WTO DISPUTE ANALYSIS*

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Report of the Appellate Body

UNITED STATES – MEASURES AFFECTING TRADE IN LARGE CIVIL AIRCRAFT (SECOND COMPLAINT)

(WT/DS353/AB/R)
(Circulated on 12 March 2012)

Parties:

Appellant/Appellee:	European Union (EU)
Other Appellant/ Appellee:	United States (US)
Third Participants:	Australia, Brazil, Canada, China, Japan and Korea

Appellate Body Division:

Bautista (Presiding Member), Unterhalter (Member), Zhang (Member)

I. BACKGROUND

This appeal concerns certain issues of law and legal interpretations developed in the Panel Report, *US – Measures affecting Trade in Large Civil Aircraft (Second complaint)*[1] (the "Panel Report"), and challenged by the EU and the US. The Panel was established on 17 February 2006 to consider a complaint by the European Communities (EC) regarding a number of US measures affecting trade in large civil aircraft ("LCA"). The EC had claimed that the US had provided subsidies to the US producers of LCA, namely The Boeing Company and the McDonnell Douglas Corporation (prior to its merger with the Boeing), and such subsidies were prohibited and/or actionable under the *Agreement on Subsidies and Countervailing Measures* (the "*SCM Agreement*").

The EC's claims before the Panel related to measures from three US states and municipalities therein, as well as to a number of US Federal Government measures, all allegedly providing subsidies to Boeing, as listed below:

a. State and Local Measures: These included, *inter alia*, tax incentives, provisions of tax reductions,

[1] WT/DS353/R, 31 March 2011

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**This issue can also be accessed online at http://wtocentre.iift.ac.in/DisputeAnalysis.asp . Queries and comments are most welcome and may be directed to disputes_cws@iift.ac.in.

other incentives like training facilities and infrastructure improvements, property and sales tax abatements in the States of Washington, Kansas, Illinois and municipalities therein.

b. Federal Measures:

   a. US Department of Defense ("USDOD"): payments to Boeing and the provision of access to USDOD facilities for aeronautics R&D relating to "dual use" technologies, pursuant to contracts and agreements entered into under 23 research, development, test, and evaluation ("RDT&E") programmes;

   b. NASA/USDOD: the allocation of intellectual property rights to Boeing under contracts and agreements entered into with NASA and the USDOD; and payments by NASA and the USDOD for independent research and development ("IR&D") expenditures and bid and proposal ("B&P") reimbursements, notably relating to basic research, applied research, development, and systems and other concept formulation studies;

   c. US Department of Commerce ("USDOC"): payments to Boeing and the provision of access to USDOC facilities, equipment, and employees to perform aeronautics R&D under eight Advanced Technology Program ("ATP") projects, falling into three general categories;

   d. US Department of Labor ("USDOL"): a payment of $1.5 million, made to Edmonds Community College under the High Growth Job Training Initiative, for the training of aerospace industry workers for the development and production of Boeing's 787; and

   e. Foreign Sales Corporation ("FSC") / extraterritorial income ("ETI") and successor legislation: the provision of federal tax exemptions to Boeing under the original provisions of the US Internal Revenue Code relating to foreign sales corporations and successor legislative acts, including grandfathering clauses and transitional rules.

According to the EC, all of the above measures provided Boeing's LCA division with subsidies amounting to $19.1 billion over the period 1989-2006. The EC raised it claims on the basis of these measures before the Panel. The Panel Report was circulated on March 31, 2011. In its Report, *inter alia*, the Panel found the measures of State of Washington, State of Kansas and State of Illinois and their respective municipalities as well as the federal measures of NASA, USDOD and FSC/ETI and successor legislation to be specific subsidies within the meaning of Article 1 and 2 of the *SCM Agreement.* The EU notified the DSB of its intention to appeal certain issues of law and legal interpretation covered in the Panel Report on April 1, 2011

II. KEY ISSUES AND APPELLATE BODY FINDINGS

A. Annex V to the SCM Agreement and Completion of Analysis

Whether the Panel erred in denying the EC's request for certain preliminary rulings with respect to the absence of an information-gathering procedure under Annex V to the *SCM Agreement* in the dispute?

And, if so,

Whether the Appellate Body should rule on how the DSB is to initiate such procedures, and should make findings in connection with the alleged non-cooperation of the US in the information-gathering procedure,

and the US's alleged withholding of information from the EC and the Panel?

The EU requested the Appellate Body to reverse the Panel's finding that no Annex V procedure had been initiated at the Dispute Settlement Body (DSB) meeting and that as a matter of law, all of the conditions for the initiation of an Annex V procedure were fulfilled and such procedure was initiated and/or deemed to be initiated and/or should have been initiated. Additionally, the EU requested the Appellate Body to rule that the initiation of an Annex V procedure was an action by *negative consensus* or *automatic* and the US in refusing to cooperate in the information gathering process, failed to comply with its obligation under the first paragraph of Annex V to the SCM Agreement. Thus, the EU was entitled to present its serious prejudice case based on the evidence available to it and the Panel was entitled to draw adverse inferences. (Paras 487 - 488)

The US, on the other hand, requested the Appellate Body to reject the EU's appeal as the Panel had correctly found that an initiation of an Annex V procedure required an *affirmative act or decision* by the DSB, irrespective of whether by positive or negative consensus and that the DSB had not taken any such step in the present case. (Para 490)

The Appellate Body noted that the EU had submitted before the Panel that the initiation of a procedure within the meaning of Annex V, paragraph 2 of the *SCM Agreement* was not a DSB 'decision' to be adopted by consensus, but rather a DSB 'action' that was automatically taken upon request, or at least taken unless there was a negative consensus not to take the action. The Panel however did not engage with these arguments and its disposition of the issue rested entirely upon its perfunctory examination of a single phrase "the DSB shall, upon request, initiate the procedure" within paragraph 2 of Annex V to the *SCM Agreement*, together with the factual finding that the DSB had taken no action in connection with Annex V in the dispute. The Appellate Body further noted that the Panel's findings and statements did not adequately resolve the legal issues presented since the question before the Panel was not limited to *whether* an Annex V procedure had been initiated; rather the Panel was asked to rule on *how* the relevant provisions of the covered agreements provide for an Annex V procedure to be initiated. (Paras 497-500)

The Appellate Body thus found that the Panel had erred in denying various requests made by the EC with respect to an Annex V procedure. It however did not disturb the Panel's factual finding that the DSB never took any action to initiate the Anne V procedure. (Paras 501 - 502)

Having found that the Panel erred in denying the European Communities' request for preliminary rulings in connection with an Annex V procedure, the Appellate body turned to the EU's request for completion of analysis and addressed its request for findings on the following:

(a) Interpretation of relevant provisions of the SCM Agreement and the DSU[2]

(***Key Question***: *Is there an obligation on the DSB to initiate an Annex V procedure upon request and does such DSB action occur automatically when there is request for initiation of an Annex V procedure and the DSB establishes a panel?)*

The first issue that the EU sought the Appellate Body to decide was how an Annex V procedure was initiated. According to the EU, this was a 'pure question of legal interpretation', namely, whether an information-gathering procedure under Annex V to the SCM Agreement was initiated, upon request, by negative consensus and/or automatically (as the EU submitted), or through a DSB decision by consensus (as the US submitted). The Appellate Body concluded the following on the issue:

[2] Understanding on Rules and Procedures Governing the Settlement of Disputes

i. Article 6 of the *SCM Agreement* defines "serious prejudice" and refers, on two occasions, to Annex V. Annex V to the *SCM Agreement* is entitled "Procedures for Developing Information Concerning Serious Prejudice", and contains nine paragraphs outlining an information-gathering procedure to be used in WTO disputes where the complaining party alleges that another Member's subsidization has caused serious prejudice to its interests. The provisions of Annex V refer three times to Article 7.4 of the *SCM Agreement*. All of Annex V, together with, *inter alia*, Articles 6.6, 7.4, 7.5, and 7.6 of the *SCM Agreement*, are listed as special or additional rules and procedures under Appendix 2 to the DSU. Pursuant to Article 1.2 of the DSU, the provisions of both the *SCM Agreement* and the DSU apply in the context of a dispute involving allegations of actionable subsidies causing serious prejudice, except that, to the extent that there is a conflict, those provisions of the *SCM Agreement* identified in Appendix 2 to the DSU prevail, including over Article 2.4 of the DSU (Appellate Body Report *Gautemala – Cement I*[3], Para 65) (Para 508-509)

ii. The DSB's obligation to initiate under paragraph 2 of Annex V is expressly subject to two conditions.

a. *First*, there must be a request by a WTO Member for initiation of an Annex V procedure.
b. *Second*, the relevant matter must be "referred to the DSB under paragraph 4 of Article 7.

Article 7.4 of the *SCM Agreement* supplies the legal basis for the DSB's establishment of a panel in disputes involving claims brought under Part III of the *SCM Agreement.* In other words, the text of the first sentence of paragraph 2 of Annex V itself makes the DSB's establishment of a panel - the second condition for initiation of an Annex V procedure. Other provisions of Annex V also reinforce the importance of the establishment of the panel to an Annex V procedure. (Paras 511-512)

iii. Annex V and Article 6.6 of the *SCM Agreement* prominently and unambiguously require cooperation from all WTO Members that may be involved in a serious prejudice dispute. The first paragraph of Annex V imposes mandatory duties of cooperation on the parties to such dispute, as well as upon all WTO Members whose markets may be relevant to the issues in dispute. (Para 514)

iv. Annex V sets out a comprehensive scheme designed to collect the kind of information that will be needed to be relied upon by the parties involved in a serious prejudice dispute. This scheme aims to foster the cooperative exchange of information at the earliest possible opportunity, and thereby to contribute to the prompt resolution of these particularly complex disputes. (Para 517)

v. The role of the DSB in connection with Annex V procedures is set out not only in paragraph 2, but also in paragraph 4 of Annex V. Paragraph 4 requires the DSB to designate a representative (commonly referred to as a "facilitator") in connection with the information-gathering process. As the representative of the DSB, the Chairman is in principle responsible for discharging the function of facilitating an Annex V procedure until such time as that function is delegated through the DSB's designation of another individual as a facilitator pursuant to paragraph 4 of Annex V. (Para 521)

vi. It is clear that the first sentence of paragraph 2 of Annex V to the *SCM Agreement* must be

[3] WT/DS60/AB/R

> understood as requiring the DSB to take action, and that such action occurs automatically when there is a request for initiation of an Annex V procedure and the DSB establishes a panel. This provision does not conflict with Article 2.4 of the DSU; rather, it establishes the conditions which, when satisfied, necessarily result in the initiation of an Annex V procedure by the DSB. (Para 524)

Additional considerations pursuant to Article 32 of the Vienna Convention on the Law of Treaties

The EU also relied on the negotiating history of the *SCM Agreement* as additional confirmation for its understanding of the Annex V procedure, as well as relevant context found elsewhere in the *SCM Agreement*. The EU emphasized that Annex V originated in a proposal made by the United States, and asserted that, from the first time this proposal was incorporated in the draft text of the Agreement, it was "clear" that "the Annex V procedure was tied-to the panel request, in the sense that the same procedures would apply", and that "when the reference to negative consensus was subsequently added to Article 7.4 of the *SCM Agreement* it was well understood that the linked Annex V procedure would follow the same procedure". (Para 525)

The Appellate Body recalled that, under Article 32 of the *Vienna Convention*, preparatory work and the circumstances of a treaty's conclusion were relevant to confirm the interpretation reached under Article 31. In its view, while the negotiating history of the *SCM Agreement* supplied little concrete insight as to how Members intended the Annex V procedure to be initiated, it did confirm the understanding of the reasons why Members considered such a procedure to be a key part of serious prejudice disputes. (Para 526)

The negotiating history of the *SCM Agreement* revealed that, at the time that Annex V was introduced into the text of what would become the *SCM Agreement*, the draft provided that the Subsidies Committee was to have responsibility both for adjudicating allegations of serious prejudice, as well as for the initiation of an Annex V procedure. No express provision was made as to how such initiation was to occur. At that time, the concurrent negotiations on dispute settlement were moving towards acceptance of a negative consensus rule for the establishment of panels, adoption of reports, and authorization of suspension of concessions. The draft *SCM Agreement* was subsequently modified as part of the process of harmonizing all of the Uruguay Round agreements to bring them into line with the single undertaking and the unified system of dispute settlement, and the express reference to the establishment of a panel by negative consensus was added to Article 7.4. (Para 530)

Summary of interpretative considerations

The Appellate Body concluded that the text and context of paragraph 2 of Annex V, together with the object and purpose of the WTO dispute settlement system as reflected in the DSU and the SCM Agreement, supported an understanding of this provision as imposing an obligation on the DSB to initiate an Annex V procedure upon request, and that such DSB action occurs automatically when there is a request for initiation of an Annex V procedure and the DSB establishes a panel. (Para 531)

The Appellate Body noted that the initiation and conduct of Annex V procedures have important consequences for the ability of parties to a dispute to present their case, and for panels and the Appellate Body to fulfil their respective roles in complex serious prejudice disputes under the *SCM Agreement*. Annex V procedures are key to affording parties early access to critical information, which may in turn serve as the foundation upon which those parties will construct their arguments and seek to satisfy their evidentiary burden. Moreover, the initiation and conduct of such procedures are key to the ability of panels to make findings of fact that have a sufficient evidentiary basis or to draw negative inferences from

instances of non-cooperation. (Para 533)

(b) The EU's remaining request for completion of the analysis

The EU also requested the Appellate Body to find that:

(i) as a matter of law, all of the conditions for the initiation of an Annex V procedure were fulfilled in this dispute and such procedure was initiated, and/or was deemed to have been initiated, and/or should have been initiated;

(ii) in refusing to cooperate in the information-gathering process, the US failed to comply with its obligations under the first sentence of paragraph 1 of Annex V to the SCM Agreement; and

(iii) the EC was entitled to present its serious prejudice case based on the evidence available to it, the Panel was entitled to complete the record as necessary relying on best information otherwise available, and the Panel was entitled to draw adverse inferences.

The Appellate Body in response to the EU's request concluded the following:

(i) With respect to the first of these requests by the EU, the Appellate Body recalled that, in its interpretation of paragraph 2 of Annex V, it identified the two conditions that must be satisfied in order to trigger the initiation of an Annex V procedure, namely, *a request for initiation by a Member*, and the *DSB's establishment of a panel*. In this dispute, the Panel made an explicit finding that no Annex V procedure had been initiated by the DSB. Even if this finding rested upon a mistaken and incomplete interpretation of paragraph 2 of Annex V, it was uncontested that no Annex V procedure was carried out as a consequence of the requests made by the European Communities in 2007 and the establishment of the Panel in that same year. More than five years later, the Appellate Body did not see how the findings that the EU sought, on appeal, would contribute to resolving the dispute at that stage. Accordingly, it felt it was unnecessary to make a ruling on whether the conditions for the initiation of an Annex V procedure were fulfilled. (Para 535)

(ii) With respect to the EU's other requests, the Appellate Body noted that these raised a number of associated issues that flew from the *sui generis* circumstances of this dispute and that have been largely unexplored by the participants. To illustrate the same, the Appellate Body outlined briefly the history of the dispute, which it considered to some extent to be the progeny of an earlier dispute carrying DS number 317. In 2005, an Annex V procedure was initiated and completed in DS 317 proceedings. The Appellate Body however noted that the facts and circumstances of the present dispute and DS317 were complicated, highly case specific and decidedly unclear. Moreover, each participant appeared to have adopted positions over the course of these two dispute settlement proceedings that were, at least to some degree, internally contradictory in the way that they approached the issue of relationship between two disputes. The Appellate Body concluded that it was not evident that the relevant facts were sufficiently clear or uncontested, or that complex legal issues had been sufficiently explored by the participants to permit the Appellate Body to accede to the EU's request (Paras 536 - 541)

Furthermore, the Appellate Body noted that it had difficulty in understanding that if the US accepted the two disputes to be treated as separate, why it considered its participation in the Annex V procedure in DS317 to be relevant in assessing whether it complied with its obligations under paragraph 1 of the Annex V in the dispute. In the present dispute, the Panel

had made no specific findings of "non cooperation" on the part of the US and the uncertain nature of the facts surrounding the alleged non cooperation on the part of the US meant that the Appellate Body had no basis for making any such finding on appeal. (Paras 541 - 543)

Thus, the Appellate Body made "no finding as to whether the United States failed to comply with its obligation under the first sentence of paragraph 1 of Annex V to the *SCM Agreement*, or whether the European Communities was entitled to present its serious prejudice case based on the evidence available to it, or whether the Panel was entitled to rely on best information available or to draw adverse inferences." (Para 544)

(c) The European Union's additional requests

In addition, and 'independently' from the above requests to complete the analysis, the EU requested the Appellate Body to "constantly bear in mind the circumstances of this case" and that the US had chosen to withhold information from the EU and Panel and had refused to cooperate in the Annex V procedure. In light of the above, the EU made two additional requests. Firstly, with respect to the US's appeal, the EU claimed that the US could not now reasonably criticise the Panel for its assessment of the facts or for the reasonable drawing of factual inferences where the US itself was responsible for depriving the Panel of information; and secondly, with respect to the EU appeal in case of doubt or evidentiary conflict or equipoise, the Appellate Body should rule in favour of the EU. (Para 545)

The Appellate Body noted that it had some difficulty understanding precisely what the EU's additional requests sought to do and how they squared with its mandate under Article 17.6 of the DSU. With respect to the EU's submission on US's appeal, the Appellate Body noted that whether or not following EU's suggested approach would be appropriate is a moot point since in any event, it had rejected the two claims of error that the US had raised. With respect to the EU's second additional request, the Appellate Body noted that the request was not sufficiently supported to allow making the requested finding. Further, the Appellate Body noted that it was not convinced that the provisions of Annex V, and in particular its paragraph 7, meant, as the EU's broad request implied, that any non cooperation in an Annex V procedure requires the drawing of adverse inferences against the non-cooperating party on all factual issues. (Paras 547 - 548)

Conclusion

The Appellate Body thus concluded that:

"In the reasoning set out above, we have found that the Panel erred, in the first and last sentences of paragraph 7.22 of the Panel Report, reproducing paragraph 4 of its Preliminary Ruling, in denying the various requests made by the European Communities with respect to an Annex V procedure, because the Panel's denial of those requests rested upon an inadequate legal foundation and an incomplete interpretation of the relevant legal provision. In our consideration of the European Union's various requests for completion of the analysis and for additional findings, we have interpreted paragraph 2 of Annex V to the SCM Agreement to mean that the DSB's initiation of an information-gathering procedure in a serious prejudice dispute occurs automatically provided that a request for such a procedure has been made and a panel established. We have declined to find that all of the conditions for the initiation of an Annex V procedure were fulfilled in this dispute, and have made no finding as to whether the United States failed to comply with its obligations under the first sentence of paragraph 1 of Annex V to the SCM Agreement; whether the European Communities was entitled to present its serious prejudice case based on the evidence available to it; whether the Panel was entitled to complete the record as necessary relying on best information otherwise available; or whether the Panel was entitled to draw

adverse inferences." (Para 549)

B. NASA Procurement Contracts and USDOD Assistance Instruments

(a) 'Financial contribution'

The issues raised in this part of the appeal concerned both the Panel's interpretation and application of Article 1.1(a)(1) of the *SCM Agreement*. In its analysis of whether the NASA and USDOD measures challenged by the EU, constituted financial contributions within the meaning of Article 1.1(a)(1) of the *SCM Agreement*, the Panel had begun its analysis by focusing on the interpretative issue of whether measures that were properly characterized as "purchases of services" were excluded from the scope of Article 1.1(a)(1)(i) of the *SCM Agreement* and, therefore, did not qualify as financial contributions by means of a "direct transfer of funds". (Para 550)

After determining that Article 1.1(a)(1)(i) did not include within its scope measures that were 'properly characterized' as purchases of services, the Panel proceeded to consider whether the NASA and USDOD measures at issue qualified as such. According to the Panel, whether or not the NASA and USDOD measures could be properly characterized as purchases of services depended on the nature of the work that Boeing was required to perform pursuant to them and, more specifically, whether that research was "principally for (Boeing's) own benefit and use, or whether it was principally for the benefit and use of the U.S. Government (or unrelated third parties)". (Para 551)

Having applied its purchase of services test to five categories of evidence, the Panel concluded the following:

(i) NASA procurement contracts and USDOD assistance instruments could not be 'properly characterized' as purchase of services. By contrast, the USDOD procurement contracts did qualify as purchases of services. For measures that qualified as purchases of services under its test, the USDOD procurement contracts—these could be further excluded based on its interpretation of Article 1.1(a)(1), whereby such measures were not financial contributions.

(ii) By contrast, where the measures did not qualify as purchases of services under the test—the NASA procurement contracts and USDOD assistance instruments, the payments made by NASA and the USDOD to Boeing were treated, pursuant to those contracts and instruments as direct transfers of funds within the meaning of Article 1.1(a)(1)(i). Furthermore, access to NASA facilities, equipment, and employees provided to Boeing pursuant to the NASA contracts, and the access to USDOD facilities pursuant to the USDOD assistance instruments, constituted the provision of goods and services under Article 1.1(a)(1)(iii). (Para 552)

The parties appealed the Panel's interpretation of Article 1.1(a)(1) and its application to the facts of this dispute. The EU sought reversal or modification of the Panel's interpretation that measures properly characterized as purchases of services were excluded from the scope of Article 1.1(a)(1) of the *SCM Agreement*. The US did not appeal the Panel's interpretation rather; it challenged various findings of the Panel that derived from the application of its purchases of services test to the NASA and USDOD measures at issue. (Para 553)

(***Key Question***: *In an analysis under Article 1.1(a)(1) of the SCM Agreement, at what stage should the Panel determine the proper characterization of the measure at issue?)*

The Appellate Body made the following observations with respect to the general approach followed by

the Panel, before proceeding to its own analysis:

(i) The Panel when confronted with contrasting characterizations of the NASA and USDOD measures before it, instead of first resolving the same, embarked on an interpretative exercise based on the assumption that the measures were purchase of services. Only after it had completed its interpretative exercise on the basis of that assumption did the Panel return to the question of what was the proper characterization of the measures at issue. This to the Appellate Body appeared to be an "odd approach". (Para 585)

(ii) The Appellate Body also noted that having rejected the characterization advocated by each party, the Panel never provided a definitive view on what it considered to be the correct characterization of these measures. Instead, the Panel arrived at the conclusion that the payments and other support were financial contributions by exclusion. This conclusion seemed to have proceeded mechanically from the Panel's conclusion that the NASA procurement contracts and USDOD assistance instruments *were not* purchases of services. The reason why one conclusion—that the relevant measures were direct transfers of funds followed mechanically from the other—that the same measures were not purchases of services, was not explained by the Panel. (Para 587)

(iii) Further, the Appellate Body noted that the "other curious feature about the Panel's approach is that it framed its inquiry as one seeking to determine whether a category of measures not expressly mentioned (purchases of services) is "excluded" from the scope of Article 1.1(a)(1) of the *SCM Agreement*. It is not clear to us why, in the face of arguments by the European Communities that the payments under the contracts fall *within* the scope of Article 1.1(a)(1)(i) because they are grants—a category of financial contributions expressly mentioned in that provision—the Panel started from the premise that it was required to determine whether purchases of services—a category that is *not* mentioned in that provision—are excluded from its scope." (Para 588)

(iv) Thus, according to the Appellate Body, the Panel should first have examined the measures to determine their relevant characteristics, and then considered whether, in the light of a proper interpretation of Article 1.1(a)(1), these measures, properly characterized, fall within the scope of that provision. (Para 589)

<u>What is the proper characterisation of the NASA/USDOD Measures at Issue?</u>

(***Key Question***: *Is the label given to an instrument under municipal law dispositive when determining the proper characterisation of a measure under Article 1.1(a)(1) of the SCM Agreement?)*

NASA procurement contracts

The Appellate Body noted that the US legislative and regulatory framework indicated that procurement contracts were the instruments used when the US Government intended to make a purchase. However, according to the Appellate Body, a label given to an instrument under municipal law was not dispositive and could not be the end of the analysis. The Appellate Body noted that under the procurement contracts, NASA not only paid Boeing to conduct research services, but some of the transactions also involved NASA providing Boeing with access to its equipments, facilities and employees to undertake the research project, while Boeing contributed the labour of its own employees as well as the use of its own facilities. (Para 594 - 595)

Further, it was clear from the NASA procurement contracts and the arguments of the US that scientific

and technical information, discoveries, and data were among the expected outcomes of the research jointly undertaken by Boeing and NASA. The transactions also involved some sharing of the fruits of the research on the output side. The transactions were collaborative arrangements that were composite in nature in that they involved various elements that were interlinked. Thus, according to the Appellate Body, the arrangements were akin to a species of joint venture. (Para 596-597)

USDOD assistance instruments

The USDOD assistance instruments included cooperative agreements and technology investment agreements, both of which were considered instruments used to provide 'assistance' under the US federal regulations. The Appellate Body noted that the definition of 'assistance' in the federal regulations had a language that is similar to that in Article 1.1(a)(1)(i) of the *SCM Agreement*. Like Article 1.1(a)(1)(i), the definition of 'assistance' referred to a 'transfer' from the government to an enterprise. However, as noted by the Appellate Body earlier, since the particular label that a transaction received under its municipal law was not determinative, it proceeded to examine the principal characteristics of the measures. As with NASA procurement contracts, the Appellate Body looked at the input and output sides of the transactions under the USDOD assistance instruments. (Para 602-604)

Further, a second feature about the assistance instruments that stood out was that both the USDOD and Boeing contributed financial resources to the research project and this had also been emphasized by the US in its appeal of the Panel's findings of benefits. Additionally, the Appellate Body also noted the degree of USDOD involvement that was called for under the cooperative agreements, one of the instruments that the Panel included among the assistance instruments. Moreover, as with NASA procurement contracts, the USDOD also provided Boeing with access to its facilities under some of the assistance instruments. (Paras 606-607)

Turning to the outputs expected from the transactions, the Appellate Body noted that the situation was similar to that under the NASA procurement contracts as scientific information was shared between the parties with Boeing obtaining title to any invention and the US Government receiving a royalty free government use/purpose license to use the invention. Boeing also obtained rights over the data with the US government obtaining only 'limited rights' over the data. Accordingly, the transactions under the USDOD assistance instruments were composite as they involved a combination of funding and access to facilities. They were also collaborative in nature as they involved the USDOD and the Boeing pooling monetary and non monetary resources on the input side and some sharing of the fruits of research on the output side. Thus, according to the Appellate Body, these were not the usual characteristics of a purchase transaction; rather these features resembled a joint venture arrangement. (Paras 608 - 609)

Since the Panel also pointed to the collaborative nature of the arrangements between Boeing and NASA/USDOD., the Appellate Body noted that this was consistent with its assessment of the principal characteristics and the composite nature of the transactions undertaken pursuant to the NASA procurement contracts and pursuant to the USDOD assistance instruments. (Para 610)

The types of Financial Contributions covered by Article 1.1(a)(1) of the SCM Agreement

Beginning with the general architecture and structure of the provision, the Appellate Body noted that Article 1.1(a)(1) defined and identified the government conduct that constituted a financial contribution for purposes of the *SCM Agreement*. Subparagraphs (i)-(iv) exhausted the types of government conduct deemed to constitute a financial contribution.

Subparagraph (i) of Article 1.1(a)(1) identified, as one type of financial contribution, a government

practice involving "a direct transfer of funds". It indicated action involving the conveyance of funds from the government to the recipient. The Appellate Body has endorsed a meaning of "funds" that includes not only money, but also financial resources and other financial claims more generally.[4]

According to the Appellate Body, it was clear from the examples in subparagraph (i) that a direct transfer of funds would normally involve financing by the government to the recipient. In some instances, as in the case of grants, the conveyance of funds would not involve a reciprocal obligation on the part of the recipient. In other cases, such as loans and equity infusions, the recipient assumed obligations to the government in exchange for the funds provided. Thus, the provision of funding may amount to a donation or may involve reciprocal rights and obligations. (Para 617)

The Appellate Body next turned to subparagraph (iii) of Article 1.1(a)(1), which identified another type of financial contribution. That subparagraph contemplated two distinct types of transaction: the first was where a government "provides goods or services other than general infrastructure"; and the second related to situations in which a government "purchases goods" from an enterprise. In the case of the provision of goods or services, subparagraph (iii) did not specify whether the goods or services were provided gratuitously or in exchange for money or other goods or services. Thus, the provision of goods or services may include transactions in which the recipient was not required to make any form of payment, as well as transactions in which the recipient pays for the goods or services. Therefore, according to the Appellate Body, what was captured in the first sub-clause of subparagraph (iii), as well as in subparagraph (i), was a government's provision or goods or services, or of funds, irrespective of whether this was done gratuitously or in exchange for consideration. (Para 618)

With respect to the second sub-clause of subparagraph (iii) where a government "purchases goods", the Appellate Body noted that the goods are provided *to* the government by the recipient, in contrast to the first sub-clause of that paragraph, where the goods were provided *by* the government. There were two additional differences between the first and second sub-clauses of subparagraph (iii). The second sub-clause used the term "purchase", which was usually understood to mean that the person or entity providing the goods will receive some consideration in return. The other difference was that, in contrast to the first sub-clause that addresses the provision of goods *and services*, the second sub-clause refered only to purchases of "goods", and not of "services". (Para 619)

The Panel in this dispute interpreted the omission of the term "services" from the second sub-clause of subparagraph (iii) as an indication that the drafters of the *SCM Agreement* did not intend measures constituting government purchases of services to be covered as financial contributions under Article 1.1(a)(1)(i). According to the Appellate Body, this interpretative issue did not need to be resolved because it was not relevant for purposes of resolving the dispute, that is, whether the NASA procurement contracts and USDOD assistance instruments, which the Appellate Body found to resemble joint ventures, constituted financial contributions within the meaning of Article 1.1(a)(1) of the *SCM Agreement*. *The Appellate Body therefore declared the Panel's interpretation that "transactions properly characterized as purchases of services were excluded from the scope of Article 1.1(a)(1)(i) of the SCM Agreement" to be moot and of no legal effect*. (Para 620)

<u>Do the NASA and USDOD Measures raised on appeal constitute financial contributions within the meaning of Article 1.1(a)(1) of the SCM Agreement?</u>

With respect to the examples in Article 1.1(a)(1)(i), the Appellate Body observed several similarities between the collaborative undertakings that were the NASA/USDOD measures and equity infusions. The

[4]See Appellate Body Report, *Japan – DRAMs (Korea)*, WT/DS336/R, adopted 17 December 2007, Para. 250.

Appellate Body recalled that, in the case of an equity infusion, a government's provision of capital to a recipient was made in return for the acquisition of shares. This type of transaction could be replicated through other arrangements, such as by means of a joint venture. (Para 622)

(***Key Question***: *When can a transaction be characterised as an equity infusion for the purposes of determining financial contribution under Article 1.1(a)(1)(i) of the SCM Agreement?)*

Some of the similarities mentioned by the Appellate Body are listed below:

a. Like equity investors, NASA and the USDOD provided funding. This funding was provided in the expectation of some kind of return. In the case of NASA and USDOD funding to Boeing, the return was not financial, but it rather took the form of scientific and technical information, discoveries, and data expected to result from the research performed.
b. Again, like equity investors, NASA and the USDOD had no certainty at the time they committed the funding that the research would be successful. Success would depend on whether any inventions were discovered and the usefulness of the data collected, as well as the scientific and technical information produced.
c. NASA's and the USDOD's risks were limited to the amount of money they contributed and the opportunity cost of the other support they provided to the project, much like an equity investor.
d. And like some equity investors, NASA and the USDOD contributed to the project by providing access to facilities, equipment, and employees. (Para 623)

In sum, the particular characteristics of the NASA procurement contracts and USDOD assistance instruments were, in view of the Appellate Body, most appropriately characterized as being akin to a species of joint venture. Thus, the Appellate Body found these joint venture arrangements between NASA/USDOD and Boeing to have characteristics analogous to equity infusions, one of the examples of financial contributions included in Article 1.1(a)(1)(i) of the *SCM Agreement*. (Para 624)

(b) 'Benefit'

Panel's findings

Both with respect to NASA and USDOD, the Panel hadbegan its analysis by recalling that, within the meaning of Article 1.1(b) of the *SCM Agreement*, a financial contribution conferred a benefit if the terms of the financial contribution were more favourable than the terms available to the recipient in the market. Accordingly, the Panel stated that it was necessary to compare the terms of NASA's as well as USDOD's financial contributions with the terms of a market transaction in order to determine whether a benefit was conferred on Boeing. Taking this into consideration, the Panel believed that no private entity acting pursuant to commercial considerations would provide payments and access to its facilities and personnel to another commercial entity on the condition that the other entity perform R&D activities principally for the benefit and use of that other entity. The Panel therefore concluded that the financial contributions provided to Boeing under the aeronautics R&D contracts and agreements with NASA and aeronautics R&D assistance instruments conferred a benefit within the meaning of Article 1.1(b) of the *SCM Agreement*. (Paras 627 - 634)

Did the Panel err in determining benefit?

The Appellate Body began its analysis by quoting its previous finding in *Canada Aircraft*, where it had concluded that:

> "… the word "benefit", as used in Article 1.1(b), implies some kind of comparison. This must be so, for there can be no "benefit" to the recipient unless the "financial contribution" makes the recipient "better off" than it would otherwise have been, absent that contribution. In our view, the marketplace provides an appropriate basis for comparison in determining whether a "benefit" has been "conferred", because the trade-distorting potential of a "financial contribution" can be identified by determining whether the recipient has received a "financial contribution" on terms more favourable than those available to the recipient in the market."[5] (Para 635)

The Appellate Body also noted that the concept of 'benefit' was further clarified in *EC and certain member States – Large Civil Aircraft,* where the Appellate Body had approached the enquiry of benefit as one that is financial in nature and in which the behaviour of the grantor and the recipient of the alleged subsidy at issue are assesses against the behaviour of commercial actors in the market.[6]

The US appealed the Panel's finding of benefit with respect to both the NASA and USDOD measures. As regards the NASA measures, the US submitted that the Panel's finding that research under the NASA R&D contracts was "principally for Boeing's own benefit and use" was the sole justification for the finding that the NASA aeronautics R&D programmes conferred a benefit. In the US's view, since the former finding was erroneous, the latter finding of existence of a benefit was equally erroneous. With respect to the USDOD measures, US argued that the Panel erred because it failed to consider that Boeing funded part of the costs of the research undertaken pursuant to the assistance instruments. (Para 637)

The EU asserted that the US failed to identify any errors in the Panel's evaluation of the existence of financial contributions, either with respect to the application of Article 1.1(a)(1) of the *SCM Agreement* or the consistency of the Panel's assessment with Article 11 of the DSU. Consequently, in view of the fact that the US Article 1.1(b) appeal was entirely based on its Article 1.1(a)(1) appeal, it was the EU's view that the US's appeal under Article 1.1(b) must likewise fail. In addition, the EU stated that, in its financial contribution analysis, the Panel properly characterized the USDOD's R&D assistance instruments as transactions "principally for Boeing's own benefit and use" without "some form of royalties or repayment", and, accordingly, the Panel's conclusion that a benefit existed based on this characterization was also proper. (Para 638)

The Appellate Body noted that the Panel's benefit test was closely related to the test that the Panel had developed in its assessment of the financial contribution to determine whether the NASA and USDOD measures could be characterized as purchases of services. Both the test for purchase of services and for benefit revolved around the question of which party to the transaction derived the 'principal benefit and use' from the research. The Appellate Body observed several problems with the Panel's approach:

a. The Panel's approach risked conflating what were two separate elements of the definition of "subsidy" in Article 1.1 of the *SCM Agreement*. Under the approach adopted by the Panel, a determination that a transaction was not a purchase of services—because the R&D was principally for the benefit of the commissioned party rather than the commissioning government—made the determination of benefit almost a foregone conclusion. (Para 641)

b. A further problem with the Panel's test was that the identification of the principal user or beneficiary of the research, on the basis of the five factors relied on by the Panel, did not capture

[5] Appellate Body Report, *Canada – Measures Affecting the Export of Civilian Aircraft*, WT/DS70/AB/R, adopted 20 August 1999, Para. 157
[6] Appellate Body Report, *EC and certain member States – Large Civil Aircraft*, WT/DS316/AB/R, adopted 1 June 2011, Paras 706 and 836.

the relevant inquiry under Article 1.1(b), which involved a consideration as to whether the measure was consistent with a market benchmark. Where a panel was confronted with a measure in which both the government and the commissioned firm had provided funding or made other contributions, and the results of their investments were shared between them, it may consider the relationship between what they have contributed and how the results thereof are shared. But the distribution of the returns under particular NASA procurement contracts and USDOD assistance instruments did not indicate by itself what the distribution of those returns would be in the market. (Para 641)

c. The Appellate Body also had difficulties with the Panel's reasoning in relation to the market benchmark. With respect to both the NASA procurement contracts and the USDOD assistance instruments, the Panel stated its view that no commercial entity, i.e. no private entity acting pursuant to commercial considerations, would provide payments (and access to its facilities and personnel) to another commercial entity on the condition that the other entity perform R&D activities principally for the benefit and use of that other entity. The Panel's finding as to the behaviour of a market actor was based exclusively on the Panel's own view of how a commercial actor would behave and its inferences as to what a rational investor would do. The Panel did not indicate what evidence there was on the record to sustain such a view. According to the Appellate Body, panels could not base determinations as to what would occur in the marketplace only on their own intuition of what rational economic actors would do. (Para 642)

d. Linked to above, the Appellate Body had further difficulties with the Panel's treatment of the evidence. The Panel had stated that "it was not necessary for the European Communities to present benchmark evidence of the terms and conditions of specific market-based R&D financing in order to establish, at least on a prima facie basis, that these NASA transactions conferred a benefit upon Boeing." The Panel did not explain how it reached the conclusion that the EC had established a *prima facie* case that the transaction would not take place in the market (for example, by referring to evidence on record of what was the prevailing commercial practice or otherwise reflects a market behaviour). (Para 645)

(***Key Question***: *Can the possibility of two market actors entering into a transaction with each other in circumstances where the returns were unequally distributed between them be excluded a priori, in a benefit analysis?)*

e. Further, the Appellate Body stated that it was not persuaded that, *a priori*, it could be excluded that two market actors would enter into a transaction with each other in circumstances where the returns were unequally distributed between them. Transactions between market actors may take place even when the returns earned by each party were asymmetric, as long as both parties earned a reasonable return on the investment. Thus, according to the Appellate Body, the Panel's approach had several flaws which meant that the Panel did not make a proper comparison of the terms of the NASA procurement contracts and the USDOD assistance instruments with the terms of a market transaction as required under Article 1.1(b). (Paras 646-647)

The Appellate Body also noted that before the Panel, the EC and the US had submitted evidence and exchanged arguments on the proper market benchmark and in the past the Appellate Body had been able to complete the analysis where there were sufficient factual findings by the panel or undisputed facts on the record to enable it to do so. The EC had submitted evidence indicating that there were market transactions in which the entity commission the R&D obtained ownership of all intellectual property rights. The US however argued that the market did not dictate a single outcome in the negotiation of the intellectual property rights, and introduced evidence of alleged market transactions showing more

'diversity in the disposition of rights'. The US submitted four contracts between Boeing and major research universities, in which the former paid the latter to conduct R&D. The Appellate Body discussed these four contracts, although some of the text from the discussion had been deleted due to the confidential nature of the information. (Paras 653-654)

On the basis of its analysis, the Appellate Body concluded that the US law constrained NASA's and the USDOD's ability to negotiate ownership over any intellectual property developed under the relevant contracts and agreements. Pursuant to Bayh-Dole Act of 1980, the 1983 Presidential Memorandum, the 1987 Executive Order, and the relevant general and NASA-specific federal regulations, neither the USDOD nor NASA would seek to obtain title to any inventions discovered as part of the work conducted under the NASA procurement contracts and USDOD assistance instruments. Rather, it was expected that the contractor (Boeing) would obtain ownership over the intellectual property rights. Thus, in effect, the allocation of intellectual property rights was pre-determined under the US legal framework. Put differently, there was no bargaining over the ownership of the intellectual property. NASA and the USDOD were constrained by US law as to the gains that they could extract from the transaction. Thus, the party undertaking research commissioned by NASA or the USDOD—in this case, Boeing—obtained ownership rights over intellectual property that it would otherwise have had to bargain for if the counterparty were a market actor. (Para 661)

The Appellate Body also recalled that the determination of 'benefit' under Article 1.1(b) of the *SCM Agreement* sought to identify whether the financial contributions had made "the recipient 'better off' than it would otherwise had been, absent that contribution". According to the Appellate Body, Boeing obtained more and NASA and the USDOD obtained less than they would have obtained in the market. This conclusion, according to the Appellate Body, was sufficient to establish that the provision by NASA and by the USDOD of funding and other support to Boeing on the terms of the joint venture arrangements that conferred a benefit on Boeing within the meaning of Article 1.1(b) of the SCM Agreement. (Para 662)

The Appellate Body also noted that the Panel had found that the government received only "limited rights" to the data under the assistance instruments (which were cost-sharing transactions), as opposed to the "unlimited rights" to the data that the government received under USDOD procurement contracts (where there was no cost-sharing). Thus, according to the Panel's description, Boeing's monetary contribution to the research project was not tied to the ownership rights over any inventions and data, which resulted from the operation of US law. Rather, Boeing's monetary contribution was consideration for the enhanced data rights that it obtained under the assistance instruments, which granted more limited rights to the government over the data. In the light of the Panel's finding, it was therefore clear that Boeing's monetary contribution under the assistance instruments did not change the bargain over the ownership of the inventions and data, it only changed the bargain as to the government's licence over the data rights. (Para 664)

Thus, the Appellate Body found that that the funding and other support provided under the NASA procurement contracts and the USDOD assistance instruments conferred a benefit on Boeing within the meaning of Article 1.1(b) of the *SCM Agreement*. (Para 666)

(c) Scope of the Panel's benefit findings as regards the NASA Measures

The US also claimed that the Panel had erred by basing its valuation of the total benefit conferred by NASA research contracts on a combination of transactions covering not only 'LCA-related research' challenged by the EC, but also other transactions that the EC did not challenge. In particular, the US complained that the Panel did not exclude $280 million in expenditures for research that NASA had determined was "unrelated" to the EC's claims. The US characterized this "omission" as an "error

inconsistent with Article 1.1(b) because it treated transactions that were not part of the financial contribution under Article 1.1(a) as conferring a benefit". (Para 667)

US claim and the scope of the appeal

The EU had however contended that the US's claim was not within the scope of this appeal because the US had failed to identify in its Notice of Other Appeal "any alleged errors by the Panel under Article 1.1(b) of the SCM Agreement in *valuing* the benefit to Boeing from the NASA aeronautics R&D programmes, or reference any of the relevant paragraphs of the Panel Report", in accordance with Rule 23(2) of the *Working Procedures*.

The Appellate Body noted that in paragraph 3 of its Notice of Other Appeal, the US had included the following claim:

> "The United States seeks review by the Appellate Body of the Panel's finding that payments made by NASA to Boeing under contracts for the performance of aeronautics research and facilities, equipment, and employees provided to Boeing through research contracts and agreements at issue conferred a benefit. This finding is in error and is based on erroneous findings on issues of law and related legal interpretations, including an incorrect interpretation of Article 1.1(b) of the SCM Agreement." (Para 683)

On the basis of same, the Appellate Body observed that the US's Notice of other Appeal referred specifically to the Panel's finding of benefit with respect to the payments and other support provided under the NASA contracts and agreements at issue. The US allegation to which the EU objected was that the Panel's finding of benefit was overboard because it encompassed NASA R&D contracts and agreements not challenged by the EC before the Panel. The Appellate Body was of the view that paragraph 3 of the Notice of Other Appeal, particularly the reference to the "contracts and agreements at issue", could be read to indicate that the US intended to challenge not only the finding of benefit, but also the breadth of that finding. (Para 685)

Nonetheless, the Appellate Body did caution that paragraph 3 of the Notice of Other Appeal was drafted at a level of vagueness and imprecision that made it considerably difficult for the appellee, the third participants, and the Appellate Body to understand easily the full scope of the US claim. The Appellate Body also recognised that paragraphs of the Panel Report cited in the US Notice of Other Appeal did not correspond to the sections of the Panel Report where the panel made the error alleged by the US. However, the Appellate Body also recalled that Rule 23(2)(c)(ii)(C) of the *Working Procedures* required an appellant to provide an "indicative list" of the paragraph numbers of the panel report containing the alleged error(s) and that this list was "without prejudice to the ability of the other appellant to refer to other paragraphs of the panel report in the context of its appeal". The failure to provide a complete and accurate list of paragraph numbers covered by the allegation of error was not by itself a basis to reject a claim. (Paras 686 - 687)

Therefore, the Appellate Body found that the US's Notice of Other Appeal sufficiently identified the allegation of error and, consequently, rejected the EU's argument that the US claim was not properly within the scope of this appeal. (Para 688)

<u>Did the Panel err under Article 1.1(b) of the SCM Agreement?</u>

The US claimed that the Panel did not properly apply Article 1.1(b) of the *SCM Agreement*, because the Panel did not exclude from its estimate of the amount of the subsidy the $280 million in expenditures for

research that NASA had determined was "unrelated" to the EC' claims. After reviewing the Panel's analysis, the Appellate Body concluded that the US appeal was misdirected. According to the Appellate Body, even assuming, for the sake of argument, that the Panel had erred in its calculation of the "amount of the subsidy", it was unclear that this would have been an error of interpretation or application of "benefit" under Article 1.1(b) of the *SCM Agreement*. The specific allegation made by the United States was that the Panel failed to exclude from the amount of the subsidy certain transactions that NASA had determined did not involve research that was relevant to LCA. The methodology used by the US to conclude that NASA disbursements to Boeing under the challenged programmes amounted to less than $750 million was as follows:

a. First, the US identified all of the contracts that were awarded by NASA to Boeing under the eight R&D programmes at issue during the period 1989-2006. For this purpose, US ran a search in the FPDS/FPDS-NG data base.

b. Second, from this broad pool of Boeing contracts, the United States eliminated all contracts that did not relate to aeronautics research. This was done by identifying the awards issued by the NASA research centres that perform aeronautics research. This second step yielded a figure of $1.05 billion.

c. In the third step, the US eliminated contracts that, although awarded by one of the four NASA research centres that perform aeronautics research, nevertheless pertained to non-aeronautics research (for example, contracts whose subject matter pertained to space, atmospheric science, airspace hypersonics, vertical take-off and landing/short take-off and landing, and aircraft support related to the maintenance and upkeep of NASA's aircraft). Under this third step, the United States excluded $280 million in expenditures, resulting in a total value of $775 million between 1989 and 2006. (Para 693)

The Panel while relying on the US methodology ultimately accepted the results of the second step, but did not address the third step of the methodology that had been proposed by the US. According to the Appellate Body, the Panel should have explained why it disagreed with the third step or why it did not find it probative.

However, the Appellate Body also noted that Panel's consideration of the amount of the subsidy was eminently a factual exercise that involved scrutinizing factual evidence submitted by the parties and focused on what was the most appropriate methodology to segregate the contracts that involved aeronautics R&D from the other transactions entered into between NASA and Boeing. This kind of factual assessment falls within a panel's authority as the initial trier of facts and should be reviewed by the Appellate Body only under Article 11 of the DSU, a claim the US had not raised with respect to the Panel's estimate of the amount of the subsidy provided by NASA to Boeing. The Appellate Body noted that there was no obligation in the *SCM Agreement* to quantify the precise amount of the subsidy for purposes of an adverse effects claim, and the Panel's finding of benefit under Article 1.1(b) in this case did not depend on the Panel's quantification of the amount of the subsidy provided by NASA. In the absence of such an obligation, it was not clear on what basis the Panel's reluctance to go further in its calculations could constitute legal error and hence the Appellate Body rejected the US's claim. (Paras 694 - 700).

(d) <u>Article 11 of the DSU – Amount of USDOD R&D funding potentially relevant to LCA</u>

The US also claimed that the Panel had acted inconsistently with Article 11 of the DSU by stating, in paragraph 7.1205 of the Panel Report, that it did not consider it credible that less than 1 per cent of the

$45 billion in aeronautics R&D funding that USDOD provided to Boeing over the period 1991-2005 had any potential relevance to LCA because the Panel's statement lacked an evidentiary basis.

The EU rejected the allegations that the Panel had acted inconsistently with Article 11 of the DSU in making the statement challenged by the US:

a. First, the EU argued that this statement should not be subjected to appellate review, as it was not a legal finding or conclusion within the meaning of Article 17.13 of the DSU and had no effect on the Panel's ultimate conclusions that the aeronautics R&D subsidies provided to Boeing amounted to at least $2.6 billion and caused adverse effects to the EC's LCA industry.

b. Second, the EU asserted that, if this statement was subject to appellate review, it was really in the nature of a conclusion as to the Panel's evidence-based rejection of the US claim that dual-use R&D funding to Boeing was no greater than $308 million. (Para 712)

The Appellate Body noted that Article 11 of the DSU required a panel to make an objective assessment of the matter before it, including an objective assessment of the facts of the case. The Panel had rejected the US's estimate due to the following reasons:

a. First, the Panel explained that the United States' estimate only included funding provided by the USDOD to Boeing under the 13 "general aircraft" RDT&E programmes and "completely exclude{d}" all funding provided to Boeing under the 10 "military aircraft" RDT&E programmes at issue.

b. The second reason given by the Panel concerned the quality of the evidence provided by the United States. It appeared that the Panel attributed less probative weight to the evidence put forward by the United States in relation to USDOD funding than to the evidence it submitted in connection with NASA funding. In particular, the Panel criticized the United States for failing to provide arguments or evidence with respect to the maximum amount of USDOD R&D dual-use funding provided to Boeing.

c. Third, the Panel pointed out that the United States' estimate of the total amount of USDOD aeronautics R&D subsidy to Boeing did not account for the value of any access to USDOD facilities granted to Boeing.

d. Finally, the Panel made the statement challenged by the United States that it "did not consider it credible that less than 1 per cent of the $45 billion in aeronautics R&D funding that USDOD provided to Boeing over the period 1991-2005 had any potential relevance to LCA. (Para 716)

The Appellate Body noted that in making the statement challenged by the US, the Panel had not cited any specific evidence in support of its position. According to the Appellate Body, it would certainly have been preferable for the Panel to have cited the evidence or referred to earlier factual findings when it made the challenged statement. Yet, other parts of the Panel's analysis gave support to the Panel's statement. Further, the Appellate Body observed that when it made the challenged statement, the Panel had already provided three reasons why it could not accept the US estimate. Therefore, had the Panel refrained from making the challenged statement, it would have made little difference to the outcome of the Panel's analysis, nor would it have made much difference in terms of the underlying support for the Panel's decision to reject the United States' estimate. In other words, the precise amount of subsidy provided under the USDOD assistance instruments did not play a determinative role in the Panel's assessment of the EC's serious prejudice claims. (Paras 720-721)

(***Key Question***: *Does every error committed by a Panel amount to a violation of Article 11 of the DSU?)*

Finally, the Appellate Body relied on a recent clarification provided by it in *EC – Fasteners (China*[7]*)* that not every error allegedly committed by a panel amounted to a violation of Article 11 of the DSU but, rather, it was incumbent on a participant raising a claim under Article 11 on appeal to explain *why* the alleged error *met* the standard of review under that provision. Thus, according to the Appellate Body, the US when challenging the evidentiary basis of a statement by the Panel under Article 11 of the DSU had not demonstrated or explained how the error vitiated the Panel's substantive findings. To succeed in its challenge under Article 11, an appellant must show that the statement was material to the panel's legal conclusion. In this case, the Appellate Body concluded that the US had not demonstrated that the challenged statement was material to the Panel's conclusion as to the total amount of the subsidy provided to Boeing through the USDOD measures and hence it rejected the US claim with respect to Article 11 of the DSU. (Paras 722 - 723)

C. ***NASA/USDOD Allocation of Patent Rights – Specificity***

The EU also challenged Panel's finding that, on the assumption that the allocation of patent rights under the contracts and agreements between NASA/USDOD and Boeing constituted a subsidy under Article 1.1 of the *SCM Agreement*; it would not be specific within the meaning of Article 2.1 of that Agreement. Before proceeding into the Panel's findings and the EU's claims on appeal, the Appellate Body clarified three aspects about the scope of the appeal:

a. First, the Appellate Body noted that EU appeal was directed only at the Panel's finding concerning the patent rights and did not include the Panel's finding on the data rights.

b. Second, the Appellate Body observed that the EC had challenged the patent rights allocation under NASA/USDOD contracts and agreements independently from its challenge to the payments and other support provided to Boeing under certain NASA/USDOD contracts and agreements. However, the allocation of patent rights was also one of the features of the NASA/USDOD contracts and agreements on which the EC had focused its argumentation that these transactions were not purchases of services. However, the EU explained during the oral hearing that its claims did not overlap completely because its challenge to the allocation of patent rights concerned a broader set of NASA/USDOD contracts and agreements with Boeing than its claim relating to the payments and other support.

c. Third, the Appellate Body noted that any finding made by it in connection to the specificity of the allocation of patent rights would not traverse the Panel's findings of specificity relating to the payments and other support provided under the NASA/USDOD contracts and agreements. (Paras 725-730)

The Panel had found that it was not necessary to resolve the issue of whether the allocation of patent rights under NASA and USDOD R&D contracts and agreements constituted a financial contribution that conferred a benefit within the meaning of Article 1.1 of the *SCM Agreement*. In the Panel's view, it was clear that the allocation of patent rights under NASA and USDOD contracts and agreements was not specific to a "group of enterprises or industries" within the meaning of Article 2 of the *SCM Agreement*. This is because the Panel considered that the allocation of patent rights was "uniform under all U.S.

[7] Appellate Body Report, *European Communities – Definitive Anti-Dumping Measures on Certain Iron or Steel Fasteners from China*, WT/DS397/AB/R, adopted 28 July 2011

government R&D contracts, agreements, and grants, in respect of all U.S. government departments and agencies, for all enterprises in all sectors". (Para 731)

The Panel rejected the European Communities' argument that whether other US Government agencies follow the same practices as NASA and the USDOD with regard to the allocation of intellectual property rights is not relevant for the purpose of a specificity analysis. In the Panel's view, NASA's agency-specific regulations for implementing this US Government-wide policy cannot, for purposes of Article 2 of the *SCM Agreement*, be analyzed in isolation from the broader policy and legal framework that they implement. The Panel found that the specificity analysis cannot be dependent upon how the complaining party chooses to define the measure that it is challenging, because accepting such an approach would lead to anomalous results. (Para 736)

The Panel therefore found that, assuming the *arguendo* that the allocation of patent rights under NASA and USDOD R&D contracts and agreements with Boeing involves a subsidy within the meaning of Article 1.1 of the *SCM Agreement*—that is, a financial contribution that confers a benefit—the European Communities had failed to demonstrate that any such subsidy is specific within the meaning of Article 2 of the *SCM Agreement*. (Para 737)

The Panel's arguendo approach

The Appellate Body noted that the Panel had used an *arguendo* assumption to avoid having to address whether the allocation of patent rights to Boeing is a financial contribution that confers a benefit within the meaning of Article 1.1 of the *SCM Agreement*. The chapeau of Article 2.1 of the *SCM Agreement* states that the analysis of specificity is directed at "a subsidy, as defined in paragraph 1 of Article 1. No such finding was made here given that the Panel never performed an analysis under Article 1 but, rather, chose to start its assessment with the issue of specificity. The Panel thought that its adoption of an *arguendo* approach was consistent with the Appellate Body's guidance in *China – Publications and Audiovisual Products*.[8] However, in that case, the Appellate Body identified precisely the same problem that arises here when it said that recourse to an *arguendo* approach "may also be problematic for certain types of legal issues, for example, issues that go to the jurisdiction of a panel or preliminary questions on which the substance of a subsequent analysis depends."[9] The Appellate Body explained that the assessment of specificity under Article 2.1 depended on how the subsidy was defined under Article 1.1, leaving little, if any, room for the adoption of an *arguendo* approach. (Para 738-739)

Thus, according to the Appellate Body, the Panel's failure to make an assessment under Article 1.1 of the *SCM Agreement* was problematic in this case because there may be some overlap in the claims put forward by the EC. The Appellate Body also stated:

> "Another problem with the *arguendo* approach adopted by the Panel in this case is that, were the Appellate Body to disagree with the Panel's finding, it could lead to the claim remaining unresolved. If in this case we were to reverse the Panel and find instead that the allocation of patent rights under NASA/USDOD contracts and agreements is specific within the meaning of Article 2.1 of the *SCM Agreement*, there would be no Panel findings as to whether or not the allocation of patent rights under those contracts and agreements constitutes a subsidy. In order to

[8]Panel Report, footnote 2933 to Para. 7.1294 (referring to Appellate Body Report, *China – Publications and Audiovisual Products*, WT/DS363/AB/R, adopted 19 January 2010, Para 213).

[9]Appellate Body Report, *China – Publications and Audiovisual Products*, WT/DS363/AB/R, adopted 19 January 2010, Para 213.

resolve the European Communities' claim, we would have to be in a position to complete the analysis ourselves. Article 3.3 of the DSU provides that one of the purposes of the WTO dispute settlement system is the "prompt settlement of situations in which a Member considers that any benefits accruing to it directly or indirectly under the covered agreements are being impaired by measures taken by another Member". This purpose is frustrated when, upon completion of the adjudication, a Member's claim is left unresolved because the Appellate Body was unable to complete the analysis of aspects of the claim with respect to which the panel had adopted an *arguendo* approach. An *arguendo* approach may initially appear to be more efficient, but ultimately may result in inefficient outcomes." (Para 741)

Did the Panel err in the interpretation of Article 2.1(a) of the SCM Agreement?

The EU alleged that the Panel had erred in considering the US government "as a whole" to be a "granting authority for the purpose of Article 2.1 of the *SCM Agreement* and the relevant granting authorities in the present case were NASA and USDOD. The US on the other hand submitted that if multiple authorities participate in the process of granting the subsidy, nothing in the text of Article 2.1(a) prevented a panel from considering all of them to be part of the granting authority. (Paras 743-744)

The Appellate Body noted the following on the issue:

a. Subparagraph (a) of Article 2.1 called for a determination of whether access to a subsidy was limited to "certain enterprises". The focus of this inquiry was thus on the class of subsidy recipients, and the manner in which access to that subsidy was limited to that class. These limitations must be "explicit", which the Appellate Body has previously explained meant that they must be "express, unambiguous, or clear from the content of the relevant instrument, and not merely 'implied' or 'suggested'".[10] Article 2.1(a) referred to limitations on access to "a subsidy". Although the use of this term in the singular might suggested a limited conception, if construed too narrowly, any individual subsidy transaction would be, by definition, specific to the recipient.

b. Other context in Article 2.1 suggested a potentially broader framework within which to examine specificity. Subparagraphs (a) and (b) of Article 2.1 referred to "the granting authority, or the legislation pursuant to which the granting authority operates". The Appellate Body did not consider that the use of the term "granting authority" in the singular limited the inquiry. The use of the term "granting authority", in its view, did not preclude there being multiple granting authorities. Rather, this was likely where a subsidy was part of a broader scheme. (Paras 745-749)

c. The foregoing indicated that the scope of the inquiry called for under Article 2.1(a) was not necessarily limited to the subsidy as defined in Article 1.1. Although the subsidy as defined in Article 1.1 was the starting point of the analysis under Article 2.1(a), the scope of the inquiry was broader in the sense that it must examine the legislation pursuant to which the granting authority operates, or the express acts of the granting authority. Thus, the Appellate Body expected that most claims of specificity under Article 2.1(a) would focus on limitations set out in the legislation pursuant to which the granting authority operated. Members may design the legal framework for the distribution of subsidies in many ways. However, the choice of the legal framework by the respondent could not predetermine the outcome of the specificity analysis. For instance, a Member may choose to authorize the distribution of subsidies to eligible enterprises or industries in the same legal instrument. In such cases, the inquiry may focus solely on that legal instrument.

[10]Appellate Body Report, *United States – Definitive Anti-Dumping and Countervailing Duties on Certain Products from China*, WT/DS379/AB/R, adopted 25 March 2011, Para. 372.

(Para 750)

d. Having said that, the chapeau of Article 2.1 made it clear that the assessment of specificity was framed by the particular subsidy found to exist under Article 1.1. This meant that the assessment of specificity under Article 2.1 should not examine subsidies that were different from those challenged by the complaining Member. A subsidy, access to which was limited to "certain enterprises", did not become non-specific merely because there were other subsidies that were provided to other enterprises pursuant to the same legislation. (Para 751)

e. Determining whether multiple subsidies were part of the same subsidy was not always a clear-cut exercise and required careful scrutiny of the relevant legislation. Once the proper subsidy scheme was identified, then the question was whether that subsidy was explicitly limited to "certain enterprises", defined in the chapeau of Article 2.1 as "an enterprise or industry or group of enterprises or industries". (Paras 752 - 753)

f. An assessment of specificity may not end with a consideration of Article 2.1(a). The Appellate Body has cautioned against examining specificity on the basis of the application of a particular subparagraph of Article 2.1 "when the potential for application of other subparagraphs is warranted in the light of the nature and content of measures challenged in a particular case".[11] Thus, following an assessment under Article 2.1(a), a panel must also consider whether Article 2.1(b) and/or Article 2.1(c) were applicable. The European Union's claim on appeal centred on the proposition that the term "granting authority" in Article 2.1 can refer to only the authority that provides the challenged subsidy. (Paras 754-755)

g. The analysis under Article 2.1 focuses on ascertaining whether access to the subsidy in question was limited to a particular class of eligible *recipients*. While the scope and operation of the granting authority was relevant to the question of whether such an access limitation with respect to a particular class of recipients existed, it was important to keep in mind that it was not the purpose of a specificity analysis to determine whether the authorities involved in granting the subsidies constituted a single subsidy *grantor* or several *grantors*. Thus, the Appellate Body did not believe that the Panel erred in the interpretation of Article 2.1 of the *SCM Agreement* by assessing the alleged subsidies provided by NASA and the USDOD against the legal framework that existed in the United States for the allocation of patent rights under government R&D contracts and agreements and pursuant to which these granting authorities operated. Accordingly, it rejected this aspect of the European Union's appeal. (Paras 757 - 760)

Did the Panel err in the application of Article 2.1(a) of the SCM Agreement?

The EU also alleged that the Panel erred in the application of Article 2.1(a) of the *SCM Agreement* to the relevant NASA and USDOD measures. The arguments put forward by the EU in this part of its appeal were directed at demonstrating that the Panel should have considered NASA and the USDOD to be the granting authorities for purposes of the analysis of specificity. The US had explained that, under its patent regime, the inventor was the initial owner of any rights to his/her inventions. Additionally, a patent holder had the right to assign, or transfer by succession, the patent and to conclude licensing contracts with third parties. The EU's claims on appeal concerned a particular aspect of the US patent regime, namely, the allocation of patent rights when an invention was discovered in the course of R&D work being performed by an enterprise under a contract or agreement with the US Government, and more particularly with

[11]Appellate Body Report, *United States – Definitive Anti-Dumping and Countervailing Duties on Certain Products from China*, WT/DS379/AB/R, adopted 25 March 2011*)*, Para 371

NASA and the USDOD. (Paras 761-763)

The Panel had noted that prior to 1980, the US government had a general policy of taking all rights to patents over inventions produced by contractors under federally funded R&D contracts. However, in 1980, the government changed its policy and started allowing government contractors to retain ownership of patents, with the government receiving a 'government use' license to use the subject invention without having to pay royalties. This new government policy was implemented through:

(a) the **Bayh-Dole Act**, which was adopted in 1980 and which is codified at Title 35 of the *United States Code*, sections 200-212 (entitled "Patent Rights in Inventions Made with Federal Assistance");

(b) the **1983 Presidential Memorandum** to the heads of Executive departments and agencies (entitled "Government Patent Policy") that extended the scope of the policy to all government contractors, regardless of size and profit/non-profit status;

(c) the **1987 Executive Order** (entitled "Facilitating access to science and technology") into which the terms of the 1983 Presidential Memorandum were eventually incorporated;

(d) the corresponding **general federal regulations** implementing the Bayh-Dole Act, the 1983 Presidential Memorandum, and the 1987 Executive Order, which are codified at Title 48 of the *United States Code of Federal Regulations*, sections 27.300-27.306 (entitled "Patent Rights Under Government Contracts"); and

(e) the **NASA-specific regulations** (entitled "Patents and Other Intellectual Property Rights", with subpart 1 entitled "Patent Waiver Regulations") codified at Title 14 of the *United States Code of Federal Regulations*, section 1245.

The Appellate Body noted that the allocation of rights over invention discovered during the course of work performed for USDOD is determined by sections 27.300-27.306 of Title 48 of the US Code of Federal Regulations. Under this, the contractor may file a patent application over the invention and exercise all rights that this entails, with a non-exclusive, non-transferable, irrevocable, paid up license to practice provided to the US government. The government also obtains "march-in" rights, which empower the federal department or agency to compel the contractor, in certain limited circumstances, to grant a license to applicants on terms that are reasonable under the circumstances, or to grant the license itself. The same regulations that applied to USDOD applied to all other US governments and agencies, with the exception of NASA. Under the Space Act, the legislation that created NASA, the rights over inventions discovered in the course of work performed under a contract with NASA belongs to the US. However, the NASA regulations did allow for requests for waivers to be made in advance of the invention and after the reporting of an invention, subsequent to the invention being made. There was evidence on record that NASA routinely granted waivers when requested. (Paras 771 - 779)

According to the Appellate Body, the key point was that both under the general regulations, which applied to the USDOD and other departments, and under a NASA waiver, ownership rights over the invention belonged solely to the contractor through the allocation of patents under NASA and USDOD contracts and agreements, even though the mechanism for the initial allocation of patent rights was formally somewhat different. (Para 780)

The Appellate Body noted that the thrust of the EU's argument was that because aerospace companies were the only ones eligible to receive NASA and USDOD funding, the patents that resulted under the

NASA/USDOD R&D contracts and agreements must also be specific. The Appellate Body however explained that the allocation of patent rights under NASA/USDOD contracts and agreements was a reflection of the broader legislative and regulatory framework that applied to the allocation of patent rights in US government R&D contracts and agreements. Thus, once this legal framework was taken into consideration, it became clear that the eligibility to receive the alleged subsidy was not limited to the class of enterprises that conducted aerospace R&D. (Para 782)

An additional argument of the EU was that an interpretation was that an interpretation of Article 2.1 that looked to government-wide policies of a Member rather than actions and legislation of the authority that actually provided the subsidy could frustrate the object and purpose of the SCM Agreement. The Appellate Body rejected EU's argument and stated "where a legislative framework exists that does not explicitly limit the eligibility of the subsidy to a certain class of enterprises or industries, as is the case here, it is not the type of subsidy that the drafters intended to make "specific" under Article 2.1(a) of the *SCM Agreement*. Thus, we cannot see how the object and purpose of the *SCM Agreement* would be frustrated." (Para 788)

The Appellate Body hence concluded that it did not see any basis to find that such subsidy was explicitly limited to certain enterprises, and was therefore specific within the meaning of Article 2.1(a) of the *SCM Agreement*.

Did the Panel err by failing to address the European Communities' allegation of *de facto* specificity under Article 2.1(c)?

The EU argued that the Panel had erred by failing to adjudicating the EC's arguments of *de facto* specificity under Article 2.1(c) of the SCM Agreement. According to the EU, even if there was no *de jure* specificity under Article 2.1(a), there was, at a minimum, the considerable potential for Article 2.1(c) *de facto* specificity based on how those authorities actually implemented the legislation or policy. Before the Panel, the EC had based its claim of specificity under Article 2.1(c) on the alleged 'disproportionate' amount of NASA contracts entered into and USDOD funding received by Boeing. (Para 790 - 792)

The Appellate Body noted that while the Panel had included the EC arguments on *de facto* specificity in its summary of parties' argument, the Panel did not refer to Article 2.1(c) in its analysis of the EC's claim of specificity, nor did it provide any explanation as to why it chose not to address the same. Thus, according to the Appellate Body, the Panel's ultimate conclusion of non specificity under Article 2.1 rested on an incomplete analysis. The Appellate Body noted that the analysis under Article 2.1(c) proceeded where there were reasons to believe that subsidy may in fact be specific. The EU had sought to support its claim under Article 2.1(c) by referring to the share of NASA contracts and USDOD funding received by Boeing. (Paras 790-797)

The Appellate Body recalled that the Panel had proceeded on the assumption that the allocation of patent rights was in some respects a self-standing subsidy that is separate from the payments and other support provided under the NASA/USDOD contracts and agreements. In the light of this assumption, any findings that the Panel made as to the specificity of the payments and other support provided under the NASA/USDOD contracts and agreements could not speak to the specificity of the allocation of patent rights to the extent it constituted a self-standing subsidy. Therefore, the Appellate Body was not persuaded that the arguments presented by the European Union demonstrate that, on the assumption that the allocation of patent rights was a self-standing subsidy, it was, "in fact", specific within the meaning of Article 2.1(c). (Para 799)

D. ***Washington State Business and Occupation (B&O)Tax Rate Reduction***

Financial Contribution: Revenue Foregone

The US appealed the Panel's finding that the reduction in the Washington State B&O tax rate applicable to commercial aircraft and component manufacturers under the Washington State House Bill 2294 constituted a financial contribution under Article 1.1(a)(1)(ii) of the *SCM Agreement*. The Panel had reviewed the Appellate Body's reasoning in *US – FSC*[12] and *US – FSC (Article 21.5 – EC)* [13] concerning the administration of tax and the foregoing of government revenue that is otherwise due within the meaning of Article 1.1(a)(1)(ii) of the *SCM Agreement*. The test applied by the panel in *US – FSC* involved examining the situation that would have existed but for the measure in question and determining whether there would have been a higher tax liability in the absence of the measure. On the basis of its review, the Panel summarized its understanding of the Appellate Body's analysis as suggesting that, "where it is possible to identify a general rule of taxation applied by the Member in question, a 'but for' test can be applied". The Panel added that, "{i}n other situations, the challenged taxation measure should be compared to the treatment applied to comparable income, for taxpayers in comparable circumstances in the jurisdiction in issue". (Para 801-802)

Turning to the B&O tax rate reduction for commercial aircraft manufacturing activities, the Panel had concluded that "there is indeed a general rate of taxation applicable to manufacturing activities in the State of Washington and that the tax reduction provided to aircraft manufacturing activities constitutes an exception to this rule". (Para 803)

When does Government forego revenue otherwise due?

The Appellate Body recalled the core aspects of its reasoning in *US – FSC* and *US – FSC (Article 21.5 - EC)* where it had observed that the foregoing of revenue otherwise due implied that less revenue had been raised by the government than would have been raised in a different situation, and that the word "foregone" suggested that the government had given up an entitlement to raise revenue that it could "otherwise" have raised. This purported entitlement, however, could not exist in the abstract. There must have been "some defined, normative benchmark against which a comparison can be made between the revenue actually raised and the revenue that would have been raised 'otherwise'". In both *US – FSC* and *US – FSC (Article 21.5 – EC)*, the Appellate Body considered that there may be situations where the measure at issue might be described as an "exception" to a general rule of taxation. In such cases, the Appellate Body said that it may be possible to apply a "but for" test to examine the fiscal treatment of income in the absence of the challenged measure. At the same time, the Appellate Body expressed concerns about the application of such an approach. In *US – FSC*, the Appellate Body stated that it had certain "abiding reservations" about applying any legal standard, such as a "but for" standard, in the place of actual treaty language, and expressed its concern that the application of a single standard would give rise to problems of circumvention. (Paras 806 - 810)

The Appellate Body noted that the identification of circumstances in which government revenue that was otherwise due was foregone required a comparison between the tax treatment that applied to the alleged subsidy recipients and the tax treatment of comparable income of comparably situated taxpayers.

[12] Appellate Body Report, *United States – Tax Treatment for "Foreign Sales Corporations"*, WT/DS108/AB/R, adopted 20 March 2000

[13] Appellate Body Report, *United States – Tax Treatment for "Foreign Sales Corporations" – Recourse to Article 21.5 of the DSU by the European Communities*, WT/DS108/AB/RW, adopted 29 January 2002,

Accordingly, a panel examining a claim under Article 1.1(a)(1)(ii) of the *SCM Agreement* should:

a. First, identify the tax treatment that applied to the income of the alleged recipients. Identifying such tax treatment would entail consideration of the objective reasons behind that treatment and, where it involved a change in a Member's tax rules, an assessment of the reasons underlying that change.
b. As a second step, the panel should identify a benchmark for comparison—that was, the tax treatment of comparable income of comparably situated taxpayers.
c. Finally, as a third step, the panel should compare the reasons for the challenged tax treatment with the benchmark tax treatment it has identified after scrutinizing a Member's tax regime. Such a comparison would enable a panel to determine whether, in the light of the treatment of the comparable income of comparably situated taxpayers, the government was foregoing revenue that was otherwise due in relation to the income of the alleged recipients.

In the light of the demands of this inquiry, the Appellate Body recalled the reservations expressed by it about the limitations inherent in identifying a general rule and exception relationship. In doing so, a panel might artificially create a rule and an exception where no such distinction existed. Thus, while there may be circumstances in which scrutiny of a tax regime indicated the presence of a general rule and an exception, it expected that such an indication would not ordinarily end the analysis. Rather, a panel was expected to further examine the structure of the domestic tax regime and its organizing principles. (Paras 812 - 815)

Assessment of the Panel's Analysis under Article 1.1(a)(1)(ii) of the *SCM Agreement*

The first claim of the US was that the Panel had misconceived the proper standard under Article 1.1(a)(1)(ii) of the *SCM Agreement* by elevating the "but for" test "to the status of {a} general rule". According to the US, contrary to the Panel's approach, the Appellate Body had rejected the proposition that the "but for" test reflected the correct standard under Article 1.1(a)(1)(ii), instead, viewing it as "simply one methodology" that may be useful for applying the general standard "in certain, limited situations". The EU maintained that the Panel did not misinterpret the legal standard, and that the Panel made clear "that a 'but for' test *can* be applied, not *must* be applied, where it is possible to identify a general rule of taxation". (Para 816)

The Appellate Body noted that the Panel approach suggested that, as long as a general rule of taxation was identified, it was sufficient to conduct an analysis limited to the determination that, but for the challenged measure, higher tax liability would have attached by virtue of the general rule. The Appellate Body felt that this approach may lead to an overly narrow conception of which rules were relevant in identifying a benchmark. At the same time, it noted that, by stating that a "but for" test *could* be applied; the Panel indicated its awareness that the identification of a general rule did not lead invariably to the exclusive application of such a test. Therefore, subject to its observations concerning the Panel's articulation of the legal standard, it did not consider that articulation to be inconsistent with Article 1.1(a)(1)(ii) of the *SCM Agreement.* (Para 818)

The Appellate Body also noted the following in this respect:

(a) A panel must be aware of the limitations inherent in identifying and comparing a general rule of taxation, and an exception from that rule. For instance, it could be misleading to identify a benchmark within a domestic tax regime solely by reference to historical tax rates. By that measure, the fact that commercial aircraft and component manufacturers were *previously* subject

to higher tax rates would not in itself be determinative of what the benchmark is at the time of the challenge. In the circumstances of this case, however, it did not consider that the Panel was conducting a purely historical comparison. (Para 823)

(b) It could be misleading to compare rates applicable to a general category of income with rates applicable to a subcategory of that income, without considering whether the scope of the "exceptions" undermined the existence of a "general rule". In this dispute, it noted that the Panel analyzed what portion of income was entitled to a rate of taxation different from that applicable to income from general manufacturing activities. This reflected consideration by the Panel as to the relative tax treatment of other taxpayers engaged in the same broad category of business activities as commercial aircraft manufacturers. (Para 824)

(c) There was no indication in the Panel record that adjusting tax rates to approximate the average effective tax rate reflected a principle under the Washington State B&O tax regime. Rather, it appeared to be more in the nature of an *ex post* explanation regarding the relationship of these rates to one another. Moreover, the United States itself conceded that the average effective B&O tax rate did not constitute a benchmark for the purposes of this case under Article 1.1(a)(1)(ii). (Para 829)

(d) In addition, the Panel record did not support the contention that Washington State implemented House Bill 2294 alone, or as part of a broader regulatory scheme, to counteract the effects of pyramiding. House Bill 2294 was implemented in order to provide certain tax incentives to the aerospace industry. The fact that House Bill 2294 provided for a reversion to "full taxes" in the event that certain reporting requirements were not met would seem contrary to alleviating the burden on the commercial aircraft sector caused by higher effective tax rates. (Para 830)

(e) The Washington State Tax Structure Study Committee, which the United States relied upon to highlight concerns with pyramiding in the Washington State tax system, recommended replacing the B&O tax system altogether, instead of adjusting tax rates throughout the B&O taxation system to remove the effects of pyramiding. Finally, the Appellate Body noted that the Panel's conclusion elsewhere in its Report that none of the evidence submitted by the United States indicates that the B&O tax rate reduction was introduced in order to combat pyramiding. It therefore did not consider that the average effective tax rate in the Washington State B&O tax system served as an appropriate benchmark against which to compare the tax rate reduction set out in House Bill 2294. (Para 830)

For the foregoing reasons, the Appellate Body upheld the Panel's finding, in paragraph 7.133 of the Panel Report, that the reduction in the Washington State B&O tax rate applicable to commercial aircraft and component manufacturers constituted the foregoing of revenue otherwise due, and therefore a financial contribution within the meaning of Article 1.1(a)(1)(ii) of the *SCM Agreement*. (Para 831)

Specificity

The US also appealed the Panel's finding that the the Washington State B&O tax rate reduction under House Bill 2294 was a subsidy that was specific within the meaning of Article 2.1(a) of the *SCM Agreement*. The United States did not challenge the Panel's interpretation of specificity under Article 2.1(a) of the *SCM Agreement*. Rather, the United States claimed that the Panel failed, in the application of Article 2.1(a), to consider the entirety of the subsidy that the Panel had found to exist. In the United States' view, the Panel failed to analyze whether, taking all of the differential tax rates in the Washington State tax system together, access to the subsidy was limited to certain enterprises, or whether

access was sufficiently broadly available throughout the economy so as to indicate that the subsidy was not specific to certain enterprises. (Para 832 - 838)

The Appellate Body reiterated that scope of the inquiry called for under Article 2.1(a) was not necessarily limited to the subsidy as defined in Article 1.1. Although the subsidy as defined in Article 1.1 is the starting point of the analysis under Article 2.1(a), the scope of the inquiry was broader in the sense that it must examine the legislation pursuant to which the granting authority operates, or express acts of the granting authority. This meant that the inquiry under Article 2.1 should not examine subsidies that are different from those challenged by the complaining Member. That inquiry requires careful scrutiny of the relevant legislation—whether set out in one or several instruments—to determine whether the subsidies are provided pursuant to the same subsidy scheme. (Para 841)

Following its assessment under Article 1.1 of the *SCM Agreement*, the Panel had found that the "Washington B&O tax reduction" was a subsidy to Boeing within the meaning of Article 1 of the *SCM Agreement*. By "Washington B&O tax reduction", the Panel was referring to the B&O tax rate reduction enacted under House Bill 2294.

The United States advanced two main arguments on appeal. First, the United States suggestd there was incoherence in the Panel's approach. According to the United States, the Panel was required by Article 2.1 to "address the specificity of the subsidy that has been found to exist, not some other subsidy, and not merely a part of the subsidy found to exist" (Para 848)

The Appellate Body noted that having correctly started its analysis with the subsidy that it had determined to exist under Article 1.1, the Panel then expanded the scope of its inquiry by turning to the Washington State tax code as a whole. According to the Appellate Body, the Panel did not consider that the other differential tax rates formed part of the same subsidy scheme as the B&O tax rate reduction applicable to commercial aircraft and component manufacturers. It did not consider that the approach undertaken by the Panel was incoherent. On the contrary, if the Panel had concluded that the other differential tax rates were not part of the same subsidy scheme as the reduced B&O tax rate for commercial aircraft and component manufacturers, then it was correct for the Panel not to have considered them collectively. The Appellate Body therefore considered that the Panel's approach was consistent with the scope of the inquiry under Article 2.1(a). (Para 849)

Second, the United States questioned the basis for the Panel's conclusion that it was not appropriate to consider the various B&O differential tax rates as part of the same subsidy programme. The United States asserted that none of the factors on which the Panel based its conclusion—namely, timing, level, and purpose— was relevant to the analysis. The Appellate Body shared the Panel's view that, where multiple subsidies were part of the same subsidy scheme, one would expect to find links or commonalities between those subsidies. The Panel observed that the Washington State B&O tax regime applied certain rates to taxpayers based on the business activity in which they engage. (Paras 850 - 851)

The B&O tax rate reduction applicable to commercial aircraft and component manufacturers was enacted under House Bill 2294 as an amendment to the tax code, known as the *Revised Code of Washington*. At the oral hearing, the United States argued that this tax rate, together with the other differential tax rates, should have been considered collectively as a subsidy, because they are all contained in the Washington State tax code and expressed as exceptional rates to the general rates set out in that code. (Para 853)

Finally, the Appellate Body noted that, apart from observing that all of the differential tax rates were contained within the *Revised Code of Washington*, the United States had not referred to any evidence on the Panel record to support the proposition that the B&O tax rate reduction applicable to commercial

aircraft and component manufacturers and the other differential tax rates form part of the same subsidy scheme. It therefore considered that the Panel had a proper basis to conclude that the differential B&O tax rates set out in the *Revised Code of Washington* do not form part of a common subsidy programme. (Paras 855 - 856)

Thus, because the foregoing analysis indicated that there was an explicit limitation on access to a subsidy to certain enterprises, the Appellate Body did not consider that further analysis under Article 2.1(c) was warranted. For the foregoing reasons, it *upheld* the Panel's finding, in paragraph 7.205 of the Panel Report that the Washington State B&O tax rate reduction granted under House Bill 2294 was a subsidy that was specific within the meaning of Article 2.1(a) of the *SCM Agreement*. (Paras 857 - 858)

E. ***City of Wichita Industrial Revenue Bonds (IRB) – Specificity***

The US also appealed the Panel's finding that the IRB subsidises provided by the City of Wichita were a specific subsidy within the meaning of Article 2.1(c) of the SCM Agreement.

As a general matter, IRBs were issued by the City of Wichita to the general public on behalf of a qualifying private entity, the proceeds of which were used to purchase, construct, or improve commercial or industrial property for that entity. The IRB scheme operated somewhat differently for Boeing, and subsequently Spirit (which acquired Boeing's Wichita division in June 2005), because the IRBs at issue, rather than being purchased by the public, were purchased by Boeing and Spirit themselves. This meant that Boeing and Spirit funded their own property development through the IRBs. Boeing and Spirit thus used IRBs, not for the purpose of financing property development, but rather to take advantage of property and sales tax exemptions associated with the IRBs. The City of Wichita had issued IRBs to Boeing and Spirit every year since 1979. (Para 860)

The Panel had first considered the challenged measure under Article 2.1(a) of the *SCM Agreement*. Noting that the EC had not submitted arguments in respect of that provision, the Panel considered that the relevant Kansas State statutory provisions authorizing the issuance of IRBs by Kansas cities and counties did not expressly limit the availability of the subsidy within the meaning of Article 2.1(a). The Panel therefore turned to consider the EC's claim of specificity under Article 2.1(c) of the *SCM Agreement*. Although the Panel had assessed each of the factors under Article 2.1(c), its ultimate finding of specificity relied on its consideration of the EC's arguments that Boeing and Spirit were granted disproportionately large amounts of IRB subsidies. (Para 861)

The US challenged the Panel's finding that the IRB subsidies were granted in disproportionately large amounts within the meaning of Article 2.1(c) of the *SCM Agreement* and, in particular, the Panel's decision to use company-specific employment levels of Boeing and Spirit, relative to total manufacturing employment in the City of Wichita, as the benchmark for its disproportionality analysis. The Appellate Body concluded the following on the issue:

a. The Appellate Body noted that the IRBs were potentially available to enterprises that sought to purchase, construct, or improve various types of commercial or industrial property. Thus, enterprises that would seek to have the City of Wichita issue IRBs on their behalf were those that intended to invest in property development. In any given year, not all enterprises in Wichita undertook such property development, and, even if they were, they may not have been inclined to fund such development through the IRB scheme. The Appellate Body therefore considered it likely that, although the legal basis for the allocation of IRBs may seemingly be broadly available to enterprises in Wichita, the enterprises that were actually in a position to avail themselves of IRB benefits at any given time represented only a subset of all enterprises in Wichita. In this

dispute, the European Communities submitted to the Panel that Boeing and its successor, Spirit, received approximately 69% of all IRBs granted by the City of Wichita between 1979 and 2005. The Panel noted no objection by the United States to this ratio, and considered that it was reasonable to rely on it in assessing Boeing's and Spirit's share of property tax abatements with the total amount of property tax abatements received by all IRB holders. (Paras 883 - 884)

b. The Appellate Body also noted that the fact that Boeing and its successor received over two thirds of all IRB property tax abatements from the City of Wichita over a 25-year period, provided a reason to believe that the IRB subsidies were granted in disproportionately large amounts to certain enterprises. (Para 884)

c. The Appellate Body noted that a panel's inquiry under Article 2.1(c) should focus on the reasons that explain any disparity between the actual and expected distributions of a subsidy. On appeal, the US sought to explain why the fact that Boeing and Spirit were granted 69% of IRB benefits did not indicate the granting of disproportionately large amounts of subsidy. However, the Appellate Body found that the US had not provided sufficient reasons supported by evidence to undermine the assessment that the granting to Boeing and Spirit of 69% of the amounts of IRB subsidy represented an allocation at variance from what would have been expected from the allocation of IRBs in accordance with their conditions for eligibility. (Paras 886 - 889)

The Appellate Body thus upheld, albeit for different reasons, the Panel's finding, in paragraph 7.779 of the Panel Report, that the IRB subsidies provided by the City of Wichita to Boeing and Spirit were specific within the meaning of Article 2.1(c) of the *SCM Agreement*. (Para 889)

F. ***Adverse Effects***

After finding 15 measures to constitute specific subsidies in the collective amount of "at least $5.3 billion", the Panel proceeded to evaluate the EC's claims that it had suffered adverse effects to its commercial interests in the form of serious prejudice within the meaning of Articles 5(c) and 6.3(a), (b), and (c) of the *SCM Agreement*. In its analysis, the Panel separated these subsidy measures into three groups, identified three relevant product markets, and considered two mechanisms (by affecting Boeing's *prices*, and by affecting the development of *technologies* for use on a new Boeing LCA model) through which the subsidies were alleged to cause serious prejudice. (Para 890)

The structure and summary of the EC's claim and the Panel's finding on adverse effects are reproduced below (Table 2, Page 368):

Product market (Boeing and Airbus LCA in that market)	**Serious prejudice alleged**	**Serious prejudice found**
100-200 seat LCA market (737NG and A320)	**All of the subsidies had price effects which caused:** · significant price suppression of the A320, or threat thereof · significant lost sales of the A320, or threat thereof · displacement and impedance of EC exports of the A320 from various third-country markets, or threat thereof	**The FSC/ETI subsidies and the Washington State B&O tax rate reduction affected Boeing's pricing of the 737NG, and this caused:** · significant price suppression of the A320 · significant lost sales of the A320 · displacement and impedance of EC exports of the A320 from third-country markets
200-300 seat	**All of the subsidies had price**	**The aeronautics R&D subsidies**

LCA market (767, 787, A330, Original A350, and A350XWB-800)	**effects, and the aeronautics R&D subsidies also had technology effects, and both types of effects caused:** · significant price suppression of the A330, Original A350, and A350XWB-800, or threat thereof · significant lost sales of the A330 and Original A350, or threat thereof · displacement and impedance of EC exports of the A330 and Original A350 from various third-country markets, or threat thereof · displacement and impedance of EC imports of the A330 and Original A350 into the United States, or threat thereof	**affected Boeing's development of technologies for the 787, and this caused:** · significant price suppression of the A330 and Original A350 · significant lost sales of the A330 and Original A350 · threat of displacement and impedance of EC exports of the A330 and Original A350 from third-country markets
300-400 seat LCA market (777, A340, and A350XWB-900/ -1000)	**All of the subsidies had price effects which caused:** · significant price suppression of the A340, or threat thereof · significant lost sales of the A340, or threat thereof · displacement and impedance of EC exports of the A340 from various third-country markets, or threat thereof	**The FSC/ETI subsidies and the Washington State and City of Everett B&O tax rate reductions affected Boeing's pricing of the 777, and this caused:** · significant price suppression of the A340 · significant lost sales of the A340 · displacement and impedance of EC exports of the A340 from third-country markets

Before proceeding further in its analysis, the Appellate Body identified the following key characteristics of the LCA industry:

a. The LCA market was a duopoly. Airbus and Boeing each held a significant share of the market and possessed a degree of market power. Each manufacturer's decision regarding the supply and pricing of its products had the ability to influence the pricing of the other and, more generally, the market price. (Para 903)
b. LCA were sold to customers through long-term contracts, often involving staggered deliveries of aircraft over several years. The terms and conditions of each purchase contract were set at the time the order is made, and included many different elements, such as aircraft specification, net price, discounts, non-price concessions, and financing arrangements. LCA production involved substantial upfront development costs over a period of several years, with a return over a considerably longer period—18 years, on average. (Paras 904 -905)
c. LCA producers set prices in relation to, *inter alia*, the development costs for a particular LCA programme and the prices of competing LCA. At the time an LCA order was placed, the negotiated price was typically lower than the airframe prices listed in publicly available materials, due to price concessions and credits offered by the manufacturer. (Para 907)

The Panel's approach and analysis

The Panel had begun its analysis of serious prejudice by outlining the approach that it intended to take in analyzing the EC's claim. The Panel had indicated that these provisions required the establishment of a causal link between the subsidies at issue and the form of serious prejudice alleged. The Panel considered

nonetheless that, given the absence of the precise type of "causation" and "non-attribution" language found in Part V of the *SCM Agreement*, these provisions afforded panels a certain degree of discretion in selecting an appropriate methodology for analyzing whether subsidies have caused the specific market phenomena listed in the subparagraphs of Article 6.3.(Para 909)

The Panel remarked that the parties agreed that "determining whether the effect of the subsidies at issue in the dispute is serious prejudice necessitates an economic analysis of how the subsidies affected *Boeing's* commercial behaviour with respect to the pricing and product development of particular LCA". The Panel resolved to adopt a "unitary" approach to causation and stated that it would adopt a counterfactual approach in examining whether the effects of the subsidies at issue were displacement or impedance, significant lost sales, or significant price suppression. The Panel had further explained that this counterfactual analysis would take place in two stages:

a. First, the Panel would examine the effects of the subsidies on *Boeing's* prices and product offerings in the relevant product markets.
b. Second, the Panel would examine the effects that the subsidies had, through those effects on Boeing, on *Airbus'* prices and sales in the same product markets. The Panel added that it would undertake an evaluation of possible non-attribution factors at both stages of its integrated analysis of causation. (Paras 910-911)

Further, the Panel had also observed that, in its submissions, the EC had distinguished, "based on the nature of the subsidies" between, on the one hand, the effects of the subsidies benefiting Boeing's 787 family of LCA and, on the other hand, the effects of the subsidies benefiting Boeing's 737NG and 777 families of LCA. The EC had alleged that all of the subsidies had "price effects" on all three of these Boeing LCA families in all three relevant product markets, because the subsidies provided Boeing with the ability to charge lower prices either by reducing Boeing's marginal unit costs or by increasing Boeing's non-operating cash flow. In addition, the EC had contended that the aeronautics R&D subsidies had "technology effects" in one of those product markets in that they "helped Boeing develop, launch and produce a technologically-advanced 200-300 seat LCA much more quickly than it could have on its own". Based on this understanding, the Panel had analysed the issue from the perspective of price effects and technology effects separately. (Para 916)

The Appellate Body analyses and findings

The Appellate Body divided its analysis of the issues on appeal relating to the Panel's serious prejudice findings into the following sections and the same are subsequently discussed below:

a. The US's appeal of the Panel's findings with respect to the "technology effects" of the aeronautics R&D subsidies.
b. The EU's appeal, under Article 11 of the DSU, of the Panel's finding that there was insufficient evidence on the record to enable it to assess the effects of the USDOD RDT&E programmes (other than the ManTech and DUS&T programmes).
c. The US's appeal of the Panel's findings regarding the "price effects" of the tied tax subsidies at issue.
d. The EU's European appeal of the Panel's decisions not to undertake a collective assessment of certain groups of subsidies and their effects for purposes of its serious prejudice analysis.

a. Technology effects

The Panel had structured its analysis of the alleged "technology effects" of the aeronautics R&D subsidies

in two stages, beginning with an analysis of the effect of the subsidies on Boeing's offering of the 787, and followed by an analysis of the effect of the subsidies on Airbus' prices and sales. On the basis of its two intermediate conclusions, the Panel had found overall that:

> "… the effect of the aeronautics R&D subsidies is a threat of displacement and impedance of European Communities' exports from third country markets within the meaning of Article 6.3(b) of the SCM Agreement, with respect to the 200-300 seat wide-body LCA product market, and significant lost sales and significant price suppression, within the meaning of Article 6.3(c) of the SCM Agreement with respect to that product market, each of which constitute serious prejudice to the interests of the European Communities within the meaning of Article 5(c) of the SCM Agreement." (Paras 923 - 926)

The US had sought reversal of this overall finding by the Panel, as well as a number of intermediate conclusions leading up to it made by the Panel at the first and second stages of its causation analysis. The US argued that the Panel had erred in finding that the aeronautics R&D subsidies caused adverse effects to the interests of the EC within the meaning of Articles 5(c) and 6.3 of the *SCM Agreement* because they "contributed in a genuine and substantial way to Boeing's development of technologies for the 787." The US contended that the Panel's conclusion that a "genuine and substantial" link existed was in error, because the Panel failed properly to take into account its own findings that:

1. much of the work that NASA funded bore a weak relationship to the 787 as it was not directed toward the six critical 787 technologies identified by the Panel;
2. even the NASA research most directly on the development pathway toward the 787 is far removed from the ultimate technologies used on that aircraft;
3. NASA funding was only one of many sources available to Boeing for technology development and was unavailable for later stages of the research;
4. non-subsidy sources were responsible for most of the technology eventually used to make the 787 and for Boeing's ability to apply that technology to the 787; and
5. the magnitude of the subsidies was small in relation to the cost of developing the 787. (Para 949)

According to the US, "when considered in their totality", the above findings demonstrated that the Panel could not properly have determined that a genuine and substantial relationship of cause and effect existed between the aeronautics R&D subsidies and the adverse effects to the interests of the EC. The EU asserted that all of the arguments of the US in this part of the appeal related solely to the weighing of the evidence, and therefore should have been brought under Article 11 of the DSU as challenges to the Panel's objectivity in reviewing and appreciating the evidence.

Specific grounds of appeal raised by the US

Whether the Panel erred by "extrapolating findings" with respect to three NASA composites programmes to all of the R&D programmes?

US alleged that the Panel had erred because it examined in detail only three NASA programmes—the ACT, AST, and the R&T Base programmes—and then extrapolated their effects to the remaining NASA and USDOD R&D programmes at issue. US highlighted in particular the Panel's treatment of two NASA programmes —the HSR and the AS programmes—which according to the United States were not on the "causal pathway" to the development of the technologies used on the 787. (Para 970)

The Appellate Body did not agree with the US that the Panel had improperly "extrapolated" the effects of

the three composites programmes to the other NASA and USDOD programmes. According to the Appellate Body:

"The causal link found to exist between all of the R&D programmes at issue and the 787 technologies did not rest on extrapolation. Reasoning from "extrapolation" would imply an assumption that, because certain programmes gave rise to technologies that are used on the aircraft, other programmes automatically do the same. That was not the Panel's reasoning. Rather, it was the Panel's view that all of the programmes, to differing degrees, contributed to the process of technological development that eventually led to the commercialization of the 787 technologies. The Panel was clearly of the view that the three composites programmes that contributed to the development of the composites technologies were on the "causal pathway" to Boeing's offering of the 787. However, this did not exhaust the Panel's understanding of the relevant causal link. That causal connection encompassed even research conducted pursuant to programmes that resulted in failure, or were not directly related to the 787 technologies. Far from attenuating or diluting any link that might exist between the three composites programmes and the 787, the Panel's assessment of the role of the remaining R&D programmes buttresses its overall finding that all of the aeronautics R&D subsidies contributed, albeit to differing degrees, to the development of the technologies used on the 787." (Para 971)

Whether the Panel erred by not finding that the NASA research was too far removed from the commercial technologies used on the 787?

In its second argument on appeal, the US alleged that, by misreading a table in the Peisen Study, the Panel had miscalculated the amount of time by which the NASA research accelerated the development of the technologies used on the 787 and thereby understated the time and resources that Boeing itself was required to invest to bring the NASA research to commercial viability. Therefore, even if the research conducted by NASA were on the "causal pathway" towards a technology ready for operational use on the 787, the Panel underestimated how far removed that research was from the technologies actually used on the 787, and therefore misjudged the amount of additional private sector development time required to develop them. The EU countered that the arguments of the US related to a factual error by the Panel and, in the absence of a claim under Article 11 of the DSU, were outside the scope of appellate review. In any event, the EU contended that, even if the US's arguments were to be accepted on appeal, they did not invalidate the Panel's finding of a causal link because, even if the Panel's reading of the table in the Peisen Study were erroneous, and were revised, this correction would not affect the Panel's ultimate legal conclusions. (Paras 972 - 974)

The Panel had referred to the Peisen Study in support of its finding that NASA research reduced the risk that the private sector would otherwise have to bear in financing early and potentially unsuccessful research. That study explained NASA's system of categorizing research according to its level of maturity or TRL (technological readiness level), ranging from the highest risk and lowest maturity technology at TRL 1 ("basic scientific/engineering principles observed and reported") to the lowest risk and highest maturity technology at TRL 9 ("operational use of actual system tested, and benefits proven"). According to the Peisen Study, "NASA typically works on technologies from a TRL of 1 to a TRL of 6" and, at TRL 6, "industry often takes the technology and develops it to the state of operational readiness, TRL 9". (Para 974)

The Appellate Body noted that in addressing the US's claim, two steps taken by the Panel in its consideration of the table in the Peisen Study could be distinguished. First, the Panel's appreciation of the contents of that table; and second, its application of the legal causation standard to the evidence. According to the Appellate Body,

> "The first step is factual since it concerns the Panel's treatment of factual evidence; the second step, however, is legal since it involves the characterization of the facts according to the legal standard. Although a misreading of the evidence under the first step might have had consequences for the Panel's ultimate legal conclusion under the second step, it is an error in the appreciation of the facts, and not an error in the application of the legal standard. Consequently, in the absence of a claim under Article 11 of the DSU, we are unable to consider further this ground of the United States' appeal." (Para 979)

According to the Appellate Body, even if it was able to correct the Panel's erroneous reading of the table in the Peisen Study, the United States had not explained why or how the Panel's numerical error necessarily vitiated its finding that the aeronautics R&D subsidies facilitated an earlier launch of the 787 than would have otherwise been possible. The Panel's finding must be understood to mean that the NASA aeronautics R&D subsidies accelerated the technology development process by *some* amount of time, and, therefore gave Boeing an advantage in bringing its technologies to market. The exact amount of time was not critical: that the NASA research enabled Boeing to accelerate the research process was. Second, the Panel found elsewhere that the aeronautics R&D subsidies reduced the large disincentives for the private sector to invest in early stage aeronautics R&D. For these reasons, the Appellate Body rejected the arguments of the US that the Panel's misreading of the table in Peisen Study attenuated its findings that the aeronautics R&D subsidies contributed in a genuine and substantial way to the development of the 787. (Para 980 -981)

Whether the Panel erred in its appreciation of the role of Boeing and its suppliers in the development of the technologies used on the 787?

The US also challenged the Panel's assessment of the role played by Boeing and its suppliers in the commercial and technological success of the 787. US highlighted that the Panel itself acknowledged that Boeing conducted a substantial amount of research *on its own* to develop and launch the 787, including at the early stages of the research effort. According to the US, the NASA-funded research was, "by any measure", small in comparison, and the additional research and independent technological developments by Boeing attenuated any link between the aeronautics R&D subsidies and the technologies used on the 787. Further, the United States argues that the Panel failed to take proper account of the knowledge and experience that Boeing acquired from non-NASA sources, including through its work with its suppliers. The European Union repeats its argument that *all* of these claims of the United States should have been brought under Article 11 of the DSU. (Paras 982-983)

The Appellate Body began its analysis with the US argument that the Panel had erred in its application of Articles 5(c) and 6.3 in failing to take proper account of the contribution of Boeing and its suppliers vis-à-vis the role of the aeronautics R&D subsidies in the timely development of the 787 technologies, and that this alleged failure vitiated the Panel's determination that a genuine and substantial causal relationship existed between the aeronautics R&D subsidies and the 2004 launch of the technologically advanced 787. The Appellate Body noted that the Panel had illustrated that it appreciated the extent of Boeing's contribution to the research into the technologies for the 787, and was aware of its ability to finance such research. However, the Panel had demonstrated through its reasoning why those substantial contributions on Boeing's part were not inconsistent with the genuine and substantial link that it had found to exist between the aeronautics R&D subsidies and the timely development of the 787 technologies. What was crucial to that link was not merely the fact that Boeing also conducted research, and that it used its own resources to do so, but, rather, it was "the length of time over which {the aeronautics R&D subsidies} operated, the collaboration with Boeing and complementarity with Boeing's own internal R&D efforts and the nature of the technological problems that were the focus of the research". (Paras 984-986)

The US also argued that the Panel underestimated the role played by Boeing's *suppliers* in developing the 787 technologies. The Appellate Body noted that the Panel did take into account the contribution made by suppliers, but that it nonetheless concluded that such contribution did not attenuate the genuine and substantial link that it had found to exist between the aeronautics R&D subsidies and Boeing's launch of the 787 in 2004. (Para 988)

In addition to its claims that the Panel had erred in its application of Articles 5(c) and 6.3(b) and (c) of the *SCM Agreement*, the US also asserted that the Panel violated Article 11 of the DSU. Specifically, the US contended that there was no evidentiary basis for the Panel's statement in paragraph 7.1772 of its Report that "Boeing's ability to use other companies' commercially available technologies on the 787 was due to 'the knowledge and experience that Boeing obtained pursuant to the aeronautics R&D subsidies as an integrator of the various technologies'". According to the Appellate Body, paragraph 7.1772 contained a mere passing observation by the Panel that, even if Airbus had access to technologies provided by third-party suppliers on a commercial basis, it would not have had the ability to use such technologies the way Boeing did due to the experience the latter had gained, through the aeronautics R&D subsidies, as an integrator of the various technologies. Thus, it did not consider that the statement in paragraph 7.1772 was material to the Panel's disposition of the argument that critical technologies from third-party suppliers were commercially available to Airbus, since this argument had already been rejected by the Panel in the last two sentences of the preceding paragraph. Therefore, even in the absence of the statement in paragraph 7.1772, the Panel's rejection of the United States' argument that critical technologies used on the 787 from third-party suppliers were equally commercially available to Airbus would nevertheless stand. (Paras 990-996)

Whether the Panel erred in its appreciation of the relevance of NASA's public dissemination of the results of the NASA R&D?

The US argued that the Panel had failed properly to take into account the fact that "NASA's public dissemination requirement" lessened the value of the aeronautics R&D subsidies to Boeing. The US highlighted the Panel's finding that NASA restricted the public dissemination of "certain aspects" of its research. In response, the EU argued that the Panel had correctly found, within the bounds of its discretion, that the dissemination by NASA of its research results was limited because of contractual restrictions designed to favour US LCA manufacturers. Moreover, the EU highlighted that the Panel's finding was based on its acceptance of the EC's argument that NASA did not generally publicly disclose or disseminate anything that was commercially useful or important. (Paras 997 - 998)

The Appellate Body rejected US's appeal and stated that the

> "Panel's findings indicate that research results subject to data restriction clauses were the most commercially sensitive information and, therefore, of the most value to Boeing and its competitors. The United States does not advance arguments as to how the competitive position of Airbus was improved—or how Airbus suffered lesser adverse effects—because "certain aspects" of the results of the NASA research programmes were disseminated. Nor does the United States explain what the impact of any reduction in the $2.6 billion amount of the NASA subsidies would be on the Panel's findings with respect to the effects of those subsidies, especially given the fact that the Panel did not equate the effects of the aeronautics R&D subsidies with their cash value. Finally, if the United States is seeking to have us step into the shoes of the Panel and, ourselves, find that the value of the NASA aeronautics R&D subsidies was something less than $2.6 billion, we do not see how we could do so given the limits on the scope of appellate review." (Para 1000)

Whether the Panel erred in its assessment of the magnitude of the NASA aeronautics R&D subsidies?

Finally, the US asserted that the $2.6 billion worth of aeronautics R&D subsidies found to have been provided to Boeing from 1989 to 2006 "is small compared to Boeing's own research and development spending", and that, therefore, any link between the research and Boeing's ability to develop and launch the technologically innovative 787 in 2004 "is that much more attenuated". In response, the EU highlighted that the Panel properly recognized that the aeronautics R&D subsidies were "intended to multiply the benefit from a given expenditure" and argued that the Panel "was not required to attach particular significance to the amount of the financial contribution in comparison to other expenditure".

The Appellate Body concluded the following on the issue:

(i) The Appellate Body stated that it was not clear to it that the Panel had excluded the possibility of a "multiplier" effect for Boeing's own R&D expenditures, as was argued by the US. Neither was it clear whether the Panel's reference to a "multiplier" effect was based on a qualitative or quantitative assessment of the value of R&D expenditures. Moreover, even if the value of Boeing's expenditures were multiplied, the Appellate Body did not see how this reduced the important contribution made by the NASA subsidies that were indispensable in allowing Boeing to overcome the disincentives it faced in investing in risky aeronautics R&D. (Para 1009)

(ii) US asserted that the Panel failed to take into account that many of the NASA payments found by the Panel to constitute subsidies were not "successfully deployed". According to the Appellate Body, the causal link found by the Panel incorporated within its scope even those research programmes that were not directly related to technologies used on the 787, including research conducted under research programmes that resulted in failed technologies. The Appellate Body therefore did not read the Panel's statement that the benefits were multiplied to the extent that they were "successfully deployed" as excluding altogether those programmes that resulted in failures, because, by the Panel's own account, these failed research efforts also contributed, albeit to a lesser extent, to the success of the 787. (Para 1010)

Thus, the Appellate Body did not accept that the difference in the magnitude of the aeronautics R&D subsidies and Boeing's own R&D spending attenuated the Panel's intermediate finding that the subsidies contributed in a genuine and substantial way to the development of the technologies used on the 787 in 2004. (Para 1010)

The Panel's Counterfactual Analysis

In its second set of arguments on appeal, the US had sought reversal of the Panel's finding that, "absent the aeronautics R&D subsidies, Boeing would not have been able to launch an aircraft incorporating all of the technologies that were incorporated on the 787 in 2004, with promised deliveries commencing in 2008", as well as its "dependent" finding that the aeronautics R&D subsidies caused adverse effects to the European Communities. The United States alleged that these findings were in error because, in both the first and second stages of its assessment of the technology effects, the Panel's counterfactual analysis was insufficient. While the first stage entailed an analysis of the effect of the aeronautics R&D subsidies on Boeing, the second stage was concerned with the effect of the aeronautics R&D subsidies on Airbus. (Para 1013)

US identified the "counterfactual portion" of the Panel's analysis as comprising the following "two findings":

a. "Boeing needed to develop an LCA to replace the 767 in the 200-300 seat wide-body product

market, and … it would have done so in the early- to mid-2000s"; and

b. "{A}bsent the aeronautics R&D subsidies, Boeing would not have been able to launch an aircraft incorporating all of the technologies that are incorporated on the 787 in 2004, with promised deliveries commencing in 2008."

The Appellate Body, however, noted that:

> "Contrary to the argument of the United States, we do not understand the counterfactual enquiry engaged in by the Panel to be limited to simply the two paragraphs in which these findings are contained. The Panel explained that it would adopt a counterfactual approach to causation for both stages of its causation analysis. That counterfactual analysis appears to us to have been underpinned by its consideration of: (i) the counterfactual scenario presented by the European Communities that, without the subsidies, Boeing would not have launched the 787 in 2004, but rather would have done so later; and (ii) the counterfactual scenario presented by the United States, namely that, without the subsidies, Boeing would have launched the same 787 aircraft with the same technologies at the same time that it did because it had the financial capacity to do so, and because it was engaged in the same R&D research as NASA." (Para 1022)

Counterfactual analysis – First stage

With regard to the Panel's counterfactual analysis in the first stage, the Appellate Body noted that many of the findings challenged by the US had already been dealt with in the previous part of the Report. According to the Appellate Body, by labelling these arguments as pertaining to the Panel's "counterfactual analysis", the US appeared to be repackaging several arguments that were already considered and dismissed above. The Appellate Body noted that the Panel's causation analysis must be understood holistically as incorporating a counterfactual approach to causation. In that analysis, the Panel had assessed whether, but for the subsidies, Boeing could have developed the 787 by 2004. In doing so, it expressly considered and engaged with arguments relating to Boeing's own involvement in research alongside NASA, its access to research facilities, as well as its substantial financial capabilities. Thus, while the Panel took account of these factors and acknowledged their significance, it still considered that the aeronautics R&D subsidies played an important role in accelerating the development of the 787 technologies, and allowing Boeing to overcome the significant disincentives it faced in investing in long-term, high-risk aeronautics R&D. (Para 1030)

Further, the Appellate Body concluded that it saw no inherent contradiction between the Panel's statement regarding the "essence of the intense competition between Boeing and Airbus" and its conclusion that, absent the subsidies, Boeing would not have been able to launch the 787 in 2004, as was being argued by the US. This was because the incentives created by the fierce competition between Airbus and Boeing did not exclude a finding that the investment required for aeronautics R&D was not warranted because of the inherent risk. Thus the Appellate Body concluded:

> "…we do not agree with the United States that the Panel's counterfactual analysis, as applied in the first stage of its analysis, was insufficient or undermines the genuine and substantial causal link that the Panel found to exist. Accordingly, we are unable to agree with the United States that the Panel erred in concluding, in paragraph 7.1775 of the Panel Report, that, "absent the aeronautics R&D subsidies, Boeing would not have been able to launch an aircraft incorporating all of the technologies that are incorporated on the 787 in 2004, with promised deliveries commencing in 2008". Therefore, we reject the United States' request for reversal of the above finding and for consequential reversal of the Panel's finding that the aeronautics R&D subsidies caused adverse effects to the interests of the European Communities." (Paras 1032 - 1036)

Counterfactual analysis – Second stage

The US asserted that the Panel's counterfactual analysis was deficient because, in assessing the effect of the aeronautics R&D subsidies on Airbus' sales and prices at the second stage, the Panel failed to explore "what the market would look like" under the counterfactual scenario of a 767-plus.[14] Based on its understanding of the Appellate Body report in *EC and certain member States – Large Civil Aircraft*, the United States argues that the Panel in this dispute could not have established the existence of a genuine and substantial causal relationship between the aeronautics R&D subsidies and the alleged serious prejudice without analyzing the 767-plus counterfactual scenario that it itself had identified. (Para 1037 - 1038)

The Appellate Body, however, noted that this scenario was not based on any counterfactual arguments of the parties. Moreover, it was a scenario adverted to in passing by the Panel in the introduction to the second stage of its analysis, even though there were no indications in the Panel's reasoning or factual findings to support the statement that Boeing might have introduced a new LCA model before all of the technologies found on the 787 were ready for commercial application. Accordingly, the Appellate Body was unable to agree with the United States' argument that the Panel's failure to pursue the counterfactual involving a 767-plus was in error, and called into question the genuine and substantial link found by the Panel to exist between the aeronautics R&D subsidies and the relevant adverse effects. Therefore it also rejected the United States' request for consequential reversal of the Panel's finding that the aeronautics R&D subsidies caused adverse effects to the interests of the EC. (Para 1040)

The Panel's analysis of the effects of the Aeronautics R&D Subsidies on the Airbus

The United States also separately appealed findings of the Panel at the second stage of its analysis in which it examined the effects of the aeronautics R&D subsidies on Airbus' prices and sales. The Panel had concluded that the effect of the aeronautics R&D subsidies was a threat of displacement and impedance of European Communities' exports from third country markets within the meaning of Article 6.3(b) of the SCM Agreement, with respect to the 200-300 seat wide-body LCA product market, and significant lost sales and significant price suppression, within the meaning of Article 6.3(c) of the SCM Agreement with respect to that product market, each of which constitute serious prejudice to the interests of the European Communities within the meaning of Article 5(c) of the SCM Agreement.

The US Appeal relating to the second stage of the Panel's analysis of the Technology Effects of the Aeronautics R&D subsidies

(i) Significant lost sales

The US challenged the Panel's finding that the effect of the aeronautics R&D subsidies was significant lost sales to Airbus in the same market, within the meaning of Article 6.3(c) of the *SCM Agreement*. In this dispute, the EC had relied on evidence from ten sales campaigns to substantiate its claims of significant lost sales. The Panel had agreed with the European Communities that in four of the 10 sales campaigns referred to by the European Communities—that is, the sales campaigns involving Qantas (2005), Ethiopian Airlines (2005), Icelandair (2005), and Kenya Airways (2006)—the effect of the aeronautics R&D subsidies was significant lost sales in the same market, within

[14] The scenario of a "767-plus" involved a 767-replacement in 2004 that was technologically superior to the 767, but did not offer the degree of technological innovation of the 787. (Panel Report, Para 7.1775)

the meaning of Article 6.3(c) of the *SCM Agreement*. In the Panel's view, the "performance characteristics of the 787, and/or its scheduled entry into service in 2008" were "decisive factors" in Boeing's ability to secure these sales. (Paras 1051, 1053-1054)

Before proceeding into the analysis, the Appellate Body noted the following:

> "The Appellate Body has defined a "lost sale" as one that a supplier "failed to obtain".[15] The Appellate Body has understood that concept as "relational", entailing consideration of "the behaviour of both the subsidized firm(s), which must have won the sales, and the competing firm(s), which allegedly lost the sales", due to the effect of the subsidy.[16] Sales can be lost "in the same market", within the meaning of Article 6.3(c), only if the subsidized product and the like product compete in the same product market. With respect to the meaning of "significant", the Appellate Body has noted that this term means "important, notable or consequential"[17], and has both quantitative and qualitative dimensions."[18] (Para 1052)

Whether the Panel erred by "double-counting" each 787 sale as two lost sales for Airbus?

The US asserted that the Panel's finding of significant lost sales was in error because it implied that the sales of both the A330 *and* the Original A350 were lost in the Qantas, Ethiopia Airlines, Icelandair, and Kenya Airways sales campaigns. The United States contended that, for the lost sales found by the Panel, Airbus, either, made no bid at all, removed the A330 from consideration in favour of the Original A350, or offered only the Original A350 against the 787. Therefore, the Panel's finding that Airbus lost sales for the *A330* did not meet the requirements of Article 6.3(c) of the *SCM Agreement* and, in the United States' view, must be reversed. Since the finding of a threat of displacement and impedance of the A330 was based "exclusively" on the "invalid" lost sales finding, the United States asserted that it must also be reversed. (Para 1056)

The Appellate Body, *inter alia*, concluded the following on the issue:

1. In arguing that the Panel "double-counted" lost sales, the United States appeared to focussed on the Panel's statement at the end of its analysis that, but for the effects of the R&D subsidies, Airbus "would have made additional sales of the A330 *and* Original A350 over the same period, and to that extent, would not have suffered significant lost sales in the 200-300 seat wide-body LCA product market, within the meaning of Article 6.3(c) of the SCM Agreement". That finding must, however, be read together with the prior reasoning contained in the body of the Panel's analysis. The Panel had neither stated nor implied that it considered that two sales had been lost by Airbus for each 787 ordered. The Appellate Body understood the reasoning of the Panel to be contained in its explanation that customers chose the 787 because of their perception that it was more technologically advanced than either the A330 or the Original A350, as well as on account of its low price. (Paras 1059 - 1060)

2. In concluding that there was a threat of displacement and impedance, the Panel explicitly stated

[15]Appellate Body Report, *European Communities and Certain Member States – Measures Affecting Trade in Large Civil Aircraft*, WT/DS316/AB/R, adopted 1 June 2011 Para. 1214.
[16] Ibid.
[17]Appellate Body Report, *United States – Subsidies on Upland Cotton*, WT/DS267/AB/R, adopted 21 March 2005,Para 426
[18]Appellate Body Report, *European Communities and Certain Member States – Measures Affecting Trade in Large Civil Aircraft*, WT/DS316/AB/R, adopted 1 June 2011, Para 1218.

> that, but for the aeronautics R&D subsidies, "Airbus would have obtained additional orders for its A330 *or* Original A350" from customers in third-country markets in Australia, Ethiopia, Kenya, and Iceland. The Panel's threat of displacement and impedance finding was a consequence of its lost sales finding and was based on the same sales campaigns that Boeing won and Airbus lost. Thus, the Panel's use of "or", rather than "and", in its finding regarding a threat of displacement and impedance suggests to us that, far from "double-counting" lost sales for each specific campaign, the Panel treated each lost sale to Boeing as being a loss of *either* the A330 *or* the Original A350. (Para 1061)

Thus, the Appellate Body rejected the US request for reversal of the Panel's finding of lost sales of the A330 because of 'double counting'.

Whether the Panel erred by failing properly to consider other factors?

Second, the US argued that, in concluding that the Ethiopian Airlines, Icelandair, and Kenya Airways sales campaigns resulted in lost sales for the A330 and Original A350, the Panel had failed to take into account "customer-specific situations" showing that Boeing's victory in these campaigns was not the effect of the aeronautics R&D subsidies. In response, the EU asserted that the Panel considered, and properly rejected, relevant other factors. The EU explained that the Panel could not explain its finding in more detail due to the HSBI nature of the sales campaign evidence. (Para 1064 - 1065)

The Appellate Body noted that the claims brought by the US could only be properly dealt with if brought under Article 11 of the DSU since they challenged the objectivity of the Panel's assessment of the facts and sought the Appellate Body to attribute a different weight to a specific factor than did the Panel. In the absence of such a claim, the Appellate Body saw no basis to interfere with the Panel's exercise of its fact-finding authority solely on the ground that it came to different conclusions in circumstances where the facts surrounding these campaigns illustrated that they shared one characteristic with other campaigns for which the Panel did not find lost sales. (Para 1066)

The Appellate Body thus concluded that:

> "In the light of the above, and even accepting that the Panel could have provided a fuller explanation as to how the evidence from the three sales campaigns supports a finding of significant lost sales in the same market, we are not persuaded that the Panel erred in applying Article 6.3(c) of the *SCM Agreement* in its consideration of the sales campaigns involving Ethiopian Airlines, Icelandair, and Kenya Airways, and therefore reject the United States' request for reversal of the lost sales finding. For that same reason, we reject the United States' request for reversal of the Panel's consequential finding of a threat of displacement and impedance." (Para 1068)

(ii) Threat of displacement and impedance

In addition to its requests for consequential reversal (deriving from the alleged flaws in the finding of lost sales) of the Panel's finding that the aeronautics R&D subsidies caused a threat of displacement and impedance of exports of Airbus aircraft in the "third-country markets" of Ethiopia, Kenya, and Iceland, the US also independently appealed that finding. The US alleged that the Panel failed to establish that Ethiopia, Kenya, and Iceland constituted "third-country markets" within the meaning of Article 6.3(b), and that this failure constituted legal error because, as the Appellate Body had previously found, panels considering a claim of displacement or impedance have an "obligation to assess the relevant market" under Article 6.3(b). The EU supported the Panel's finding that it did not need to "consider whether the European Communities ha{d} established the existence of such country markets" because, in this dispute,

both parties had accepted that the relevant product market was 200-300 seat LCA market, and the relevant geographic markets of Ethiopia, Kenya, and Iceland were "indisputable". (Para 1069 - 1070)

Before addressing the specific arguments on appeal, the Appellate Body recalled the meaning of the concepts of displacement and impedance as previously stated by the Appellate Body. In *EC and certain member States – Large Civil Aircraft*, the Appellate Body had explained that "displacement" referred to an economic mechanism in which exports of a like product are replaced by the sales of the subsidized product.[19] Specifically, it had found that "displacement" connoted that there was "a substitution effect between the subsidized product and the like product of the complaining Member" and, in the context of Article 6.3(b), "displacement arises where exports of the like product of the complaining Member are substituted in a third country market by exports of the subsidized product."[20] (Para 1071)

The Appellate Body saw no error in the approach followed by the Panel. It noted that the Panel had found that competition between Boeing and Airbus for sales in the 200-300 seat LCA market takes place on a global basis. Both parties had accepted the Panel's identification of the 200-300 seat LCA market and did not dispute that it was a global market. The US did not suggest to the Panel, and had not argued before the Appellate Body, that Kenya, Iceland, and Ethiopia did not form part of such a global market, or pointed to any reason why the conditions of competition within the territory of any of these Members would differ from the conditions of competition on the worldwide market. The Appellate Body rejected the argument of the US that, by relying on individual sales campaigns for its displacement and impedance finding with respect to Ethiopia, Kenya, and Iceland, the Panel had contradicted its own legal conclusion that treating a single sales campaign as a "market" nullifies the meaning of that term. (Paras 1078 - 1079)

However, on the second argument by the US relating to the evidentiary basis for the Panel's finding of a threat of displacement and impedance in Ethiopia, Kenya, and Iceland, where the US had contended that the volume of orders involved in these third-country market campaigns was too low to be capable of demonstrating a threat of displacement and impedance, and that there were insufficient "trends" of Airbus exports, the Appellate Body concluded that:

> "… the data are insufficient to demonstrate "clear trends" in any of the third-country markets concerned, as required by Article 6.4 of the *SCM Agreement*. Moreover, the Panel did not provide a specific explanation or reasoning as to how it reached its finding of a threat of impedance. For these reasons, we are unable to sustain the Panel's finding of a threat of displacement and impedance of exports of Airbus LCA with respect to the three relevant third-country markets." (Para 1089)

Thus, the Appellate Body rejected the US appeal that the Panel had erred by failing to identify and establish third-country "markets" in Iceland, Kenya, and Ethiopia within the meaning of Article 6.3(b) of the *SCM Agreement*. However, it *reversed* the Panel's finding that there was a threat of displacement and impedance in those same third-country markets. (Para 1090)

(iii) Significant price suppression

The Appellate Body recalled that in previous reports, it had been found that the price suppression was concerned with "whether prices are less than they would otherwise have been in consequence of … the subsidies". The US sought reversal of what it characterized as "three findings" made by the Panel with

[19]Appellate Body Report, *European Communities and Certain Member States – Measures Affecting Trade in Large Civil Aircraft*, WT/DS316/AB/R, adopted 1 June 2011 Para 1119.
[20]Appellate Body Report, *European Communities and Certain Member States – Measures Affecting Trade in Large Civil Aircraft*, WT/DS316/AB/R, adopted 1 June 2011, Para 1160.

respect to significant price suppression, namely:

1. that an effect of the aeronautics R&D subsidies was significant price suppression with regard to the A330 in the world market;
2. that an effect of the aeronautics R&D subsidies was significant price suppression with regard to the Original A350 in the world market; and
3. that an effect of the aeronautics R&D subsidies was significant price suppression with regard to Airbus 200-300 seat LCA. (Para 1102)

As a preliminary matter, the Appellate Body was not persuaded that the US was correct by referring to "three" Panel findings. In any event, the Appellate Body considered each of the three arguments presented by the US on this ground of appeal.

Whether the Panel improperly relied on a perceived coincidence between the 2004 launch of the 787 and a decline of prices for the A330?

The Appellate Body noted that the Panel had drawn its conclusions about the effects of the 787 on A330 prices on the basis of the *overall* trends demonstrating erosion of Airbus' market share as compared with the preceding four years, together with decreases in the (indexed) A330 prices during the reference period. It also noted that the Panel had considered the relevance of the trends in the light of its economic logic, which dictated that the introduction of a superior product at comparable prices would normally be accompanied by decreases in prices of the incumbent competing product. The US did not dispute this economic logic and line of reasoning employed by the Panel. It considered that the Panel's explanation of the inferences and conclusions that it drew from the movements in A330 prices over the reference period, following the launch of the 787, in the light of the strong surge in demand and Boeing's increasing market share, were consistent with and find a basis in the evidence. (Paras 1107 - 1109)

Furthermore, the Appellate Body did not see any basis for the United States' assertion that the Panel was required to attach decisive weight to specific data points in particular years of the reference period that, when viewed in isolation, appear to be at odds with the Panel's economic reasoning and with the data taken as a whole. The Appellate Body reasoned that even accepting that the evidence of market share and price trends referred to by the United States did not support the Panel's reasoning—which the Appellate Body did not necessarily agree was so—it did not consider that the points of criticism raised by the US undermined the Panel's theory or analysis of the evidence in its totality, or establish that the Panel could not have reached the conclusion that it did. Finally, and in any event, the Appellate Body noted that these arguments of the US sought to have it draw different inferences from the data than the Panel did. The reasons offered by the United States for the movements in A330 prices may not be unreasonable inferences to be drawn from the data; yet, the Appellate Body could not, for this reason alone, substitute them for the Panel's own appreciation of the evidence and reasoning over the facts before it. (Paras 1110 - 1112)

For these reasons, the Appellate Body did not consider that the conclusions drawn by the Panel from the data concerning the 787 market share and the A330 prices during the reference period were in error or indicated that the Panel erred in concluding that the effect of the aeronautics R&D subsidies was significant price suppression in the 200-300 seat LCA market. (Para 1113)

Whether the Panel's findings are insufficient to support conclusions about overall pricing levels for the Original A350?

The US also asserted that the Panel's finding of price suppression for the Original A350 must be reversed

because, with "no pricing data of any kind" and "anecdotal evidence" that covered "barely 30%" of sales of the Original A350 in the 200-300 seat LCA market, the evidence was insufficient to support any conclusion about overall pricing levels. The Appellate Body disagreed with the US and, *inter alia*, stated that in contrast to its reasoning with respect to the A330, the Panel did not refer to pricing trend data in its reasoning with respect to the Original A350. It appeared from the evidence submitted by the EC to the Panel that the Panel was referring to the three sales campaigns involving the ILFC, CIT Group, and Air Europa. In the Appellate Body's view, evidence from sales campaigns accounting for about one third of Original A350 sales during the reference period constitutes direct and sufficiently representative evidence of what was happening to the prices of the Original A350 during the reference period. The Appellate Body saw no reason why evidence relating to such sales could not, in this market, supply a sufficient basis upon which the Panel could conclude that there was price suppression with respect to the Original A350. (Paras 1114 - 1116)

Thus, the Appellate Body rejected the US request to reverse the Panel's finding that the aeronautics R&D subsidies caused significant price suppression in the 200-300 seat LCA market because of the alleged insufficiency of pricing data concerning the Original A350.

Whether the Panel was required, but failed, to determine the existence of significant price suppression for the product as a whole?

The final argument of the United States was that the Panel was required, but failed, to determine the existence of significant price suppression for the product "as a whole". In support, the US recalled that the panel in *Korea – Commercial Vessels*[21] observed that Article 6.3(c) of the *SCM Agreement* did not require a panel to assess price suppression by examining each model comprising the complaining Member's product but it did require that the ultimate conclusion relate to the complaining Member's product as a whole. (Para 1120)

The Appellate Body was not entirely persuaded of the United States' interpretation of the panel's reasoning in *Korea – Commercial Vessels*, nor, for that matter, of whether that panel's reasoning should be applied outside the particular facts of that dispute. The Appellate Body noted that even assuming, however, that a finding of price suppression should have been made for Airbus' "product as a whole" in the 200-300 seats LCA market, it did not see any error in the Panel's approach in this dispute. It was true that the Panel's ultimate finding of price suppression was based upon its analysis of the A330 and the Original A350, and not upon evidence as to price effects on the A350XWB-800. However, the US had not pointed to any evidence on the Panel record suggesting that the sales or the price levels of the A350XWB-800 during the reference period were so significant that, had they been taken into account, they would have prevented the Panel from reaching the finding that it did on the basis of its examination of A330 and Original A350 prices. Also, taken cumulatively, the pricing data for the A330 and Original A350 considered by the Panel would account for roughly three quarters of Airbus' sales in the 200-300 seat LCA market during the reference period. The Appellate Body therefore could not accept the US's argument that the Panel failed to undertake a price suppression analysis in the 200-300 seat LCA market that related to Airbus' "product as a whole". (Paras 1122 - 1124)

For the above reasons, the Appellate Body did not agree with the US that the Panel had erred in its treatment of the evidence concerning the prices of Airbus LCA in the 200-300 seat LCA market, and in concluding overall that the effect of the aeronautics R&D subsidies is significant price suppression with respect to the 200-300 seat LCA product market. (Para 1125)

[21] Panel Report, *Korea – Measures Affecting Trade in Commercial Vessels*, WT/DS273/R, adopted 11 April 2005

b. Article 11 of the DSU

The EU claimed that the Panel had failed to conduct an objective assessment of the matter as required under Article 11 of the DSU. In particular, the EU contended that the Panel failed to ensure due process in finding, in paragraph 7.1701 of its Report, that, save for the ManTech and DUS&T programmes, there was insufficient evidence to determine whether the USDOD RDT&E programmes funded "predominantly" assistance instruments, as opposed to procurement contracts, or a mixture of assistance instruments and procurement contracts. (Para 1128)

The Appellate Body's key observations and findings are summarised below:

1. At the outset of its analysis, the Appellate Body observed that the EU had style its claim under Article 11 of the DSU as a "due process" claim. In this respect, it noted that the Appellate Body had recognized the central role of due process in WTO dispute settlement, noting that:

> … {due process} informed and found reflection in the provisions of the DSU. In conducting an objective assessment of the matter, a panel was "bound to ensure that due process is respected". Due process is intrinsically connected to notions of fairness, impartiality, and the rights of parties to be heard and to be afforded an adequate opportunity to pursue their claims, make out their defences, and establish the facts in the context of proceedings conducted in a balanced and orderly manner, according to established rules. The protection of due process is thus a crucial means of guaranteeing the legitimacy and efficacy of a rules-based system of adjudication.[22] (footnotes omitted) (Para 1136)

2. The first of the EU's arguments in support of its due process claim was that the Panel had introduced the "predominance" approach for the first time in paragraph 7.1701 of its Final Report, thereby depriving the EC of any meaningful opportunity to comment on such a "novel theory". The Appellate Body noted that even if the word "predominantly" was not used in the Interim Report, the essence of this test could be discerned from earlier parts of the Interim Report, notably paragraphs 7.1148 and 7.1165. The Appellate Body therefore did not accept the EU's assertion that the Panel's predominance approach was unexpected because it appeared only in the Final Report. Accordingly, it did not agree with the EU that the mere inclusion of new language in paragraph 7.1701 of the Final Report means that the Panel acted inconsistently with Article 11 of the DSU by failing to provide the parties with an opportunity to comment on the alleged "novel" approach in paragraph 7.1701 of the Final Report. (Para 1137)

3. The Appellate Body also noted that under Article 13 of the DSU, panels were endowed with the authority to request information from relevant sources, including from WTO Members. It also recalled that the exercise of this authority may prove "indispensably necessary" to enable a panel to objectively assess the matter before it. In considering whether to exercise its authority under Article 13 of the DSU—in particular when a party had made an explicit request that it do so—a panel should have regard to considerations such as what information was needed to complete the record, whose possession it lies within, what other reasonable means might be used to procure it, why it had not been produced, whether it was fair to request the party in possession of the information to submit it, and whether the information or evidence in question was likely to be

[22]Appellate Body Report, *Thailand – Customs and Fiscal Measures on Cigarettes from the Philippines*, WT/DS371/AB/R, adopted 15 July 2011, Para 147.

necessary to ensure due process and a proper adjudication of the relevant claim(s). (Pars 1138-1140)

4. The issue in the present dispute was whether the Panel was required to request certain information from the United States before applying the predominance test articulated in paragraph 7.1701 of the Final Report. In short, the Panel's use of a contract-type analysis meant that information as to the extent to which assistance instruments were used under each of the USDOD programmes was critical to enable application of the test that it had articulated. Information regarding the extent to which different kinds of contracts were used under each of the USDOD programmes was within the exclusive possession of the United States. The EC had sought to obtain this information and, when it was unable to do so, had explicitly requested the Panel to do so. The Appellate Body noted that in such circumstances, the only way in which the Panel could have afforded the EC a fair opportunity to produce evidence necessary to make out its *prima facie* case was through the exercise of its authority under Article 13 of the DSU by requesting the US to submit the information that would have enabled the Panel to assess the claim of serious prejudice before it using its chosen approach. (Paras 1141 - 1143)

5. Overall, the Appellate Body concluded that the particular circumstances of this dispute demanded that the Panel assume an active role in pursuing a train of inquiry that would enable it to apply its predominance approach. In failing to seek additional information regarding the use of assistance instruments under all of the USDOD programmes, the Panel had compromised its ability to assess properly whether the effects of all 23 RDT&E programmes, and not only ManTech & DUS&T, caused adverse effects to the interests of the European Communities. (Para 1144)

In the light of the above, the Appellate Body found that, by failing to exercise its authority to seek out relevant information to satisfy its predominance approach in assessing the claim before it, the Panel acted inconsistently with its obligation under Article 11 of the DSU to make an objective assessment of the matter before it in finding, in paragraph 7.1701 of the Panel Report. The EU had requested that, if the Appellate Body found that the Panel had acted inconsistently with Article 11 of the DSU, the Appellate Body reverse the Panel's finding, in paragraph 7.1701 of the Panel Report, that "the {US}DOD RDT&E programmes (other than ManTech and DUS&T) do not cause the same effects as the other aeronautics R&D subsidies" at least to the extent that those remaining USDOD RDT&E programmes are funded through assistance instruments. The Appellate Body did not, however, see that the Panel had made any such finding in that paragraph. To the contrary, it read the Panel as having recognized that the other 21 USDOD RDT&E programmes may well also have had adverse effects to the extent that they were funded through assistance instruments. Accordingly, there was no finding for the Appellate Body to reverse, and the EU did not, in any event, sought the Appellate Body for a completion of the analysis. (Para 1145)

c. Price Effects

The US also appealed the Panel's findings, in paragraph 8.3(a)(ii) and (iii) of its Report , that:

(i) the effects of the FSC/ETI subsidies and the B&O tax subsidies provided by the State of Washington under {House Bill} 2294 were significant price suppression, significant lost sales and displacement and impedance of exports from third country markets, with respect to the 100-200 seat single-aisle LCA product market; and

(ii) the effects of the FSC/ETI subsidies and the B&O tax subsidies provided by the State of Washington under {House Bill} 2294 and by the City of Everett are significant price suppression, significant lost sales and displacement and impedance of exports from third country markets, with

respect to the 300-400 seat wide-body LCA product market.

The US requested the Appellate Body to reverse these findings on the grounds that, in reaching them, the Panel had erred in its interpretation and application of Articles 5(c) and 6.3(b) and (c) of the S*CM Agreement*.

Assessment of the Panel's Causation Analysis under Article 5(c) and 6.3(b) and (c) of the SCM Agreement

The Appellate Body analyzed independently each of the various elements of the US claim relating to different aspects of the Panel's unitary analysis of the price effects of the tied subsidies.

Whether the Panel conducted a proper causation analysis?

1. *Nature of the tied tax subsidies*

The Panel had considered several aspects of the nature of the tied tax subsidies. The Panel had found that, because both the FSC/ETI subsidies and B&O tax rate reductions were tied to sales of individual LCA, they increased the profitability of LCA sales. The Panel's conclusion that, "precisely because the FSC/ETI subsidies are contingent on Boeing making export sales, {it was} entitled to determine, absent reliable evidence to the contrary, that by their very nature, they will have trade distortive effects" was challenged by the US. In respect of this analysis, the US contended that the Panel erred in relying on a presumption that subsidies found to be prohibited under Part II of the *SCM Agreement* caused adverse effects within the meaning of Part III. According to the US, by relying on its finding that FSC/ETI subsidies were prohibited export subsidies under Article 3.1(a) to reach its finding that the tied tax subsidies caused serious prejudice under Article 6.3, the Panel had established a presumption that was not permitted under the *SCM Agreement*. (Paras 1183 - 1185)

In this regarded, the Appellate Body concluded the following:

> "… we do not view the Panel as having made a legal finding that, for purposes of analyzing a claim of serious prejudice under Part III of the *SCM Agreement*, subsidies that have been found to be export-contingent within the meaning of Part II of that Agreement *must be presumed* to cause adverse effects. Furthermore, we note that the Panel itself, in a footnote to the Panel's reasoning that is challenged by the United States, referred to various other factors, in addition to the export-contingent nature of the FSC/ETI subsidies, that supported its findings regarding the effects of the tied tax subsidies. This, too, demonstrates that the Panel did not reach its ultimate finding solely as a consequence of its finding, in a previous section of its Report, that the FSC/ETI subsidies "are export-contingent subsidies to Boeing's LCA division prohibited under Articles 3.1(a) and 3.2 of the SCM Agreement."" (Para 1186)

2. *Magnitude of the tied tax subsidies*

(***Key Question***: *Are both the absolute and the relative magnitudes of subsidies relevant to a panel's analysis of the effects of subsidies on prices?)*

The US also contended that the Panel had erred in its consideration of the magnitude of the FSC/ETI subsidies in relation to LCA values and, in particular, that it failed to take proper account of the small magnitude of those subsidies. The US challenged the Panel's conclusion that, although both parties submitted evidence demonstrating that FSC/ETI benefits amounted to less than 1% of the value of

Boeing's sales, that evidence was not "particularly informative or illustrative" of the capacity for the FSC/ETI subsidies to have affected LCA prices and sales. The EU contended that the Panel had conducted a thorough assessment of magnitude, taking into account important contextual factors relating to the nature and duration of the subsidies, as well as the conditions of competition. (Pars 1187 - 1188)

The Appellate Body also recalled that the issues relating to the amounts of the subsidies were also at issue in *US – Upland Cotton.* In that dispute, the Appellate Body had rejected the United States' contention that Article 6.3(c) requires a panel to quantify precisely the amount of the challenged subsidy benefiting the product at issue in every case. The Appellate Body had nevertheless stressed that, in analyzing a claim of significant price suppression, "a panel will need to consider the effects of the subsidy on prices" and that, in doing so, "it may be difficult to decide" whether the effect of a subsidy is significant price suppression without having regard to "the magnitude of the challenged subsidy and its relationship to prices of the product in the relevant market."[23]

According to the Appellate Body, both the absolute and the relative magnitudes of subsidies were likely to be relevant to a panel's analysis of the effects of subsidies on prices. Both considerations may shed light on the impact that those subsidies have on price, although the extent to which either or both considerations shed light on this relationship would depend on the particular subsidies, products, and markets at issue. Through scrutinizing magnitude in the light of and as part of an analysis of the particular subsidies, the particular products, and the particular characteristics of the market within which those products compete, a panel could gain an understanding of the effects that the subsidies have on prices, and of the relevance of the subsidies' magnitude to such effects. (Para 1193)

The Appellate Body concluded that like that of the panel in *US – Upland Cotton*[24], the reasoning of the Panel in this dispute with respect to the magnitude of the subsidies was somewhat opaque, and could have been more clearly elaborated. It may well be that, in considering magnitude, the Panel relied primarily on its findings regarding the *absolute* amounts of the tied tax subsidies. In this case, however, the parties also presented arguments and evidence regarding the *relative* significance of the subsidies and, in particular, on the issue of whether those subsidies were of a size that, when considered in relation to product values or prices, could produce market effects amounting to serious prejudice. Given that a comparison of the magnitude of the FSC/ETI subsidies in relation to LCA values was a relevant matter clearly put before the Panel, the Appellate Body considered that the Panel should have offered more of an explanation as to why it rejected the relevance of such data for its analysis. (Para 1194)

At the same time, however, the Appellate Body did note that, after dismissing the parties' submissions regarding the relative magnitude of the FSC/ETI subsidies as compared to order values and revenues, the Panel did provide other reasons, arguably relating to the magnitude of these subsidies, for its finding in paragraph 7.1818 regarding the clear "significance of the FSC/ETI subsidies to Boeing's ability to compete on price against Airbus". (Para 1195)

3. *The Panel's counterfactual analysis*

The US further argued that the Panel did not apply a proper counterfactual analysis, because it failed to establish that, absent the tied tax subsidies, Boeing's LCA prices would have been higher. The EU contended that the Panel had "engaged in a comprehensive counterfactual analysis".

[23]Appellate Body Report, *United States – Subsidies on Upland Cotton*, WT/DS267/AB/R, adopted 21 March 2005, Paras 461 and 467.
[24] Appellate Body Report, *United States – Subsidies on Upland Cotton*, WT/DS267/AB/R, adopted 21 March 2005, Para 468

The Appellate Body noted that when the Panel concluded that the tied tax subsidies "enabled Boeing to lower its prices beyond the level that would otherwise have been economically justifiable", the Panel considered that these subsidies only established the possibility or likelihood that Boeing would do so in particular sales campaigns. In addition, although the Panel concluded that this possibility would lead "in some cases" to lost sales, and "in other cases" to price suppression, the Panel did not explain the circumstances in which, or the extent to which, it considered that such phenomena would occur. For these reasons, the Appellate Body was unable to discern the precise meaning or scope of the Panel's statement that the tied tax subsidies enabled Boeing to lower its prices "beyond a level that would otherwise have been economically justifiable". The Panel did not, in so finding, discuss LCA prices for Boeing or Airbus, or explain what would have constituted "economically justifiable" behaviour for Boeing in the absence of subsidies, and compare that with Boeing's actual pricing behaviour. Thus, according to the Appellate Body, because the Panel did not provide reasoning or discuss under what circumstances the tied tax subsidies led Boeing to lower its prices beyond the level that would otherwise have been economically justifiable in LCA sales campaigns, it could not conclude on a generalized basis that these subsidies led Boeing to lower its prices in a manner causing Airbus to lose sales or to secure sales only at reduced prices. (Paras 1200-1201)

The Appellate Body also stated that contrary to the EU's submission, the US was not advancing an alternative counterfactual scenario, but rather was asserting that the Panel's own counterfactual analysis was internally inconsistent. If the Panel was unpersuaded that Boeing lacked the financial means without subsidies to price its LCA in the manner in which it did, that finding would appear to be in tension with the Panel's conclusion that the tied tax subsidies caused serious prejudice by altering Boeing's pricing behaviour. (Paras 1202-1204)

4. *The effects of the other factors*

The Appellate Body noted that when confronted with multiple factors that may have contributed to the alleged adverse effects, a panel must seek to understand the interactions between the subsidies at issue and the various other factors, and make some assessment of their connection to, as well as the relative contribution of the subsidies and the other factors in bringing about, the relevant effect. Although a panel need not determine that a subsidy is the sole or the only substantial cause of that effect, it must ensure that the other factors do not dilute the causal link between those subsidies and the alleged adverse effects such that it is not possible to characterize that link as a genuine and substantial relationship of cause and effect. (Para 1206)

The Appellate Body did not agree with the suggestion of the Panel that considerations of market share and price trends during a period of sustained subsidization, and of "other factors" potentially contributing to such shares or trends, were of no assistance or relevance in analyzing the effects of the subsidies. It further noted that the Panel did not, in its reasoning, mention any specific other factors raised by the United States, or engage in any discussion of whether or to what extent such factors may have had an effect on Boeing's pricing of its LCA or on Airbus' prices and sales. Because the Panel did not discuss any of the specific other factors advanced by the United States, it did not consider whether any of the other factors were capable of attenuating a genuine and substantial relationship between the tied tax subsidies and the market effects. The Panel's failure to address the relative significance of the other causal factors to Boeing's price effects contrasted sharply with the Panel's consideration of such factors in respect of the effects of the aeronautics R&D subsidies in the 200-300 seat LCA market. The Appellate Body therefore considered that, as the Panel did in respect of the 200-300 seats LCA market, the Panel should also have conducted an analysis of the other causal factors advanced by the US in examining the effects of the tied tax subsidies in the 100-200 seat and 300-400 seat LCA markets. (Paras 1207-1216)

Whether the Panel conducted a proper analysis of significant price suppression, significant lost sales, and displacement and impedance?

1. *Significant price suppression*

The US claimed that the Panel had erred in its analysis of significant price suppression because it undertook no analysis of prices in the 100-200 seat and 300-400 seat LCA markets. In failing to conduct such an analysis, the US asserted, the Panel had disregarded the effects of other relevant factors on LCA prices, and did not assess the degree of price suppression to determine whether it constituted *significant* price suppression. The EU argued that a panel need not examine price trend data, particularly since such information was not probative as to whether there has been actual price suppression. (Paras 1223-1224)

In the evaluation of the US's appeal relating to the Panel's analysis of the technology effects of the aeronautics R&D subsidies, the Appellate Body identified certain considerations relevant to the evaluation of a price suppression claim, including the utility of a counterfactual analysis. It also considered that it will ordinarily be useful for a panel to take into account evidence relating to price trends in a price suppression analysis. At the same time, there may be circumstances in which such evidence is unavailable, unreliable, or unpersuasive. The Appellate Body considered that the difference in the approaches used by the Panel in these two sections of its Report only underscored the absence of any assessment of market share and price trend data in the Panel's analysis of the price effects of the tied tax subsidies. According to the Appellate Body, as the Panel did in respect of the technology effects of the aeronautics R&D subsidies in the 200-300 seat LCA market, the Panel would also have examined available market share and price trend data for the 100-200 seat and 300-400 seat LCA markets. (Paras 1225 - 1227)

2. *Significant lost sales*

The US also submitted that lost sales within the meaning of Article 6.3(c) of the *SCM Agreement* required the identification of individual transactions in which sales were purportedly lost. The US argued that, as opposed to the approach of the panel in *EC and certain member States – Large Civil Aircraft*, and the Panel in this case when it considered the 200-300 seat LCA market, the Panel did not identify the sales in the 100-200 seat and 300-400 seat LCA markets that it found to constitute significant lost sales. Accordingly, the United States considers that the Panel failed to meet the requirements of Article 6.3(c) for a finding of significant lost sales. The EU responded that there was no legal requirement that panels specify and assess individual sales campaigns. (Paras 1229 - 1230)

The Appellate Body found the scope of the Panel's lost sales finding to be unclear. In particular, it could not know whether the Panel, in referring to "particular sales campaigns of strategic importance", was referring to the individual sales campaigns evidence offered by the EC in Annexes E and F to its first written submission, more broadly to the "competitive sales campaigns" to which the EC referred in its submissions, or perhaps to some other conception of what the Panel considered to be "strategic" sales campaigns. Moreover, the Appellate Body was concerned by the fact that, irrespective of whether the Panel made a finding of significant lost sales on a global basis, or on the basis of individual sales campaigns, it did so without referring to, or discussing in its reasoning, any of the evidence relating to lost sales advanced by the EC in support of its lost sales claim. (Paras 1231-1232)

3. *Displacement and impedance*

The Appellate Body noted that the Panel's entire assessment of the EC's displacement and impedance

claim was limited to paragraph 7.1822 of its Report. Having found it reasonable to infer that the effects of the subsidies were significant in terms of lost sales and price suppression, the Panel concluded that such effects constituted significant lost sales and significant price suppression within the meaning of Article 6.3(c) of the *SCM Agreement*, "as well as displacement and impedance of exports from third-country markets, within the meaning of Article 6.3(b)". (Paras 1237-1240)

The Appellate Body did not agree with the implication of the Panel's reasoning that the phenomena of displacement and impedance necessarily followed from a finding of significant lost sales. In *EC and certain member States – Large Civil Aircraft*, the Appellate Body acknowledged the potential overlap of lost sales, and displacement and impedance, in that both phenomena related to a firm's sales. In addition, the Appellate Body was concerned by the absence of any analysis by the Panel regarding the existence of displacement and impedance in particular third-country markets. Although the Appellate Body had already rejected the US's argument that the Panel had erred in failing to determine whether any of the countries in which the European Communities alleged displacement or impedance constituted a "market", the Appellate Body considered that the Panel had erred in not identifying or discussing the third countries in which displacement or impedance occurred. Further, although the Panel had stated that its findings of displacement and impedance during the reference period "can only be definitely established by relevant delivery data", the Panel did not refer to, or assess, any such data in its price effects analysis. (Paras 1241 - 1247)

Completion of Analysis

(***Key Question***: *In what situations, can an Appellate Body complete the analysis after reversing a panel's findings?)*

Lastly, the Appellate Body turned to consider whether it could complete the analysis and rule on the EU's claim that the tied tax subsidies caused serious prejudice within the meaning of Articles 5(c) and 6.3(b) and (c) of the *SCM Agreement*. In previous disputes, the Appellate Body had emphasized that it could complete the analysis "only if the factual findings of the panel, or the undisputed facts in the panel record" provided a sufficient basis for the Appellate Body to do so. According to the Appellate Body, where it could be established that Boeing was under particular pressure to reduce its prices in order to secure LCA sales in particular sales campaigns, and there were no other non-price factors that explained Boeing's success in obtaining the sale or suppressing Airbus' pricing, it could conclude that the subsidies contributed in a genuine and substantial way to the lowering of Boeing's prices. (Paras 1250 - 1260)

According to the Appellate Body, it followed from the above that it did not consider that the factual findings and uncontested facts drawn from the Panel record that related to the nature and magnitude of the subsidies, and the conditions of competition in the relevant markets, themselves sufficed to establish the requisite causal connection between the tied tax subsidies and the effects on Airbus' LCA sales and prices on a generalized basis. Instead, according to the Appellate Body, it could only reach a finding of serious prejudice based on the above if it could also identify uncontested facts on the Panel record that satisfied it that the pricing dynamic described above occurred in particular LCA sales campaigns.

The Appellate Body assessed the nature of subsidy, the magnitude of subsidy, conditions of competition in the industry, evidence from specific sales campaigns and other factors. On the basis of this assessment, the Appellate Body found that in two sales campaigns, the FSC/ETI subsidies and the Washington State B&O tax rate reduction caused, through their effects on Boeing's prices for the 737NG, significant lost sales to Airbus within the meaning of Article 6.3(c) of the *SCM Agreement*, while in others a completion of analysis could not take place. The Appellate Body thus found that the FSC/ETI subsidies and the Washington State B&O tax rate reduction caused serious prejudice in the 100-200 seat LCA market

within the meaning of Articles 5(c) and 6.3(c) of the *SCM Agreement*. (Para 1261 - 1274)

d. Collective Assessment of the subsidies and their effects

The EU challenged two decisions taken by the Panel to assess separately the alleged effects of different groups of subsidies. With respect to each, the EU asserted that, in refusing to conduct an integrated assessment of the effects of the relevant subsidies, the Panel had erred in its interpretation and application of Articles 5(c) and 6.3 of the *SCM Agreement*. The specific errors alleged consist of:

(i) the Panel's refusal to assess collectively the effects of the B&O tax rate reductions and the effects of the aeronautics R&D subsidies; and

(ii) the Panel's failure to assess collectively the effects of the tied tax subsidies (the FSC/ETI subsidies and the B&O tax rate reductions) and the effects of eight other subsidy measures (the "remaining subsidies").

Assessment of the EU's claims of error on appeal

(***Key Question***: *What are the two distinct means of undertaking a collective assessment of the effects of multiple subsidies?)*

The Appellate Body noted that two distinct means of undertaking a collective assessment of the effects of multiple subsidies had been used by panels in the past, namely:

(i) an *ex ante* decision taken by a panel to undertake a single analysis of the effects of multiple subsidies whose structure, design, and operation are similar and thereby to assess in an integrated causation analysis the collective effects of such subsidy measures; and

(ii) an examination undertaken by a panel *after* it has found that at least one subsidy has caused adverse effects as to whether the effects of other subsidies complement and supplement those adverse effects.

The former type of approach was employed by the panel in *US – Upland Cotton*, and the latter approach was employed by the panel in *EC and certain member States – Large Civil Aircraft*. For the sake of convenience, the Appellate Body referred to the first type of approach as a decision to "aggregate" the subsidies, or "aggregation", and to the second type of approach as a decision to "cumulate" the effects of the subsidies, or "cumulation". The Appellate Body further went to through relevant jurisprudence to note that:

a. Articles 5(c) and 6.3 of the *SCM Agreement* did not require that a serious prejudice analysis "clinically isolate each individual subsidy and its effects". Rather, the way in which a panel structured its evaluation of a claim that multiple subsidies had caused serious prejudice will necessarily vary from case to case.
b. Relevant circumstances that bear upon the appropriateness of a panel's approach included the design, structure, and operation of the subsidies at issue, the alleged market phenomena, and the extent to which the subsidies are provided in relation to a particular product or products.
c. A panel enjoys a degree of methodological latitude in selecting its approach to analyzing the collective effects of multiple subsidies for purposes of assessing causation.
d. However, a panel is never absolved from having to establish a "genuine and substantial relationship of cause and effect" between the impugned subsidies and the alleged market phenomena under Article 6.3, or from assessing whether such causal link is diluted by the effects of other factors.

e. Moreover, a panel must take care not to segment unduly its analysis such that, when confronted with multiple subsidy measures, it considers the effects of each on an individual basis only and, as a result of such an atomized approach, finds that no subsidy is a substantial cause of the relevant adverse effects. (Para 1284)

In considering how to conduct its analysis of the effects of the various subsidy measures, the Panel quoted the test set out by the panel in *US – Upland Cotton*[25] and explained that it would use such an approach, which it explained as follows:

> "{I}n order to conduct an aggregated analysis of the effects of subsidies in the context of this dispute, it should be possible to discern from their structure, design and operation that they affect Boeing's behaviour in a similar way." (Para 1294)

This approach led the Panel to undertake an aggregated analysis within each of the following three groups of subsidies: (i) the tied tax subsidies; (ii) the aeronautics R&D subsidies; and (iii) the remaining subsidies. It also led the Panel *not* to undertake an aggregated analysis of the tied tax subsidies *and* the aeronautics R&D subsidies, or of the tied tax subsidies *and* the remaining subsidies. (Para 1295)

Whether the Panel erred in declining to assess collectively the effects of the aeronautics R&D subsidies and the effects of the B&O tax rate reductions?

In examining the price effects of the subsidies within the 200-300 seat LCA market, the Panel had declined to consider the effects of the R&D subsidies together with the effects of the B&O tax rate reductions on the grounds that "the two groups of subsidies operate through entirely distinct causal mechanisms". (Para 1302)

The Appellate Body noted that the Panel had declined to "aggregate" the effects of these two groups of subsidies owing to their "distinct causal mechanisms". Although the Panel's reasoning suggested that it was declining to combine the two groups of subsidies for the purpose of carrying out an aggregated analysis of their collective effects, the Appellate Body considered whether the reason given by the Panel would have justified a refusal to cumulate the effects of the B&O tax rate reductions with the effects of the aeronautics R&D subsidies. Second, the Appellate Body recalled that, before the Panel, the EC had presented separate arguments as to how the aeronautics R&D subsidies caused technology effects, and how all of the subsidies (including the aeronautics R&D subsidies) caused price effects. The EC had argued that the aeronautics R&D subsidies had "two simultaneous effects" on prices, namely *direct* price effects by allowing Boeing to price more aggressively than would otherwise be possible; and (2) *indirect* price effects through the earlier availability of technologically innovative products like the 787 that require Airbus to lower, for example, its A330 prices to be able to compete. (Paras 1309-1310)

The Appellate Body, *inter alia*, concluded the following on the issue:

1. Like the EU, the Appellate Body considered that the Panel's reasoning, in its analysis of the effects of the tied tax subsidies within the 100-200 seat and 300-400 seat LCA markets, suggested that the Panel had considered that the B&O tax rate reductions had a genuine causal connection with Boeing's prices and, therefore, with Airbus' prices. It saw no indication that the Panel's evaluation of the directness of the link between the tied tax subsidies and Boeing's pricing would have been any different if it had analyzed only the B&O tax rate reductions. (Para 1316)

[25]Panel Report, Para. 7.1804 (referring to Panel Report, *US – Upland Cotton*, Para. 7.1192).

2. The issue of whether cumulation of the effects of different types of subsidies was possible or appropriate was a question that must be answered in the light of the particular facts and circumstances of a given case, including the subsidies at issue and their nexus with the subsidized products, the effects produced, and their relationship to the alleged Article 6.3 market phenomena. According to the Appellate Body,

> "We do not see any *a priori* reason—such as, that different subsidies operate through distinct causal mechanisms—why cumulation would be precluded outright. We are particularly hesitant to set out a rigid benchmark against which panels should test whether or not cumulation is appropriate based on the facts of this dispute or of *EC and certain member States – Large Civil Aircraft*. Each of these disputes involved very particular duopolistic markets, in which the market participants enjoyed some degree of market power in their product and pricing decisions. In such markets, it may be that the "product" or "technology" effects of subsidies can be examined separately from their "price" effects. We nevertheless question whether such a segmented analysis is capable of fully reflecting market dynamics and taking account of the scope for subsidies and their effects to interact in these types of markets. Moreover, in many other markets, the structure of competition will be such that it will simply be impossible meaningfully to conduct a separate analysis of, or distinguish between, "product" effects and "price" effects." (Para 1319)

3. The Appellate Body was also of the view that the Panel should have, in this dispute, considered whether the effects of the B&O tax rate reductions complemented and supplemented the effects of the aeronautics R&D subsidies within the 200-300 seat LCA market, or, in other words, whether it would have been appropriate to cumulate their effects. By closing its mind to such an approach, "owing to the very different way" in which the two groups of subsidies operated and their "entirely distinct causal mechanisms", the Panel had failed to give full consideration to the possibility of cumulating the effects of these two groups of subsidies. (Paras 1320 -1321)

The Appellate Body therefore found that the Panel had erred in failing to consider whether the price effects of the B&O tax rate reductions complemented and supplemented the technology effects of the aeronautics R&D subsidies in causing significant lost sales and significant price suppression, and a threat of displacement and impedance, in the 200-300 seat LCA market. The EU had not requested the Appellate Body to complete the analysis on this issue. (Para 1321)

<u>Whether the Panel erred in declining to assess collectively the effects of the tied tax subsidies and the effects of the remaining subsidies?</u>

1. *Whether the Panel should have aggregated the remaining subsidies with the tied tax subsidies or cumulated the effects of these two groups of subsidies*

The EU requested the Appellate Body to reverse the Panel's finding that in assessing the effects on Boeing's LCA pricing of approximately $550 million in subsidies, the receipt of which was not directly tied to the production or sale of particular LCA, the Panel was not persuaded that subsidies of this nature and of this amount had affected Boeing's prices in a manner that could be said to give rise to serious prejudice to the EC's' interests. According to the EU, the Panel had erred in reaching this finding because it assessed the remaining subsidies in isolation, rather than aggregating them with the tied tax subsidies, or cumulating their effects with those of the tied tax subsidies. (Paras 1322-1323)

The Appellate Body noted that, the Panel had not explicitly addressed the question of whether it *should* have collectively assessed these two groups of subsidies and their effects. This, according to the Appellate

Body, was surprising given that the EC had consistently argued that *all* of the subsidies had effects on Boeing's pricing, and that the Panel should have collectively assessed such effects. Accordingly, the Appellate Body concluded that it did not know whether the Panel did not collectively assess these two groups of subsidies or their effects because, as with the aeronautics R&D subsidies and the B&O tax rate reductions, it considered that the two groups of subsidies operated through "distinct causal mechanisms", or for some other reason. Further, the Appellate Body noted that although the absence of any reasoning by the Panel was problematic, it considered that there was support on the record for the view that the Panel did not act outside the scope of its discretion by not conducting an *aggregated* analysis of these two groups of subsidies. Most importantly, the Panel's explanations of the operation of the tied tax subsidies, on the one hand, and the remaining subsidies, on the other hand, strongly suggested that the Panel considered them to be different in nature. (Paras 1325-1326)

The Appellate Body found more persuasive force in the EU's alternative argument, namely, that the Panel had erred in failing to make a *cumulative* assessment of whether the remaining subsidies affected Boeing's prices in a way similar to the tied tax subsidies, such that they complemented and supplemented the effects of the tied tax subsidies that the Panel had found to be a genuine and substantial cause of displacement and impedance, significant lost sales, and significant price suppression in the 100-200 seat and 300-400 seat LCA markets. The Panel undertook only a cursory analysis of the alleged effects of the remaining subsidies. According to the Appellate Body, the Panel should not have limited its analysis to the question of whether these subsidies constituted a genuine and substantial cause of serious prejudice *on their own*. Instead, the Panel should have inquired as to whether the remaining subsidies had a genuine causal relationship with, that is, made a real or meaningful contribution to, the effects that it had found the tied tax subsidies to have on Boeing's LCA pricing, such that the remaining subsidies could be said to complement and supplement those effects and, thereby, the serious prejudice caused to the interests of the European Communities. (Paras 1327-1328)

For these reasons, the Appellate Body found that the Panel had erred in concluding, in paragraphs 7.1828 and 7.1855 of the Panel Report that the remaining subsidies had not been shown to have affected Boeing's prices in a manner giving rise to serious prejudice, without having considered whether those subsidies had a genuine relationship to, and effects on, such prices. Accordingly, it reversed that finding, which was reached without having given full consideration to the claim as presented by the EC. (Para 1329)

2. *EU's request for completion of analysis*

The Appellate Body began by considering whether it could or it should seek to aggregate the remaining subsidies with the tied tax subsidies. It recalled the differences between these two groups of subsidies that were identified by the Panel and, indeed, by the EC itself. It further recalled that it had already found that the Panel did not err in failing to undertake an aggregated analysis of these two groups of subsidies. Accordingly, it did not consider that it would be appropriate to consider the same question again.

The Appellate Body thus turned to the EU's alternative request that it find that the effects of the remaining subsidies complemented and supplemented the effects of the tied tax subsidies on Boeing's prices, and the consequent adverse effects that the Panel found to have been caused. On the completion of analysis, the Appellate Body concluded that:

a. Neither the Panel's findings nor the uncontested facts on the record demonstrated a genuine link between Boeing's 737NG and the B&O tax credits for certain preproduction development expenditures and for computer software and hardware, or between the 737NG and the sales and use tax exemptions for computer hardware, software, and peripherals. (Para 1346)

b. Boeing's IRB benefits enhanced the pricing flexibility that it enjoyed by reason of the tied tax subsidies in the circumstances of those two sales campaigns. Accordingly, it found that the effects of the City of Wichita IRBs complemented and supplemented the price effects of the FSC/ETI subsidies and the State of Washington B&O tax rate reduction, thereby causing serious prejudice, in the form of significant lost sales, within the meaning of Articles 5(c) and 6.3(c) of the *SCM Agreement*, in the 100-200 seat LCA market. (Para 1348)

III. APPELLATE BODY RECOMMENDATION

The Appellate Body recommended that the DSB request the US to bring its measures, found in this Report, and in the Panel Report as modified by this Report, to be inconsistent with the *SCM Agreement*, into conformity with its obligations under that Agreement. More specifically, having regard to the recommendation made by the Panel in paragraph 8.9 of its Report and the provisions of Article 7.8 of the *SCM Agreement*, the Appellate Body recommended that the US take appropriate steps to remove the adverse effects found to have been caused by its use of subsidies, or to withdraw those subsidies. The Appellate Body also noted Panel's finding that, to the extent that the US had not already withdrawn the FSC/ETI export subsidies to Boeing, the recommendation made by the panel in *US – FSC* under Article 4.7 of the *SCM Agreement* continued to be "operative".[26]

IV. DISPUTE NOTES ON SELECT ISSUES

- Sources of International Law: The Appellate Body, in its analyses, has mainly relied on treaty text (viz. SCM Agreement and DSU) and the previous relevant Panel and Appellate Body Reports. The Appellate Body has also relied on the *Vienna Convention* to refer to the customary rules of interpretation as codified in Article 32 for interpretation of certain issues.

- Annex V Procedure, SCM Agreement: The Appellate Body has now clarified the process for initiation of an Annex V procedure under the SCM Agreement, filling up the lacuna that existed in the treaty text and the pre-existing jurisprudence. According to the Appellate Body, taking into account the text and context of paragraph 2 of Annex V, together with the object and purpose of the WTO dispute settlement system as reflected in the DSU and the SCM Agreement, supports an understanding that there is an obligation on the DSB to initiate an Annex V procedure upon request, and that such DSB action occurs automatically when there is a request for initiation of an Annex V procedure and the DSB establishes a panel.

- Article 11 of the DSU: The Appellate Body relied on and reiterated the clarification provided by it in *EC – Fasteners (China)* in 2011 with respect to the claim of an Article 11 violation of the DSU. The Appellate Body emphasised that not every error allegedly committed by a panel amounted to a violation of the Article of the DSU, but rather it was incumbent on a participant raising a claim under Article on appeal to explain why the alleged error met the standard of review under the provision. The Appellate Body had made a similar clarification in the recent report on *US – Clove Cigarettes*[27] as well.

[26] Panel Report, Para. 8.7 (referring to Panel Report, *US – FSC (Article 21.5 – EC II)*, Para. 8.2; and to Appellate Body Report, *US – FSC (Article 21.5 – EC II)*))
[27] Report of the Appellate Body, *United States – Measures affecting the Production and Sale Of Clove Cigarettes*, (WT/DS406/AB/R)