NASA personnel "multiplies" the value of the benefit it alleges to be conferred on Boeing from the provision of their services to Boeing. But it does not actually argue (and certainly does not demonstrate) that the provision of the knowledge and experience of NASA personnel is a distinct financial contribution apart from the cost of their goods and services, for which the U.S. government is adequately remunerated pursuant to the Space Act Agreements under which such services are provided

[610] For example, as alleged by the EC, a DoD purchase of RDT&E services consists of four different financial contributions: (i) a payment, (ii) provision of facilities, (iii) provision of rights with regard to patents that the contractor might make while working under the contract, and (iv) IR&D/B&P reimbursements. However, it treats "funds" and "support" as a single category consisting of an undifferentiated aggregation of (i) and (ii) along with (v) provision of goods and services "not explicitly stated" in contracts and (vi) goods and services purchased from other contractors. It then treats (iii) and (iv) as separate, independent financial transactions grouped together with alleged financial contributions from *other* transactions. As these divisions have no basis in what DoD actually does, it provides no means to analyze transactions based on their facts.

to Boeing.[611] The EC also fails to explain how the accrual of knowledge and experience is a benefit in the sense of Article 1.1(b), which would be true only if the "terms" of the financial contribution were more favorable than were available in the market. As the United States has explained, and the EC has not disputed, a supplier of R&D services (or any other service, for that matter) to a non-government entity would also accrue knowledge and experience. The EC has provided no basis to consider the knowledge and experience accruing from the government transactions to be "more favorable" than a private benchmark transaction would provide.

(b) What is the relationship between items 2(a), 2(f), and 2(g) of the European Communities Panel Request? To what extent do these items overlap? What is the relationship between items 3(a) and 3(d) of the European Communities Panel Request, relating to DOD?

380. The United States understands the EC to be challenging both the allocation of intellectual property rights in inventions and data made pursuant to agreements funded under the challenged NASA and DoD programs and also the allocation of intellectual property rights in inventions and data made pursuant to agreements funded by other non-challenged programs. The United States has previously discussed, and reviews in these comments, why the EC's arguments with respect to intellectual property rights, in general, fail on all of the necessary elements – financial contribution, benefit and specificity.[612] Furthermore, with respect to intellectual property rights in inventions made and data generated pursuant to agreements funded under the challenged programs, the EC has established no connection to the product it alleges to be subsidized. It has not even tried to do so with respect to intellectual property rights in inventions made under non-challenged programs.[613]

216. At para. 98 of its Comments on EC RPQ1, the United States states that "the EC appears to argue that it is challenging all patents conceived under all DoD RDT&E and NASA R&D contracts, including those under NASA and DoD programs that it is not challenging. If this understanding is correct, the EC has not even attempted to make a prima facie case with regards to the new patents and, therefore, not met its burden of proof."

(a) Is the European Communities challenging <u>all</u> patents conceived under <u>all</u> DoD RDT&E and NASA R&D contracts, including those under NASA and DoD programs that it is not challenging?

(b) If so, how does the European Communities respond to the United States' argument, at paras. 98ff, that "the EC has not even attempted to make a prima

[611] The U.S. comments on Question 148 and its various subquestions demonstrate why the EC's underlying challenge to the NASA budget dollars covering these salaries and the cost of NASA's in-house research must fail as a legal matter under the SCM Agreement.

[612] The U.S. comments on Question 218 discuss these issues in more detail

[613] *See also* US Comments on EC PRQ1, Question 28, para 100-102 (noting flaw in EC arguments regarding patents on invention not made pursuant to transactions under the challenged NASA and DoD programs).

facie case with regards to the new patents and, therefore, not met its burden of proof"?

381. The United States first recalls that, contrary to the focus of the EC argument, the measure the EC has challenged is not the provision of "patents" issued on inventions made under any NASA and DoD;[614] rather, the EC has challenged the U.S. laws and regulation pursuant to which rights in patents issued on inventions made under government contracts are allocated between the government and the contractor/inventor.[615]

382. Next, the United States notes that EC has not established that the measures at issue – that is, contract clauses allocating patent rights in inventions made under the contract – constitute a financial contribution or result in the conferral of a benefit on recipients within the meaning of Article 1 of the SCM Agreement. Moreover, given the inclusion of these clauses in all government contracts, the EC has not established that these measures are specific, either as a *de facto* or *de jure* matter, within the meaning of Articles 1.2 and 2 of the SCM Agreement. In its response to the Panel's question, the EC merely restates its previously unsubstantiated case in conclusory form.

383. Specifically, the United States recalls that under its law,[616] an inventor is entitled to the patent on his or her inventions. All or some of the rights in the patent bundle may be redistributed by contract. Under government contracts – both the challenged government contracts and other government contracts – the U.S. government funds the performance of certain R&D services and, in exchange, receives specified R&D services and a paid up license to use, or have used on its behalf, any patented inventions made with its funding under the contract. This is the case under both NASA and DoD contracts, as well as contracts entered into by all other government agencies. The slight variations in the structure of the clauses used by various agencies reflects historic differences in their statutory authority, but the legal and practical outcome of each clause is the same.[617]

384. On these facts, there is neither a financial contribution nor a benefit. With respect to financial contribution, the government has provided nothing pursuant to the individual contract clause. All that has happened is that when the government purchases services, it does so on terms that leave the patent with the inventor and grant to the government a paid-up license. The only patent right conferred is from the inventor or the inventor's employer to the government. With respect to benefit, the terms of these government contracts – and particularly the patent allocation clause at issue – are not non-commercial in nature. Quite the contrary, the United States has provided benchmark evidence to demonstrate that non-

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[614] EC PRQ2, para. 386.

[615] See United States-Measures Affecting Trade in Large Civil Aircraft, Request for the Establishment of a Panel by the European Communities, WT/DS317/5 (Jan. 23, 2006), items 2(g) and 3(d), WT/DS353/2 (December 4, 2006) and WT/DS353/1 (December 4, 2006).

[616] ECRPQ2, para. 388.

[617] The United States also notes that the EC's argument in para. 572 and n. 907 of its SWS that US patent law only supersedes NASA's statute with respect to small businesses and non-profits ignores the Presidential Memorandum and NASA written policy of applying the "override" in respect of all contractors.

governmental entities, negotiating at arms length, may allocate intellectual property rights in the same manner under their commercial contracts.[618]

385. With respect to the EC's repetition of quotations regarding the U.S. government's anticipation of the *effect* of entering into contracts on these terms,[619] these are not relevant to the analysis of benefit under Article 1.1(b). Specifically, the United States recalls that a comparison of *why* parties enter into transactions on particular terms has no bearing the analysis of *whether* those transaction confer a benefit under Article 1.1(b).[620] The United States also recalls that a benefit analysis under Article 1.1(b) is distinct from an effects analysis under Articles 5 and 6, and the Panel cannot infer a "benefit" under Article 1.1(b) on the basis of evidence pertaining to the market effect a government anticipates from a particular measure. The question before the Panel under Article 1.1(b) is whether the terms of the challenged government transactions are on terms more favorable than are available in the market, and the United States has demonstrated that the U.S. government does not contract on terms any more favorable than terms available in the commercial market, including the contract terms that address the allocation of patent rights in inventions made under the contract with government funding.[621]

386. Finally, the EC has not, as it asserts, demonstrated anywhere in its prior submission that the intellectual property clauses in government contracts are specific, either as a *de jure* or *de facto* matter. The United States recalls, in addition to its prior arguments,[622] that a subsidy is specific under Article 1.2 if it is specific to a group of industries or enterprises within the jurisdiction of a granting authority. A standard clause utilized by the U.S. government in contracts with all of its contractors does not meet this definition.

217. What is the "adverse inference" that the European Communities is asking the Panel to draw at para. 93 of its RPQ1, which reads:

> *"Due to the non-cooperation of the United States in revealing facts during Annex V or otherwise, the European Communities does not know whether any of the five patents that have been valued and counted in the subsidy numbers were somehow connected to any elements of the 8 NASA R&D programmes or*

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[618] Contract A (Exhibit US-1208); Contract B (Exhibit US-1209); Contract C (Exhibit US-1210); and Contract D (Exhibit US-1211).

[619] EC RPQ2, para. 389.

[620] Accordingly, the EC's statement that "there are not factors that a company would take into account in deciding to provide valuable patents to another company" not only misstates the substance of the contract term at issue, but is also irrelevant to the analysis of whether a subsidy exists. See ECPRQ, para 389.

[621] The EC questions the vigorousness of NASA and DoD negotiations with suppliers on the basis that the U.S. Government uses a form clause for allocation of patent rights. EC RPQ2, para. 390. However, commercial firms use form clauses, too. The United States notes that Airbus uses a standard patent clause, but the EC does not consider this a bar to the use of Airbus practice as a benchmark. Affidavit of Regina Dieu, paras. 3-5 (Exhibit EC-1178). (The United States does not consider this Airbus practice to support the point the EC wishes to make, but does not question that Airbus' use of standardized intellectual property clauses is somehow non-commercial.)

[622] See, e.g., US FWS, paras 334-340 and US SWS, paras.16-30.

> *of the 23 DOD RDT&E PEs that have been counted in this dispute, as the United States has failed to provide any information whatsoever about these patents beyond the limited information that is publicly available. Thus, to the extent that there is no overlap between these five patents and the programmes at issue in the NASA and DOD R&D aspects of this dispute, there is no possibility of double-counting. Because of the United States' lack of cooperation in assisting the Panel with determining and evaluating the facts, it would be appropriate for the Panel to draw adverse inferences on this issue in the absence of further information from the United States."*

387. The EC's response makes clear that its separate challenge to the intellectual property clauses in U.S. government contracts has the effect of double-counting the value of the alleged subsidies. This is most obvious when it states that even when the EC alleges that the funding under a particular program is a grant, any patents that result from the contractor's efforts should be treated as a separate financial contribution with a separate value.[623] The United States has shown that neither the research payments nor any patent rights that remain with the contractor is a specific subsidy. Thus, the EC's attempt to count the benefit twice for a single financial contribution show that its efforts to drive up the value of the alleged subsidies have no basis in the SCM Agreement.

388. In its comments on Question 216, the Untied States reiterated the flaws with the EC patent rights argument:

(1) There is no financial contribution, because the inventor or the inventor's employer confers *to the government* rights the inventor or the inventor's employer otherwise would keep;

(2) There is no benefit because the patent attribution clauses that give rise to any patent rights are no more favorable than clauses otherwise available in the market; and

(3) the treatment in question is not specific, because it is available in *all* U.S. government contracts, from *all* agencies with *all* enterprises.

The EC's response to this question highlights yet more flaws, this time in the valuation of the alleged subsidies. The EC bases its valuation on the market value of five patents for inventions made by Boeing while working under DoD or NASA contracts. But this is an *ex post* valuation.[624] No one at the time of the contract could have known that these patents would result from the research, or that they would have the calculated value. It is the *ex ante* value of the contract clauses that Boeing and the government agreed upon that must form the basis for any benefit analysis, and the EC has presented no information on this issue, other than to assert without support that the *ex ante* value is the same as the *ex post* value.[625] This

[623] EC RPQ2, para. 393.

[624] The United States explains in its comment on Question 135 why *ex post* evaluation of the benefit is inappropriate.

[625] EC SWS, para. 561.

assertion assumes that the parties have absolute certainty that a patent will arise from their work, and know the value it will have – assumptions that the EC has nowhere justified.

389. The EC's approach to valuation is also flawed because it ignores the nature of the financial contribution it alleges and, as a result, counts the alleged benefit twice. If the government makes a "grant" or an unspecified "direct transfer of funds," the benefit would be the money paid by the government, less anything given back by the recipient. The EC, however, proposes to count the benefit a *second* time by looking at whether the recipient's use of the funds had any secondary beneficial effects. Such an analysis might have relevance in the analysis of the "effect" of alleged subsidies for purposes of Article 6.3, but it has nothing to do with the benefit analysis, which focuses on whether the terms of the government transaction, and not its after-effects, provide terms better than are available in the market.[626]

218. At para. 103 of its Comments on EC RPQ1, the United States argues that "[f]or patents issued as a result of work done under contracts related to the eight NASA programs and 23 DoD RDT&E PEs listed in its first written submission, the EC's treatment of patent rights leads to double counting because it treats the value of the research work and the value of any patent rights that result as separate from one another when, in fact, they arise from the same transaction." How does the European Communities respond?

390. The EC does not respond to the U.S. original argument (or the Panel's question about it) that the EC engages in double-counting when it includes both the value of payment for R&D services and the value of the intellectual property created during the course of the research performed by the funding in its total alleged subsidy magnitude calculation. Under the challenged transactions, the U.S. government does not both purchase R&D services from Boeing and separately provide intellectual property; it purchases R&D services from Boeing and receives, among other things, a paid-up license to use any patentable (and patented) inventions made with its funding.

391. The EC instead argues that the United States has not shown that the government receives adequate remuneration for the value of intellectual property rights it provides. In the first place, it is the EC as complaining party that bears the burden to prove that the patent attribution practices it challenges are conveyed for less than adequate remuneration – a burden it has failed to meet. In any event, even assuming that the U.S. government has "provided" intellectual property rights under the challenged measure, the United States has indeed demonstrated, through benchmark evidence, that Boeing's retention of patent ownership rights in inventions made under government R&D contracts does not make the transaction non-commercial. To the contrary, the benchmark evidence shows that the challenged transactions are done on terms that reflect similar transactions in the commercial

[626] To use examples of other direct transfers of funds, the value of an equity infusion depends on the terms of the infusion itself, and does not increase if the recipient uses the equity to perform research that generates patents. The same holds true for a loan. The terms of the transaction, and not the recipient's cleverness (or lack thereof) in subsequent use of the funds, dictate whether a financial contribution confers a benefit.

market – including the U.S. government's receipt of a paid-up license in patented inventions made under the contracts.

392. Moreover, contrary to the EC's assertion,[627] the evidence before the Panel does in fact reflect that the U.S. government considers the allocation of intellectual property rights in negotiating the contracts at issue.[628]

393. Finally, the United States again notes that there is no legal basis in the SCM Agreement for the EC's argument that the market effect a government anticipates from a transaction is relevant to the assessment of whether a benefit is conferred pursuant to that transaction.

219. Assume that a government and a firm enter into a contract, pursuant to which the government agrees to pay the contractor $100 to carry out certain R&D, and pursuant to which the government further agrees to waive any resulting intellectual property rights in favour of the contractor. Assume that the value of the resulting intellectual property rights is estimated to be $50. Under what circumstances could a panel conclude that there were two financial contributions, and that the total amount of the subsidy was $150?

394. The EC argues that the allocation of property rights can be treated as a separate financial contribution, in addition to the price paid for the research that creates the intellectual property, if the parties did not take the future expected value of the intellectual property into account when they entered into the contract. To begin, the United States disagrees that, even if the expected future value of patents issued on inventions made under a contract was not formally taken into account, this scenario would result in a separate financial contribution of intellectual property. As the United States has previously stated, a contract that provides for payment for R&D services and allocation of patent rights in inventions made under the contract does not contain two distinct financial contributions. Rather, the patent rights clause represents an integral term of the transaction.[629] Moreover, to the extent that the intellectual property rights clause is separable, the United States has previously demonstrated that it does not constitute a financial contribution under Article 1.1(a)(1).[630]

395. More to the point, however, the EC has not shown, in this case, that the value of intellectual property rights resulting from research done under the contract was not taken into account by the parties. The EC bears the burden of proving the fact it asserts.[631] Its response to this question proposes a series of hypotheticals, but absolutely no evidence on which the Panel could base a finding of a separate financial contribution or benefit.

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[627] EC RPQ2, para. 395.

[628] See US Comments on EC Response to Panel Question 221.

[629] The United States recalls that the challenged intellectual property clauses do not represent a provision of government-owned rights in existing intellectual property.

[630] See, e.g., USFWS, paras. 317-225; USSWS, paras. 97-105.

[631] *US -- Wool Shirts (AB)*, p. 14 ("{T}he party who asserts a fact … is responsible for providing proof thereof.").

396. At their core, the EC hypotheticals are self contradictory. The EC first asks the Panel to assume that "neither party explicitly mentioned the potential intellectual property rights as something that should impact that the price" and then that the attribution of patent rights is at the same time a separate financial contribution. The United States does not see how there can be no discussion of the value and at the same time a separate transaction that could constitute a separate financial contribution. In fact, what the EC is describing is a single transaction with multiple integral elements, none of which is separately negotiated or priced. Thus, the benefit analysis must proceed as the parties' negotiation proceeded, based on the entirety of the packages offered by buyer and seller, to determine whether the remuneration paid to the supplier was more than adequate.

397. The EC hypothetical also fails to consider how the parties arrived at the agreement under which the supplier agreed to accept $100 for the work, in light of the estimated $50 of resulting intellectual property rights. If the government used competitive procedures to arrive at this agreement, all offerors would have taken into consideration the $50 estimated value of the intellectual property rights and the likely cost of performing the work to generate those rights in deciding what they would offer and accept for the contract. In that case, the winning offer would likely commit resources that, together with a reasonable profit, were worth $150. In any event, the competition would ensure that the government purchaser received the best deal among the commercial entities willing to supply the service.

398. This holds true even if the offerors were bidding under the cost reimbursement approach hypothesized by the EC. Each would offer the lowest cost commensurate with the value of the deal, which might be enabled by its existing knowledge base, its willingness to self-fund part of the work, or its willingness to lessen or forego the profit allowance. Thus, the work required under the contract would reflect the commercial value of the compensation package to the contractor. Again, competition would ensure that the government received the best deal among the commercial entities willing to supply the service. The holistic valuation that any commercial actor would use in evaluating such a contract only serves to emphasize that there are not two financial contributions.

399. Other factors mentioned by the EC would not justify splitting the single transaction into two financial contributions. If the attribution of patent rights were standard, that would actually increase the likelihood of its value being considered in price offers. In commercial reality, private parties almost always negotiate against a background of standard contract terms, some of which are a bottom-line requirement of one party and others that are required under the contract law of the jurisdiction. Such standard conditions create great certainty for the parties, and are the types of considerations most likely to be implicitly factored into an initial offer for the very reason that they cannot be changed by negotiation. The hypothetical "purpose" of the project would not affect the transaction at all, because the government's motive in offering a particular treatment of intellectual property rights would not change the way rational economic actors reacted to that treatment or factored it into their valuation of the project or their offers.

400. Finally, to the extent that the EC hypothetical is a thinly veiled allusion to U.S. government procurement practices, the evidence before the Panel indicates that the U.S. government standard contract clauses do not lead parties to ignore the value of intellectual

property rights. Both the history behind the establishment of the default intellectual property rights allocation in government contracts[632] and the negotiations of the individual contracts at issue in this case[633] reflect the fact that both the Government and its contractors consider the allocation of intellectual property rights as part of the overall negotiation of the transaction terms.

220. At p. 31 of EC-1176, CRA states that " as a subcontractor, Boeing retains valuable intellectual property rights." Could the parties please elaborate on how intellectual property rights are treated under sub-contracts, including the governing legal framework concerning the allocation of rights as between the prime contractor, the sub-contractor, and the government.

401. The United States refers to its own response to Panel Question 220.

402. To the extent the EC is introducing the argument that the U.S. government entrusts or directs the provision of intellectual property rights to subcontractors under the terms of its prime contracts,[634] the United States recalls that a financial contribution exists under SCM Agreement Article 1.1(a)(1)(iv) only where the government has entrusted or directed an entity to provide a financial contribution within the meaning of Articles 1.1(a)(1)(i)-(iii).[635] The intellectual property clauses, as the United States has previously demonstrated, do not constitute a financial contribution under Article 1.1(a)(1)(i)-(iii).

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[632] See US FWS, para. 315, *citing* Exhibit EC-557 ("The thought that the Government could distribute their research results to whomever might ask for them became extremely unattractive to many contractors, universities, and research centers. As a result, technologies that were potentially commercially viable were never fully available to the Government.") See also USFWS, paras. 315, 349 ("{T}he Government recognizes that its contractor may have a legitimate proprietary interest (e.g., a property right or other valid economic interest) in data resulting from private investment . . . The protection of such data by the Government is also necessary to encourage qualified contractors to participate in Government programs and apply innovative concepts to such programs. In light of the above considerations, in applying these policies, agencies shall strike a balance between the Government's need and the contractor's legitimate proprietary interest.")

[633] *E.g.*, Prenegotiation Procurement Review Committee Report for NAS1-20090, Aircraft Airframe and Engine Noise Negotiation, p. 25 (Exhibit US-546)(HSBI) ("The Contractor requested that an advanced waiver be issued prior to contract award. Boeing was advised that this is a task assignment arrangement and evaluations required under 14 CFR 1245.104 cannot be made until there is further definition of the research to be performed. Therefore, the Government's position is to consider the request at the time that tasks are authorized under the contract."); Memorandum for NAS1-20220, High Speed Research, pp. 7,9 (Exhibit US-552)(HSBI) (after recognizing the cost savings to NASA from negotiation of a "no fee" contract, noting that "NASA remained committed to expedite the petition of Advanced Waiver of Patent Rights as proposed by Boeing; however, the granting of the waiver was not guaranteed.") See also Memo re: Prenegotiation Position – Proposed Contract to Boeing Commercial Airplane Group for AST Noise Reduction Research, p. 6 (Exhibit US-419)(denial of Boeing-requested modifications to the clauses allocated rights in data made under the contract on the grounds that "{t}he proposed change limits the Government's intended rights to obtain data first produced or specifically used in performance of the contract.")

[634] EC RPQ2, para 401.

[635] US RPQ2, para 355.

F. IR&D AND B&P

221. Is the Panel correct in its understanding that IR&D and B&P reimbursements are made only in connection with "cost-based" Procurement Contracts?

403. The EC confirms the Panel's correct understanding that IR&D and B&P reimbursements are made only in connection with "cost-based" contracts, that is, contracts in which actual or estimated costs are factors controlling the amount paid, in prices or reimbursed under cost-reimbursable contracts.

404. The EC attempts to link firm fixed price contracts to its IR&D/B&P reimbursement claim, but is forced to admit that there are no reimbursements of any kind under such contracts.[636]

405. In general, the United States recalls that government contracting officers must purchase goods and services from responsible sources at "fair and reasonable" prices.[637] Where there is not adequate price competition or established market prices to use as a benchmark to ensure that the government pays no more than a fair and reasonable price, such a price is established based on estimated costs, including IR&D and B&P costs.[638] Thus, the cost build-up of which the challenged IR&D and B&P reimbursements are a part is a proxy for a price set by comparison among competitors' prices or established catalog or market prices, and payment based on a cost build-up reflects no more than adequate remuneration for the goods and services purchased.

222. At paragraph 864 of its FWS, the European Communities states that, according to the FAR, costs for IR&D and B&P are "allowable" as indirect expenses on contracts to the extent that those costs are "allocable" and "reasonable". The European Communities then states that the DFAR imposes an additional limitation that costs be of "potential interest to DOD". The European Communities states that this additional "potential interest" requirement is met if activities are intended to "strengthen the technology base of the United States" and "enhance the industrial competitiveness of the United States". Could the parties please provide further details on, and the relationship between, the concepts of: (i) "allowable" costs; (ii) "allocable" costs; (iii) "reasonable" costs; and (iv) "potential interest" in the form of activities are intended to "strengthen the technology base of the United States" and "enhance the industrial competitiveness of the United States".

406. The United States refers to its own answer to Question 222, including (1) its explanation that IR&D costs must be allocated first to the benefiting business segment, before that subset of costs is allocated across the various cost objectives (i.e., contracts) of that segment, and as a result the U.S. government, to the extent that IR&D costs are beneficial to

[636] The EC's point about "recovery" of IR&D/B&P under firm fixed price contracts merely reflects the point the U.S. has made all along that IR&D/B&P is the type of cost that any commercial entity must "recover" in its prices to be profitable. US FWS, paras. 285-288.

[637] FAR 15.402(a).

[638] FAR 15.4.

Boeing's commercial aircraft operations, they are not reimbursed;[639] and (2) its fuller explanation of the DoD "potential interest" limitation on IR&D reimbursement.[640] The United States emphasizes that, while the EC argues that the "potential interest" test within the allowability criteria for inclusion of a cost in the total cost is broad, it does not allow the inclusion of any cost that is otherwise not allowable, not reasonable, or not allocable to a contract. Therefore, the "potential interest" criterion is not a way for DoD to "channel funds to the commercial sector," as the EC alleges.[641]

223. The United States submits that IR&D and B&P reimbursements are "not paid separately" and are "part of" or "subsumed in" in the purchase price for goods or services. (US FWS, para. 283) Please elaborate on the mechanism(s) through which IR&D and B&P reimbursements are made to contractors.

407. The EC confirms that IR&D and B&P reimbursements/recovery are part of the purchase price for goods and services. This fact is not, however, "fundamentally irrelevant and little more than a diversion."[642] To the contrary, the structure of the measure reflects that "the substance of the situation" is not a direct transfer of funds that, as the EC asserts, is no different than "an ad hoc grant that is unattached to a contract." Instead, it is an inseparable element of the remuneration that the government pays for the goods and services it purchases. As the United States has previously demonstrated, and the EC's own expert confirms, the U.S. government contractors can only receive remuneration for IR&D and B&P if they have government contracts – in particular, cost-based government contracts – and such remuneration is limited to the U.S. government's pro-rata, equitable share, as measured by CAS 420.[643]

408. The United States notes that the EC's overreaction regarding the systemic implications of the U.S. argument is unfounded. The United States has not argued that IR&D and B&P reimbursements are part of the purchase price of a larger transaction simply because they are "made pursuant to a contract."[644] The facts on which its argument is based are clear and specific to this situation: reimbursement of IR&D and B&P is *only* available if a contractor is otherwise providing goods and services to the U.S. government, and those costs are reasonable, allowable, and allocable to the contract.[645] The remuneration of IR&D and B&P costs as part of the purchase price for these goods and services reflects the commercial

[639] US RPQ2, para. 353.

[640] US RPQ2, paras 357-358 and n. 486.

[641] EC RPQ2, para. 412.

[642] EC RPQ2, para. 416.

[643] Kievan Statement, para. 4 (Exhibit EC-1179).

[644] EC RPQ2, para. 417.

[645] Indeed, if a contracting officer sought to bundle a grant into a contract, as the EC theorizes, such an amount would not be payable, as it would relate to no work under the contract, which would prevent a reimbursement.

norm in which general R&D expenditures are a standard element of corporate costs that are recovered through revenues on sales of goods and services.[646]

225. Please respond to para. 79 of the US OS2, which reads:

> *"With regard to the value of total IR&D and B&P payments to Boeing, the United States is willing to accept the CRA's estimate for purposes of this proceeding. However, the EC makes a serious error in assuming that all of Boeing's IR&D expenses related to dual-use technology and, therefore, should be split proportionately between civil and military transactions. The only support it provides for this assumption is an assertion that "{t}he IR&D/B&P amounts reimbursed to Boeing/MD related to the company as a whole." The evidence demonstrates that this is a wholly unrealistic assumption. In fact, even by the EC's inflated estimates, dual-use technology accounted for less than ten percent of DoD's total RDT&E activity for the 1991 to 2006 period. The EC provides no basis for the assertion that the dual-use share of IR&D expenses would be ten times higher." (footnotes omitted)*

409. The EC's assumption that IR&D/B&P reimbursements relate to dual-use technology in a proportion roughly equivalent to Boeing's large civil aircraft sales as a proportion of Boeing's overall sales does not accord with the facts about the pool of IR&D and B&P costs that is actually being reimbursed under the challenged measures. First, for contracts whose prices are based on estimated or actual costs, versus contracts awarded based on adequate price competition or on established catalogue or market prices, DoD only reimburses the IR&D and B&P costs allocated to those contracts that are allowable. Although the Boeing Company as a whole may engage in internal R&D expenditures in the proportions estimated by the EC, the business of IDS does not. Its primary business is with DoD, which, as the EC points out, has a primary objective to purchase weapons systems.[647] Thus, there is no basis to assume that the IR&D carried out by IDS and the IR&D carried out by the rest of the Boeing Company and allocated to IDS on the basis of a beneficial relationship to its business would reflect more than the 10 percent ratio in which DoD is interested in dual-use technologies.

410. More importantly, however, the EC's attempt to treat any of Boeing's IR&D expenditures reimbursed by the U.S. government as benefiting Boeing's large civil aircraft operations is unsupported by the facts. Pursuant to U.S. government cost accounting regulations, IR&D must be allocated to the benefiting business segments. Therefore, IR&D and B&P costs benefitting solely Boeing's large commercial aircraft segment are allocated to that segment. With respect to "dual-use" IR&D Boeing conducts between its BCA and IDS business segments, its large commercial aircraft segment received a pro-rata, equitable share of the allocation.[648] Because BCA has no "cost-type" contracts with the U.S. government, none of the cost of IR&D project performed by the Boeing Company that benefited large civil aircraft is reimbursed pursuant to the challenged IR&D provisions.

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[646] US FWS, paras. 285-288.

[647] EC RPQ2, para. 419.

[648] US FWS, paras. 294-297 and US RPQ2, para 353.

411. The EC also suggests that as a "profit-seeking company, when Boeing "*independently* selects the R&D projects that serve as the basis for the IR&D/B&P reimbursements, as it must, it has the incentive to select R&D that will have the greatest benefit for the company as a whole."[649] This is not correct. Boeing is constrained by its need to control costs to remain competitive in its sales to DoD. Therefore, Boeing's incentive is to include in its IR&D reimbursements only those projects that have a viable future market for DoD. In particular, because it must compete for sales with other contractors whose primary business is military contracting, if it included research in civil topics for which there is no viable future market for DoD, or failed to properly manage and control its IR&D spending in a prudent manner, it would quickly become uncompetitive against companies that did. The United States recalls that the overlap between military and civil research is small. Even the EC's exaggerated figures put it at only ten percent, and the United States has demonstrated that this figure is far too high. Thus, even if Boeing sought to conduct IR&D exclusively on dual-use technologies, as the EC alleges, it is doubtful that it could do so and still remain competitive in the defense market.

G. FSC/ETI AND SUCCESSOR ACT SUBSIDIES

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H. DOL GRANT

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I. STATE OF WASHINGTON AND MUNICIPALITIES THEREIN

1. Tax measures provided for in HB 2294 and Ordinance 2759-04

(a) General

228. It appears that both parties rely on the information contained in Exhibit US-184 ("Washington State Department of Revenue Final HB 2294 Fiscal Note - 20-Year Spreadsheet") for the purpose of estimating the amount of any alleged subsidies provided to Boeing through HB 2994. Do the parties agree that, if the Panel were to find that some or all of the tax measures provided for in HB 2294 constitute subsidies, the Panel could rely on Exhibit US-184 to estimate the amount of the subsidy?

412. To the extent the Panel finds that some or all of the tax measures provided for in HB 2294 constitute subsidies, the United States refers the Panel to its response to Question 228, which explains the extent to which the Panel may rely on Exhibit US-184 to estimate the amount of the alleged subsidies.[650]

413. The EC states that its estimates of the alleged subsidies in HB 2294 are based on figures provided by the State of Washington in a September 2003 Presentation (Exhibit EC-

[649] EC RPQ2, para. 419 (emphasis in original).

[650] US RPQ2, paras. 368-372.

65). However, as the Panel notes in Question 228, the EC also relies on Exhibit US-184, to estimate the amount of the alleged subsidy.[651] With respect to the EC's point that Exhibit US-184 should include an estimate of the amount of the alleged subsidy through 2024, the United States has clarified that it agrees with the EC that the tax measures in HB 2294 are provided through 2024 rather than 2023. To the extent that the Panel includes future revenue foregone in the amount of the alleged subsidy, which the United States does not consider appropriate, the United States accepts the EC's projection for 2024 for the total amount of the alleged financial contribution under each of the tax measures in HB 2294.[652]

414. With respect to the B&O tax adjustment, the United States disagrees with the EC that the tax adjustment provided to aircraft component manufacturers passes through and benefits Boeing large civil aircraft.[653] The Washington State Presentation,[654] on which the EC relies, estimates that 65 percent of the total value of the B&O tax adjustment is provided to Boeing over the life of the program, and the Panel should therefore attribute only 65 percent of the value of the B&O tax adjustments to Boeing. As the United States has demonstrated, the EC's theory of pass-through is flawed and there is no basis for the Panel to accept it.[655]

415. With respect to the B&O tax credits, the United States accepts the EC's estimate that Boeing receives 65 percent of the B&O tax credits for preproduction development and 100 percent of the B&O tax credits for computer software and hardware.[656] With respect to the B&O tax credits for property taxes, the United States accepts the EC's estimate that 100 percent of the value of the tax credit is provided to Boeing. The United States also accepts the Washington State estimate, on which the EC relies, that 80 percent of the sales and use tax exemption for computer hardware, software, and peripherals is provided to Boeing.

416. Finally, the EC errs in its contention that Exhibit US-184 understates the amount of the alleged subsidy because "it assumes, without any support, that Boeing has not and will not receive the sales/use tax exemptions for construction and equipment, leasehold excise tax exemptions and property tax exemptions."[657] As explained in the U.S. response to Question 239, Boeing does not qualify for these tax exemptions because of its decision to use its existing Everett facilities.[658] Accordingly, Exhibit US-184 correctly includes "zeroes" with respect to these three measures.

229. The European Communities estimates that over the period FY 2004 through FY 2024, Washington State will forego nearly $2.12 billion from Boeing as a result of the B&O tax rate reductions, $1.15 billion from LCA component manufacturers in Washington

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[651] EC SWS, paras. 54, n. 72 and 68, Figure 1, n. 103.

[652] US RPQ2, para. 370-371.

[653] US RPQ2, para. 371.

[654] Exhibit EC-65.

[655] US FWS, paras. 467-481; US OS2, paras. 102-106.

[656] EC SWS, para. 68, n. 102-103.

[657] EC RPQ2, para. 425.

[658] US RPQ2, paras. 396-400.

> *State as a result of the B&O tax rate reductions, and $0.29 billion from Boeing as a result of the other tax incentives contained in HB 2294. (EC FWS, para. 131) The European Communities estimates that the City of Everett will forego $67.5 million from Boeing as a result of the local B&O tax rate reduction over the period 2006 through 2023. (EC FWS, para. 131) Is it necessary for the Panel to arrive at a total dollar-figure amount (e.g. "$2.12 billion") of the Washington tax measures on the basis of projected future sales / deliveries? Insofar as the tax reductions are calculated on an ad valorem basis (e.g. "0.2%") would the corresponding subsidization rate on a per-airplane basis not remain constant (e.g. "0.2%") irrespective of the total dollar-figure amount, and irrespective of how many sales / deliveries actually take place over the period FY 2004 through FY 2023/2024?*

417. The EC acknowledges that there is no requirement to assess the total dollar amount – whether past or future – associated with the Washington State *ad valorem* tax adjustments challenged by the EC.[659] The United States agrees. As the United States explained in its response to this Question, any subsidization rate would remain constant regardless of the absolute levels of Boeing's sales and prices – whereas any total dollar amount will entail speculation about future developments.

418. In the EC's response to this Question, it again fails to show that an *ad valorem* adjustment of 0.2% would have had a significant effect on Airbus' sales or pricing. As previously noted by the United States, alleged price differentials in specific campaigns are, by the EC's own measure, far too large for the Washington measures to have made any difference regarding the displacement and impedance and lost sales alleged by the EC.[660]

419. Regarding price suppression, the EC uses the one percent level of price suppression as a threshold for "significance" within the meaning of Article 6.3(c).[661] The alleged subsidization rate associated with the Washington tax measures is much smaller than that. Accordingly, even assuming "dollar-for-dollar" price effects of the alleged subsidies, which the EC has not shown, any suppression of prices that could theoretically result from the Washington tax measures is not significant under the EC's own standard. As the EC points out, some aspects of HB 2294 are not readily expressed in *ad valorem* terms;[662] however, the absolute dollar amounts of these measures are, by any measure, insignificant.[663]

420. The EC obscures the small magnitude of the Washington tax measures by presenting tables in response to the Panel's question showing per aircraft subsidization figures for *all* alleged subsidies to Boeing.[664] This only highlights the fact that the EC does not, and cannot, demonstrate that the Washington tax measures have any material impact on Airbus.

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[659] EC RPQ2, paras. 427, 430.

[660] US RPQ2, para. 377.

[661] EC RPQ2, para. 551.

[662] EC RPQ2, para. 429.

[663] US FWS, paras. 810-16.

[664] EC RPQ2, paras. 432-433.

Moreover, given that the Washington tax measures are so fundamentally different from R&D programs (the vast majority of the alleged subsidies) in the way they relate to the products at issue, the Panel should not conduct an integrated assessment of the effects of these two different kinds of alleged subsidies.[665] And while the Washington tax measures are more similar in their nature to FSC/ETI, these two alleged recurring subsidies cannot be considered to have any significant combined effect. Indeed, by the EC's own reckoning, the two measures overlapped in only one year, 2003.[666]

421. In sum, the magnitude of the Washington tax measures is clearly insignificant – even by the EC's own calculation.

(b) State B&O Tax Reduction

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234. The European Communities estimates "that $1.05 billion out of the $1.15 billion financial contribution to Washington State aerospace companies other than Boeing from the B&O tax rate reductions passes through and benefit Boeing's LCA division." (EC FWS, para. 136) Please elaborate on how the European Communities arrived at this estimate.

422. The EC continues to ask the Panel to assume pass-through to Boeing of alleged subsidies provided to unrelated entities that do not produce the products that the EC alleges are causing adverse effects, based on the assertion that "economic theory dictates that the full benefit to input suppliers from *ad valorem* subsidies passes through to a downstream producer."[667] If the EC's proposition were true, it would never be necessary for a complainant affirmatively to prove pass-through of a subsidy to an independent and unrelated party – at least for *ad valorem* subsidies. Rather, it could always be assumed. This is contrary to common sense, economic reality, and prior findings by panels and the Appellate Body.[668]

423. As the United States has previously discussed, the economic theory on which the EC's claim rests does not reflect the factual circumstances of the markets at issue or competition from non-Washington State suppliers.[669] And the EC continues to fail to point to any other basis for a pass-through finding. It cites again only to the same two general statements by Governor Locke as "evidence" of pass-through. [670]

424. As the United States discussed in response to Question 231, in the first statement, Governor Locke says that there will be a "40% B&O rate reduction for the entire aircraft

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[665] US OS2, paras. 138-140.

[666] ITR Magnitude Report, Table 4, p. 1 (Exhibit EC-13).

[667] EC RPQ2, para. 436.

[668] *US – Softwood Lumber CVD Final (AB)* paras. 140, 143 (cited in US FWS, para. 468).

[669] US FWS, paras. 467-481; US SOS, paras. 102-105; Dr. Gary J. Dorman, *Reply to Reports of Professors Wachtel and Asker* (July 2, 2007) (Exhibit US-186).

[670] EC RPQ2, n. 483, 484.

industry (including suppliers)."[671] It is unclear how the EC considers this statement to support its position. If anything, the statement would appear to confirm the U.S. position that the total value of the B&O tax adjustments should not be attributed to Boeing because numerous other entities receive the same tax treatment. Moreover, as the United States previously explained, it was clearly in the State's interest to describe its investment environment as comprehensively and positively as possible because it sought to attract aerospace operations to Washington. Indeed, the letter in which the Governor makes the statement is a letter to one of Boeing's site selection advisors praising Washington State's investment climate.

425. The second Locke statement cited by the EC does not address the question of whether the tax adjustment ultimately accrued to the suppliers that received it or Boeing. As both parties' economists recognize, whether there was pass-through involves complex economic and factual questions that are not addressed by the article cited by the EC. Moreover, the article reports on Washington State's desire to attract aerospace operations to the State, including operations of suppliers.

426. As the United States explained in response to Question 231, neither of the two statements that the EC relies on establishes that the benefit of any alleged subsidy to aerospace component manufacturers that are independent from and unrelated to Boeing passed through to Boeing. And the EC has provided no basis to find that it did.

427. Indeed, the United States welcomes the EC's apparent acknowledgment, in paragraph 437 of its response to the Panel's questions, that pass-through cannot simply be presumed in at least one scenario. The EC ascribes relevance to the fact that some suppliers supply both Boeing and Airbus; it "attempts to exclude … any B&O tax rate reductions going to Washington State suppliers that supply both Boeing and Airbus."[672] The EC provides no explanation as to why this market reality is relevant, but others are not. Based on the apparent logic that underlies the EC's decision to exclude monies that went to companies that supply both Boeing and Airbus, one would expect the EC to also have excluded monies that went to companies that supply Boeing and one or more companies other than Airbus. It inexplicably does not.[673]

428. Ultimately, the EC's attempt to be "conservative"[674] and exclude suppliers that also supply Airbus simply demonstrates the incoherence of its pass-through analysis, and

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[671] US RPQ2, paras. 380-383; Letter from Governor Locke to McCallum Sweeney Consulting, p. 2. (Exhibit EC-71).

[672] EC RPQ2, para. 437.

[673] In addition, even under the terms of the EC's own analysis, its methodology is flawed. It claims to be excluding rate reductions that went to companies supplying both Boeing and Airbus. Yet the EC does not assess what portion of the total supplier tax savings could be expected to go to such suppliers – i.e., it takes no account of the fact that all suppliers are not of equal size, and thus do not pay the same amount of taxes. Instead, the EC simply assumes that the seven suppliers that supplied both companies represented a pro rata portion of economic activity of the 81 aerospace suppliers that utilized the tax reduction. This is not a reliable basis on which to assess magnitude.

[674] EC RPQ2, para. 437.

underscores the fact that the EC has not provided any positive evidence of pass-through or properly accounted for market dynamics.

(c) State B&O Tax Credits

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(d) Sales and Use Tax Exemptions for Computer Hardware, Peripherals, and Software

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(e) Sales and Use Tax Exemptions for Construction and Equipment, Leasehold Excise Tax Exemptions, and Property Tax Exemptions

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(f) Coordinators

242. Please elaborate upon the statement, at para. 101 of the EC SWS, that "the United States seems to conflate the benefit analysis with the specificity analysis".

429. The EC's contention that the United States seems to conflate the benefit analysis with the specificity analysis is without merit. First, with regard to the benefit, as the United States has set forth previously, the project coordinators, which were made available to Boeing to assist in the establishment of the 787 facility, were merely doing their job in facilitating Boeing's establishment of its 787 facility. The EC claims without any support that "no company could receive coordination services relating to an industrial project without paying something in return."[675] In reality, it is not uncommon in a commercial setting for a company to provide a point of contact or facilitator to large customers in order to assist the customers in their relationship with the company and in utilizing the company's services. Similarly, Washington State seeks to facilitate Boeing's establishment of the 787 facility and the related regulatory and administrative requirements that Boeing would need to satisfy. The project coordinators serve this function, which is similar to the services that commercial entities provide to large customers. Accordingly, there is no basis for the Panel to assume – as the EC requests – that Boeing would not be able to receive such services in the market.

430. Second, with regard to specificity, the United States has established that the provision of project coordinators is not specific under Article 2 of the SCM Agreement. The EC continues to argue that the project coordinators are only available to "a group of companies selected according to what appear to be very vague and arbitrary criteria."[676] It is not clear to the United States why these criteria "appear to be very vague and arbitrary." In fact, what the EC describes as "vague and arbitrary" criteria are in fact non-specific criteria pursuant to which a broad range of industries and enterprises have been provided project coordinators by the State. This is both directly relevant to the *de facto* specificity inquiry and also

[675] EC RPQ2, para. 440.

[676] EC RPQ2, para. 441.

demonstrates that the provision of project coordinators by the State of Washington is not specific to the aerospace industry or to Boeing.[677]

431. Accordingly, the United States in no way conflates the benefit and specificity analyses. Rather, we have provided two distinct sets of arguments with regard to these two assessments showing both that the role of the project coordinators does not confer a benefit under Article 1 of the SCM Agreement, and that any such provision was not specific within the meaning of Article 2 of the SCM Agreement. The availability to Boeing of project coordinators was therefore not an actionable subsidy.

(g) Workforce Development Program

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(h) Cost of Legal Proceedings

244. According to the European Communities, Article 11.3 of the Master Site Agreement constitutes a "commitment to pay fees, costs, and expenses in connection with potential litigation is a potential direct transfer of funds within the meaning of Article 1.1(a)(1)(i)". Does Article 11.3 of the Master Site Agreement mandate a "potential direct transfer of funds" to Boeing? If not, would that preclude the Panel from finding that Article 11.3 constitutes a "potential direct transfer of funds" for the purpose of Article 1.1(a)(1)(i) of the SCM Agreement?

432. The United States has no comment on the EC's response to this question.

(i) Road Improvements, Rail-Barge Transfer Facility, and South Terminal Facility

248. What is the evidentiary basis for the European Communities' assertions that:

(a) "[I]n essence, everything, including a potential re-routing of private roads, is done to provide Boeing with the transport solution that fits to it" (EC Comments on US RPQ1, para. 141)

(b) "the entire rationale behind the measure … is to diffuse the other users of the underlying roads over the improved roads" (EC Comments on US RPQ1, para. 141)

433. In its response to Question 248, the EC repeats a parade of unsupported assertions about the infrastructure measures at issue in this dispute. The United States has provided a detailed rebuttal of the EC's allegations in response to Question 246.[678] Rather than repeat all of those arguments here, the United States takes this opportunity to comment on a few of the EC's most unsupported assertions.

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[677] US RPQ2, para. 390; US FWS, para. 571, n. 759; RCW 43.157.030 (Exhibit US-238).

[678] US RPQ2, paras. 411-419.

434. The EC asserts that "Article 6.11 and Exhibit C-9 of the Project Olympus MSA also make clear that the rationale behind the 787 Road Improvement Package was to diffuse the other users of the underlying roads over the improved roads in such a way that Boeing's performance requirements are at all times satisfied." The EC continues by asserting that somehow, those quotes would show that "the purpose of the work (both current and future) conducted by the public authorities pursuant to Article 6.11 and Exhibit C-9 is not to satisfy the requirements of the public at large, but those of Boeing."[679]

435. However, none of the "quotes" provided by the EC states anything about diffusing the other users of the roads as being the rationale behind the road improvements. There is also no basis for the EC's assertion that these "quotes" confirm that the "apparent purpose" of the work was to satisfy the requirements of Boeing, rather than the public. As the United States has repeatedly set forth, the road improvements at issue were part of a statewide effort to improve infrastructure, and the State took into account myriad interests in designing the infrastructure.[680] Indeed, the road improvements at issue were designed prior to the signing of the MSA and even before the launch of the 787.[681] Regardless of quotes or EC allegations, the fact that the State undertook a massive effort to improve infrastructure and that I-5 and SR-527 were two of the numerous roads identified as needing improvements demonstrates that the improvements were not merely designed to satisfy Boeing's requirements.

436. Finally, the EC also states "{w}hile there are other users of the roads, the combined effect of the legal right to define specifications and of the performance guarantee results in a situation where Boeing will never have to put up with more other users on the improved roads at issue than it is willing to tolerate."[682] The EC's assertion is unsupported by any facts. The State consulted Boeing and took into account its needs just as it took account of the needs of all users.[683] Moreover, the relevant question remains whether the roads are available to all users without limitation, and the EC has been unable to point to a single fact that suggests that there are limitations on the availability of the I-5 and SR-527 road improvements. Accordingly, these road improvements constitute general infrastructure and are outside the scope of the SCM Agreement.

249. Is the European Communities estimate of the amount of "benefit" conferred upon Boeing from certain infrastructure-related projects based on a "cost to government" method for calculating benefit?

437. The United States refers the Panel to its previous submissions in which it has established that the infrastructure measures challenged by the EC are general infrastructure and therefore are not a financial contribution to Boeing.[684] To the extent that the Panel agrees

[679] EC RPQ2, para. 447.

[680] US FWS, paras. 524-28; US SWS, para. 142; US RPQ2, paras. 66, 71-72.

[681] US RPQ2, para. 73.

[682] EC RPQ2, para. 447.

[683] US FWS, paras. 524-28; US RPQ2, paras. 71-75.

[684] US FWS, paras. 518-553; US SWS, paras. 141-143; US RPQ1, paras. 91-111; US RPQ2, paras. 62-77, 407-423.

that the infrastructure measures at issue constitute "general infrastructure," there would be no financial contribution and therefore no need for the Panel to assess the benefit.

438. Even aside from the fact that these are general infrastructure, the United States makes the following observations with regard to the "benefit" assessment methodology that the EC sets out in response to Question 249.

439. In its response to Question 249, the EC explains that, in order to establish what it considers the "value" of the benefit conferred through the highway improvement measures and port facility improvement that it challenges it "draws upon information on the estimated costs incurred by the governmental entities in constructing the infrastructure at issue. In particular, the European Communities uses this information as the basis for determining the value of the goods and services provided to Boeing, and the price that the market would have demanded for the provision of the infrastructure."[685]

440. As the United States explained in response to Question 247, taking the cost of infrastructure or facilities as a proxy for the total amount of the benefit would be a valid method of calculating the benefit conferred if such infrastructure or facilities were developed exclusively for a particular user and were unavailable for broader use.[686] In contrast, the United States disagrees with the EC's suggestion that in the case of infrastructure used by multiple users, the entire cost of the infrastructure measures should be attributed as a benefit to one of the users (Boeing).[687]

441. The United States also disagrees with the EC's application of the benefit calculation methodology to the South Terminal expansion. In addition to the fact that this measure – like the other infrastructure measures challenged by the EC – constitutes general infrastructure, the EC seems to simply assume that "the benefit conferred upon Boeing is $34 million, because Boeing is paying nothing in return." In reality, Boeing's agreement with the Port of Everett quite clearly sets forth a number of rights and obligations for both Boeing and the Port, including an obligation for Boeing to pay certain agreed fees for use of the facilities.[688] In view of the EC's failure to make a *prima facie* case that such fees are insufficient as compared to the price a commercial investor would have demanded, the EC has failed to make a *prima facie* case of "benefit" under Article 1.1(b). Moreover, with regard to both the South Terminal Facility and the Rail Barge Transfer Facility, Boeing does not, in fact, use these facilities, and therefore, does not benefit from them.

442. Finally, the EC argues that to the extent that the Panel finds the improvements at issue to be "general infrastructure," certain rights provided to Boeing in connection with such general infrastructure would independently constitute a provision of goods or services other than general infrastructure, within the meaning of Article 1.1(a)(1)(iii) of the SCM

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[685] EC RPQ2, para. 450.

[686] US RPQ2, para. 423.

[687] US RPQ2, paras. 420-423.

[688] US FWS, para. 552; Port of Everett 2005 Annual Report, p. 5 (Exhibit US-226) (illustrating that in the years 2003, 2004, and 2005, the Port operated on a profitable basis).

Agreement.[689] As a preliminary matter, this is an entirely new argument that the EC now – at this very late stage in the proceeding – seems to make in the most summary fashion and without any support or explanation. For that reason alone, the United States believes that the Panel should reject the EC's argument. In addition, the argument is without merit.

443. First, with regard to the EC's argument that the provision of certain rights to Boeing regarding the road improvements would constitute a provision of goods or services, the EC does not explain how such rights would be either a "good" or a "service."[690] Moreover, the EC provides no support for its assertion that certain rights "were provided only to Boeing, and they give Boeing legal certainty." Indeed, the EC does not explain how "legal certainty" is relevant for the general infrastructure analysis. And, the EC has not shown that any "legal certainty" was provided to Boeing that was not available under the general road improvement policy of the State of Washington with regard to all road improvements that were part of the Nickel Package, which was in process well before the State and Boeing entered into the MSA.[691]

444. Second, with regard to the alleged provision of "preferential access" to the South Terminal facility, the United States refers the Panel to its discussion of this issue in the context of the EC's "non-general" infrastructure claim.[692] In particular, as explained previously, the agreement between the Port of Everett and Boeing contains an obligation for Boeing to pay certain agreed fees for use of the port facilities, and Boeing, in fact, does not currently use the facilities.[693]

(j) 747 LCF Landing Fee Waivers

251. Regarding the tax measures for the 747 LCF and Article 11.3 ("Legal Proceedings") of the Master Site Agreement, the United States argues, at para. 143 of its Comments on EC RPQ1, that "it is reasonable to infer from the EC's response to Panel Question 41 that the EC no longer claims that the value of these two measures is large". How does the European Communities respond?

445. The EC provides no response to the argument of the United States that is set out in this Question. As the United States explained in response to Question 41, the EC did not state that the value of the two measures at issue – the tax measures for the 747 LCF and

[689] EC RPQ2, paras. 454, 459.

[690] In particular, the Appellate Body's finding in *United States – Softwood Lumber CVD Final (AB)*, paras. 57-76 that the EC cites (EC RPQ2, n. 517) does not support the EC's argument. The Appellate Body found that, as the EC itself says, the "granting {of} a right to harvest standing timber" constitutes a provision of goods. However, the provision of "legal certainty" is not relevant to the question of whether the improvements constitute general infrastructure and *United States – Softwood Lumber IV* does not address the meaning of general infrastructure. As the United States has set forth previously, the mere fact that a government promises to build certain infrastructure does not make such infrastructure "non-general" as long as it is not indicative of or does not result in any limitations on the availability of such infrastructure.

[691] US RPQ2, para. 414.

[692] *E.g.*, US RPQ2, para. 419.

[693] US RPQ2, para. 419.

Article 11.3 ("Legal Proceedings") of the MSA – is "large," contrary to the EC's first written submission. Rather, the EC stated that the magnitude of all the alleged subsidies at issue in this dispute is "large."[694]

446. In response to Question 251, the EC provides no explanation for the apparent change in its argument. Instead, the EC merely restates that the value of each of these subsidies is large and contends that the United States has not offered evidence to show that the value of these measures is not large.[695] But the burden is on the EC to establish its claims, which the EC has not done.[696]

447. Finally, with respect to the EC's argument that the United States has failed to cooperate with the information gathering process, the United States has fully explained in response to Questions 106 and 107 why the EC's claim lacks merit.

J. STATE OF KANSAS AND MUNICIPALITIES THEREIN

1. Industrial Revenue Bonds

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2. KDFA Bonds

256. At para. 261 of its SWS, the European Communities states that "[f]or the same reasons discussed above with respect to IRBs", the best information publicly available suggests that Spirit agreed to pass through the expected future benefits from the KDFA bonds to Boeing's LCA division in the terms and conditions of the long-term supply agreements that Spirit signed with Boeing at the time they closed their deal. Is the Panel correct in its understanding that the European Communities' "pass through" claim in respect of KDFA Bonds rests on the same factual basis as it its claim of "pass through" in respect of IRBs?

448. Contrary to the EC's contentions, there is no evidence to support the assertion that "Boeing and Spirit had very clear expectations at the time they negotiated their deal that Spirit would fully utilize the {Kansas Development Finance Authority} KDFA bonds, in this particular case for the 787 programme."[697] The United States refers the Panel to its response to Question 257 and its first written submission, which provides a detailed explanation of the flaws in the EC's arguments in this regard, in particular that the KDFA bonds were first issued to Spirit *after* the transaction between Boeing and Spirit closed.[698]

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[694] US Comments on EC RPQ1, para. 143, citing EC RPQ1, para. 128.

[695] EC RPQ2, para. 462-463.

[696] US Comments on EC RPQ1, para. 143.

[697] EC RPQ2, para. 465.

[698] US RPQ2, paras. 445-448; US FWS, paras. 647-653.

449. Moreover, the EC implicitly concedes that there is no evidence of pass through by stating that "the best information publicly available suggests that this pass through occurred via the terms of the long-term supply agreements negotiated between Boeing and Spirit, in conjunction with the sale of the Boeing Wichita division."[699] The EC relies entirely on the fact that "{t}he United States has presented no evidence to the contrary indicating that Spirit and Boeing did not take the future benefits of these bonds into account in setting the terms and conditions of their long-term supply agreements."[700] It is the EC's burden to demonstrate that benefits allegedly provided to a company unrelated to Boeing and not itself producing the allegedly subsidized product, somehow "passed through" to Boeing. As we have shown, the EC has in no way established that such pass-through actually took place.[701] Having not provided any evidence of pass-through, the EC merely asks the Panel to assume that such evidence exists. Accordingly, the EC has failed to establish that the benefits of any KDFA bonds issued to Spirit passed through to Boeing.

K. STATE OF ILLINOIS AND MUNICIPALITIES THEREIN

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III. PROHIBITED SUBSIDIES

A. FSC/ETI AND SUCCESSOR ACT SUBSIDIES

264. In its response to Question 58, the European Communities explains that it "establishes that the FSC/ETI scheme" is a prohibited subsidy"[b]ecause the "specificity" aspect of the actionable subsidy claim with respect to FSC/ETI is based on Article 2.3 of the SCM Agreement". (EC RPQ1, para. 202) In its response to Question 59, the European Communities reiterates that "a finding to this effect is necessary for the specificity component of the claim". (EC RPQ1, para. 208) The United States has indicated that it does not dispute that FSC/ETI-related benefits to Boeing are "specific". (US FWS, para. 422) Does the United States' acknowledgement that FSC/ETI-related benefits to Boeing are "specific" obviate the need for the Panel to address the European Communities' claim that the FSC/ETI-related benefits to Boeing are inconsistent with Article 3.1(a)?

450. The DSB has already adopted its recommendations and rulings concerning FSC/ETI benefits in a separate dispute involving the EC and the United States. A finding by this Panel will not give the EC any additional rights that it does not already have with regard to this program.

265. In its response to Question 58, the European Communities states that "with respect to the export subsidy claim, as such, there has never been a final resolution of at least one aspect of the particular claim at issue in this dispute – namely, whether the

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[699] EC RPQ2, para. 465.

[700] EC RPQ2, para. 465 citing EC SWS, para. 461.

[701] US FWS, paras. 651-54.

FSC/ETI scheme (and its violation of Article 3.1 of the SCM Agreement) continues today...". (EC RPQ1, para. 203) Is the European Communities, in claiming that "FSC/ETI and successor act subsidies" are inconsistent with Article 3.1(a), effectively asking the Panel to adjudicate whether the United States has failed to comply with the recommendations and rulings of the DSB in DS108? Is it appropriate for this Panel, which was not established pursuant to Article 21.5 of the DSU, to adjudicate this issue?

451. The United States has no comment on the EC response to Question 265.

B. STATE OF WASHINGTON: HB 2294 TAX INCENTIVES

267. The Panel is aware of the evidence and arguments advanced by the parties on the question of whether the US market can absorb 36 superefficient airplanes per year. Have the parties submitted any evidence on the question of whether the authorities that granted the alleged subsidy were aware of the capacity of the US market?

452. As the United States has previously explained, the siting requirement in HB 2294 aims to assist in retaining aerospace manufacturing in the State of Washington by requiring that the siting concerns a "final assembly facility" that is "significant".[702] A "significant" assembly facility – defined as one "capable of producing 36 superefficient airplanes a year" – will serve the objective of creating higher value jobs, tax income and upstream activity in Washington State.[703]

453. The United States has demonstrated that the EC has failed to show either the required "actual or anticipated exportation or export earnings," or the "tie" between any such actual or anticipated exportation or export earnings and the granting of the alleged subsidy.[704] Indeed, as discussed in the response of the United States to Question 267, the EC has not submitted evidence of an awareness on the part of Washington State authorities of the capacity of the U.S. market, and no such evidence exists. The EC's response to Question 267 confirms each of these conclusions and further emphasizes the entirely speculative nature of the EC's export contingency argument in general and of its argument that Washington State authorities would have even been aware of the capacity of the U.S. market in particular.

454. First, in its response to Question 267, the EC argues that it has provided evidence of the question "whether the authorities that granted the alleged subsidy were aware of the capacity of the US market." The United States recalls that, as set out in its response to Question 267, evidence of awareness of the capacity of the U.S. market – even if such evidence would have been submitted – would not be sufficient to establish anticipation of export performance, for purposes of *de facto* export contingency under Article 3.1 and footnote 4 of the SCM Agreement, let alone the requisite "tie" between the granting of a subsidy and any such "anticipation of exportation or export performance." Put differently,

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[702] US RPQ2, para. 461.

[703] *See also* US RPQ2, paras. 461-463; 469.

[704] US FWS, paras. 684-702; US SWS, paras. 155-58.

even if shown, evidence of "awareness" on the part of Washington State authorities of "the capacity of the U.S. market" does not equate to evidence of an "anticipation of exportation or export earnings" as required by footnote 4 of the SCM Agreement.

455. Second, the EC's response demonstrates that the unsupportable nature of its argument that Washington State authorities would somehow have been aware of the capacity of the US market in particular. The EC states that Washington State authorities "certainly must have reviewed the most recent versions of Boeing's "Current Market Outlook," given Boeing's importance to the state economy, and the fact that Boeing was responsible for approximately 50% of Washington State's total exports."[705] However, there is no basis for the EC's assumption that Washington State officials "must have reviewed" these Boeing Market Outlooks ("BMOs"). BMOs or the type of data from such Outlooks that the EC refers to, are mentioned nowhere in HB 2294; nor is there any indication that Boeing would have provided such BMOs to Washington State as part of the decision-making process that preceded the granting of the alleged subsidy.[706] The EC is simply making an unsupported assumption.

456. The EC then goes on to argue that because BMOs were publicly available,[707] they "enabled the Washington State officials to conduct the same type of analysis as did the European Communities of the number of 787s that would likely be absorbed by the U.S. market (and foreign markets)."[708] The EC apparently recognizes that knowledge of the BMOs alone would not have been enough for Washington State authorities to be aware of the capacity of the U.S. market, but that further analysis would have been required for them to develop such an "awareness," let alone any form of anticipation of exportation or export earnings. Indeed, as the EC's own expert acknowledges, the BMO contains data for North

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[705] EC RPQ2, para. 469.

[706] Indeed, in addition to the fact that the BMOs on which the EC relies do not actually themselves contain the detailed information on which the EC's arguments appear to be based (see paragraphs 157 and 158 below), it is questionable whether Washington State officials could have been aware even of the BMO numbers on which the EC and its experts' further calculations are based because these numbers largely post-date the granting of the alleged subsidy. The EC relies primarily on numbers from the 2006 BMO for the calculations it performs to support its argument that Washington State legislators somehow "anticipated" exportation or at least were "aware of the capacity of the U.S. market." The 2006 BMO post-dates the granting of the alleged subsidy by about three years and, therefore, could not possibly have been the basis for any kind of "awareness" of market size, let alone an "anticipation" of exports or export earnings on the part of Washington State officials in early 2003. The Airbus analyst on whose calculations the EC relied previously also referred to the 2006 BMO, as well as to those published in 2004 and 2005 – both of which of course also post-date the granting of the subsidy. Declaration of Andrew Gordon, p. 2-3 (Exhibit EC-8).

Even the 2003 BMO that the EC relies on only for its argument that the LCA market is export-oriented (EC RPQ2, para. 539) was released only two days prior to Governor Locke's final signing of HB 2294 and several days after the passage of the bill (including the siting requirement in precisely the form it took in the final version of the bill) on June 16, 2003. Boeing Press Release, "Boeing projects $5.2 Trillion Market for New Airplanes and Services," Le Bourget, France, June 16, 2003. Available at http://www.boeing.com/news/releases/2003/q2/nr_030616g.html (last visited April 23, 2008).

[707] The majority of the BMOs were not publicly available until days or even years after the siting requirement was set.

[708] EC RPQ2, para. 469 (emphasis added); EC FWS, paras. 981, 995.

America as a whole only and does not provide U.S.-specific data.[709] Moreover, the numbers in the BMO relate to total market size for all twin-aisle aircraft, not just the 787, thus requiring further analysis and assumptions to arrive at any forecast of market size for the 787. Thus, it is difficult to understand how the Market Outlooks alone could have "enabled" Washington State officials to perform the calculations that the EC has performed.

457. Indeed, there is no evidence that the Washington State authorities actually performed such calculations or analyses, which would have been the minimum requirement to transform the BMOs into an awareness of the U.S. market capacity, let alone an anticipation of exports. This is because the BMOs themselves contain only general North American market forecasts, and not the model- and country-specific sales forecasts that the EC and its consultant read into them. Such calculations would have had to include assumptions and forecasts about the division of the North American market between Canada and the United States, how the markets would break down between models and producers, and an anticipation that production capacity necessarily equals production, and production necessarily equals sales. The EC has shown none of this. Rather, it asks the Panel to rely entirely on the calculations and assumptions of the EC and its consultant and to assume, without basis, that Washington State officials performed precisely the same calculations and made precisely the same assumptions on which the EC and its consultant rely to make their case.

458. The EC's further reference to estimates by Washington State of values of B&O tax rate adjustments to Boeing does not help it either.[710] The EC argues that the fact that Washington State performed such estimates would somehow "demonstrate{..} that Washington State officials necessarily had at their disposal specific industry information about Boeing's anticipated revenue and sales of LCA, as they needed this revenue/sales information to calculate the anticipated value of the *ad valorem* subsidy."[711] However, even assuming that Washington State officials had "at their disposal" certain revenue and/or sales information, this does not equate to either an "anticipation of exportation or export earnings," or a "tie" as required by Article 3.1 and footnote 4 of the SCM Agreement. Thus, the fact that Washington State would have relied on certain estimates of total demand for purposes of determining the value of the B&O tax rate adjustments to recipients or the cost to the State does not translate into an anticipation of exportation or export earnings nor even into an awareness of the size of the U.S. market. No knowledge of such exportation or export earnings – nor even knowledge or "awareness" of the "capacity of the U.S. market" – would have been necessary to perform the estimates made by Washington State officials.

459. Finally, the EC argues that a statement from Washington State's Governor, originally cited in its first written submission, shows that the Governor "had full knowledge of the high percentage of 787s intended for export."[712] But the Governor's statement does not supports the EC's conclusion. Governor Locke stated that "Boeing has historically been a major exporter for our state". The United States does not dispute that the large civil aircraft market

[709] Statement by Andrew Gordon (EC-8), para. 9.

[710] EC RPQ2, para 468.

[711] EC RPQ2, para 468.

[712] US FWS, para. 983-84.

in general is export oriented. But export orientation is insufficient for a finding of export contingency, as the EC has acknowledged and footnote 4 of the SCM Agreement and the Appellate Body confirm.[713]

460. The speculative nature of the EC's argument is clear when contrasted with a situation, for example, where an anticipation of exports was established based on evidence such as a showing that sales forecasts and other market information formed an integral part of a company's application for a certain subsidy, and that the government itself performed market studies to consider sales and market prospects for a particular plane it was considering to support. In such a situation, there might be a sufficient basis to conclude that the authority granting the subsidy had an awareness or expectation regarding the capacity of the market and, indeed, expected the aircraft on which it intended to confer a subsidy to be exported.

461. By contrast, the EC only relies on are speculative statements that a granting authority "must have reviewed" certain documents and complex and tenuous calculations that it has performed, relying on assumptions regarding the size of one geographic market (the United States) as compared to another (Canada); regarding sales prospects for one particular aircraft model (the 787) as compared to others in the same market segment; and an assumption that, somehow, production capacity necessarily equals production which in turn necessarily equals sales. Such speculative statements and assumptions do not support a finding that Washington State authorities somehow were "aware of the capacity of the US market," let alone a showing of "anticipation" on the part of such Washington State authorities of exportation or export earnings and a "tie" between any such anticipation and the granting of the alleged subsidy.

462. In sum, the EC provides no evidence to support a finding that Washington State officials were "aware of the capacity of the U.S. market," let alone – as required under Article 3.1 and footnote 4 of the SCM Agreement – a finding of "actual or anticipated exportation or export earnings" and a "tie" between any such actual or anticipated exportation or export earnings and the granting of the alleged subsidy.

268. What is the significance, if any, of the fact that the siting requirement was expressed in numerical terms (i.e. 36 superefficient airplanes per year) rather than in terms of, for example, a facility with the capacity to meet "all" or "half" or "two thirds" of Boeing's anticipated US production capacity?

463. In response to Question 268, the EC merely states that the measure at issue, expressed in numerical terms, rather than in the hypothetical scenarios provided by the Panel, "confirms the intent of the granting authority to provide a subsidy contingent on export, as well as the nature of the measure as a prohibited export subsidy."[714] The EC provides no analysis or support for this proposition, and there is no reason for the Panel to accept the EC's conclusory statement.

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[713] EC FWS, para. 979; Canada – Aircraft (AB), para. 173; Canada – Aircraft (Article 21.5) (AB), para. 48.

[714] EC RPQ2, para. 472.

464. As the United States explained in response to Question 268, HB 2294 objectively defines the term "significant" as "capable of producing 36 superefficient airplanes a year." The numerical requirement gives the State some certainty that its objectives in terms of generating revenue, employment, and economic activity will be met.[715] The more subjective thresholds identified in the Panel's hypothetical scenarios would rely on more subjective assessments of market forecasts, size of the U.S. market, and would be subject to potential changes in market expectations over time. While the export contingency analysis of such thresholds would depend on all the particulars of such a measure and how it is applied, such thresholds would lead to less certainty for the State regarding the accomplishment of its goals.[716]

465. Contrary to the EC's contention, the numerical requirement in HB 2294 falls far short of "confirm{ing}" that the measure is export contingent. In order to establish that the tax treatment in HB 2294 is *de facto* export contingent under the SCM Agreement, the EC would have to establish: (1) the granting of a subsidy (2) that is "tied to" (3) "actual or anticipated exportation or export earnings."[717] As a threshold matter, for the reasons set forth in detail by the United States in its first written submission,[718] the EC has failed to establish that HB 2294 constitutes a subsidy within the meaning of Article 1 of the SCM Agreement. Therefore, it cannot be a subsidy contingent on export performance.

466. Even if HB 2294 were a subsidy, it is not a prohibited export subsidy under Article 3.1 of the SCM Agreement. The EC's export contingency claim relies on two unsubstantiated assumptions: first, that the production capacity Boeing was required to establish to be eligible for the tax treatment under HB 2294 would be fully utilized; and second, that full utilization of this capacity would necessarily require exports because of the size of the U.S. market for superefficient airplanes.

467. As the United States explained in prior submissions, neither assumption is correct.[719] The EC has failed to establish its implicit assumption that a requirement to establish a certain production capacity equates to a tie to anticipated exports. The EC's assertion of such an equation is based on unsubstantiated assumptions about the dynamics of the large civil aircraft market, in particular assumptions about projected capacity utilization and demand in the U.S. market.[720] Accordingly, the tax treatment in HB 2294 is not *de facto* contingent on anticipated exportation or export earnings under Article 3.1 of the SCM Agreement.

269. At para. 45 of its Written Submission, Canada states that the measure at issue did not require Boeing to sell "more than it otherwise would have in export markets", nor did it provide any incentives "that could have the effect of distorting Boeing's market

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[715] US RPQ2, para. 461

[716] US RPQ2, para. 462.

[717] *Canada – Aircraft (AB)*, para. 169.

[718] US FWS, paras. 684-702.

[719] US FWS, paras. 684-702; US SWS, paras. 155-158.

[720] US SWS, para. 155-56; US FWS, paras. 687, 702.

orientation in favour of exports". Are these statements accurate? If these allegations were proven, would they be relevant to the analysis that must be undertaken under Article 3.1(a) and Footnote 4?

468. With regard to the first statement that the measure did not require Boeing to sell "more than it otherwise would have in export markets", the EC continues to erroneously suggest that the fact that HB 2294 contains a requirement "to construct a production facility with a capacity to produce at least 36 {superefficient planes} per year . . . amounts to a requirement to produce at least 36 {superefficient planes} per year . . . and this in turn amounts to a requirement to export."[721] But the EC's leap between "production capacity" and "production" and between "production" and "exports" is at odds with reality and entirely unsupported.[722]

469. The EC also argues that "absent the measure, Boeing would not have proceeded to produce, sell, and export the same quantities of the same aircraft at the same time that it did."[723] But it cites no evidence to support this proposition. The alleged per-aircraft *ad valorem* subsidy amount associated with the measure at issue is only 0.2 percent.[724] The EC itself finds price effects of less than one percent to be insignificant,[725] and it has offered no evidence to demonstrate that such a low subsidy level would cause Boeing to produce, sell, or export more aircraft than it otherwise would.[726]

470. Finally, with regard to the second statement that the measure did not provide incentives "that could have the effect of distorting Boeing's market orientation in favour of exports", the United States agrees with the EC that, for purposes of a demonstration of export contingency, it is not necessarily relevant "whether or not {a subsidy} provides an incentive that could have the effect of distorting {a recipient's} market orientation in favour of exports". According to Article 3.1 and footnote 4 of the SCM Agreement, a subsidy is *de facto* export contingent "when the facts demonstrate that the granting of a subsidy . . . is in fact tied to actual or anticipated exportation or export earnings."

471. While the United States appreciates the EC's acknowledgment that this test does not require a distortion of a recipient's market orientation in favor of exports, even without such a requirement, the EC has not been able to demonstrate that the granting of the alleged subsidy to Boeing was "in fact tied to actual or anticipated exportation or export earnings" as required by Article 3.1 and footnote 4 of the SCM Agreement.[727]

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[721] EC RPQ2, para. 473.

[722] US SWS, paras. 149-58; US RPQ1, paras. 150-162.

[723] EC RPQ2, para. 474.

[724] EC RPQ2, para. 429.

[725] EC RPQ2, para. 551; EC RPQ1, para. 503 ("Any price effects *larger than 1 percent*, including those established by the European Communities, therefore, also meet the 'significance' test.") (emphasis added).

[726] US Comment on EC RPQ2, Question 229, *supra*.

[727] US FWS, paras. 684-702; US SWS, paras. 149-158; US RPQ1, paras. 150-162.

270. What is the purpose of the European Communities' mooted "Reference Interpretation", set out in response to Question 56?

472. As the EC, the Panel, and the United States have all noted, the Reference Interpretation set out by the EC in response to Question 56 is, according to the EC, "mooted."[728] The EC provides virtually no guidance to the Panel in its response to Question 270 regarding the "purpose" of the mooted Reference Interpretation. The EC only states that it is "intended to assist the Panel in understanding the precise nature of the European Communities' claims and the context in which they are made."[729] However, as the United States explained in its comments, the EC's mooted Reference Interpretation does nothing to assist in elucidating the claims in this dispute.[730] Rather, it makes veiled references to claims in other disputes, asserts arguments that the EC admits it is not making in this dispute, and misstates the legal standard for export contingency.[731] Accordingly, the Panel should disregard the points made by the EC as part of its mooted Reference Interpretation.

271. The European Communities argues that

> *"putting in place production capacity sufficient to produce 36 787s per year means that Boeing will indeed produce at least 36 787s per year. If it does not do so, the financial consequences are grave. Thus, a decision to comply with the condition in HB 2294 to put in place production capacity to produce 36 787s per year is tantamount to a decision to produce at least that number of aircraft per year." (EC RPQ1, para. 177)*

What is the relevance of Article 10.6.1 of the Master Site Agreement, which contains an acknowledgment, on the part of the Public Parties, that:

> *"Boeing's production and assembly of the 7E7 Aircraft is market-driven. The commercial aircraft market is international and highly competitive. Despite Boeing's extensive investments and good faith efforts to predict markets for the 7E7 Aircraft, Boeing cannot guarantee that those markets will materialize or be sustained as predicted or desired...."*

473. The EC acknowledges that a showing of anticipation of exports does not require that export performance is guaranteed to actually happen.[732] However, the United States disagrees with the EC to the extent that the EC considers the ordinary meaning of the term

[728] EC RPQ1, para. 183.

[729] EC RPQ2, para. 476.

[730] US Comments on EC RPQ1, paras. 182-93.

[731] US Comments on EC RPQ1, paras. 182-93.

[732] EC RPQ2, para. 478. The EC previously argued that "actual or anticipated" in footnote 4 would mean "past or future" or "real or potential", which the United States explained is a demonstrably incorrect interpretation of footnote 4. US RPQ1, paras. 155-162.

"anticipate" in footnote 4 to be anything other than to "expect"[733], which was explicitly found to be the meaning of "anticipate" by the Appellate Body in *Canada – Aircraft*.[734]

474. The United States agrees with the EC that the absence of a guarantee by Boeing that markets will materialize and be sustained is not determinative for the question whether there was an anticipation of exports. However, the United States notes that the existence of certain types of guarantees or warranties as part of an agreement by which a subsidy is granted can be relevant as an affirmative matter. For example, if a subsidy recipient provides a guarantee or warranty that sales and market forecast information that it has provided to the granting authority as part of its application is correct or complete, such a guarantee or warranty may be evidence of a "tie" between the subsidy and an anticipation of exportation or export earnings that has been established based on such sales and market forecast information.

475. Moreover, while the United States agrees that the absence of a guarantee is not dispositive for a claim of anticipated export contingency, the absence of such a guarantee or any other evidence of a "tie" between the alleged "actual or anticipated exportation or export earnings" and the granting of the alleged subsidy – a critical element for an export contingency claim – means that the EC has failed to meet the requirements for establishing export contingency under Article 3.1 and footnote 4 of the SCM Agreement.

IV. ADVERSE EFFECTS

A. SUBSIDIZED PRODUCT, LIKE PRODUCT AND MARKET DEFINITION

274. Do the parties agree that, given the European Communities' identification of three alleged "subsidized products", each one of which competes with, and has caused serious prejudice to, a distinct set of "like products" in separate LCA product markets, the Panel is precluded, as a matter of law, from taking into account any adverse effects which may be caused by subsidies to one of the "subsidized products" on products other than the corresponding "like products" in the corresponding LCA product market identified by the European Communities?

476. The EC's response to Question 274 fails to explain how, in light of the EC's framing of its arguments, the SCM Agreement would permit the Panel to take into account any adverse effects on an Airbus aircraft in a given "product market" that are the result of alleged subsidies to a Boeing aircraft outside of that "product market." Accordingly, as the U.S. discussed in its own answer to this question,[735] the Panel is precluded as a matter of law from considering such effects in its assessment of the EC's serious prejudice claims.

477. The EC failure to address Article 6.3(a) and (b) in this context is a glaring omission. As the United States discussed in its response to Question 274, alleged subsidies to a Boeing aircraft outside the product market covered by a particular EC displacement/impedance claim

[733] EC RPQ2, para. 478.

[734] *Canada – Aircraft (AB)*, para. 172. US RPQ1, para. 160.

[735] US RPQ2, paras. 471-476.

cannot, as a matter of law, cause displacement or impedance within the meaning of Article 6.3(a) or (b) to the Airbus like product covered by that claim.[736] By its silence on the application of Article 6.3(a) or (b) to the scenario contemplated by the Panel in Question 274, the EC appears to have conceded this point.

478. The EC does discuss Article 6.3(c) in response to this question, but it never explains why how serious prejudice arising from price suppression or lost sales "in the same market" as the allegedly subsidized product can result when the EC insists that the two are in different markets. The EC asserts that, "whether or not the product of concern to the complaining member is in the same market as the subsidized product is not a jurisdictional bar for a price suppression or lost sales claim."[737] Here, the EC ignores the text of Article 6.3(c). Because a claim of significant price suppression or significant lost sales under Article 6.3(c) must be assessed by reference to the "same market" as the subsidized product, the Appellate Body has found that the complaining party bears the burden of identifying the relevant "market" under Article 6.3(c),[738] and "establish{ing} that the subsidized product and its product are in actual or potential competition in that alleged market."[739] Thus, the EC is incorrect when it argues that "{t}here is no legal or logical requirement that the subsidised product be 'in the same market' as the product at issue for the subsidies to cause price effects on the product at issue."[740]

AMOUNT, MAGNITUDE AND ALLOCATION METHODOLOGIES

275. The European Communities notes that its calculation of the annual and per-aircraft subsidy "magnitudes" is based largely on US CVD law and practice, supplemented by Boeing's suggestions for application of US CVD law to the LCA industry (EC SWS, para. 711). Please identify the basis in the SCM Agreement for the use, in Part III of the SCM Agreement, of an allocation methodology based on CVD law and practice. Why does the European Communities consider such a methodology to be "reasonable and appropriate for an assessment of the European Communities' price-effects based claims" in this dispute?

479. The United States agrees with the following general propositions advanced by the EC in its joint response to Questions 275 and 284:

- the evaluation of a claim of serious prejudice under Article 6.3 of the SCM Agreement does not require a precise quantification of the alleged subsidy;[741]

[736] US RPQ2, para. 472.

[737] EC RPQ2, para. 487.

[738] *US – Upland Cotton (AB)*, para. 400.

[739] *US – Upland Cotton (AB)*, para. 409.

[740] EC RPQ2, para. 487.

[741] EC RPQ2, para. 491.

- "{n}either the text of the *SCM Agreement* nor WTO jurisprudence prescribe any one, definitive methodology of calculating subsidy magnitudes or allocating non-recurring subsidies over time";[742]
- "methodologies for calculating the magnitude of a subsidy during a reference period" may "vary depending on the form of the subsidy";[743]
- "a temporal allocation of the 'benefit' of the financial contributions" will not necessarily capture the effects of a subsidy.[744]

That said, the EC's joint response to Questions 275 and 284 makes several erroneous, and sometimes contradictory, assertions.

480. First, the EC states that "some form of allocation methodology is necessary where *non-recurring* subsidies are concerned."[745] The EC cannot, and does not, point to any SCM Agreement provision requiring the allocation of non-recurring subsidies in all cases involving an actionable subsidy claim under Part III of the SCM Agreement. It is true that, as the EC observes, paragraph 7 of Annex IV to the SCM Agreement contemplates the allocation of subsidies granted prior to the effectiveness of the WTO Agreement to future production in order to value subsidies under Article 6.1(a),[746] but this provision does not mandate allocation of subsidies in all cases in order to assess their effects. The EC itself acknowledges that Part III of the SCM Agreement does not require a precise quantification of subsidies, much less prescribe a particular method for doing so.[747] Indeed, from the EC's correct observation that methodologies for calculating the magnitude of a subsidy during a reference period may vary depending on the form of the subsidy,[748] it follows that some aspect of a particular non-recurring subsidy may render a particular form of allocation inappropriate for assessing the effects of such subsidies. For example, subsidies that are instrumental in creating supply are, by their nature, different from subsidies, like those alleged to exist in this case, that give the recipient untied funds. The magnitude methodology could logically vary depending on the facts related to each subsidy. When it comes to evaluating effects of the subsidy for purposes of Article 6.3, it is quite possible that the effects of the subsidy would not be equivalent to the calculated benefit of that subsidy, as allocated and amortized over time by a CVD-style methodology.

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[742] EC RPQ2, para. 492.

[743] EC RPQ2, para. 492. The EC stated that methods "will vary." The United States would not preclude the possibility that two subsidies with different forms might still warrant the same calculation methodology.

[744] EC RPQ2, para. 507.

[745] EC RPQ2, para. 492 (underline added).

[746] EC RPQ2, para. 495.

[747] EC RPQ2, paras. 491-492.

[748] EC RPQ2, para. 492.

481. Second, while the United States agrees with the EC that the method for assessing the magnitude of alleged subsidies in a given case should be consistent with the manner in which those alleged subsidies operate, the EC draws a false distinction between the price and technology effects of the alleged R&D subsidies at issue in this dispute.[749] According to the EC, "the magnitude of the subsidies is a less appropriate basis for assessing the technology effects of the US subsidies,"[750] and "while the allocation of non-recurring subsidies over time constitutes a meaningful way to assess their price-related effects . . . the operation of the non-recurring US aeronautics R&D subsidies is such that a temporal allocation of the 'benefit' of the financial contribution is less relevant in assessing their additional technology effects."[751]

482. The core mistake the EC makes is to assume that the price effects of an alleged subsidy bear a qualitatively different relationship to the subsidy benefit than any technology effects. This is not necessarily the case. Indeed, depending on the nature of a subsidy, it may be impossible to separate allocated price effects from technology effects. Consider a subsidy to develop a new large civil aircraft model with new technology. The technology may flow across the producer's large civil aircraft product line, benefiting future as well as existing models. At the same time, the creation of new supply with new technology will affect market prices for competing aircraft for as long as the aircraft is offered for sale.

483. The EC has not, however, alleged that the basic R&D programs that it has challenged were tied to the development, production, or sale of particular Boeing aircraft models. Rather, the EC has argued that the alleged subsidies gave Boeing the equivalent of incremental untied cash that allowed Boeing to price its aircraft and develop the 787 as it did. The key causation issue it has raised is a "but for" question that has nothing to do with "amortization" and "allocation" of the alleged subsidies but, instead, requires an analysis of Boeing's ability to price and develop its large civil aircraft as it did without the alleged subsidies. While that analysis is obviously very sensitive to the amount of the alleged subsidies, it is not sensitive to an amortization and per-plane allocation of the alleged subsidies as if this were a countervailing duty case. Indeed, the EC's analysis of BCA's long-term viability uses the alleged aggregate subsidy amount, not the allocation of that amount in the form of the alleged magnitude amount. [752]

484. The EC attempts to validate the false distinction it draws between its technology effects and price effects theories by arguing that the magnitude of the alleged subsidy is "less relevant" when it comes to technology effects because the "knowledge, experience and confidence" gained through R&D programs has a "multiplier effect."[753] This argument represents a change in position for the EC. It initially argued that the R&D programs conferred a benefit because they paid for research that Boeing would have had to pay for on

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[749] EC RPQ2, paras. 507-509.

[750] EC RPQ2, para. 508.

[751] EC RPQ2, para. 507.

[752] ITR Alternative Assessment, Table 5 (Exhibit EC-1180); ITR Report, *Economic Viability on Boeing Commercial Airplanes Without Subsidies*, Table 1(a) (Exhibit EC-1393) ("ITR Economic Viability Report").

[753] EC RPQ2, paras. 508-509.

its own. Indeed, this was the basis for one of the underpinnings of the EC causation theory – that most of the alleged subsidies operated alike in that they affected Boeing non-operating cash flow. At this stage, however, the EC has changed its theory to argue that there is a knowledge, experience, and confidence effect independent of the alleged magnitude of the subsidy. There is no support for this proposition. Knowledge, experience, and confidence are not a benefit of a subsidy. They are the natural result of engaging in any commercial activity, including R&D.

485. A simple counterfactual illustrates this point. If any of the challenged R&D programs were a subsidy, and Boeing had to fund the research itself, it would still have acquired the knowledge, experience, and confidence associated with the research. The only difference is that it would have less money. In fact, any competitive advantage associated with the knowledge, experience, or confidence is greater in the self-funded counterfactual because Boeing would not have the obligation to share the knowledge with anyone, unlike when NASA funds research.[754]

486. As for the U.S. observation that NASA research has a "multiplicative effect," the EC neglects to explain that the reference was to the multiplication that occurs when the public release of NASA scientists' work generates more knowledge as other scientists outside NASA, including in other countries, use NASA's foundation for their own work. The statement did not refer to a mulitplication within the entity performing the contract R&D for NASA. The specific example that led to this observation was the Integrated Wing Design ("IWD") project, which generated data used in 67 published papers by NASA scientists, which in turn were cited in 369 subsequent papers, 40 of them in Europe.[755] If Boeing had self-funded the research it performed for NASA, there would have been no such "mulitplicative effect," because Boeing does not publicly disseminate the results of self-funded research the way NASA does.

487. With regard to the quantification of subsidies, it is important to emphasize that, although the SCM Agreement does not require a precise quantification of subsidies for purpose of assessing their effects,[756] the Panel should assess the magnitude of the alleged subsidies at issue in this dispute very carefully because the EC has based so much of its case on the assertion that the alleged subsidies at issue are so substantial that they *enabled* Boeing's pricing and 787 development decisions. Specifically, because the EC asserts that the bulk of the alleged subsidies provide "untied" funds equivalent to an increase in Boeing's non-operating cash flow, the EC's claims of serious prejudice depend on its ability to show that the magnitude of the alleged subsidies was so large that, in their absence, Boeing could not have, or would not have, priced the 787, 737, and 777 as it did, or developed the 787 as it did. If the Panel agrees that the EC's calculation of the amount of the subsidies is grossly

[754] DoD-funded research also involves some element of contractors sharing knowledge because DoD's government use license and government purpose data rights allow it to share the knowledge it receives from one contractor, and confer them to another.

[755] US SWS, para. 67; Exhibit US-1140(revised).

[756] *US – Upland Cotton (AB)*, para. 467.

overstated, the Panel need not reach the issues relating to the EC's causation case that depend on a finding that the EC has correctly calculated the magnitude of the alleged subsidies.

276. Does the European Communities agree with the United States' contention, at para. 172 of the US SWS, that the European Communities' calculations of the "amount" of alleged subsidies should be reduced by an amount of $7.5 billion which the European Communities has allocated to the 717, 747, 757, 767, MD-11, MD-80 and MD-90 over the 1989-2006 period, on the basis that these aircraft cannot be said to be causing serious prejudice to the European Communities' interests?

488. The EC's response to Question 276 provides no legitimate basis for including alleged subsidies to the 717, 747, 757, 767, MD-11, MD-80 and MD-90 in the Panel's assessment of its claims of serious prejudice. The EC argues that alleged subsidies to these aircraft are relevant to the Panel's assessment of adverse effects because such subsidies supported the long-term viability of the U.S. large civil aircraft industry[757] and have present technology effects.[758] These arguments fail to show how alleged subsidies that, according to the EC, "historically benefited Boeing 717 and 757 LCA and McDonnell Douglas MD-11, MD-80, and MD-90 LCA,"[759] are relevant to the Panel's analysis of the EC's claims of serious prejudice.

489. The EC's claims of serious prejudice are confined to the effects of alleged subsidies to the 787, 737, and 777 on Airbus aircraft in the corresponding "product markets" it identifies (the A330, A350 Original, A350 XWB; A320; and A340, respectively). The EC has attempted to establish these claims by allocating a portion of the alleged subsidies to these aircraft and by asserting that alleged subsidies to these aircraft produced price effects and, with regard to the 787, technology effects resulting in serious prejudice. Accordingly, any analysis – whether long-term or short-term – of the effects of the alleged subsidies is relevant to the Panel's assessment of the EC's serious prejudice claims only insofar as it pertains to the Boeing's pricing of the 787, 737, and 777, or its development of the 787.

490. With regard to the EC's allegations of price effects, the EC has admitted that alleged subsidies to the 717, 747, 757, 767, MD-11, MD-80 and MD-90 "have no present price effect on Airbus aircraft subject to the European Communities' claim."[760] The EC reaffirms this position in its response to this question[761] but argues that alleged subsidies to these aircraft should be included in an analysis of the viability of the U.S. large civil aircraft industry during the 1989-2006 period.[762] However, what the EC fails to recognize is that its allegations of serious prejudice go only to three aircraft – the 787, 737, and 777. The proper counterfactual for the EC's "but for" analysis is whether absent subsidies *related to those*

[757] EC RPQ2, paras. 515-516.

[758] EC RPQ2, para. 514.

[759] EC RPQ2, para. 518.

[760] EC Comments on US RPQ1, para. 225.

[761] EC RPQ2, paras. 516, 518.

[762] EC RPQ2, para. 515.

aircraft, the serious prejudice would not have occurred. Therefore, in analyzing the viability of the U.S. industry, the analysis should not include alleged subsidies to Boeing or McDonnell Douglas aircraft that, by the EC's own admission, "have no present price effect on Airbus aircraft subject to the European Communities' claim."[763]

491. As to the EC's allegations of technology effects related to the 787, the EC has admitted in December that "subsidies benefiting {the 717, 747, 757, 767, MD-11, MD-80 and MD-90 } do not have *any* present effects on Airbus."[764] Nevertheless, the EC asserts in its response to Question 276 that alleged R&D subsidies to these aircraft "have technology effects *today* that the European Communities does challenge."[765] This assertion is not only contrary to the EC position in December, it is also unsupported by any evidence linking alleged R&D subsidies to these aircraft to the development of the 787.

492. Beyond the compelling reasons for excluding alleged subsidies to aircraft not at issue in this dispute from the Panel's assessment of causation, two other considerations are relevant here. First, the United States notes that the amount of alleged subsidies that the EC assigns to the 717, 747, 757, 767, MD-11, MD-80 and MD-90[766] (that is, $7.5 billion) is based on the EC's inflated subsidy valuation calculation and, therefore, shares all of its weaknesses. Even aside from the fact that the EC's subsidy allegations are unfounded, even under the EC's reasoning, only 39 percent of the value is properly allocable to the 717, 747, 757, 767, MD-11, MD-80, and MD-90.[767]

493. Second, the EC's serious prejudice claims fail even if one assumes that Boeing received the full amount of subsidies alleged by the EC, as the United States has shown in previous submissions and confirms in its comment on the EC's response to Question 292.[768]

277. How does the European Communities respond to the United States' criticisms (US Comments on EC RPQ1, paras. 259, 263 and 266) of the manner in which the European Communities has (through its consultants ITR) allocated alleged subsidy amounts among the Boeing LCA identified as "subsidized products" and over time, in this dispute? Specifically, can the European Communities reconcile the basis on which it has allocated the subsidy "amounts" over time and across models of LCA with its underlying causation theory?

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[763] EC Comments on US RPQ1, para. 225.

[764] EC Comments on US RPQ1, para. 227 (emphasis added).

[765] EC RPQ2, para. 514.

[766] The Panel should note that none of these aircraft use composites to anywhere near the extent the 787 does.

[767] The percentage represents the portion of total alleged subsidies that the EC allocates to these aircraft, and consequently, the proportion which should be excluded from the Panel's assessment of the effects of any subsidies found to exist.

[768] US SWS, para. 176; US Comments on EC RPQ1, para. 270, Exhibit US-1226. The U.S. comments on Question 292, *infra*, addresses this issue in greater detail.

494. Below, the United States offers a joint comment on the EC responses to Questions 277 and 278.

495. In responding to these questions, the EC fails to reconcile its methodology for calculating the alleged subsidy magnitude with its price effects and technology effects causation theories. Even outside of this contradiction, the EC fails to show that this methodology, standing alone, is appropriate for assessing whether the alleged subsidies affect Boeing's commercial behavior.

496. The fundamental inconsistency between the EC's causation theories and its magnitude methodology relates to timing. With regard to its causation theories, the EC alleges that the challenged measures cause price effects and technology effects at the time of *order*.[769] By contrast, the EC's alleged per-plane magnitude figures and *ad valorem* subsidization rates are based not on order data, but on actual and projected *delivery* data that have been moved forward in time to become "derived" or "imputed" order data that bear no resemblance to actual order data.[770] Thus, by the EC's own admission, its methodology matches subsidy magnitude in each year against orders that were in most cases not made in that year. In addition, the EC's recent attempts to show that the alleged subsidies affected Boeing's long-term viability are based, not on the EC's magnitude figures, but on the amounts of alleged subsidies Boeing supposedly received in each year during the 1989-2006 period.[771] Accordingly, the EC's magnitude figures are nothing more than an abstraction. Because they fail to match alleged subsidies against the real orders that they supposedly affected, they cannot accurately measure the price and technology effects alleged by the EC, let alone provide any evidence as to whether the alleged subsidies affected Boeing's large civil aircraft development and pricing.

497. To defend its treatment of delivery data, the EC protests that, "subsidies are best assessed at the time of delivery,"[772] and that "{t}o derive subsidization rates at the time of an actual order, one would have to allocate subsidies to actual or anticipated deliveries in the delivery year at issue."[773] This is not so. The vast majority of the total alleged amount of subsidies comprise alleged R&D subsidies that have no link whatsoever with Boeing's aircraft deliveries.[774] The EC's prior attempts to explain why "magnitude is best assessed . . .

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[769] EC RPQ2, para. 540 ("to the extent subsidies affect market outcomes, these effects are caused at the time of order"); EC RPQ2, para. 542 ("the US subsidies have a *commercial* impact at the time of order"); EC RPQ2, para. 543 ("The 'technology' or 'product' effects of the subsidies are similarly to be assessed at the time of order.").

[770] C*ompare* ITR Magnitude Report, paras. 34-35, *with* US RPQ2, paras. 485-492.

[771] ITR Alternative Assessment, Table 5 (Exhibit EC-1180); ITR Report, *Economic Viability on Boeing Commercial Airplanes Without Subsidies*, Table 1(a) (Exhibit EC-1393) ("ITR Economic Viability Report").

[772] EC RPQ2, para. 537 n.614.

[773] EC RPQ2, para. 537.

[774] *E.g.*, EC FWS, para. 1279 ("All US subsidies to the LCA industry that are *not* linked to particular families of Boeing LCA – *i.e.*, the bulk of the US subsidies increasing Boeing's non-operating cash flow – are properly considered as 'fungible.'").

at delivery" referred only to the link between deliveries and the challenged tax measures and made no attempt to explain why deliveries should be linked to the alleged R&D subsidies.[775] Indeed, the EC is insistent, elsewhere, that the alleged R&D subsidies are "untied"[776] and that their alleged effect is to increase Boeing's non-operating cash flow.[777] Thus, the EC's own arguments rebut its assertion that *all* subsidies relate to delivery.

498. In fact, the United States notes that the EC made no attempt to link the price effects of the alleged R&D subsidies to deliveries in its first written submission. There, the EC asserted that the receipt of alleged R&D subsidies "leads {Boeing} to subsidize pricing of new and existing LCA models, both at the time the subsidy is received and in later years."[778] Elaborating on this assertion in the same submission, the EC stated that "{t}he pricing effect of subsidies that increase Boeing's non-operating cash flow is *immediate and direct* for both the case of investment in aggressive pricing of new planes (via pricing down the learning curve) and for aggressive pricing of sales of mature aircraft."[779] Consistent with this theory, Professor Cabral's badly flawed model assumed that Boeing applied a portion of the alleged subsidies received in a given year to lower prices on aircraft ordered in that same year.[780] Similarly, the tables allocating alleged subsidies treated all of them as related to aircraft ordered in the year of receipt, with the exception of tax subsidies, which were allocated to the three years before the year of receipt.[781]

499. In its most recent submission, the EC continues to insist that the alleged R&D subsidies' price effects (and technology effects) occur at the time of order,[782] but it now asserts that "the actual cash flow impact" of the alleged subsidies, including the alleged R&D subsidies, "is related to deliveries."[783] Nowhere does the EC provide any evidence to show that the alleged R&D subsidies have anything to do with deliveries. According to the EC's assertions regarding the "fungible," "untied" nature of the alleged R&D subsidies, there is, and can be, no link.[784]

500. Because there is no reason why the alleged R&D subsidies should be associated with aircraft deliveries, the EC's proffered justifications[785] for allocating the alleged subsidy

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[775] *See* EC OS2, para. 103 n. 191 (providing several citations to prior EC submissions).

[776] EC RPQ2, paras. 482-483.

[777] EC FWS, para. 1277.

[778] EC FWS, para. 1310.

[779] EC FWS, para. 1322.

[780] Cabral Report, para. 85 Table 5 (Exhibit EC-4).

[781] Exhibit EC-13, Table 4.

[782] EC RPQ2, paras. 540, 542.

[783] EC RPQ2, para. 542.

[784] EC FWS, para. 1279; EC RPQ2, paras. 482-483.

[785] EC RPQ2, para. 535 ("First, ITR used imputed orders as a basis of its magnitude calculations because data precisely tying Boeing deliveries with orders is not available to the European Communities. There is no way for the European Communities (and the Panel) to determine the particular order from which each aircraft delivery results."); EC RPQ2, para. 536 ("the timing, model and quantity of aircraft that are ultimately

magnitude on the basis of rearranged delivery data (*i.e.,* "derived" or "imputed" order data), rather than *actual* order data, collapse. And contrary to the EC's contention that no meaningful difference would result from using actual order data as the allocation basis, the United States has shown that, even if all other aspects of ITR's magnitude calculations are left unchanged, the difference is dramatic, with alleged subsidy magnitudes and alleged *ad valorem* subsidization rates falling by roughly 50 percent in 2005 and 2006.[786]

501. Using actual order data in this manner would not salvage the EC's magnitude calculations, however, as the EC has provided no basis for allocating the alleged magnitude on the basis of aircraft "seats," rather than on the basis of Boeing's actual order revenue. In its response to Question 277, the EC repeats its arguments on this issue, which the United States refuted in its responses to Questions 281 and 282.[787]

278. At para. 103 of its OS2, the European Communities states that, while a subsidy adversely affects Airbus when Boeing receives an order, its magnitude is best assessed at the point in time when Boeing receives the majority of revenue, i.e., on delivery of the aircraft. Please explain this statement in greater detail. Is it consistent with the European Communities' overall causation argument (i.e., that the alleged subsidies cause "price effects" and "technology" or "product" effects which result in the various forms of serious prejudice to Airbus)?

502. The United States refers the Panel to its comments on the EC's response to Question 277, which is a joint response to Questions 277 and 278.

279. Please comment on the United States' argument (US Comments on EC RPQ1, para. 283) that if the Panel concludes that a large portion of the value of the European Communities' magnitude calculation is invalid, it should reject the European Communities' adverse effects claim because it depends entirely on that calculation.

503. The U.S. argument cited by the Panel in this question is that, because the bulk of the alleged subsidies are, by the EC's own admission, "untied" to the production or sale of Boeing's large civil aircraft,[788] the EC can establish its adverse effects claim only if it can demonstrate that, but for those alleged subsidies, Boeing would have had inadequate funds to price its aircraft as it did or develop the 787 as it did.[789] The EC recognizes the importance of this point, and devotes several pages of its response to Question 292 to contending (unsuccessfully) that the amount of the alleged subsidies is so large that without them, Boeing would never have been in a position to price the 737, 777, and 787, or develop the 787, as it did.

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delivered do not necessarily precisely reflect what has been ordered."); EC RPQ2, para. 537 ("To derive subsidization rates at the time of an actual order, one would have to allocate subsidies to actual or anticipated deliveries in the delivery year at issue.").

[786] US RPQ2, para. 488.

[787] US RPQ2, paras. 477-484.

[788] EC RPQ2, paras. 482-483.

[789] US Comments on EC RPQ1, paras. 268-272; *id.*, paras. 282-283.

504. The EC's response to this question, however, while conceding the "obvious relationship between the magnitude of a subsidy and the degree of its effect" assumes that, whatever their magnitude, the alleged subsidies flow through to Boeing's pricing in the manner prescribed in the Cabral Report. By taking the upper end of the per aircraft *ad valorem* subsidy amount estimated using the Cabral Report's price effects estimate, the EC concludes that if the Panel were to find a subsidy equal to only 15 percent of amount alleged, it would still translate into a per aircraft *ad valorem* subsidy of 1.02 percent, which the EC defines as "significant."[790]

505. In the first place, the EC has failed to show that a one percent level of price suppression would be "significant" within the meaning of Article 6.3(c).[791] More importantly, it is difficult to understand how the EC can assert that a fraction of the alleged subsidies would have significant effects when it also recognizes that Boeing pricing and investment decisions made economic sense. That means the company would have implemented those decisions as long as its financial situation permitted. As shown in prior submissions and confirmed below in the U.S. comment on Question 292, below, but for the alleged subsidies, BCA would have had more than enough internal funds to develop and price its aircraft as it did.[792] Thus, the notion that subsidies with a value as low as 16 percent of the total alleged by the EC would cause Boeing to change its pricing or research policies is untenable.

506. The EC tries to avoid the inescapable implications that an 84 percent reduction in the subsidy amount has for its core "but for" causation argument by returning to its original causation argument built on the Cabral Report. The Panel will recall that the Cabral Report assumes virtually all of the alleged subsidies, which are alleged to provide non-operating cash flow, lead to "investment" by Boeing in "aggressive pricing." From this assumed premise, the EC argues that, even if the subsidies found by the Panel are as little as 16 percent of the total alleged, the result would be an adverse effect on Airbus' pricing of more than one percent, which the EC defines as "significant." Because the only "evidence" for this analysis is the deeply flawed Cabral Report, the effort is invalid from the start. The United States has explained in detail why the Cabral Price effects numbers rely on bad economics and a multitude of invalid assumptions.[793]

507. As for the EC's adjustment of alleged price effects figures, the EC provides the high- and low-end figures Professor Cabral calculated for "all campaigns," as well as those for what the EC identifies as "competitive campaigns."[794] Leaving aside the major flaws in the Cabral model that make its results useless for any analysis, the United States notes that the

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[790] EC RPQ2, para. 549 ("In short, while there is an obvious relationship between the magnitude of a subsidy and the degree of its effect – the threshold of proof under Article 6.3 is framed with respect to *effects* rising to the level of serious prejudice, not with respect to a particular magnitude.").

[791] US Comments on EC RPQ1, paras. 351-352.

[792] US SWS, para. 176; US RPQ2, paras. 518 and 551-552; U.S. comment on Question 292, *infra*.

[793] US FWS, paras. 827-862; US SWS, paras. 178-184; US RPQ1, paras. 242-245; US Comments on EC RPQ1, paras. 344-347, 353-355, 364-367; *see also* US Comments on EC RPQ2, {Q307 & 308}, *infra*.

[794] EC RPQ2, para. 551.

"campaigns" over which Professor Cabral allocated the alleged price effects are not actual campaigns, but rather, reflect ITR's "imputed" order data.[795] Thus, the EC compounds its error of drawing a false distinction between "competitive" and "non-competitive" campaigns by using data that do not reflect actual orders in any given year. In light of these flaws, there is no basis for the EC's contention that alleged price effects data allocated over "competitive campaigns" is "more realistic" than data allocated over "all campaigns."[796]

508. The EC's response to this question also refers to alleged per-aircraft *ad valorem* subsidization rates calculated by ITR. Because the ITR magnitude calculations are inconsistent with the EC's price effects theory and, in any event, do not measure price effects,[797] the EC's application of a one percent price suppression benchmark to adjusted magnitude figures is meaningless. Assuming a given magnitude level is equivalent to the same level of price suppression is to assume that every dollar of alleged R&D subsidies flows through to Boeing's pricing, and then to Airbus' pricing, on a "dollar-for-dollar" basis, a proposition that even Professor Cabral would not support. The United States has noted before that there is no support for the EC's designation of "competitive" and "non-competitive" sales. (The presence of supposedly non-competitive sales among the EC's lost revenues allegations reveals the absurdity of the EC classifications.[798])

509. In fact, the EC's serious prejudice claims fail regardless of the amount of alleged subsidy magnitude that the Panel finds to be invalid.[799] This includes the EC's claims related to alleged technology effects, which, contrary to the EC's assertions,[800] are no less dependent on the EC's alleged subsidy amount and magnitude calculations than its claims related to alleged price effects.[801]

280. Please explain which of the European Communities' arguments in support of its serious prejudice claims are based on (i) the "amount" of the alleged subsidies; and/or (ii) the "magnitude" of the alleged subsidies?

510. With regard to the EC's contention in its response to Question 280 that its magnitude calculations are "important" for assessing its claims related to alleged price effects,[802] the United States refers the Panel to its comment on Question 277, which shows that the EC's magnitude calculations cannot be reconciled with its price effects causation theory.

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[795] Cabral Report, para. 87, n. 25 (Exhibit EC-4). In paragraph 175 of its second written submission, the United States shows how the ITR Magnitude Report (Exhibit EC-13) improperly imputes orders to certain years on the basis of delivery data in order to exaggerate the ad valorem levels of the alleged subsidies.

[796] *Cf.* EC RPQ2, para. 551.

[797] *See* US Comments on the EC's response to Panel Question 277, *infra.*

[798] US Comments on EC RPQ1, para. 352.

[799] US Comment on EC Response to Panel Question 292, *infra.*

[800] EC RPQ2, para. 553.

[801] US Comment on EC Response to Panel Question 285, *infra*.

[802] EC RPQ2, para. 555.

511. As to the EC's argument that the amount and magnitude of the alleged subsidies is somehow less relevant for assessing its allegations of technology effects, the United States refers the Panel to its comment on Question 285, which demonstrates that, because Boeing could self-finance the amount of the alleged R&D subsidies, it would have developed the 787 precisely as, and when, it did in the absence of those subsidies.

284. In conducting its assessment of whether the "effect" of the alleged subsidies is serious prejudice pursuant to Article 6.3, do the parties consider it is either (i) appropriate, or (ii) required by Articles 5 and 6.3, for the Panel to "allocate" or "amortize" over time the alleged non-recurring subsidies? Please identify and discuss any provisions of the SCM Agreement that may have a bearing on whether, and if so, how non-recurring subsidies may be allocated over time in order to assess their effects pursuant to Articles 5 and 6.3. Is it possible that the operation of any of the alleged non-recurring subsidies is such that a temporal allocation of the "benefit" of the financial contributions is not a meaningful way of assessing the "effect" of a subsidy for purposes of Articles 5 and 6.3?

512. The United States refers the Panel to its comments on Question 275, which explains that the allocation and/or amortization of alleged non-recurring subsidies does not change the nature of the analysis of whether they caused adverse effects. This question also asks directly about the "possibility" that "a temporal allocation of the 'benefit' of the financial contribution is not a meaningful way of assessing the 'effect' of a subsidy." The EC's combined response to Questions 275 and 284 does not address the last part of the Panel's question. The United States directs the Panel to its own responses to this question for a discussion of this point.[803]

285. Does the European Communities agree that, assuming that the "price effects" of the alleged R&D subsidies can be characterized as increasing Boeing's non-operating cash flow, the appropriate counterfactual is where Boeing funds that R&D from its own resources (and nonetheless retains the "technology" and "product" effects of the R&D)? In other words, if the alleged R&D subsidies have "price effects", does the European Communities agree that they cannot simultaneously give rise to "technology" or "product" effects? Please explain how a subsidy can give rise to both "price effects" and "technology" or "product" effects, and whether it is possible to demonstrate both types of effects via a single counterfactual analysis.

513. This question asks the EC to comment on a contradiction in its adverse effects argument. Under its "but for" hypothesis, the central question the EC has raised is whether Boeing could have self-financed the $15.9 billion that the EC alleges Boeing received in government R&D subsidies. If the answer to this question is "yes" (as it is), the logic behind the EC's claim that the subsidies caused "technology effects" independent of the effects of the subsidies on Boeing's financial condition disappears.

514. The EC's long and convoluted response makes two essential arguments. First, the EC argues that Boeing would not capture all the "technology effects" of the alleged R&D subsidies if it were to self-finance that R&D because the alleged subsidies free up Boeing's

[803] US RPQ2, paras. 493-496.

resources, a portion of which it "invests" in additional R&D that it could not otherwise fund. Second, the EC argues that there are "efficiencies" in working with government agencies on R&D projects that Boeing would lose if it were to self-finance the same R&D. These arguments disregard the company's other options for engaging in R&D.

515. The claim that Boeing would not capture the technology effects of the R&D subsidies even if it were to self-finance the same R&D finds no support in the facts. The U.S. analysis of Boeing's available cash takes the company's current level of R&D spending as a given. It then asks whether Boeing could have self-funded any research included in the challenged NASA and DoD programs *in addition to* the company's existing research. Thus, the U.S. analysis accounted for the possibility, raised by the EC, that supplying research services to DoD and NASA had freed up funds to devote to other research. In short, it could have developed its large civil aircraft exactly as it did without the alleged subsidies – both the in-house part *and* any knowledge gleaned from its research for NASA and DoD.[804] And on this point, the data are clear. As the United States has shown, Boeing's (and BCA's) operating income and cash flow were sufficient to fund the allegedly subsidized R&D without any need to cut back on BCA's own R&D, even accepting the EC's grossly exaggerated calculation of the magnitude of the alleged R&D subsidies. The Panel is, therefore, correct in (1) characterizing the "but for" question presented by the EC as being whether Boeing could have self-financed the allegedly subsidized R&D and (2), if so, noting that Boeing would have retained the technology benefits associated with that R&D.

516. With regard to the EC's second point regarding "technology effects" independent of the financial effects of alleged subsidies, the EC has provided absolutely no evidence that Boeing could not have captured the same "enhanced efficiencies" in a counterfactual scenario where it self-finances R&D. It may be true that collaboration with smart and experienced scientists and engineers is an efficient way to perform research. However, there is no evidence to suggest that Boeing could not, and would not, obtain the same "enhanced efficiencies" by using its funds to conduct R&D in collaboration with scientists and engineers at, for example, universities such as MIT and CalTech in the United States, Delft TU in the Netherlands and Cambridge and Cranfield Universities in the United Kingdom, as well as with private research companies. In fact, the evidence on the record demonstrates that Boeing has conducted research in partnership with these types of entities, and on the same commercial terms under which it conducts research in partnership with NASA and DoD.[805] If, in the counterfactual, Boeing thought it could gain added benefits from collaboration with NASA, it could have paid NASA scientists to perform those services.[806]

517. The weakness in the EC's argument on this point, and its response to this question becomes that much clearer when the alleged magnitude of the alleged R&D subsidies is put to the test. In its response to this question, the EC asserts that from 1986 through 2006,

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[804] The Untied States recalls that NASA and DoD programs did not contribute technology used on the 787. The United States is accordingly presenting this analysis in a hypothetical sense.

[805] *E.g.*, Exhibit US-1208; Exhibit US-1209; Exhibit US-1210; Exhibit US-1211.

[806] The United States also recalls that NASA's services and facilities may be obtained for adequate remuneration under reimbursable Space Act Agreements.

"Boeing received U.S. R&D subsidies amounting to $15.9 billion."[807] This figure, however, is almost entirely comprised of funds paid to other companies, portions of government agency budgets that support their internal operations, and dollars associated with programs unrelated to commercial aircraft.[808] The United States has proved Boeing's ability to self-finance the allegedly subsidized R&D at the grossly inflated level alleged by the EC.[809] Boeing's ability to have self-financed the much lower level of R&D involved in its own NASA and DoD-funded activities subsidies is, therefore, not in legitimate dispute.

286. Please explain the relationship, if any, between the "benefit" conferred by a financial contribution (in the sense of Article 1.1(b)), the "nature" of a subsidy, and the assessment of the "effect" of a subsidy, pursuant to Articles 5(c) and 6.3? In particular:

(a) Is the "benefit" determination for purposes of establishing the existence of a subsidy under Article 1.1 conceptually and analytically distinct from the assessment of the "effect" of the subsidy contemplated in Articles 5 and 6.3? If so, how?

(b) Are there circumstances where the Panel's assessment of the effect of the subsidy pursuant to Articles 5(c) and 6.3 should encompass the market impact of the subsidy; i.e., the effect of the subsidy beyond the effect of the "benefit" (in the sense of Article 1.1(b)) conferred by the financial contribution? If so, on what analytical basis may the Panel undertake such an examination; e.g. would such an examination be based on the "nature" of the subsidy, on the particular counterfactual evaluation conducted as part of the "but for" causation analysis, or on some other basis?

(c) <u>To the European Communities</u>: Please explain how the European Communities' concepts of "price effects" and "technology" or "product" effects fit within the foregoing analytical framework,. Do these concepts pertain to the "benefit" conferred by the financial contribution (in the sense of Article 1.1(b)), to the "nature" of the subsidy, or to the "effect" of the subsidy pursuant to Articles 5 and 6.3?

518. The United States and the EC agree that a determination of a benefit for purposes of establishing the existence of a subsidy is conceptually and analytically distinct from an assessment of the effects of a subsidy. The United States and the EC also agree (1) that the nature and magnitude of a subsidy, as well as by the conditions of competition in the market at issue, all shape its effects; and (2) that the market impact of a subsidy may be greater than the dollar value of the benefit. Lastly, the United States and the EC agree that a Panel may assess the effects of a subsidy through a counterfactual inquiry. In other words, the United

[807] EC RPQ2, para. 563.

[808] US FWS, para. 812.

[809] US SWS, para. 176; US RPQ2, paras. 518 and 551-552; U.S. comment on Question 292, *infra*.

States and the EC agree on key considerations that should guide the Panel's adverse effects analysis in this case.

519. The EC has, however, erred in two critical respects. Even though it recognizes the principles outlined above, it suggests that the entire analysis can be reduced to an inquiry into the "ability" of the alleged subsidies to cause serious prejudice and the incentive and opportunity of the alleged recipient to use them.[810] Although these are valid *considerations*, they are not the *only* factors, and the EC's efforts to suggest that they constitute the entirety of the analysis find no support in the SCM Agreement or the relevant findings of panels or the Appellate Body. The EC's other error is to confuse the effect and the benefit of a subsidy. The evaluation of the effect of the subsidy must start with the benefit, and may not consider those elements of the financial contribution that do not confer a benefit. The effect of that subsidy may, however, be greater than or less than the value of the benefit that caused it, depending on the nature of the subsidy and the conditions of competition. Thus, the EC is wrong to assert that the analysis is not "limited to assessing the benefit generated by the subsidy."[811] If the analysis were to include non-subsidy elements of the financial contribution, it would not be finding the "effect of the subsidy" and, therefore, would not be properly addressing the standard set by Article 6.3.

520. The parties also differ over the way in which the EC has applied these principles to the facts of this case and its failure to offer credible evidence to support its core factual claims on the causation issue. Specifically, the EC has (1) *asserted* a magnitude of the subsidy claim that is unsupported by any credible evidence,[812] (2) *ignored* the analytical implications of the nature of alleged subsidies that the EC equates to incremental non-operating cash to Boeing, and that are *not* tied to the development, production or sale of any particular large civil aircraft,[813] and (3) *assumed*, contrary to both the evidence and the economic literature, that Boeing, a company with unconstrained access to capital markets, uses all of the "non-operating free cash" it does not return to shareholders in only two ways – investment in "aggressive pricing" and "product development" – and does so in prescribed amounts.[814]

521. Given the nature of the alleged R&D subsidies at issue in this proceeding, there is *no reason to assume* that they have flowed through to Boeing's large civil aircraft pricing or that they "enabled" the R&D that BCA charges to its *operating* revenues. The EC bears the burden of coming forward with persuasive evidence showing that the subsidies at issue were reflected in Boeing's 737, 777 and 787 pricing or enabled Boeing to bring the 787 to market as it did. It has not done so.

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[810] EC RPQ2, para. 574.

[811] EC RPQ2, para. 574.

[812] US FWS, para. 812; US SWS para. 172; US RPQ1, para. 209.

[813] US RPQ2, para. 501; Sitglitz and Greenwald Statement (Exhibit US-1309).

[814] US FWS, paras. 827-862; US SWS, paras. 178-184; US RPQ1, paras. 242-245; US Comments on EC RPQ1, paras. 344-347, 353-355, and 364-367.

B. CAUSATION

287. At para. 54 of its Confidential OS2, the European Communities indicates that it is adopting the same approach towards causation as that adopted by the implementation panel in US – Upland Cotton.[815] *The European Communities argues (at para. 55 of its Confidential OS2) that "although other factors might have impacted the absolute level of prices and sales, Airbus prices would still have been significantly higher, and it still would have won significant additional sales and market share, but for the US subsidies." What would be the appropriate standard of causation for the Panel to adopt if the Panel were to consider, arguendo, that "other factors" did not merely "impact" the absolute level of prices and sales, but were themselves sufficient causes of the alleged serious prejudice?*

522. The EC has used this question about the role of "other factors" as an occasion to repeat (at some length) the essence of its causation argument. Specifically, the EC states that it has adopted a "unitary" analysis to causation that purports to (1) demonstrate the causal link between the alleged subsidies and the various forms of serious prejudice alleged by the EC, and (2) show that whatever effects the "other factors" may have had on Airbus' prices and sales, they were "in addition to" the serious prejudice directly attributable to the alleged subsidies.

523. The EC's exposition of its causation argument reveals its basic weakness. In particular, the EC repeats its claim that the Panel can presume a causal link between the alleged subsidies because of "Boeing's ability, incentive, and opportunity to use US subsidies to lower its prices to secure sales and market share."[816] The EC has had to build its case on presumption because it can point to no evidence to show that Boeing's pricing or product development decisions were, in fact, shaped by the alleged subsidies. Thus, this is not a case in which the major subsidies at issue were explicitly tied to, and were instrumental to, large civil aircraft launch decisions.[817]

524. The EC's litany of "ability, incentive and opportunity" is not *evidence* of anything. Its efforts to relate this faulty standard to the facts do not work, either. The EC's assertion that the alleged subsidies gave Boeing an "incentive" to price and develop its aircraft differently than would have otherwise been possible is unsupported by evidence or economic sense. Boeing factors a number of considerations into its pricing decisions. These include the significance of the account both in terms of the sale at issue and future sales; the impact of pricing at one account for sales at other accounts; and the alternatives available to the customer such as keeping its existing fleet as is, purchasing used aircraft, leasing aircraft, purchasing from Airbus.[818] Its objective is always to arrive at an optimum price that will maximize the return to its shareholders over time. *In any given sale, that price point will be exactly the same with or without the alleged subsidies*. To illustrate, when Boeing concludes

[815] *US – Upland Cotton (Article 21.5)*, paras. 10.46-10.49.

[816] EC RPQ2, para. 583.

[817] EC RPQ2, para. 578.

[818] US FWS, Campaign Annex, paras. 99-100; US RPQ2, para. 522.

that, in order to keep a key customer, it has to give that customer a discount that brings its customer's aircraft acquisition costs closer to those of the customer's competitors that buy aircraft from Airbus, Boeing's decision weighs the immediate and long-term costs of keeping the business at the lower price point against the costs of losing the business.[819] This business calculus is not affected by whether or not Boeing receives the subsidies alleged by the EC.

525. Thus, when the EC claims that "but for" the subsidies, Boeing *would not have* priced its 737, 777 and 787 aircraft as it did or developed the 787 as it did, even if it had the economic resources to do so,[820] the absence of both supporting evidence and a clear economic rationale for the claim is striking. The EC does not cure this problem by resorting to characterizations, such as "subsidy-enabled aggressive pricing," "early availability, subsidy-enabled technology and/or subsidy-enabled pricing." Absent direct evidence of a link between a subsidy and product development, production or pricing decisions by Boeing and the alleged subsidies, the only ways that the EC can make a credible *prima facie* case with regard to its "but for" causation analysis are to show that absent the alleged subsidies, Boeing either (1) *could not* have developed and priced its large civil aircraft as it did, or (2) would not have done so *because the economics of Boeing's operations would have been better than they were if Boeing had raised its large civil aircraft prices or delayed the development of its 787*.

526. On the first point, the EC has apparently abandoned its earlier claim that without the alleged subsidies, Boeing *could not* have priced and developed its large civil aircraft as it did.[821] Its latest tack is to argue that Boeing *would not* have priced and developed its large civil aircraft as it did because higher prices and slower development of the 787 would have improved its financial performance. Not only has the EC failed to provide any evidence to show that higher Boeing prices would have led to a higher return on its investment in the large civil aircraft business, but the facts show otherwise. When, from 2001-2004, Boeing resisted the pressure to meet Airbus' pricing, it lost key sales and suffered a 19-point market share loss that, given the heavy fixed costs associated with large civil aircraft production, caused profits to drop sharply.[822] By contrast, once **[***]**, it stemmed the market share losses and its profitability returned. By 2006, BCA's operating income had risen to 9.6 percent of sales from 3.74 percent of sales in 2004.[823] The data are, therefore, unequivocal – Boeing maximized its profitability by its post-2004 pricing.

527. With the focus on summarizing its basic causation argument, the EC's response to this question comes up short in its discussion of the role of these "other factors," which is what the Panel actually asked about. Here too, the EC relies on assertion rather than evidence. For example, when the EC addresses the U.S. observation that the rise in fuel prices has limited the price airlines are willing to pay for the Airbus A330, A340, and A350, it states:

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[819] US FWS, Campaign Annex, paras. 99-100.

[820] EC RPQ2, paras. 648, 658.

[821] EC RPQ2, paras. 648, 658.

[822] US Comments on EC RPQ1, paras. 292, 306.

[823] US Comments on EC RPQ1, para. 292.

> Nonetheless, to the degree that Airbus' LCA prices were lower due to rising fuel prices, those lower prices are incorporated into the current factual conditions from which to assess the effects of the subsidies. Thus, the European Communities demonstrated that on top of that current lower level of pricing, Boeing's subsidy-enabled aggressive pricing of its 777, and subsidy-enabled product features and pricing of its 787, put *additional* significant pricing pressure on Airbus' A330, A340, and Original A350. The counterfactual thus takes market prices as established by non-subsidy factors and considers how much higher those prices would be *but for* the *subsidy* effects.[824]

528. In this discussion of "other factors" the EC omits three considerations that are essential if the Panel is to "ensure that the effects of other factors on prices are not improperly attributed to the challenged subsidies."[825] First, the EC fails to mention that the prices of Boeing's 787 and 777 have been systematically **[***]** than those of the A330, A340 or A350 Original.[826] This means that the EC's argument is that **[***]**. The EC's *assertions* do not explain how **[***]** Boeing prices could be found to suppress already **[***]** Airbus prices.

529. Second, the EC misses a point that is central to the U.S. argument, ***i.e.***, that the fuel and operating inefficiencies of the A340 and the compromised design of the A350 Original put *an absolute*, *not a relative*, cap on the prices that the EC could command for its aircraft. A customer that places a low value on an Airbus A340 because of its fuel inefficiency or its other operational problems or on the A350 Original because of its design flaws would not have been willing to pay more for the A340 simply because of its relationship to the price of Boeing aircraft. This is clear from the A340 pricing data before the Panel. **[***]**.[827] Moreover, the options that the airline has are not limited to the purchase of particular Boeing or Airbus large civil aircraft. An airline can choose to maintain its existing fleet as is or augment its fleet by leasing or purchasing used or different aircraft. Thus, the EC's claim that a rise in the price of a Boeing 777 or 787 would *necessarily* have led to a rise in the price that Airbus could have commanded for its A330 or A340 is false. Nevertheless, it is the only basis on which the EC has responded to the Panel's question regarding non-attribution factors.

530. Third, the EC is noticeably reticent regarding the effects that Airbus' commitment to the A380 had on its ability to develop a viable competitor to the 787 that could have obtained higher prices and sales than the A350 Original. Rather than address the U.S. arguments or the evidence related to this issue, the EC, by reference to a footnote, claims to have "demonstrated" in its response to Question 88 that the effects of the A380's development on Airbus' mid-size aircraft development "do not exist as the United States depicts them."[828]

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[824] EC RPQ2, para. 592.

[825] *US – Upland Cotton (AB)*, para. 437.

[826] The U.S. comments on Questions 299 and 305, *infra*, discuss this point in more detail.

[827] US FWS, paras. 1146-1147.

[828] EC RPQ2, para. 593 n. 691.

Yet, the EC's response to Question 88 demonstrates no such thing. In that response, the EC merely repeats its unsubstantiated assertion that "it would have taken several additional years until 2006, at least, for {Boeing} to launch the 787 had it *not* benefited from billions in NASA and DOD R&D subsidies."[829] The only support it provides for this assertion is to cite back to previous submissions in which the EC attempts to match NASA and DoD research to technologies used on the 787. The United States has shown that these assertions have no support in the evidence.[830] The United States has also submitted statements from the Boeing engineers who designed the 787, describing how they relied on technology unrelated to the government programs challenged by the EC. This evidence points to the real causes behind Boeing's ability to launch the 787 in 2004 and Airbus' failure to launch a comparable aircraft around the same time. There is only so much that one company can do. Airbus was focused on the technical challenges of the A380 and A400M.[831] Boeing, in contrast, focused on the 787 long before Airbus even viewed the development of an all-new, mid-size aircraft as a strategic priority.[832] Boeing devoted full attention to the 787, but when Airbus began to work on the A350, it had to handle the development of three aircraft and deal with a corporate crisis.[833]

531. The EC response to Question 88 also fails in another regard. It fails to explain how, if U.S. R&D subsidies placed Airbus at a competitive disadvantage, Airbus could launch the predominantly composite A350 XWB in December 2006, a short time after deciding to design such an aircraft.[834] The EC fails to reconcile Airbus' marketing and launch of the A350 XWB in 2006, as the development work on the A380 was winding down, with its allegation that, absent the alleged subsidies, Boeing could not have launched the 787 until at least 2006, despite the billions of R&D dollars it spent on developing an all-new mid-size aircraft, beginning in 2001 and leading up to the 787 launch in 2004.

532. The EC's response to this question gives the same cursory treatment to the price effects of Airbus' systematic underselling of the A320, which convinced a number of 737 operators to switch to the A320. The EC concedes that, "{a}lthough Boeing, as the incumbent supplier in most of the sales campaigns {identified by the EC}, may have had an initial perceived or actual advantage in the sales campaigns, that advantage was quickly overcome."[835] The evidence shows that (1) Boeing's incumbency advantage was "quickly overcome" by Airbus' price undercutting,[836] (2) Airbus' capture of market share in this manner helped it keep production rates constant during the 2001-2004 downturn, (3) Boeing's decision **[***]** was compelled by Airbus' pricing and market share gains;[837] and (4)

[829] EC RPQ1, para. 484.

[830] US RPQ2, paras. 264-318.

[831] US FWS, para. 925; US SWS, HSBI Appendix, paras. 10-15.

[832] US FWS, paras. 920-923; US SWS, HSBI Appendix, paras. 10-13.

[833] US FWS, paras. 704-705.

[834] EC RPQ1, para. 404.

[835] EC RPQ1, para. 519.

[836] *E.g.*, [[HSBI]]

[837] US SWS, HSBI Appendix, paras. 38-59; US OS2 (conf.), paras. 4-13.

the combined effects of low A320 prices and constant A320 production rates in that period prevented prices for single-aisle aircraft from **[***]** once demand rebounded.[838]

533. The EC insists that the effects of high fuel prices, Airbus' commitment to the A380, and Airbus' A320 pricing do not "attenuate or eliminate" the effects of the alleged subsidies.[839] The United States has shown how factors other than the alleged subsidies caused the developments that the EC seeks to attribute to the effects of the alleged subsidies. Moreover, "attenuation" or "elimination" would only be an issue if the EC had shown that the alleged subsidies do, in fact, cause price and technology effects. As discussed above, the EC has failed to demonstrate this, much less provide evidence to show that any alleged indicia of prejudice are not entirely attributable to non-subsidy factors.

288. Does the European Communities consider it possible that, notwithstanding its argument that the conditions of competition in the LCA markets provide Boeing with a strong incentive to use the alleged subsidies in competitive campaigns to win sales and market share (EC OS2, para. 108), the historically unprecedented increase in demand for LCA in between 2004-2007 suggests that Boeing in fact had little incentive to engage in aggressive pricing during this period?

534. Throughout this proceeding, the United States has consistently stated that Boeing's incentive is always to price its aircraft at levels that will maximize the return to its shareholders over time.[840] This is the case whether demand is strong or weak, and Boeing's optimal price is the same whether Boeing receives subsidies as alleged by the EC or does not receive such subsidies. To illustrate, if Boeing concludes that it must price its aircraft at a particular discount from list price to keep a customer and further concludes that the commercial benefits (immediate or longer term) of keeping the customer outweigh the commercial costs (again immediate and longer term) of losing the customer, it will offer the discounted price because that is the economically rational thing to do. Because the alleged subsidies are mostly untied funds unrelated to the development, production or sale of any particular aircraft, they are completely irrelevant to the economics of that decision except to the extent they give Boeing the ability to price in a profit maximizing way that would otherwise be impossible. Thus, there is no factual or theoretical basis on which to argue that the alleged subsidies created an *incentive* for Boeing to price in a way that it would otherwise not have done. Nevertheless, this is precisely what the EC argues in its answer to Question 288:

> The Panel's question also properly suggests that sharply increasing demand … could, all things being equal, reduce a producer's incentive to price aggressively. But in this case, the theory must yield to the reality that Boeing's decision to increase market share by offering lower prices … gave

[838] US RPQ2, paras. 530-532.

[839] EC RPQ2, para. 589.

[840] Statement of Clay Richmond, para. 2 (Exhibit US-275); US FWS, para. 8; US SWS, paras. 181 (last bullet) and 182 (second bullet); US RPQ1, paras. 214, 228, and 256.

> the company a continued incentive to price aggressively and at levels that absent the U.S. subsidies, would not be economically viable.[841]

Missing from the EC's narrative is a plausible explanation for why the alleged subsidies would give Boeing an incentive to accept a lower return than would otherwise make economic sense, to say nothing of the complete absence of any evidentiary support.

535. In fact, the evidence shows that Boeing's incentive, regardless of the alleged subsidies, was to price its aircraft exactly as it did. While the United States has acknowledged that Boeing **[***]**, it has provided evidence to show that Boeing did so because Airbus' prices for the A340 and A320, respectively, were **[***]**. By 2004 and 2005, it had become clear that Boeing's pricing was non-competitive and it had no choice but to accept the reality of the market, which demanded a pricing closer to, but still above, Airbus' pricing.

536. As demand increased and as the rise in fuel costs added to the value of the fuel efficient 777, Boeing **[***]** have come off a **[***]** that was set by Airbus pricing. As the Panel knows, large civil aircraft supply involves long term contracts. Sales during the 2001-2004 period involved deliveries over several years. The prices that customers were prepared to pay for aircraft ordered 2005 and 2006 were based on knowledge of these earlier sales [842] and had to be sufficiently attractive to justify the costs of replacing older aircraft with newer aircraft or adding new aircraft to the customer's fleet. As a result, the **[***]**.[843] This is the way the large civil aircraft market works.

537. The EC's response to Question 288 simply ignores the dynamics of the large civil aircraft market and, inexcusably, fails to remind the Panel that whether the aircraft at issue are single aisle (737/A320 family) or wide body (777/A340; 787/A330/A350 Original), **[***]**.[844] To the extent there has been a downward pull on large civil aircraft pricing by any producer, it has been by Airbus, *not* Boeing. [845]

289. Can the European Communities explain in greater detail how the example described in Exhibit EC-275 (cited at footnote 2075 to the EC's FWS) supports the European Communities' argument (at para. 1308 of the EC's FWS) that "all of the US subsidies that directly reduce Boeing's marginal unit costs should be considered to result in a price reduction equal to the amount of the subsidy"?

538. This question asks the EC to explain its contention that the subsidies that the EC alleges "directly reduce Boeing's marginal unit cost of production should be considered to result in a price reduction equal to the amount of the subsidy." The EC's response provides no support for the EC's "dollar-for-dollar" pass-through argument.

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[841] ECRPQ2, para. 607.

[842] US SWS, HSBI Appendix, paras. 49-59; US OS2 (conf.), paras. 9-10; US RPQ2, paras. 529-532.

[843] US SWS, HSBI Appendix, paras. 49-59; US OS2 (conf.), paras. 9-10; US RPQ2, paras. 529-532.

[844] US Comment on EC RPQ2, Questions 299 and 305, *infra*.

[845] US Comment on EC RPQ2, Questions 299 and 305, *infra*.

539. The EC's answer references once again a study of the effects on motel room pricing of a change in tax rates which shows a pass-through only in certain circumstances,[846] an assertion that in 1996, GECAS **[***]**,[847] an estimate of the general "trade effects" of FSC/ETI by a WTO arbitrator "lay at the upper end of a range between 75 percent and 100 percent," and various other statements to show that *a portion* of tax rebates are passed on to the consumer. These sources do not support the EC assertion that *all* tax benefits are *100 percent* passed through in these situations. Therefore, none of the EC's evidence supports its "dollar-for-dollar" pass through argument.

540. As a matter of economics, the United States agrees that subsidies that are tied to sales have an impact on those sales, just as subsidies that are tied to a product launch have an impact on the supply of the product and, therefore, its pricing. However, the EC's response to this question only shows that the EC's own evidence disproves its assertion that "subsidies that directly reduce Boeing's marginal cost of production … result in price reduction equal to the amount of the subsidy."

290. How does the European Communities respond to the United States' argument (US Comments on EC RPQ1, paras. 276-277) that Boeing's profits began to improve in 2005 and 2006, and that the European Communities cannot (and does not) point to any evidence to show that, but for the alleged subsidies it would have made economic sense for Boeing to price its LCA higher than it did?

541. The EC begins its response to the Panel's request for its views on the U.S. argument summarized in the question with a simple declarative sentence that expresses "disagreement." *The EC then proceeds to acknowledge the basic merits of the U.S. argument*. In fact, the EC never disputes the U.S. observation that Boeing's prices in 2005 and 2006 were profit-maximizing prices, but falls back on its argument that "but for the U.S. subsidies, {Boeing} would not have had the financial means" to price as it did:[848]

> There may well be a number reasons why it made sense for Boeing to offer discounts. However, Boeing's ability to act on its incentive to offer lower prices was facilitated by the U.S. subsidies. When a company receives subsidies *and uses them to win a sale*, or uses them to suppress the prices of its competitor, the fact that it made commercial sense for that company to use those subsidies does not make the effects of those subsidies disappear.[849]

542. This passage is noteworthy for three reasons. First, the EC concedes that "{t}here may well be a number reasons why" Boeing's 2004-2006 pricing made economic sense.

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[846] *See* US SWS, para. 183 ("the only purported direct evidence for the proposition that 'cost-reducing subsidies have a 100% pass-through in competitive markets' is a page from a textbook. However, the cited page discusses the effect of a tax on motel rooms in an industry with no barriers to entry, and even this simplistic example provides that whether, and to what extent, the tax is passed through to customers varies depending on the time frame and assumptions about suppliers' marginal costs in that industry").

[847] The U.S. comments on Question 305, *infra*, discuss this assertion in more detail.

[848] EC RPQ2, para. 627.

[849] EC RPQ2, para. 630 (emphasis in original).

Second, the EC's assertion that Boeing used the alleged subsidies to lower its prices is entirely conclusory. Third, the EC ignores the elementary economic truth that the profit maximizing price is a profit maximizing price is not affected by subsidies that do not affect marginal costs or revenues. If the EC were able to show that, but for the alleged subsidies, Boeing *could not* have priced as it did, it might have a valid causation argument to make.

543. But, as the EC response to Question 292 reveals, that is not the EC position. Instead, the EC recognizes that Boeing had the financial resources necessary to fund all of the large civil aircraft R&D that led to the 787, and to set its prices exactly as it did, even if BCA's operating profit were reduced by the full amount of subsidies alleged, but unsubstantiated, by the EC. The EC's argument is that Boeing *would not have* adopted the economically rational strategy that it chose because the returns to its shareholders from such spending and pricing would have been too low. However, the EC has never even tried to show that Boeing and its shareholders would be financially better off if the company had rejected the economically rational strategy of pricing to the market. Absent such a showing, there is no substance to the EC's assertion that it was the *alleged subsidies*, rather than market forces, that gave Boeing the incentive to price as it did and conduct product development as it did. Thus, the EC has failed to demonstrate a credible causal link between the alleged subsidies and Boeing's pricing decisions, much less any link between the alleged subsidies and the lost sales, price suppression, or displacement/impedance alleged by the EC.

291. In its Comments on the European Communities' Response to Question 84, the United States presents certain financial information for BCA, and from this data draws the conclusion set forth in the first sentence of para. 293. Does the European Communities draw the same conclusion from this data?

544. This question asks the EC whether it draws the same conclusion as the United States does from a set of data. However, rather than respond to the conclusion actually reached by the United States, the EC misstates that conclusion, and then notes that the misstated conclusion – unsurprisingly – supports the point the EC sought to make. To begin, the first sentence of paragraph 293 of the U.S. comments reads in its entirety as follows:

> The data show that BCA's productivity improvements during the 2004-2006 period were so significant that **[***]** while simultaneously increasing its operating margins.

The EC, however, characterizes that sentence as follows:

> In the comment referred to in the Panel's question, the United States disputes the European Communities' evidence that Boeing uses cost savings to lower its LCA prices and win sales and market share. *The United States then concludes in the first sentence of paragraph 293 . . . that Boeing's [***] were enabled, and driven in significant part by, productivity improvements*."[850]

[850] US RPQ2, para. 632 (emphasis added).

The EC asserts that its version of the U.S. statement is inconsistent with the evidence, and that its logic:

> confirms precisely the point made by the European Communities: *Boeing passes cost savings, including those from subsides, on to its customers in the form of lower prices, thereby causing significant price effects in the LCA markets*."[851]

545. As a threshold matter, it is regrettable that the EC's response to this question – as has occurred a number of times already – mischaracterizes what the United States, or NASA officials, or Boeing executives have said.

546. In fact, the first sentence of paragraph 293, quoted above, makes the point that Boeing's pricing and cost-cutting strategies in the 2003-2006 period were economically rational, in that they increased profits. It does not say anything about one enabling the other, nor does it say anything about **[**"***]**.[852] It ignores the cause-and-effect relationship between a deteriorating market price and a producer's decision to deal with that situation by cutting costs. Instead, the EC seeks to reverse that relationship by asserting that it was Boeing's ability to cut costs that caused it to lower prices. Neither the evidence nor any sound economic reasoning supports the causal relationship sketched out by the EC.

547. The other point the United States made, which the EC ignores, is that the data show that Boeing did not simply "pass" cost reductions "through" to its customers. If that were the case, its profits would not have increased. Rather, Boeing undertook cost cutting to address an unfavorable market situation, and, when it found that the effort more than compensated for unfavorable prices, pocketed the additional cost savings for its shareholders.

548. These developments reflect basic economic logic. Prices, as the EC recognizes, are determined by the interaction of demand and supply. Producers, or at least those that are not government controlled, seek to price in a way that maximizes profitability. An economically rational producer will never price its products lower than the level needed to secure the highest profit over time simply because it has been able to cut its costs. That said, when market forces require lower prices to sell a product in the volumes needed to absorb heavy fixed costs, cost reductions can be essential to the ability of the producer to make an acceptable profit margin on sales at those prices. It may also be the case that a reduction in prices makes good economic sense because it increases demand or customer loyalty in a way that best serves the producer's long-term economic interests. But in these circumstances, it is a question of market prices dictating the need for cost reductions, not cost reductions driving market prices.

549. The problem with the EC's response to this question is its core assumption that, because of the alleged subsidies, Boeing reduced its prices below their optimal (and market)

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[851] EC RPQ2, para. 632 (emphasis in original).

[852] EC RPQ2, para. 632.

levels. There is no evidence in this proceeding that supports the EC on this central point, nor is there any valid theoretical justification for it.

550. To the contrary, the evidence shows very clearly that Boeing's pricing was an essential response to competitive pressures from customers to close the price gap with Airbus, lest Boeing lose their business. The sequence of events was as follows:

(i) In its drive to capture market share, Airbus deliberately and systematically priced its large civil aircraft below the pricing of the most comparable Boeing aircraft.[853]

(ii) Because Boeing lost so much market share when it resisted customer pressures to match Airbus' prices, the returns on the large civil aircraft operations were very poor in both 2003 and 2004.[854]

(iii) In order to compete more effectively with Airbus, Boeing had to narrow the price gap between it and Airbus.[855]

(iv) Boeing's cost cutting efforts were meant to improve Boeing's profitability at the lower price points that dictated by what Boeing's customers were prepared to pay for Boeing aircraft (*i.e.*, demand) which, in turn, was shaped in part by the lower prices on offer from Airbus (*i.e.*, competitive supply).[856]

(v) Boeing's cost-cutting efforts and pricing strategy succeeded in making the company profitable at new pricing levels, and succeeded so well that profitability increased.[857]

In sum, the evidence shows that *Airbus* undersold Boeing and pulled down Boeing prices. The most telling example comes from the **[***]**.[858] **[***]**[859]

551. The EC mischaracterizes the U.S. comments on the EC's response to Question 84 as endorsing the reversed "cause-and-effect" relationship between lower costs and lower prices. It then equates the alleged subsidies to lower costs and argues that the United States has, in effect, recognized the causal link between the alleged subsidies and lower prices. To be clear, nothing in the U.S. comments supports the proposition that lower costs in Boeing's large civil aircraft operations cause Boeing to lower its large civil aircraft prices below their optimum level. However, even if there were a cause and effect relationship between lower

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[853] US SWS, HSBI Appendix, paras. 6, 30, 60-62.

[854] US Comments on EC RPQ1, paras. 292-293.

[855] US SWS, HSBI Appendix, paras. 6, 40-59, 60-62; US OS2(conf.), para. 16.

[856] US Comments on EC RPQ1, paras. 292-293.

[857] US Comments on EC RPQ1, paras. 292-293.

[858] US FWS, U.S. Campaign Annex, paras. 102-104; US OS2 (conf.), paras. 9-10.

[859] US FWS, U.S. Campaign Annex, paras. 102-104; US OS2 (conf.), paras. 9-10.

large civil aircraft production costs and large civil aircraft pricing, it does not follow that the alleged subsidies would have the same effect on prices.

552. The production cost efficiency gains that the United States discusses in its comments on the EC's response to Question 84 are *directly related to the production of specific Boeing large civil aircraft. The alleged subsidies are not*.[860] In fact, the EC is explicit that the alleged subsidies relate to non-operating cash flow – that is, they have *no* relationship to production, which is the primary part of "operations." In its response to Question 275, the EC recognizes that the nature of a subsidy is key to an assessment of its effects.[861] The same holds true with regard to the nature of cost reductions. Thus, even if Boeing were to pass on to its customers part of the reductions in production costs specific to large civil aircraft, that would say nothing about the pass-through of alleged subsidies that are unrelated to the production of a particular large civil aircraft.

553. There is a world of difference in the effects on BCA's business strategy of efficiency gains in producing the 787, 737, or 777, on the one hand, and, on the other, R&D programs that neither involve BCA or relate to the production of particular Boeing large civil aircraft. The supposition that BCA would, or even could, ever use R&D activities involving other Boeing business units to justify a reduction in the pricing of Boeing large civil aircraft is at odds with the way Boeing runs its business.[862]

554. The EC's response to Question 291 also raises a broader issue (which the EC elaborates upon in its response to Question 292) regarding the general relationship between a company's costs and its pricing. It is true that if a company's costs are too great to allow it to operate profitably at market prices, it will not be able to compete in the market over time. To be sure, as long as it is in the market, it will price its aircraft to the market in any given sales campaign, but there will be no economic justification for significant additional investment

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[860] In its response to this question, the EC makes a cursory attempt to link certain challenged R&D programs to BCA's implementation of "lean" manufacturing techniques. EC RPQ2, paragraph 639. The notion that BCA's cost-cutting efforts were enabled by these programs, rather than by learning key lean manufacturing techniques from the Japanese auto industry, is disproved by evidence the EC itself submitted:

> Eventually, Toyota began exporting its production philosophy along with its cars. While Womack's book reports the term "lean production" was coined decades later by researcher John Krafcik, the concept of using "less" to manufacture goods caught the attention of U.S. industry in the 1989s and '90s.
> In the early '90s, Boeing – facing a deregulated commercial industry that had begun to focus on profitability – realized it needed to become leaner in order to offer its customers airplanes at reduced costs and improved quality. Company executives traveled to Japan, where they studied concepts that would become known as Lean – just-in-time delivery, error-free production, and continuous flow. Boeing brought in consultants from Shingijutsu Co. to help guide the process. Shingijutsu's representatives were former Toyota executives and protégés of Ohno's Toyota Production System.

Maureen Jenkins, Getting Lean, Boeing Frontiers (August 2002), pp. 2-3.

[861] EC RPQ2, paras. 492, 507-508.

[862] Statement of Clay Richmond, pars. 2 and 9 (Exhibit US-275) (HSBI).

and, over time, the producer will leave the business. This is, in fact, what happened to Lockheed and McDonnell Douglas.

555. In this regard, subsidy programs that significantly lower a producer's structural costs of producing large civil aircraft, especially where they also shift a substantial part of the commercial risk from the producer to the subsidizing government, will create or maintain supply that is uneconomic and will thus have a significant impact on market prices. The fundamental difference between this situation and the economics of the case that the EC has brought against the alleged subsidies to Boeing relates to the nature of the subsidies at issue.

556. In this proceeding, the EC concedes that, except for FSC/ETI, certain Washington State tax measures, and a few other programs of little consequence, the alleged subsidies are *not* tied to the development, production or sale of any particular large civil aircraft. For this reason, the EC is wrong in its response to this question when it equates the alleged subsidies with Boeing's efforts to reduce its large civil aircraft production costs. Given the nature of the alleged subsidies, the EC could only demonstrate adverse effects if it could show that the magnitude of the alleged subsidies were so significant that, without them, Boeing could not have participated in the large civil aircraft market as it did. The EC makes yet another attempt to demonstrate this in its response to Question 292, but, as before, it fails.

292. At para. 115 of its OS2, the European Communities argues that the operating profit and cash flow results of The Boeing Company and Boeing's BCA division referred to by the United States (at para. 268 of US Comments on EC RPQ1) "do not even reflect funds actually available from either BCA, or The Boeing Company as a whole, to replace the US subsidies at issue." In particular, the European Communities contends that the United States fails to take account of certain adjustments to Boeing's net earnings figures (revealed in the cash flow statements) that are necessary "in order to derive the amount of the company' net increase or decrease in available funds." Please explain in greater detail the nature of the adjustments to which the European Communities refers, and why they are necessary in order to accurately appreciate whether "The Boeing Company generated cash sufficient to offset the effect of removing subsidies".

557. Question 292 asks the EC to "explain in greater detail" the financial analysis behind its assertion that the cash generated by Boeing over the period 1989-2006 was insufficient to offset the effect of removing the alleged subsidies. The EC has responded with a 55 paragraph discourse, supplemented by submissions from Professor Whitelaw and ITR, that lead it to conclude, "the United States cannot sustain its argument that The Boeing Company generated, or would have access to, sufficient cash between 1989-2006 to simply replace the U.S. subsidies while maintaining BCA's commercial behaviour."[863]

558. In the course of its response to Question 292, however, the EC confirms the very point that the United States has been making. By the EC's own calculation, between 1989 and 2006 Boeing generated $27.91 billion in "cash available after contractual obligations" which was more than sufficient to cover the $19.1 billion in alleged subsides for the same

[863] EC RPQ2, para. 677.

period. For the period 2004-2006, *i.e.*, the three year period for which the EC claims "serious prejudice," the EC acknowledges that Boeing generated $16.198 billion in "cash available after contractual obligations" compared to $2.978 billion in alleged subsidies over the same three-year period. Given the EC's own analysis of Boeing's financial data, it has left itself no room to argue that "but for" the alleged subsidies, Boeing *could not* have priced and developed its aircraft as it did. The EC's only remaining argument, on which it elaborates at length in response to this question, is that, even though Boeing had sufficient resources to fund its pricing and product development strategies, it *would have been* forced by other considerations to take a different approach to both its large civil aircraft pricing and product development.

559. Specifically, the EC posits that Boeing would have had to increase its prices and cut back on its product development because "{a}bsent the U.S. subsidies, The Boeing Company's shareholders would have balked at seeing their returns dramatically reduced to prop up an economically non-viable LCA business."[864] However, neither the evidence nor the EC's economic reasoning support this assertion. All of the EC's different efforts to prove that BCA was not viable rest upon the $19.1 billion benefit estimated by the EC, but the United States has shown that the figure is thoroughly invalid. The methodology that the EC now proposes for evaluating BCA's economic viability is actually inconsistent with the sources that the EC cites in its support. Correction of these errors demonstrates that BCA exceeds the viability evaluation thresholds used by investors *even if the EC's full $19.1 billion subsidy amount is taken at face value*. In past submissions, the United States presented several comparisons that showed that Boeing could have afforded to fund its pricing and product development policies even in the absence of subsidies. The EC seeks to reengineer BCA's financial data to avoid this conclusion, but the adjustments it proposes are unwarranted.

560. Having switched from a "Boeing could not have done what it did" to a "Boeing would not have done what it did" argument, the EC rests its argument on assertions of fact for which there is no evidentiary support. Key among these are that:

(i) the alleged subsidies conferred a $19.1 billion benefit on Boeing between 1989 and 2006;

(ii) The financial data cited by the United States do not provide an appropriate basis for assessing the EC's "but for" causation argument; and

(iii) if Boeing had only raised its aircraft prices and had not invested in the 787, BCA's financial performance would have improved.

The greatly exaggerated subsidy magnitude

561. The viability of the EC's causation argument has always depended on a calculation of the amount of the alleged subsidies that bears no relationship to the facts. This is a point that the United States has demonstrated repeatedly, because the EC relies on this calculation for

[864] EC RPQ2, para. 693.

its entire causation analysis, including all of the pages and pages of the EC's "but for" economic analysis, the ill-conceived Cabral Report, and the recent Whitelaw/ITR analysis of BCA's economic viability. Thus, even if one could put aside all the fundamental defects of the Cabral Report and the basic errors in the more recent Whitelaw/ITR analysis of BCA's economic viability, the EC's case would still fail because it rests on calculations of alleged subsidy amounts that have no basis in fact.

Unsupported adjustments of BCA financial data

562. A second critical error in the EC's analysis is that it tries to reengineer BCA financial data in ways that do not reflect how the division actually operates. This is especially significant now that the EC is arguing that BCA would be profitable without the alleged subsidies, but not enough for shareholders to have accepted the pricing and product development policies BCA pursued. Thus, framing the analysis as a real-world investor would is critical to an objective evaluation of the EC's arguments. Instead, the EC makes unwarranted assumptions, most particularly that the alleged subsidies flow directly to BCA and not to The Boeing Company. The EC then uses this assumption to argue for a series of "adjustments" to BCA's operating income and cash flow. The EC is wrong both on its basic premise that the alleged subsidies flow directly to BCA and in the adjustments it makes to Boeing's financials.

563. As to its premise that the alleged subsidies flow directly to BCA, to reach a realistic understanding of the effect of the alleged subsidies it is necessary to look at how they affect the recipient. Indeed, both parties agree that a consideration of the conditions of competition is important to the causation analysis under Article 6.3. How the recipient operates is a condition of competition. In the case of The Boeing Company, that requires recognition of the fact that the company as a whole realizes the tax adjustments at issue in this dispute. In contrast, many of the challenged R&D programs involve work done by IDS, Boeing's defense contracting unit, and not by BCA. Thus, contrary to the EC's contention, the roles of The Boeing Company and IDS are not equivalent to consideration of an exogenous factor (such as the off-farm income at issue in *US – Upland Cotton*) that would lessen the impact of a subsidy. They are an endogenous factor because the EC alleges that both IDS and The Boeing Company head office are mechanisms for transmitting the alleged subsidy to the products under consideration. Therefore, a consideration of how they impact of any alleged subsidies on BCA is critical to an understanding of whether BCA's products cause serious prejudice.

564. On the second point, the EC's adjustments to BCA's reported cash flow and operating income are, for the most part, misplaced. Specifically, the EC's consultants, Professor Whitelaw and ITR, improperly deduct from BCA's operating profit and cash flow $5.3 billion in corporate overhead, $8.5 billion for expenditures on corporate plant and equipment, and $2.9 billion in interest expense – a total of $16.7 billion, which has no direct link to BCA's operations.

565. In fact, in the normal course of its business, Boeing charges to BCA general and administrative and other expenses that are directly linked to BCA's operations. The only additional expenses that can reasonably be allocated to BCA for purposes of assessing the

economics of BCA's operations are (1) any *incremental* overhead borne by The Boeing Company because of BCA's operations,[865] (2) any portion of corporate level investment in plant and equipment that would not have been made "but for" BCA's operations,[866] and (3) interest expenses associated with debt needed to finance BCA's operations, recognizing that BCA often has more than enough cash to finance its operations from customer prepayments on undelivered aircraft.[867]

566. In other words, rather than accept the way Boeing actually conducts its business, with BCA absorbing certain charges and others absorbed by The Boeing Company at the corporate level, the EC insists on allocating costs to BCA as if, on a stand-alone basis, BCA would have to bear a portion of all of Boeing's corporate-level costs allocated by revenue, regardless of whether a given corporate-level cost bears any relationship to BCA's actual operations or to the revenue each Boeing business unit contributes to the consolidated enterprise. This has no basis in fact, and should not affect the conclusion as to the sufficiency of funds to cover Boeing's large civil aircraft pricing and product decisions in the absence of the alleged subsidies. The EC's adjustments are the basis for the revised financial data the EC presents in paragraphs 671 through 696 of the EC responses to the Panel's second set of questions. Thus, the results of these restatements do not support the EC's contentions that absent the subsidies, Boeing would be "generating insufficient cash to provide a return to shareholders reflecting its cost of equity;"[868] or that Boeing "shows an actual net negative cash generation during 1989-2006;"[869] or that Boeing's other sources of cash (after the adjustments) would not be sufficient to avoid "render{ing} the company insolvent."[870]

Economic rationality of Boeing pricing and product development

567. A third critical error that appears throughout the EC's long answer to this question is the contention that if Boeing had only raised its large civil aircraft prices and cut back on developing the 787, its large civil aircraft operations would have produced better profits:

> Thus, absent the US subsidies, the most economically rational outcome would be for BCA to change its pricing and product development behaviour to restore its economic viability.[871]
>
> Thus, in the United States counterfactual, The Boeing Company, faced with economically non-viable LCA business, *would not make the economically*

[865] Greenwald Comments on Whitelaw Economic Viability Report, para. 10 (Exhibit US-1324).

[866] Greenwald Comments on Whitelaw Economic Viability Report, para. 10 (Exhibit US-1324).

[867] Statement of Ruud Roggekamp, para. 3-4 (Exhibit US-1321).

[868] EC RPQ2, para. 682

[869] EC RPQ2, para. 690.

[870] EC RPQ2, para. 695.

[871] EC RPQ2, para. 667.

> rational decision to change BCA's commercial pricing and investment behavior and return it to economic viability.[872]

568. As the United States has already pointed out, there is no evidence to support the EC contention that a different strategy would make sense for Boeing in the absence of the alleged subsidies. There is, in fact, much evidence to prove that Boeing's 2004-2006 product development and pricing decisions were, in fact, profit maximizing. The success of the 787 validates Boeing's product development strategy. As for pricing, Boeing **[***]**, but because of **[***]** pricing, this resulted in low profits and unprecedented market share losses. Boeing's decision to **[***]** helped stem its market share losses and led to a substantial improvement in the profitability of its large civil aircraft business,[873] showing that Boeing's approach was economically rational. In fact, in its answer to Question 290, the EC concedes that "there may well be a number of reasons why it made sense for Boeing to offer discounts" during the period on which the EC has focused.[874]

569. The EC's response to Question 290 goes on to state that even if Boeing's large civil aircraft pricing and product development decisions made sense, "Boeing's ability to act on its incentive to offer lower prices was facilitated by the U.S. subsidies."[875] Even if this statement were true, and it is not, it would be irrelevant. Serious prejudice exists under Article 6.3 only where it is "the effect of" subsidies, not where it is "facilitated" by alleged subsidies. In any event, the response to this question drops the pretense that Boeing *could not* have priced and developed its aircraft as it did, and, instead, argues that, but for the alleged subsidies, Boeing *would not* have done so because its "economic viability" depended on higher prices and less of a commitment to developing the 787.

570. The conflict between the EC's responses to Questions 290 and 292 show the inherent contradiction in the EC's adverse effects argument. Boeing's 2004-2006 financial data force the EC to concede that Boeing's pricing and product development decisions "made sense." To defend its causation theory in response to this question, however, the EC has had to deny what it knows to be true.

The EC's BCA viability analysis

571. As to the broader EC contention that its new economic viability analysis proves that between 1989 and 2006, Boeing's large civil aircraft business would have been "non-viable" but for the alleged subsidies, it is invalid for at least four reasons. First, as noted, the United States has shown that the EC's analysis depends on a calculation of the amount of the alleged subsidies that has no basis in fact.

572. Second, as discussed above, the EC's analysis understates BCA's operating results because the EC inappropriately allocates a portion of Boeing's unallocated corporate-level

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[872] EC RPQ2, para. 663.

[873] US Comment on EC RPQ1, para. 292-293.

[874] EC RPQ2, para. 630.

[875] EC RPQ2, para. 630.

costs to BCA. The EC's analysis pertains to the question of whether BCA would be economically viable over the long-term absent the alleged subsidies, but its allocation of corporate-level costs does not reflect how BCA calculates its operating results, the extent to which BCA's operations impose incremental overhead costs on Boeing which The Boeing Company would not otherwise incur, how The Boeing Company evaluates BCA's performance, or the economic reality of how those costs relate to BCA.

573. Third, the EC improperly includes McDonnell Douglas data from 1989-1994, prior to its 1997 merger with Boeing, and prior to Boeing's restatement of 1995 and 1996 results, to reflect retroactively the combination of the companies. Again, the issue here is the economic viability of *BCA* over the 1989-2006 period, not that of the entire U.S. industry, a point noted by the Panel in Question 293(a) to the EC.

574. Fourth, and most important, the EC uses the wrong metric to assess the results of BCA's operations. After making the erroneous adjustments referred to above, the EC compares BCA's Return on Assets ("ROA," which ITR defines as earnings before interest and tax, or "EBIT", minus taxes, divided by total, or gross, assets)[876] to the weighted average cost of capital ("WACC") ITR calculates for Boeing.[877] This is a critical (and surprising) error for the EC to make. ROA and WACC are both well-known financial metrics, but comparing the two does not provide a meaningful basis on which to determine whether a business is creating value. The problem is that ROA (as defined by ITR) is based on total assets, not the capital invested, *i.e.,* (assets – liabilities = equity) plus long-term debt. Because ROA does not measure the return on capital invested, comparing ROA to WACC, which is, after all a company's weighted average cost of capital, does not show whether a business is creating value.

575. The correct way of determining whether Boeing's returns on its large commercial aircraft business have been sufficient to justify Boeing's investment in that business is to compare Boeing's *past return on capital invested in the business* to the weighted average cost of that capital. Professor Whitelaw and ITR fail to do this because, in their ROA formula, the denominator is total assets, not capital invested in the business.

576. The two textbooks cited by Professor Whitelaw expose the EC's error on this crucial point.[878] Neither textbook compares ROA (as defined by ITR) with WACC as the EC and its consultants do. Rather, these textbooks call for a comparison of WACC with other financial performance metrics, or they use WACC to calculate other performance metrics.[879]

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[876] ITR Economic Viability Report, paras. 8-9 (Exhibit EC-1393); Whitelaw Economic Viability Report, para. 17 (Exhibit EC-1395).

[877] ITR Economic Viability Report, para. 17 (Exhibit EC-1393).

[878] *See* Whitelaw Economic Viability Report, para. 3 n. 2 (citing Stephen Ross et al., Corporate Finance (7th ed. 2005) (excerpts provided in Exhibit US-1319); Richard Brealey et al., Principles of Corporate Finance (9th ed. 2008) (excerpts provided in Exhibit US-1320)).

[879] For instance, the book by Professors Brealey et al. compares Net Return on Investment ("ROI") to cost of capital, noting that "managers frequently assess the performance of a division or a plant by comparing its ROI with the cost of capital." Richard Brealey et al., Principles of Corporate Finance, p. 334 (Exhibit

577. The key metrics are (1) Economic Value Added ("EVA"), and (2) Return on Invested Capital ("ROIC") compared with WACC. Indeed, the textbook citation Professor Whitelaw provides to support the proposition that one should compare return on total assets to WACC does not, in fact, support that proposition.[880] Rather, the cited portion of the textbook uses WACC only as a component of EVA, which it defines as follows:

$$EVA = (EBIT - tax) - (WACC \times (Total\ debt + Equity))$$ [881]

EVA produces an absolute dollar value; if it is positive, the business is creating value, and if it is negative, the business is destroying value.[882] EVA is equivalent to Economic Profit, which is the metric Boeing uses to assess economic performance.[883] Boeing Assistant Treasurer Ruud Roggekamp explains that, by contrast to Economic Profit, "comparing return on assets ("ROA," defined as the ratio of net income to total assets) to Boeing's WACC is not a useful metric for Boeing to determin{e} whether BCA, or any subdivision thereof, is creating value."[884]

578. As for Return on Invested Capital ("ROIC"), it is defined as follows:

$$ROIC = \frac{EBIT - tax}{Invested\ Capital}$$ [885]

US-1320). In a footnote, Professors Brealey et al. point out, in the first place, that ROI nets out current liabilities (unlike the EC's ROA calculation), and, in the second, that ROI may be called ROA with the understanding that ROA means return on net assets:

> Notice that {the investment element in ROI} includes the net working capital (current assets minus current liabilities) required to operate the plant. The investment shown is also called net assets or the net capital invested in the plant. We say "ROI," but you will also hear "return on assets" (ROA) or "return on capital" (ROC), as in Table 13.2.

Richard Brealey et al., Principles of Corporate Finance, p. 334 n. 10 (Exhibit US-1320).

Thus, while "ROA" is sometimes used to describe a return on net assets figure that is compared to cost of capital, this *not* the ROA definition that the EC and its consultants use.

[880] *Compare* Whitelaw Economic Viability Report, para. 17 n. 4 (citing Stephen Ross et al., Corporate Finance (7th ed. 2005), Appendix 12A), *with* Stephen Ross et al., Corporate Finance (7th ed. 2005), Appendix 12A (Exhibit US-1319).

[881] Stephen Ross et al., Corporate Finance (7th ed. 2005), p. 345 (Exhibit US-1319).

[882] Stephen Ross et al., Corporate Finance (7th ed. 2005), p. 345 (Exhibit US-1319).

[883] Statement of Ruud Roggekamp, para. 2 (Exhibit US-1321) ("To determine whether BCA, or any subdivision thereof, is creating value, Boeing uses a metric known as 'Economic Profit' (or 'EP'). (This concept is very similar to the metric popularly known as economic value added – 'EVA').");*see also* Richard Brealey et al., Principles of Corporate Finance, p. 336 (noting the similarity between EVA and Economic Profit) (Exhibit US-1320).

[884] Statement of Ruud Roggekamp, para. 4 (Exhibit US-1321).

[885] Carliss Y. Baldwin, Fundamental Enterprise Valuation: Return on Invested Capital (ROIC) (July 3, 2002), p. 1 (Exhibit US-1322).

ROIC is expressed as a percentage, but when compared to WACC, it yields equivalent results to EVA:[886]

ROIC > WACC	the business is attractive, invest.
ROIC = WACC	the business is break-even, your choice.
ROIC < WACC	the business is unattractive, don't invest; disinvest if possible.[887]

579. The purpose of the ROIC/WACC comparison, as with the EVA analysis, is to measure how efficiently a business is using the capital (*i.e.* equity and debt) provided to it. This is important to keep in mind, as the EC, in conducting its misguided Return on Assets calculations, has allocated to BCA substantial Boeing corporate-level assets that bear little or no relation to the assets BCA uses in its business. In fact, when Boeing uses the "Economic Profit" metric (which, as noted, is very similar to EVA) to assess the economic performance of BCA, Boeing excludes cash from BCA's net assets because that cash is kept at the corporate level and is not under BCA's control. As Boeing's Ruud Roggekamp explains,

> cash is excluded from net assets because the business unit does not control the deployment of such cash among opportunities as share repurchase, dividend etc. On a companywide basis, this {calculation of Economic Profit} measures whether, given the net assets available to it, a business activity is making a net contribution to enterprise value – *i.e.,* whether the entity adds more dollar value than required by the providers of this capital (share holders and debt holders).[888]

580. The United States followed Boeing's approach of excluding corporate-level cash when calculating BCA's EVA and ROIC in Table 1(a) below, which is reproduced from Exhibit US-1323. The calculations in Table 1(a) use the BCA "Operating Profit less subsidies" figure calculated by the EC for the 1989-2006 period (excluding 1995 and 1997, as the EC does in its calculations[889]). To calculate "Total BCA Capital" for the same period, the United States has followed the EC's allocation method in allocating a portion of

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[886] Carliss Y. Baldwin, Fundamental Enterprise Valuation: Return on Invested Capital (ROIC) (July 3, 2002), p. 4 ("Notice EVA is greater than zero if ROIC > WACC, and less than zero if ROIC < WACC. Thus the test, 'is EVA greater than 0?' is equivalent to the test 'is ROIC greater than WACC?'") (Exhibit US-1322).

[887] Carliss Y. Baldwin, Fundamental Enterprise Valuation: Return on Invested Capital (ROIC) (July 3, 2002) (Exhibit US-1322).

[888] Statement of Ruud Roggekamp, para. 3 (Exhibit US-1321).

[889] ITR Economic Viability Report, para. 14 n. 12 (referring to charges Boeing took in 1995 and 1997 in connection with the McDonnell Douglas merger when it states, "Because our analysis is structured to determine whether Boeing's aircraft pricing absent subsidies could sustain it as a viable company, *we decided to exclude unusual 'one-off' events that artificially reduced returns*, to avoid the risk that these events could make it appear that Boeing's prices resulted in poor economic performance. Therefore, in averaging the annual returns over the 18-year period, we excluded two years, 1995 and 1997, because unusual events that were not indicative of long-term earnings reduced the reported return in these two years.") (emphasis added).

corporate-level assets and liabilities to BCA, but has excluded the portion of corporate-level cash that would otherwise be allocated to BCA under the EC's method.

Table 1(a)

BCA Return on Invested Capital ("ROIC") & Economic Value Added ("EVA")
Excluding Allocated Portion of Boeing Company Cash
Using EC Alleged "Operating Profit less subsidies" Data
(1989-2006, excluding 1995 and 1997* in $1 million)

Item	Value	Formula
BCA "Operating Profit less subidies"**	6,695	ITR figure[890]
Total BCA Capital[891]	39,044	= (Total BCA assets – Total BCA liabilities) + Total BCA Long-term debt
Boeing WACC	9.40%	ITR figure[892]
BCA ROIC	**17.15%**	= BCA "Operating Profit less subsidies" ÷ Total BCA Capital
BCA EVA	**3,025**	= BCA "Operating Profit less subsidies" – (Boeing WACC x Total BCA Capital)

***** Per ITR analysis
****** EBIT minus taxes and after FSC/Global Settlement adjustment

581. As Table 1(a) shows, BCA's EVA is positive by more than $3 billion and its ROIC is far greater than its WACC, *even under* a "but for the subsidies" calculation that accepts *the EC's asserted amount of the alleged subsidies and its improper allocation of unallocated corporate-level costs to BCA*, each of which artificially reduces BCA's after-tax operating profit. Thus, using the proper metrics leaves no doubt that, but for the alleged subsidies, BCA would have been economically viable if it developed and priced its aircraft as it did. As Boeing's Ruud Roggekamp states, "{i}f, over a period of many years and all other things

[890] Sourced from ITR Economic Viability Report, Table 1(a) (Exhibit EC-1393).

[891] The calculations for "Total BCA Capital" are set forth in BCA Economic Viability Data, Table 1(b) (Exhibit US-1323). The formula for calculating Total BCA Capital shown in Table 1(a) is a simplified form of the actual calculation method. The calculation methodologies are explained in BCA Economic Viability Data, Appendix: "Total BCA Capital" Calculation Methodology (Exhibit US-1323).

[892] Sourced from ITR Economic Viability Report, Table 1(a) (Exhibit EC-1393).

being equal, BCA achieved a positive Economic Profit or EVA, Boeing would consider BCA's performance to be successful."[893]

582. Even if one disregards the way Boeing operates by *including* the portion of Boeing's cash that the EC's allocation method would allocate to BCA, BCA's EVA remains positive and its ROIC is still greater than its WACC, as shown in Table 2(a) below, which is also reproduced from Exhibit US-1323.

Table 2(a)

BCA Return on Invested Capital ("ROIC") & Economic Value Added ("EVA")
Including Allocated Portion of Boeing Company Cash
Using EC Alleged "Operating Profit less subsidies" Data
(1989-2006, excluding 1995 and 1997* in $1 million)

Item	Value	Formula
BCA "Operating Profit less subsidies"**	6,695	ITR figure[894]
Total BCA Capital[895]	66,504	= (Total BCA assets – Total BCA liabilities) + Total BCA Long-term debt
Boeing WACC	9.40%	ITR figure[896]
BCA ROIC	**10.07%**	= BCA "Operating Profit less subsidies" ÷ Total BCA Capital
BCA EVA	**444**	= BCA "Operating Profit less subsidies" – (Boeing WACC x Total BCA Capital)

***** Per ITR analysis
****** EBIT minus taxes and after FSC/Global Settlement adjustment

583. The figures in Table 1(a) and Table 2(a) confirm what the United States has shown in prior submissions: absent the alleged subsidies, BCA would have had all the resources it needed to price and develop its aircraft as it did. It proves the additional point that investors would have judged Boeing's civil aircraft business to be an attractive investment, even if BCA's operating profit is artificially reduced by the greatly exaggerated value of the alleged subsidies advanced by the EC.

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[893] Statement of Ruud Roggekamp, para. 3 (Exhibit US-1321).

[894] Sourced from ITR Economic Viability Report, Table 1(a) (Exhibit EC-1393).

[895] The calculations for "Total BCA Capital" are set forth in BCA Economic Viability Data, Table 2.b (Exhibit US-1323). The formula for calculating Total BCA Capital shown in Table 2(a) is a simplified form of the actual calculation method. The calculation methodologies are explained in BCA Economic Viability Data, Appendix: "Total BCA Capital" Calculation Methodology (Exhibit US-1323).

[896] Sourced from ITR Economic Viability Report, Table 1(a) (Exhibit EC-1393).

584. The EC should have been aware that its consultants were using the wrong metric to assess the viability of Boeing's large civil aircraft business when their ROA/WACC comparison showed that, *even with the alleged subsidies*, BCA's return on assets was, at 7 percent, less than the weighted average cost of capital, calculated at 9.4 percent.[897] Thus, the Whitelaw/ITR analysis leads to the absurd conclusion that, even with the alleged subsidies, BCA is a failed business, in which no rational investor would invest. This is a conclusion so fundamentally at odds with the reality of Boeing's unconstrained access to capital, BCA's full order books, and its healthy profits that it is entitled to no credence. The United States has attached as Exhibit US-1324 a fuller critique of Professor Whitelaw's framework for assessing the economic viability of Boeing's large commercial aircraft business prepared by Columbia Business School Professor Bruce C. Greenwald.[898] The Greenwald critique points to a host of fundamental errors in the Whitelaw paper upon which so much of the EC's adverse effects case now rests.

585. By shifting its central "but for the subsidies" causation claim from "Boeing *could not* have done what it did" to "Boeing would not have done what it did because it was not an economically viable thing to do," the EC has asked the Panel not only to take a close look at the economics of Boeing's large commercial aircraft business and the market for large commercial aircraft, an examination the United States welcomes. A close look demonstrates that the alleged subsidies did not have an effect on Boeing's pricing or its product development in the period covered by the EC allegations and, therefore, under the EC's two-step causation theory, could not have had any effect on Airbus prices.

586. The United States notes that this conclusion rests on the type of subsidies alleged by the EC and the nature of evidence and argument it has adduced in this proceeding. Other complaining parties facing different facts and using different legal theories might face a different outcome. For example, a complaining party might show that a subsidy was instrumental to the decision to launch a new aircraft, or that subsidies were given over time to develop a line of competitive aircraft because private sector funding was not available to the recipient. That would provide hard evidence to support an allegation that "but for" subsidies, a producer of large commercial aircraft would not have been able to develop its large civil aircraft product line as it did. But that is not the case the EC is making. Rather, the EC is arguing that "but for" the alleged subsidies, Boeing's 2004-2006 pricing and product development would have been materially different because Boeing's shareholders would have demanded a change. To sustain a claim of this sort, the complaining Member has the burden of proving by reference to evidence that the behavior of the allegedly subsidized company was not economically rational "but for" the alleged subsidies.

587. The EC has provided no such evidence. Given (1) the nature of most of the alleged subsidies at issue in this proceeding (*i.e.*, R&D subsidies that are untied to the development, production or sale of any aircraft), (2) the proof that Boeing's profitability benefited substantially from its 2004-2006 pricing and product development decisions, (3) the very basic flaws in the EC's analysis of how Boeing used the alleged subsidies (the Cabral Report)

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[897] ITR Economic Viability Report, Table 1(a) (Exhibit EC-1393).

[898] Greenwald Comments on Whitelaw Economic Viability Report (Exhibit US-1324).

and of the economic viability of Boeing's large commercial aircraft business (the latest Whitelaw/ITR reports), and (4) the absence of any credible evidence to support the myriad assumptions on which the Cabral Report is based or the conclusions the EC wants the Panel to draw from the Whitelaw/ITR analysis, the Panel should reject the EC's causation argument.

293. *The Panel understands the European Communities to argue (EC OS2, para. 117) that, based on The Boeing Company's consolidated statements of cash flows for the period 1989-2006 (presented in Exhibit EC-1333) and cash flow data (presented in Exhibit EC-1334), Boeing did not generate any available excess funds with which to replace the alleged subsidies and finance BCA's activities.*

(a) Please explain why the financial information presented in the above-referenced exhibits includes financial information pertaining to McDonnell Douglas. In particular, if the European Communities' causation arguments relate to the effects of the alleged subsidies on Boeing's commercial behaviour, and the evidence in question pertains to the question whether Boeing had the economic means to engage in the same commercial behaviour absent the alleged subsidies, what is the relevance of financial information regarding McDonnell Douglas?

(b) Does the European Communities suggest, at para. 115 of its OS2, that financial information contained in Boeing's consolidated statements of cash flows (namely, the net increases/(decreases) in Boeing's cash and cash equivalents) provides a more accurate picture of the "funds actually available from either BCA, or The Boeing Company as a whole, to replace the US subsidies at issue" than the financial information contained in Boeing's consolidated statements of operations (referred to at EC OS2, para. 114)? If so, please explain the relevance of the arguments made by the European Communities in its Second Written Submission (EC SWS, paras. 706-732) which are based on financial information contained in Boeing's statements of operations and balance sheet data. Which measure of financial results (operations, balance sheet or cash flows) for which entity (The Boeing Company and McDonnell Douglas together, The Boeing Company, or Boeing's BCA Division), is most pertinent to the Panel's assessment of whether there is a causal link between the alleged subsidies and Boeing's pricing and product development behaviour?

588. The United States refers the Panel to its comment on the EC's response to Question 292.

294. *At para. 116 of its OS2, the European Communities argues that, in order to "accurately determine whether The Boeing Company generated cash sufficient to offset the effect of removing the subsidies, the United States must start with the company' after-tax income." The Panel notes, however, that the financial information presented by the European Communities in Figure 4 of its SWS (para. 712) is on a before-tax basis. Please explain the apparent inconsistency.*

589. The United States refers the Panel to its comment on the EC's response to Question 292.

299. The Panel refers to the graph showing global large civil aircraft demand by total orders from 1970 to 2006 presented at para. 249 of the US Comments on EC RPQ1. Please explain the factors that account for the historically unprecedented increase in demand between 2004 and 2006 and how these factors should be taken into account by the Panel in assessing the European Communities' claims under paragraphs (a), (b) and (c) of Article 6.3?

590. The United States and the EC are in general agreement regarding the factors that explain the very high levels of demand during 2005 and 2006[899] – unprecedented demand from emerging markets, particularly those in Asia; market liberalization and deregulation; and high fuel costs that increased the need for airlines to replace older aircraft with new aircraft.[900] The parties also agree that strong demand does not necessarily prevent subsidies from causing adverse effects.[901] However, the United States disagrees, as it has throughout these proceedings, with the EC's efforts to blame *Boeing*, and by extension the alleged subsidies, for the fact that Airbus prices did not increase to a greater extent in 2005 and 2006.

591. The EC view is that, "although increased demand may, in theory, suggest less of an incentive to pass along subsidies to customers in the form of lower prices, Boeing overrode that natural economic consequence in its quest for market share."[902] The evidence does not support this view of events. Instead, the evidence shows that:

(i) Airbus' pricing during the 2001-2004 period enabled it to attain market share levels that were unprecedented in its history, while driving Boeing's market share to unprecedented lows.[903]

(ii) The effects of Airbus' aggressive pricing of high-volume/long delivery stream orders during the 2001-2004 period did not stop simply because demand began to increase. Customers continued to seek prices that would allow them to compete with low-priced Airbus aircraft that their competitors would be bringing into service for many years in the future.[904]

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[899] The United States recalls that the most recent downturn in large civil aircraft demand lasted from 2001 through 2004. US Comments on EC RPQ1, para. 244.

[900] *Compare* US RPQ2, para. 527, *with* EC RPQ2, para. 712.

[901] *Compare* US RPQ2, para. 528, *with* EC RPQ2, para. 715.

[902] EC RPQ2, para. 717; *see also id.*, para. 607 ("sharply increasing demand over an extended period, at levels that constantly exceed production capacities, could, all things being equal, reduce a producer's incentive to price aggressively. But in this case, the theory must yield to reality that Boeing's decision to increase market share by offering lower prices – beginning in 2004 and continuing through 2007 – gave the company a continued incentive to price aggressively . . . .").

[903] US SWS, HSBI Appendix, paras. 6, 30, 60-62.

[904] US SWS, HSBI Appendix, paras. 49-59; US OS2 (conf.), paras. 9-10; US RPQ2, paras. 529-532.

(iii) Boeing's dramatic loss of market share ushered in serious a profitability problems that compelled Boeing **[***]** irrespective of any alleged subsidies. Even so, this decision did not allow Boeing to regain all the market share it had lost to Airbus.[905]

(iv) This response by Boeing cannot be explained by the price effects causation theory that the EC bases on the Cabral Report.[906] Under that theory, Boeing's pricing is sensitive to cash flow, and the price effect of the alleged subsidies is "immediate and direct",[907] yet the **[***]** do not coincide with an increase in subsidy levels; in fact, these **[***]** coincide with a decrease in those levels.[908]

592. The EC also attempts to use pricing data to show a cause-and-effect relationship between the alleged subsidies and Airbus' prices.[909] In fact, those data *refute* the EC's allegations. To be sure, comparing indexed price points for corresponding Boeing and Airbus aircraft in a given year does not show which manufacturer was driving prices downward. However, comparing *trends* in indexed prices in light of other evidence shows that the EC's version of events is at odds with reality.

593. Consider pricing data for the 777 and A340. **[***]**,[910] and over that same period the 777 suffered a massive, 67-point market share loss to the A340 because, in the EC's own words, "Boeing could not compete on price."[911] Thus, even though the 777 enjoyed a multimillion dollar price premium over the fuel-inefficient A340,[912] **[***]**. That Boeing's 777 average prices **[***]**[913] By contrast, A340 prices – **[***]**[914] The data from 2004 to 2006, the period in which high fuel prices made the A340 difficult to sell at any price, is no more helpful to the EC: **[***]**[915] This pattern is completely at odds with the EC theory that the alleged subsidies "fueled" or "enabled" Boeing prices. If they did, **[***]**. Given these facts, there is no legitimate basis for inferring that the alleged subsidies affected Boeing's behavior, much less A340 prices.

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[905] US SWS, HSBI Appendix, paras. 6, 40-59, 60-62; US OS2 (conf.) para. 16.

[906] US SWS, HSBI Appendix, para. 40; US OS2 (conf.), para. 13.

[907] EC FWS, para. 1322.

[908] US FWS, paras. 1059-1060.

[909] EC RPQ2, paras. 717-718.

[910] Boeing 777 Average Order Revenue Chart (Constant Dollars) (Exhibit US-1164).

[911] EC SWS, HSBI Appendix, para. 166; US OS2 (conf.), para. 16.

[912] EC OS1 (conf.), para. 85.

[913] Boeing 777 Average Order Revenue Chart (Constant Dollars) (Exhibit US-1164).

[914] EC RPQ2, para. 785 (providing A340 average prices for the 2000-2006 period).

[915] *Compare* Boeing 777 Average Order Revenue Chart (Constant Dollars) (Exhibit US-1164), *with* EC RPQ2, para. 785 (providing A340 average prices for the 2000-2006 period); *see also* US RPQ2, paras. 535-536.

594. A similar conclusion applies to the EC's claims regarding the 737. The EC contends that Airbus' low A320 prices were not responsible for the 737's market share losses through 2004. Yet the **[***]**[916] Other data also show that Boeing had to come a long way to close the 737/A320 price. **[***]**[917] And, contrary to the EC's assertion that Boeing's 2005-2006 pricing reflected an economically irrational "quest for market share," Boeing did not **[***]** [918]

595. The EC's response to this question also attempts to characterize the 2001-2003 decrease in demand as a historical aberration.[919] To do this, the EC cites statements regarding the financial condition of the airline industry during that period, but it fails to address the evidence showing that, despite the poor financial state of some airlines, the 2001-2004 downturn in demand for large civil aircraft was indeed relatively shallow by historical standards.[920]

300. Both parties appear to consider that it is appropriate to assess causation pursuant to Article 6.3 through a "but for" test (EC FWS, para. 1062; US FWS, para. 710). Does the "but for" test proposed by each of the parties constitute a "standard" for causation under Article 6.3, or is it a framework or "methodology" for analysing whether there is a causal link between the alleged subsidies and serious prejudice (compare US FWS, para. 710 with EC Confidential OS2, para. 56)? What are the implications of applying the "but for" approach proposed by each party to situations where there are several causal factors, each of which is sufficient to cause the serious prejudice?

596. The United States and the EC agree that a "but for" test is a useful framework, but not an obligatory standard, for analyzing causation. Like any analytical framework for analyzing causation under Article 6.3 of the SCM Agreement, a "but for" test must address any non-attribution factors at issue to, in the words of the Appellate Body, "ensure that the effects of other factors on prices are not improperly attributed to the challenged subsidies."[921]

597. The EC declines to respond to the hypothetical posed by the Panel, and instead simply asserts that it has "assessed" other causal factors.[922] The United States shows in its comment on Question 287 that the EC did not properly analyze the other causal factors, and directs the Panel to that comment for a more thorough discussion.

301. Please comment on the following arguments: (i) there is no basis in the text of the SCM Agreement for the United States statement to the effect that it "requires" the

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[916] Boeing 737 Average Order Revenue Chart (Constant Dollars) (Exhibit US-1164); *see also* US OS2 (conf.), paras. 9-10.

[917] Boeing 737 Average Order Revenue Chart (Constant Dollars) (Exhibit US-1164); US Comments on EC RPQ1, para. 306 (see table).

[918] Boeing 737 Average Order Revenue Chart (Constant Dollars) (Exhibit US-1164); US Comments on EC RPQ1, para. 306 (see table).

[919] EC RPQ2, paras. 723-727.

[920] US Comment on EC RPQ1, paras. 249-250.

[921] *US – Upland Cotton (AB)*, para. 437.

[922] EC RPQ2, para. 731.

> *adoption of a "but for" methodology for determining causation between a subsidy and its alleged effect, and the Panel should not make any findings that would effectively preclude the use of other causation methodologies in other cases, including those involving the aircraft sector (Brazil, Third Party Written Submission, at para. 61); and (ii) the Panel's causation determination should not depend on whether the alleged subsidies can be traced through a subsidy recipient's cash flow statements (Brazil, Third Party Written Submission, at para. 66; Third Party Oral Statement, para. 19).*

598. The EC correctly notes that the parties agree that a "but for" test constitutes a permissible methodology for assessing the causation element of serious prejudice claims. The United States and the EC also agree that, "to the extent that there is direct evidence of expenditures of subsidies to research, develop, and produce LCA, this could be useful in assessing whether such subsidies cause present serious prejudice."[923]

599. Thus, the EC's recognition that the difference between the effects of subsidies that are tied to the development and production of large civil aircraft and those that are not is an admission the United States welcomes. It shows an acceptance by the EC of the basic thesis of Columbia University Professors Stiglitz and Greenwald on how the effects of subsidies differ depending on their nature.[924]

600. In its response to Question 301, the EC has tried to blur the line drawn by Professors Stiglitz and Greenwald by including "research" subsidies in the statement quoted above. If this means *subsidies for basic research untied to any particular large civil aircraft like those alleged to exist here*, then the EC misses the distinction observed by Professors Stiglitz and Greenwald between subsidies that are supply creating and those that are not.[925] Yet, even with this caveat, the EC's admission is a significant step in the right direction.

601. The United States also agrees with the EC that the absence of a direct link between subsidies and the development, production, or sale of large civil aircraft "should not be determinative of the outcome of the Panel's causation analysis."[926] At the same time, without a direct link between an alleged subsidy and the development, production, or sale of large civil aircraft, a complaining Member bears the burden of identifying persuasive evidence that the subsidy was used by the recipient in a way that caused the adverse effects at issue, or that, "but for" the subsidy, the recipient could not have competed in the market as it did.

602. Because the bulk of the alleged subsidies in this dispute are, by the EC's own admission, "untied"[927] to the development, production, or sale of any Boeing large civil

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[923] EC RPQ2, para. 735.

[924] US RPQ2, para. 501 (discussing Statement of Professors Joseph E. Stiglitz and Bruce C. Greenwald, On the Question of the Impact of Subsidies on Supply and Prices in the LCA Market (Jan. 21, 2008) (Exhibit US-1309)).

[925] US RPQ2, para. 501.

[926] EC RPQ2, para. 735.

[927] EC RPQ2, paras. 482-483.

aircraft, the evidence cited by the EC regarding the ways in which Boeing supposedly used the alleged subsidies is critical to its causation arguments. Yet, that "evidence" is essentially non-existent; it consists of a conceptually flawed theoretical model concocted by Professor Cabral that simply assumes its key conclusions to be true and the assertions that, without the alleged subsidies, Boeing *could not* have priced and developed its aircraft as it did, and, most recently, that it *would not* have priced and developed its aircraft as it did.

603. The EC's argument that Boeing "would not" have priced and developed its aircraft as it did is, in turn, predicated on assertions of fact for which the EC has offered no evidence at all. It asserts that it would have been more economically rational and would have put Boeing in a better position today, if the company had not **[***]** and had not developed the 787 as it did. Indeed, the evidence in the form of Boeing's improving financial performance disproves the EC's assertion, as the EC itself admits in its response to Question 290. Thus, *on the merits, the EC fails its own causation test as articulated in its response to Question 301*.

302. The Panel refers to paragraph 9 of Exhibit EC-1180 which presents a total "profit before taxes" figure of $17.484 billion for the "US LCA Industry" over the 1989-2006 period (on the basis of calculations set forth in Tables 1-3 therein). By contrast, the United States contends that over the same period, Boeing's BCA division made an aggregate "operating profit" of $22.3 billion (US, Comments to EC Response to Question 78 of the Panel's First Questions, para. 270).

(a) Are the discrepancies between these profit figures fully explained by: (i) the inclusion of earnings results of McDonnell Douglas' commercial airplanes division between 1989-1996 in the profit before taxes figures listed at para. 9 of Exhibit EC-1180; and (ii) adjustments for unallocated income and expenses of Boeing and McDonnell Douglas, respectively, as indicated in Table 3 of Exhibit EC-1180? If not, please explain the reasons for the discrepancy of approximately $4.816 billion in the aggregate profit before taxes figures cited by the parties.

(b) Which aggregate operating profit figure (i.e. the figure set forth in Exhibit EC-1180 or in Exhibit US-1226) is of most relevance to the Panel's assessment of the European Communities' arguments concerning the overall effect of the alleged subsidies on Boeing's long term commercial behaviour?

604. The U.S. comment on Question 292 explains that the adjustments the EC advocates to BCA's financial data are inconsistent with the facts, inconsistent with how a reasonable investor would evaluate BCA's performance, and are inconsistent with how Boeing actually makes investment decisions with regard to BCA.

C. PRICE SUPPRESSION

303. How does the European Communities respond to the United States' contention (US Comments on EC RPQ1, paras. 361-362) that, having conceded that Airbus' prices were affected by shifts in customer demand unrelated to Boeing's pricing or the alleged subsidies, the European Communities has simply assumed (but has failed to

show) that, but for the alleged subsidies, customers would have accepted Airbus price increases equal to the alleged subsidy magnitude?

605. The EC's response to Question 303 leaves no doubt that it cannot prove its assertion that, "but for" the alleged subsidies, Airbus large civil aircraft prices would be higher by the magnitude figures calculated by its consultants, ITR. Rather than address the Panel's question, the EC rebuts arguments that the United States has not made,[928] and repeats its irrelevant litany regarding Boeing's "ability, incentive, and opportunity" to use the alleged subsidies.[929] Nevertheless, the fact remains that the EC's arguments regarding Airbus' "but for" price levels are based on nothing more than the EC's unsubstantiated assumptions.

606. The core issue here pertains to the burden of proof. The EC contends that in the absence of the alleged subsidies, Boeing would increase its prices by the amount of the allocated per-plane subsidy magnitude, Airbus would increase its prices by the same amount, and customers would accept that state of affairs. As a proponent of these assertions, the EC bears the burden of proof, but it has presented no support, and provides none in response to this question.

607. Instead of addressing the question, the EC rebuts an argument that the United States has not made that "airlines would not 'accept' Airbus price increases in the amount of the subsidy magnitude."[930] The United States has focused on a different point, namely, that in a market affected by years of Airbus price undercutting, customers would not accept any higher prices *from Boeing* than what it was able to charge during the 2001-2006 period. On the separate question of whether airlines would have been willing to accept price increases *from Airbus* to the full extent of the alleged subsidy magnitude, the burden of proof is on the *EC*, not the United States. The EC fails to meet this burden because its evidence goes to a different point – whether *some* increase was possible. That may or may not be the case, but even if *some* increase were possible, that would not support the EC's assertion that in the absence of the alleged subsidies, Airbus would have realized an across-the-board price increase *equal to the amount of the alleged subsidy magnitude*.[931] Two portions of the EC this question make abundantly clear that the EC cannot prove the latter proposition.

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[928] *Compare* EC RPQ2, para. 760 ("In the passage referred to by the Panel, the United States contends, without pointing to any evidence, that even if the US subsidies had an effect on Airbus prices, customers would not be willing to accept price increases equal to the alleged subsidy magnitude."), and para. 764 ("the US argument that airlines would not 'accept' Airbus price increases in the amount of the subsidy magnitude . . . ."), *with* US Comments on EC RPQ1, para. 361 ("Having conceded that Airbus' prices were affected by shifts in customer demand unrelated to Boeing's pricing or the alleged subsidies, the EC does not show that, ***but for*** the alleged subsidies, customers would have accepted Airbus price increases equal to the alleged subsidy magnitude. Rather, the EC simply *assumes* they would.").

[929] EC RPQ2, paras. 757-758.

[930] EC RPQ2, para. 764.

[931] *Cf.* EC RPQ2, para. 761 ("The evidence demonstrates that, even if prices were to increase, airlines would still order aircraft."); para. 762 ("even if LCA prices were significantly higher, in light of the increase in demand for air travel, airlines would continue to order LCA"); para. 763 ("That customers would 'accept' higher prices than those ultimately secured is also confirmed by the sales campaign evidence.").

608. First, the EC quotes a U.S. submission in another WTO case involving large civil aircraft to show that the price elasticity of demand for large civil aircraft is "most likely rather small."[932] This is true, but it does not support the EC's argument. Boeing would necessarily be able to pass the full amount of the alleged per-plane subsidy magnitude on to customers only if demand for large civil aircraft were *perfectly inelastic*. The EC's argument implicitly assumes, but never proves, this point.

609. Second, the EC's assertion that higher jet fuel prices "have not had a significant negative impact" on demand for Airbus' aircraft is one that Airbus' parent company, EADS, contradicts in its 2006 annual report: "the A340 suffered from its lack of fuel efficiency as a four engine aircraft."[933] Nevertheless, showing that large civil aircraft demand has, for the time being, remained strong despite high fuel prices is a far cry from showing that airlines could accept both the burden of high fuel prices *and* price increases from Airbus "equal to the alleged subsidy magnitude."

610. Lastly, the United States recalls that the precise question before the Panel in this context is a two-part inquiry: first, whether, "but for" the alleged subsidies, Boeing could have or would have priced its aircraft as it did, and, if not, second, whether Airbus' prices would have risen by the amount of the alleged subsidies.[934] Because the answer to the first part of this question is "yes," the second question becomes moot. That said, Airbus is also mistaken in assuming that an increase in Boeing's, prices would leave Airbus' customers "no other choice but to accept **[***]** prices."[935] In fact, as the A340/777 data show, **[***]** A340.

304. Does the European Communities agree with the United States' argument (US Comments on EC RPQ1, para. 363) that, once it is accepted that Boeing may contribute its own funds to invest in lower pricing, and based on an arguendo acceptance of the analysis represented in Figures 31, 32, 47, 48, 62 and 63 of the European Communities' First Written Submission, the appropriate measure of Airbus' LCA prices absent the subsidies is not the alleged subsidy magnitude, but the amount of the alleged subsidies that filled the gap in Boeing's available funds?

611. The EC relies on its contention that The Boeing Company *would not* provide funds to BCA to "invest in lower pricing" because:

> the company's stated goal is to provide a return to shareholders and increase from value. Consequently, The Boeing Company would simply not, over an 18-year period, scrap together any and all cash it can put its hands on to retain an economically non-viable business – *i.e.*, BCA – at the expense of significantly reducing or even eliminating its return to shareholders. The

[932] EC RPQ2, para. 761.

[933] EADS 2006 Annual Report, p. 36 (Exhibit US-1182).

[934] EC RPQ2, para. 363.

[935] EC RPQ2, para. 764.

United States' 'available funds' theory is therefore entirely inconsistent with Boeing's stated goal of maximizing profits.[936]

612. The United States refers the Panel to its comment on the EC's response to Question 292, which addresses the EC's "non-viability" argument in detail. With regard to the specific pricing allegations referred to in Question 304, it is worth noting that Boeing's 2004-2006 data show that the pricing that the EC claims was the cause of serious prejudice occurred during a period when Boeing's financial performance was improving significantly. There is no doubt that those particular prices have generated profits that were more than sufficient to justify "investment" by The Boeing Company.

305. Please provide a more detailed explanation of the European Communities' conclusion (EC RPQ1, para. 528) that the alleged subsidies have a "corresponding one-for-one price effect on the corresponding Airbus aircraft". Does the European Communities agree that the counterfactual illustrations of the pricing of the various Airbus LCA referred to in Question 97 depend on the "assumption" at para. 526 of the European Communities' Response to Question 97 of the Panel's First Questions, that "the price effect on Boeing's aircraft translates one-for-one into a price effect on Airbus' aircraft."?

613. The EC's response to this question uses the term "Boeing's subsidy-enabled prices"[937] to blur a critical distinction. Whether Boeing's prices have a one-for-one effect on Airbus' prices is a very different question from whether, and if so, to what extent, the alleged subsidies affect Boeing's prices. The United States considers both questions in turn.

614. The effects, whether one-to-one or otherwise, of Boeing's prices on those of Airbus, and *vice versa*, must be determined by reference to the evidence. As **[***]** illustrates, one manufacturer's offer of low prices will often affect the pricing of the other manufacturer, both in the context of a particular sales campaign as well as across the market.[938] However, as the **[***]** pricing trends for the A340 and 777 during the 2004-2006 period show, **[***]**.[939]

615. Nevertheless, because each manufacturer has the "market power" to potentially affect the other's prices, the EC's allegations regarding Boeing's 2004-2006 pricing raise a question of cause and effect, namely, to determine which manufacturer was leading prices downward. In its response to Question 303, the EC repeats its assertions regarding the effect of **[***]**[940] failing to mention that Airbus' aggressive pricing and consequent market share gains **[***]**.[941]

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[936] EC RPQ2, para. 770.

[937] EC RPQ2, para. 778; *see also id.*, paras. 774, 780.

[938] US SWS, HSBI Appendix, paras. 44-59; US OS2 (conf.), paras. 9-10; US RPQ2, paras. 529-532.

[939] US Comments on EC RPQ2, Question 299, *supra*.

[940] EC RPQ2, para. 779.

[941] US SWS, HSBI Appendix, paras. 6, 40-59, 60-62; US OS2 (conf.) para. 16.

616. The evidence does not support the EC assertion that the alleged subsidies explain market developments.[942] If the alleged subsidies "enabled" aggressive pricing, Boeing would not have sustained the market share losses it did **[***]**. Instead, the EC's version of events begins with a spontaneous Boeing decision "to **[***]**[943] This echoes the EC's earlier statement that, in 2004, Boeing "suddenly decided to use more of the cash available from the US subsidies to change its pricing strategy with respect to the 737NG."[944] The EC would have the Panel believe that, after losing key accounts and significant market share, Boeing, in 2004 and 2005, suddenly remembered that, for many years, it had been receiving vast quantities of government cash it could use to lower prices and gain market share. This is not a credible story. If the alleged subsidies had the profound effect on Boeing's competitiveness that the EC depicts, it would not have performed so much worse than Airbus did during the 2001-2004 market trough.

617. As for the EC's assertion that Boeing's decided to offer "low" 787 prices that caused Airbus to **[***]** the United States has two observations. First, it is difficult to see how 787 prices could be considered "low" when the evidence shows that the market would not accept any higher price for the 787,[945] and the 787 pricing in specific campaigns has always been **[***]**[946] Second, the United States notes that, while the EC claims that A350 XWB-800 prices have been suppressed, the EC has provided no evidence whatsoever to demonstrate this.[947]

618. As for the "counter-factual" graphs referenced in this question, the United States recalls its comment on the EC's response to Question 303, which demonstrates that these graphs do indeed reflect the EC's unsubstantiated assumption that, but for the alleged subsidies, Airbus' prices would be higher by the magnitude of the alleged subsidies.

619. Lastly, the United States observes that, in its response to Question 305, the EC's only attempt to provide evidence of a "one-for-one" link between the alleged subsidies and Airbus' prices consists of yet another reference to an Airbus executive's description of a sales campaign at GECAS, a U.S. leasing company, [***].[948] [Considering the EC's long-standing insistence that adverse effects can only be assessed by reference to data from 2004-2006, it is curious that the EC would refer again and again to a campaign from 1996. Nevertheless, it is worth examining what Airbus executive Christian Scherer said about this campaign:

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[942] US Comments on EC RPQ2, Question 299 (showing that [***]); Question 291 (showing that Boeing had a compelling economic incentive, irrespective of the alleged subsidies, [***]); Question 292 (showing that, but for the total amount of subsidies alleged by the EC, BCA could have, and would have, priced and developed its aircraft exactly as it did), *supra*.

[943] EC RPQ2, para 779.

[944] EC OS1 (conf.), para. 53; *see also* US SWS, HSBI Appendix, para. 40 (noting that this statement is inconsistent with the EC's price effects causation theory).

[945] US SWS, HSBI Appendix, paras. 20-23.

[946] US SWS, HSBI Appendix, paras. 24-26.

[947] *Cf.* EC RPQ2, para. 779 n. 899 (citing EC SWS, HSBI Appendix, paras. 61-65, which pertain only to the A330 and A350 Original).

[948] EC RPQ2, para. 778.

[***][949]

620. In this statement, Mr. Scherer does not explicitly say that GECAS [***] Nor does this statement prove that Boeing [***] Finally, nowhere does Mr. Scherer or the EC explain how [***]

621. Even if Mr. Scherer's limited experience accurately represented the effect of the FSC program over the period covered by EC allegations, it is difficult to see how that could support a general conclusion about the alleged subsidies. The EC itself emphasizes that tax measures like FSC operate differently from the research programs that form the bulk of the value of the EC's subsidy allegations. Therefore, the EC's one-for-one theory remains unsupported.

306. The European Communities argues that an examination of prices for A330 LCA, A320 family LCA and A340 family LCA in relation to demand for, respectively, 200-300 seat wide-body LCA, 100-200 seat single-aisle LCA and 300-400 seat wide-body LCA, demonstrates that something pressed down the relevant prices in the reference period (EC FWS, paras. 1389, 1495 and 1593). Yet the diagrams presented at Figures 30, 46 and 61 of the European Communities' First Written Statement show orders for the relevant Airbus family LCA relative to their prices. Does the European Communities suggest that demand for, respectively, 200-300 seat wide-body LCA, 100-200 seat single-aisle LCA and 300-400 seat wide-body LCA is measured by reference to orders for the relevant Airbus family LCA in each product market?

622. The United States refers the Panel to its comment on the EC's response to Question 299, which shows that the pricing data on the record undermines, rather than supports, the EC's claims that the alleged subsidies affected Boeing's or Airbus' aircraft prices during the 2004-2006 period.

307. At para. 242 of its response to Question 95, the United States points to what it considers to be a contradiction between the significant role attributed by Prof. Cabral to switching costs and the European Communities' reliance upon a statement (EC Confidential OS1, para. 59) that switching costs are "not such a big deal". How does the European Communities respond?

623. The EC's response to this question tries but fails to reconcile the contradiction between its statement that switching costs are "not such a big deal" with the central role that Professor Cabral gives switching costs in his model:

> As explained in the European Communities' response to Question 81, although switching costs are *generally* taken into account during a sales campaign, they are but one of the many considerations that are taken into account during a fleet purchase decision.[950]

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[949] Declaration by Christian Scherer, para. 56 (Exhibit EC-11) (BCI).

[950] EC RPQ2, para. 791.

624. The Panel will, however, recall that under Professor Cabral's model, the dollar value of alleged subsidies is always used by Boeing as follows: 15 percent is returned to Boeing's shareholders in dividends and share repurchases; 12 percent is used to lower prices to take advantage of learning curve efficiencies of "new version" aircraft (defined as aircraft with less than 100 units of cumulative production);[951] 26 percent is invested in research and development; and the remaining 47 percent is used to lock in a switching cost advantage for future sales.[952] In other words, of the $16.9 billion in alleged non-recurring subsidies to Boeing during the 1989-2006 period, Professor Cabral "estimates" that $7.94 billion were invested in what the EC refers to as "aggressive pricing" motivated by switching cost considerations. It is indeed impossible to reconcile these facts with the assertion that switching costs are "not such a big deal," and the EC's attempts at explanation do nothing to resolve the inconsistency.

625. The EC also fails to mention that switching costs are the *only* rationale Professor Cabral provides for "aggressive pricing" of "mature aircraft" – the 737 and 777.[953] Considering the centrality of the EC's "aggressive pricing" allegations to its 737 and 777 claims, this is a significant discrepancy. Thus, for the EC to say now that "switching costs do not play a significant role in the outcome of Professor Cabral's model"[954] makes a mockery of Professor Cabral's model.

626. The EC attempts to validate its "no big deal" statement by noting that when it runs the Cabral model with switching costs set to zero, the results do not change substantially.[955] However, this exercise just provides further evidence that the model is biased.

627. The Cabral model is structured in a way that will *always* allocate 15 percent of the alleged subsidies to returns to shareholders and *always* allocate the remaining 85 percent to investment in the future that leads to lower prices for one reason or another.[956] Thus, to the extent Professor Cabral has overstated the switching cost pricing incentive, the structure of the model simply pushes the estimated price impact of the subsidies to price reductions for learning curve reasons or price reductions associated with R&D.

628. From its very first comments on the Cabral Report, the United States has maintained that Professor Cabral's modeling exercise assumes all of its key conclusions. The EC's response to this question proves the U.S. point, as does its response to Question 308, discussed below.

308. In its response to Question 98, the European Communities showed that the distribution among the three types of investment changes when the "switching cost

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[951] Cabral Report, para. 61 (Exhibit EC-4).

[952] Cabral Report, para. 50, Table 3 (Exhibit EC-4).

[953] US RPQ1, para. 245.

[954] EC RPQ2, para. 789.

[955] EC RPQ2, para. 788.

[956] Cabral Report, para. 48 (Exhibit EC-4).

> *discount" declines. Based on the model and the simulations presented in the Cabral Report, would the distribution of price effects across types of aircraft be affected by a decline in the switching cost discount? If so, how?*

629. In its response to this question, the EC admits to one of the structural defects in Professor Cabral's model discussed above in the U.S. comment on the EC's response to Question 307:

> The primary impact of reducing the switching cost discount is an increase in the percentage of the subsidies invested in research and development ("R&D") and learning curve aggressive pricing.[957]

630. As the United States has explained, this is so because of the core assumption of Professor Cabral's work. First, Professor Cabral stipulates that Boeing *always* splits its available cash flow between two applications – (1) payments to shareholders, and (2) investment in the future – in a constant 15/85 ratio. Second, Professor Cabral stipulates that Boeing has only three investment options – (1) investment in lower pricing for switching cost reasons, (2) investment in lower pricing for learning curve reasons, and (3) investment in R&D that leads to lower prices. The Cabral Report assumes away the possibility that Boeing might invest in anything (*e.g.*, an acquisition) that does not lead to lower prices. As Professor Greenwald of Columbia University comments on the Cabral Report, this rigidity is one of the reasons Professor Cabral chose to build his model around the "Cobb-Douglas function," and why the model simply assumes key conclusions it purports to prove, and why the model bears no colorable relationship to the way in which Boeing (or, for that matter, any company that responds to market conditions and investment opportunities as they change) makes its investment decisions.[958]

631. The central flaw in this model is exacerbated by the method Prof. Cabral uses to assign price effects to particular Boeing models. In its response to this question, the EC states:

> As the price effects are calculated in the aggregate on an annual basis and allocated to models based on the number of seats, the *distribution* of price effects across types of aircraft will not be affected by a decline in the switching cost discount and the resulting change in the aggregate price effects.[959]

The EC goes on to state that a decline in the switching cost discount shifts investment "to R&D and 'learning curve' investments . . . both of which are applied to *all* aircraft in the 2004-2006 period."[960] Thus, regardless of the fact that "learning curve" investments are, by

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[957] EC RPQ2, para. 794.

[958] US FWS, paras 842 and 844.

[959] EC RPQ2, para. 793.

[960] EC RPQ2, para. 794.

Professor Cabral's definition, inapplicable to the 737 and 777,[961] Professor Cabral allocates "learning curve" price effects to those models anyway. This conclusion has no grounding in the facts or sound economic reasoning, and invalidates the EC responses to Questions 307 and 308.

309. Both parties appear to agree that pricing in the LCA market results from the interaction of supply and demand (EC SWS, para. 655; US Comments on EC RPQ1, para. 360). Do the parties consider that Airbus and Boeing each exercise a degree of market power? If so, please explain the nature of that market power (e.g. a monopolist's power to raise price by restricting output), and how it affects pricing in the LCA market. How is the parties' position that prices of LCA are determined by the interaction of supply and demand affected by (i) the degree and nature of market power, if any, exercised by each of Airbus and Boeing; and (ii) the strategic nature of competition between Airbus and Boeing?

632. The United States agrees with the EC's general statement in its response to Question 309 that Boeing and Airbus each have the potential to exercise "an important degree of market power."[962] That said, the United States recalls its response to Question 309, wherein it showed that Boeing and Airbus have each exercised their market power differently during the 2001-2006 period, "reflecting both their particular priorities and their different assessments of customer demand."[963] The EC's response to Question 309 illustrates how Airbus' use of its market power during the 2001-2004 period – in keeping production rates virtually constant and using low prices to switch Boeing aircraft operators to Airbus – resulted in the price suppression that the EC wrongly attributes to the alleged subsidies.

633. The EC admits that,

> Airbus' or Boeing's ability to influence LCA pricing (market power) is impacted by the commercial decisions of its duopoly competitor to either expand or contract production and production capacity. *These have corresponding effects on market prices*.[964]

The EC also admits that the effects of one manufacturer's pricing behavior can affect prices throughout the market, even in what the EC labels as "non-competitive campaigns."[965]

634. During the industry downturn that began in 2001, Boeing and Airbus exercised their market power differently, in ways that, as noted, reflect their particular priorities. Airbus

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[961] US RPQ1, para. 245.

[962] EC RPQ2, para. 800.

[963] US RPQ2, para. 554.

[964] EC RPQ2, para. 802 (emphasis added).

[965] EC RPQ2, para. 812. The United States does not accept the validity of the distinction the EC makes between what it labels as "competitive" and "non-competitive" campaigns, or that the EC has correctly identified certain campaigns as having lower levels of competition.

executive Christian Scherer explains that, when the downturn occurred, "in contrast to our competitor, we managed not to *decrease* production capacity."[966] Mr. Scherer elaborates: "Airbus' objective during that time was not to win market share *per se*. Our objective was to maintain production, output, and the level of activity as stable as possible."[967]

635. Of course, if Airbus wanted to "maintain production" during the downturn, it was not enough to produce the aircraft already it its order backlog. Rather, Airbus had to secure new orders, as Mr. Scherer explains: "Airbus and Boeing were ready and able to supply aircraft with near-term delivery slots as existing customers vanished through bankruptcy or had to delay orders to avoid just that."[968] The evidence shows that the source for Airbus' new orders was, in large part, existing Boeing customers that, [***] Thus, in a market in which prices were already under pressure from the drop in demand, Airbus' exercise of market power had a two-fold effect on prices: first, by supplying the market at pre-downturn volume levels and, second, by pricing aggressively at key Boeing accounts. Given its unwillingness to decrease production regardless of demand conditions, Airbus' only outlet for its production was to pursue Boeing customers as it did.

636. On the upside for Airbus, its use of market power achieved its goal of avoiding a decrease in production capacity, and increased its market share at Boeing's expense. On the downside, however, Airbus prices were lower throughout the 2001-2006 period than they would have been had Airbus exercised its market power as Boeing did. As the EC recognizes, one manufacturer's pricing behavior can affect prices throughout the market,[969] and this effect is not confined to the year in which an order occurred, as the delivery stream from a large civil aircraft order typically extends several years into the future. Indeed, the campaign-specific evidence illustrates very clearly the longer-term effects that Airbus' pricing had as demand increased in 2005 and 2006,[970] effects that the EC would have the Panel attribute to the alleged subsidies.

637. The EC's answer to this question lists several factors that in its view determine the market power available to Boeing and Airbus: "supply and production capacity"; "variations in demand"; and "characteristics of particular sales campaigns."[971] As discussed above, Airbus' "supply and production capacity" decisions suppressed not only the prices Boeing could obtain, but also those Airbus could obtain as demand returned.

638. With respect to "variations in demand," the EC cites the 2002 Ryanair campaign as an instance in which Boeing and Airbus were largely "price takers" as a result of the low market

[966] Second Declaration by Christian Scherer, para. 4. As a matter of simple mathematics, the only way for Airbus to achieve these objectives in a declining market was to increase its market share.

[967] Second Declaration by Christian Scherer, para. 5.

[968] Second Declaration by Christian Scherer, para. 3.

[969] EC RPQ2, para. 812.

[970] US SWS, HSBI Appendix, paras. 49-59; US OS2 (conf.), paras. 9-10; US RPQ2, paras. 529-532.

[971] EC RPQ2, paras. 800, 801, 806, 808.

demand that prevailed as the campaign drew to its end.[972] Here, the EC fails to mention how [***][973]

639. As for "characteristics of particular sales campaigns," the EC again makes a false distinction between what it calls "competitive" and "non-competitive" campaigns. This alleged dichotomy ignores its expert's opinion that customers seek to create a competitive environment even where only one manufacturer participates in a formal sales campaign,[974] as well as the EC's admission that a manufacturer's pricing can have market-wide effects, even in supposedly "non-competitive" campaigns.[975]

640. Finally, the EC asserts that the alleged subsidies work against the backdrop of the these factors to "increase Boeing's market power vis-à-vis Airbus."[976] Considering the EC's repeated failures – most recently in its response to Question 292 – to show that the alleged subsidies had any effect on Boeing's pricing, there is no basis for concluding that the alleged subsidies had any effect on Boeing's market power.

D. THREAT OF SERIOUS PREJUDICE

310. The Panel notes the European Communities' response to Question 103 of the Panel's First Questions, that, even if the Panel were to find that "presently committed amounts destined to be disbursed or foregone in the future" were not relevant to the Panel's assessment of present serious prejudice, "the Panel would still have to assess the evidence with respect to its threat of serious prejudice assessment." In referring to "presently committed amounts destined to be disbursed or foregone in the future" does the European Communities mean the alleged subsidy magnitudes set forth in Tables 36 and 37, 53 and 54 and 69 and 70, with regard to the 787, 737 and 777, respectively? If not, please indicate the nature, source and amount of the "presently committed amounts destined to be disbursed or foregone in the future" with respect to each of the 787, 737 and 777 that the European Communities would argue should be considered as part of the Panel's assessment of threat of serious prejudice.

641. The only U.S. comment to the EC's response to Question 310 is to note that (1) the EC's claims of threat of serious prejudice remain premised on its "present" serious prejudice theories of causation, which are unsupported by the evidence, and (2) the alleged future subsidy magnitude figures referred to in the EC's response to this question are, like the magnitude calculations for the 1989-2006 period, based on calculations and allocations of the total alleged subsidy amount that bear no relationship to the evidence. If the EC's serious prejudice claims fail, as they should, then its threat of serious prejudice claims should fail as well.

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[972] EC RPQ2, paras. 806-807.

[973] US FWS, U.S. Campaign Annex, paras. 82-91.

[974] Statement of Rod Muddle, paras. 43-45 (Exhibit EC-10).

[975] EC RPQ2, para. 812.

[976] EC RPQ2, para. 809.

311. Does the European Communities suggest that the period 2007 to 2010 is an appropriate period over which to assess the existence of a threat of serious prejudice in this dispute? What is the relevance to the European Communities present serious prejudice claims, or threat of serious prejudice claims, of ITR's magnitude calculations (Table 4 of Exhibit 13) for the years 2011 to 2024?

642. In its response to this question, the EC repeats an argument that is without textual support in the SCM Agreement, namely, that a threat of serious prejudice within the meaning of Part III of the SCM Agreement need not be "imminent" or flow from a "change in circumstances." On this point, the United States refers the Panel to relevant portions of its prior submissions.[977] The remainder of the EC's response to Question 311 is relevant only in terms of the five factors that it urges the Panel to consider in assessing its threat claims.[978]

643. First, the EC correctly states that the Panel should consider the nature of the alleged subsidies.[979] The evidence shows that the alleged R&D subsidies do not provide the cash flow benefit asserted by the EC, and even if they did, they would be "untied", as the EC puts it, to the development, production, or sale of the 787, 737, or 777. As for the Washington State tax measures, there remains no evidence of the EC's alleged "dollar-for-dollar" price effect.

644. Second, the EC asks the Panel to consider the alleged subsidy magnitude in its assessment of threat.[980] Notably, the total alleged future subsidy amount is roughly one-fifth of the total alleged for the 1989-2006 period.[981] Considering the demonstration in the U.S. comment on the EC's response to Question 292 that BCA would have been a viable, value-creating business "but for" the total alleged subsidy amount for 1989-2006, there can be no serious argument that the far smaller alleged subsidy amount for 2007-2024 would affect Boeing's large civil aircraft development or pricing.

645. Third, the EC refers the Panel to "conditions of competition prevailing in the respective LCA markets."[982] These conditions promise a bright future for Airbus. The A320 has shown no sign of relinquishing the market share edge that it gained over the 737 in the 2001-2006 period.[983] As for the rest of its product line, Airbus has overcome the downside consequences wrought by its strategic decisions to develop the huge A380 (rather than a highly-efficient mid-size aircraft) and four-engine A340-500/-600 (rather than a large two engine aircraft). This is an impressive recovery. The A380 recently entered commercial service. Meanwhile, Airbus has, since mid-2006, been receiving large orders for the A350

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[977] US RPQ1, paras. 363-365; US RPQ2, paras. 557-564.

[978] EC RPQ2, para. 820.

[979] EC RPQ2, para. 820.

[980] EC RPQ2, para. 820.

[981] ITR Magnitude Report, Appendix A, page 2 (Exhibit EC-13).

[982] EC RPQ2, para. 820.

[983] US RPQ2, paras. 529-530; US Comments on EC RPQ1, para. 306.

XWB-800, which "matches the 787 offering from Boeing,"[984] and for the A350 XWB-900/-1000, which now competes against the much older 777.[985]

646. Fourth, the EC cites the "estimated" price effects it alleges on the basis of the Cabral Report.[986] Given the profound flaws of the Cabral model, these price effects are not credible "estimates," much less evidence, of anything.

647. Fifth, and finally, the EC points to "the contractually binding nature of LCA orders, resulting in ascertainable future deliveries."[987] This attempt to link the past (orders) with the future (deliveries) should remind the Panel that the EC's threat of serious prejudice claims depend overwhelmingly on its ability to demonstrate that the alleged subsidies have had price or technology effects in the past. The EC has not done so, something made clear by its recent failed attempt to show that BCA would not have been economically viable without the alleged subsidies.[988]

314. To what extent is the standard for determining threat of material injury in Article 15.7 relevant to a determination of threat of serious prejudice under Article 5? Specifically, must a "threat of serious prejudice" arise from a "change in circumstances" which is "clearly foreseen and imminent"?

648. The United States has demonstrated that the ordinary meaning of the term "threat of serious prejudice" as used in Article 5 is that there must be a clearly foreseen change in circumstances that will lead to the imminent occurrence of one of the factors of serious prejudice listed in Article 6.3.[989] The United States has identified Article 15.7 as context that confirms this interpretation.

649. The EC seeks to impose a different meaning on the phrase "threat of serious prejudice," namely, that it exists if there is a "significant likelihood of future serious prejudice."[990] The EC provides no grounding for this interpretation in the ordinary meaning of the term, in its context, or in the light of the object and purpose of the SCM Agreement.

650. Instead, the EC seeks to minimize the significance of the contextual support that Article 15.7 provides for the U.S. understanding of the term "threat." The EC begins by arguing that Article 15.7 is not relevant because there are explicit linkages between Parts III

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[984] Vitoria Moore, *Emirates' Clark outlines A350 XWB and 787 concerns*, Flightglobal.com (Oct. 22, 2007) (Exhibit US-1175). In November 2007, Emirates gave Airbus its "largest ever order in terms of value": 70 A350 XWBs and 11 additional A380s. Airbus Press Release, *Airbus ends the 10th Dubai Airshow with record orders* (Nov. 14, 2007) (Exhibit US-1198).

[985] EC FWS, para. 1162.

[986] EC RPQ2, para. 820.

[987] EC RPQ2, para. 820.

[988] US Comments on EC RPQ2, Question 292, *supra*.

[989] US FWS, para. 912.

[990] EC RPQ2, para. 831.

and V of the SCM Agreement, but none directly to Article 15.7.[991] Although an explicit linkage between two provisions in a treaty certainly establishes that one provision is significant in interpreting the other, the EC cites nothing in the customary rules of public international law for the interpretation of treaties that would downgrade every other provision from providing context.[992]

651. The EC also notes, correctly, that Parts III and V serve different purposes, and deal with proceedings in different forums. That is why they fall in different "parts" of the SCM Agreement. That does not, however, support the EC view that provisions in one part have no relevance in interpreting provisions in another. In fact, the Appellate Body took the opposite approach in *Canada – Aircraft*, using Article 14 (in Part V) to inform its understanding of the concept of "benefit" for purposes of Article 1.1(b).

652. The EC also attempts to find support for its view about the "threat" standard in the statement from *US – Upland Cotton* that a "combination" of serious prejudice and threat of serious prejudice may "trigger" the remedies under Article 7.[993] The critical point is that this statement was *obiter dicta* for the *Upland Cotton* panel and, accordingly, entitled to limited weight.

653. Thus, the EC has provided no legal authority to support the "significant likelihood" standard that it seeks to impose on this proceeding. In fact, all of the authorities point in a in a different direction, to a standard providing that threat of serious prejudice exists when there is a clearly foreseen change that will lead to an imminent occurrence of one of the serious prejudice provisions.

E. 1992 AGREEMENT

315. Please respond to the US argument (US RPQ1, paras 212-213) that:

> *"... the 1992 agreement explicitly refers to its relationship to the SCM Agreement by stating unequivocally that its terms are "without prejudice" to those of the GATT and any agreements negotiated under its auspices. The EC nowhere explains how, despite this clear treaty language, it considers that the 1992 agreement can nevertheless affect the scope of what is "serious prejudice" under the SCM Agreement."*

654. The EC, in its response to Question 62 of this Panel, suggested that the provisions of the 1992 Agreement between the United States and the EC while "not expressly address{ing}

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[991] EC RPQ2, para. 826.

[992] The EC also asserts that a threat of material injury finding "must be based on an anticipated surge of imports." EC RPQ2, para. 832. In fact, Article 15.7 provides that "a significant rate of increase of subsidized imports into the domestic market indicating the likelihood of substantially increased importation" is a factor that "the investigating authorities *should* consider." (emphasis added). Moreover, it is one factor in list followed by the caveat that "{n}o one of these factors by itself can necessarily give decisive guidance." Thus, the EC is wrong to contend that a threat of material injury finding requires "an anticipated surge."

[993] EC RPQ2, para. 833.

the question of whether or not Article 6.3 of the SCM Agreement exhausts Article 5(c)"[994] and while not in any way referring to those provisions or to the concept of "serious prejudice"[995] could nevertheless affect the scope of what is "serious prejudice" under those provisions of the SCM Agreement.

655. The only argument that the EC has put forward as to why this would be the case is that "the 1992 Agreement does expressly state that it is enacted in pursuit of the Parties {*i.e.*, the US and the EC's} "common goal."[996] The EC then – conveniently – adds "or interest".[997]

656. The United States has already indicated that the mere fact that something is an "interest" does not make it relevant for a determination of serious prejudice. The Appellate Body in *Mexico – Taxes on Soft Drinks* concluded that it would not be appropriate to assess WTO Members' compliance with non-covered agreements in the context of WTO dispute settlement; that result, however, is precisely what the EC's approach would lead to.[998] Indeed, the EC's approach would allow every agreement entered into by a subset of Members to be a source of substantive law for purposes of Article 5(c) of the SCM Agreement. Moreover, the United States pointed out that there is, in fact, an express reference in the 1992 Agreement dealing with its relation to the SCM Agreement, namely an unequivocal statement that its terms are "without prejudice" to those of the GATT and any agreements negotiated under its auspices.[999]

657. In its response to the Panel's question concerning that last issue, the EC now posits three arguments as to why it believes no legal value should be attached to the expressly agreed language in the 1992 Agreement. None succeeds.

658. First, the EC argues that the recitals of an agreement "do not contain operative provisions but simply recall the circumstances in which the agreement is concluded". Thus, the EC asserts that "without prejudice" reflects the parties' understanding that the 1992 Agreement was in line with {the parties'} multilateral obligations undertaken in the multilateral context." That, however, is not what the 1992 Agreement says when it explicitly states that it is "without prejudice to {the} rights and obligations under the GATT and under other multilateral agreements negotiated under the auspices of the GATT." It is clear from a plain reading of that language that the parties to the 1992 Agreement in fact intended, unequivocally, to preserve their rights to continue to apply agreements such as the SCM Agreement without the 1992 Agreement in any way impacting their rights and obligations under such other agreements. The EC provides no basis for its argument that this unequivocal provision should somehow be devoid of legal significance and be read out of the agreement. Moreover, it is hard to reconcile the EC's position that the "without prejudice"

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[994] EC RPQ1, para. 215.

[995] EC RPQ1, para. 218.

[996] EC RPQ1, para. 215.

[997] EC RPQ1, para. 215.

[998] *See also* US Comments on EC RPQ1, para. 213; US RPQ1, paras. 182-83.

[999] US RPQ1, paras. 212-213.

language in the Agreement's preamble would be "inoperative" with the EC's express reliance on the penultimate recital of that same preamble. The EC relies on the penultimate recital of the preamble, that the 1992 Agreement is enacted "in pursuit of the Parties "common goal" or interest," for the proposition that the 1992 Agreement would somehow inform the interpretation of the SCM Agreement.[1000]

659. Second, the EC argues that when the 1992 Agreement was concluded, "the fifth recital referred to the 1979 Tokyo Subsidies Code" and that the parties "did not take any express view on the relationship between the 1992 Agreement and any future agreement to be concluded under the auspices of the WTO." However, the SCM Agreement was concluded under the auspices of the GATT and therefore explicitly covered by the preamble language expressly agreed by the United States and the EC.

660. Finally, the EC argues that "{s}ince the parties continued to apply the 1992 Agreement after the entry into force of the SCM Agreement in 1995, they continued to measure their respective action in the LCA sector against the benchmarks of the 1992 Agreement." But that argument is circular at best. Whether the parties did or did not continue to apply the 1992 Agreement, without prejudice to their rights and obligations under the SCM Agreement, after 1995 is entirely irrelevant as to the question whether the 1992 Agreement somehow influenced the terms of the SCM agreement.

661. In sum, even assuming *arguendo* that the interpretation of the terms of the 1992 Agreement is within the Panel's terms of reference, the EC has provided no valid arguments as to how the 1992 Agreement could in any way influence the interpretation of terms used in the SCM Agreement. Indeed, the EC's suggestion that there is some such influence disregards the complete absence of any reference to the concept of "serious prejudice" in the 1992 Agreement. Moreover, the EC's suggested approach could result in a situation where the SCM Agreement is interpreted differently as between the EC and the United States than as between other Members. The EC's approach also could result in an interpretation of the SCM Agreement that depends not on what Members had negotiated in that Agreement, but on the terms of a separate bilateral agreement between only two of the WTO Members only. Neither of these outcomes can be supported.

[1000] EC RPQ1, para 213.