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

RE COURSE TO ARTICLE 21.5 OF THE DSU BY THE EUROPEAN UNION

AB-2017-4

Report of the Appellate Body

BCI redacted, as marked [BCI]
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<td>AJCA</td>
<td>American Jobs Creation Act of 2004</td>
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<td>B&amp;O</td>
<td>business and occupation</td>
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<td>BCI</td>
<td>business confidential information</td>
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<tr>
<td>Boeing</td>
<td>The Boeing Company</td>
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<td>CLEEN</td>
<td>Continuous Lower Energy Emissions, and Noise</td>
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<td>DSB</td>
<td>dispute settlement body</td>
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<td>DSU</td>
<td>Understanding on Rules and Procedures Governing the Settlement of Disputes</td>
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<td>FILOT</td>
<td>fee-in-lieu-of-taxes</td>
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<td>GATT 1994</td>
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<td>MCIP</td>
<td>multi-county industrial park</td>
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<td>technology readiness level</td>
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<td>A. Shain</td>
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1 INTRODUCTION

1.1. The European Union\(^1\) and the United States each appeal certain issues of law and legal interpretations developed in the Panel Report, \textit{United States – Measures Affecting Trade in Large Civil Aircraft (Second Complaint) – Recourse to Article 21.5 of the DSU by the European Union}\(^2\) (Panel Report). The Panel was established on 23 October 2012\(^3\) pursuant to Article 21.5 of the Understanding on Rules and Procedures Governing the Settlement of Disputes (DSU) to consider a complaint by the European Union\(^4\) regarding the alleged failure on the part of the United States to implement the recommendations and rulings of the Dispute Settlement Body (DSB) in the original proceedings in \textit{US – Large Civil Aircraft (2nd complaint)}.\(^5\)

1.1 Original proceedings

1.2. In the original proceedings in this dispute, the European Communities claimed that the United States had provided subsidies to US producers of large civil aircraft (LCA), namely, The Boeing Company (Boeing), and that such subsidies are prohibited and/or actionable under the Agreement on Subsidies and Countervailing Measures (SCM Agreement).

1.3. The original panel, established on 17 February 2006\(^6\), found that certain tax exemptions and tax exclusions provided to Boeing under the foreign sales corporation (FSC) legislation and the FSC Repeal and Extraterritorial Income Exclusion Act of 2000 (ETI Act), including the transition and grandfather provisions of the ETI Act and the American Jobs Creation Act of 2004 (AJCA), were prohibited export subsidies under Articles 3.1(a) and 3.2 of the SCM Agreement.\(^7\) This finding was not appealed.

\(^{1}\) The European Union replaced and succeeded the European Communities as of 1 December 2009. Accordingly, we refer to the European Communities in this Report only in the context of the original panel proceedings. In all other circumstances, we refer to the European Union.\(^{2}\) WT/DS353/RW, 9 June 2017.\(^{3}\) Minutes of the Dispute Settlement Body (DSB) Meeting held on 23 October 2012, WT/DSB/M/323, para. 81.\(^{4}\) Request for the Establishment of a Panel by the European Union pursuant to Article 21.5 of the DSU, WT/DS353/18 (European Union’s panel request).\(^{5}\) The recommendations and rulings of the DSB resulted from the adoption on 23 March 2012, by the DSB, of the Appellate Body Report, WT/DS353/AB/R, and the Panel Report, WT/DS353/R, in \textit{US – Large Civil Aircraft (2nd complaint)}. In this Report, we refer to the panel that considered the original complaint brought by the European Union as the "original panel" and to its report as the "original panel report".\(^{6}\) Minutes of the DSB Meeting held on 17 February 2006, WT/DSB/M/205, para. 73.\(^{7}\) Original Panel Report, paras. 7.1434-7.1464 and 8.2.a.
1.4. In addition, the original panel found that certain specific subsidies caused serious prejudice to the interests of the European Communities within the meaning of Articles 5(c) and 6.3(b)-(c) of the SCM Agreement. Specifically, the original panel found that:

a. payments provided to Boeing by the National Aeronautics and Space Administration (NASA) pursuant to procurement contracts entered into under eight aeronautics research and development (R&D) programmes and access to facilities, equipment, and employees, as well as payments and access to facilities provided to Boeing by the United States Department of Defense (USDOD)\(^8\) pursuant to assistance instruments entered into under the 23 research, development, test, and evaluation (RDT&E) programmes, through their effects on Boeing's development of technologies in relation to the 787, caused significant price suppression, significant lost sales, and a threat of displacement and impedance of exports from third country markets, with respect to the 200-300 seat wide-body LCA product market\(^9\);

b. the FSC/ETI subsidies and the business and occupation (B&O) tax rate reduction provided by the State of Washington under House Bill (HB) 2294, through their effects on Boeing's pricing behaviour with respect to the 737NG, caused 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 market\(^10\); and

c. the FSC/ETI subsidies and the B&O tax rate reduction provided by the State of Washington under HB 2294 and by the City of Everett, through their effects on Boeing's pricing behaviour with respect to the 777 and 787, caused 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.\(^11\)

1.5. On appeal, the Appellate Body upheld the original panel's finding that the aeronautics R&D subsidies caused serious prejudice to the interests of the European Communities with respect to the 200-300 seat LCA market, within the meaning of Articles 5(c) and 6.3(b)-(c) of the SCM Agreement, except that it reversed the original panel's finding to the extent that it related to a threat of displacement and impedance of exports in the third country markets in Ethiopia, Iceland, and Kenya (but not Australia), within the meaning of Article 6.3(b) of the SCM Agreement.\(^12\)

1.6. In addition, the Appellate Body reversed the original panel's finding that the FSC/ETI subsidies and the B&O tax rate reduction caused serious prejudice to the interests of the European Communities within the meaning of Articles 5(c) and 6.3(b)-(c) of the SCM Agreement in the 100-200 and 300-400 seat LCA markets.\(^13\) The Appellate Body completed the legal analysis and found that, with respect to two sales campaigns involving 100-200 seat LCA, 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 within the meaning of Article 6.3(c).\(^14\) The Appellate Body also reversed the original panel's finding that the European Communities had failed to show that the remaining subsidies had affected Boeing's prices in a manner giving rise to serious prejudice with respect to the 100-200 seat and 300-400 seat LCA markets.\(^15\) The Appellate Body completed the legal analysis and found that the effects of the property and sales tax abatements related to the industrial revenue bonds (IRBs) issued by the City of Wichita complemented and supplemented the price effects of the FSC/ETI subsidies and the Washington State B&O tax rate reduction, thereby

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\(^8\) The original and compliance panels referred to the United States Department of Defense as "DOD", whereas the Appellate Body in the original proceedings referred to the United States Department of Defense as "USDOD". In this Report, we will continue to use the term "USDOD".

\(^9\) Original Panel Report, para. 8.3.a.i.

\(^10\) Original Panel Report, para. 8.3.a.ii.

\(^11\) Original Panel Report, para. 8.3.a.iii.

\(^12\) Appellate Body Report, US – Large Civil Aircraft (2nd complaint), para. 1350(d)(i)(A). The original panel's finding as it relates to a threat of displacement and impedance of exports in Australia was not appealed. (Ibid., fn 2200 to para. 1069)


causing serious prejudice, in the form of significant lost sales, within the meaning of Articles 5(c) and 6.3(c), in the 100-200 seat LCA market.

1.7. The Appellate Body recommended that, pursuant to Article 7.8 of the SCM Agreement, the DSBC request the United States to bring its measures, found in the Appellate Body report and in the original panel report, as modified by the Appellate Body report, to be inconsistent with the SCM Agreement, into conformity with its obligations under that Agreement.

1.8. On 23 March 2012, the DSBC adopted the Appellate Body report and the original panel report, as modified by the Appellate Body report.

1.2 Compliance proceedings

1.2.1 Panel proceedings

1.9. Subsequent to the adoption of the original panel report and the Appellate Body report, the United States provided a notification to the DSBC on 23 September 2012, identifying "a number of actions to withdraw the subsidies found to have caused adverse effects or to remove their adverse effects", in light of which the United States considered that it "had fully complied with the recommendations and rulings of the Dispute Settlement Body in this dispute".

1.10. On 25 September 2012, the European Union requested consultations with the United States, explaining that "the actions and events listed by the United States in its 23 September 2012 notification do not withdraw the subsidies or remove their adverse effects, as required by Articles 4.7 and 7.8 of the SCM Agreement", and that "the United States has failed to achieve compliance with the recommendations and rulings of the DSBC." The European Union and the United States held consultations on 10 October 2012, but the consultations failed to resolve the dispute.

1.11. On 11 October 2012, the European Union requested the establishment of a panel, in accordance with, inter alia, Article 21.5 of the DSU, with standard terms of reference. At its meeting on 23 October 2012, the DSBC referred this dispute to the original panel, if possible, in accordance with Article 21.5 of the DSU. The Panel was composed on 30 October 2012 accordingly.

1.12. Before the Panel, the European Union argued that the United States had failed to implement the recommendations and rulings of the DSBC in the original proceedings to withdraw the subsidies or take appropriate steps to remove the adverse effects, pursuant to Article 7.8 of the SCM Agreement. In particular, the European Union claimed that, subsequent to the end of the implementation period, the United States grants or maintains subsidies to the US LCA industry through the following programmes and measures: (i) NASA aeronautics R&D measures; (ii) the Federal Aviation Administration's (FAA) Continuous Lower Energy Emissions, and Noise (CLEEN) Program; (iii) the USDOD RDT&F programme; (iv) income tax exemptions/exclusions pursuant to the FSC/ETI legislation and successor acts; (v) property and sales tax concessions for LCA component production facilities associated with IRBs issued by the City of Wichita; (vi) certain tax

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18 Minutes of the DSBC Meeting held on 23 March 2012, WT/DSB/M/313, para. 79.
19 WT/DS353/15.
22 Panel Report, para. 1.11.
24 Panel Report, para. 1.12 (quoting to Minutes of the DSBC Meeting held on 23 October 2012, WT/DSB/M/323, para. 81).
26 The term "implementation period" in this case means the period of six months referred to in Article 7.9 of the SCM Agreement, which in this dispute ended on 23 September 2012. (Panel Report, fn 70 to para. 6.21)
and other measures applied by the State of Washington and municipalities therein; and (vii) measures applied by the State of South Carolina and municipalities therein in the context of "Project Gemini" and "Project Emerald", as well as "Phase II". The European Union further asserted that these subsidies are also inconsistent with Articles 3.1(a)-(b) and 3.2 of the SCM Agreement and Article III of the GATT 1994.

1.13. In addition, the European Union claimed that the subsidies collectively cause present adverse effects to LCA-related interests of the European Union in violation of the SCM Agreement. In particular, the European Union argued that the subsidies are a genuine and substantial cause of: (i) displacement and impedance, or a threat thereof, in the LCA product markets of the United States, within the meaning of Article 6.3(a) of the SCM Agreement; (ii) displacement and impedance, or a threat thereof, in the LCA product markets of several third countries, within the meaning of Article 6.3(b) of the SCM Agreement; (iii) significant price suppression, or threat thereof, in the LCA product markets, within the meaning of Article 6.3(c) of the SCM Agreement; and (iv) significant lost sales, or threat thereof, in the LCA product markets, within the meaning of Article 6.3(c) of the SCM Agreement.


1.15. The Panel made the following findings in its Report.

1.16. With respect to whether certain measures, and claims with regard to certain measures, are outside the Panel’s terms of reference for purposes of Article 6.2 of the DSU or the scope of these compliance proceedings:

   a. The European Union’s claims under Articles 3.1(a)-(b) and 3.2 of the SCM Agreement, and under Article III of the GATT 1994, are within the Panel’s terms of reference, but the South Carolina Phase II measures, and the Washington State tax measures, as amended by Washington State Substitute Senate Bill (SSB) 5952, are outside the Panel’s terms of reference, owing to the failure of the European Union’s panel request to meet the requirements of Article 6.2 of the DSU with respect to such measures.

   b. The following measures are within the scope of these compliance proceedings:

   i. the Washington State B&O tax credits for preproduction/aerospace product development; the Washington State B&O tax credit for property taxes and leasehold excise taxes; the Washington State sales and use tax exemptions for computer software, hardware, and peripherals; and the City of Everett B&O tax rate reduction;

   ii. pre-2007 and post-2006 RDT&E procurement contracts between USDOD and Boeing (USDOD procurement contracts) funded through the 23 original RDT&E programme elements;

   iii. USDOD procurement contracts HR0011-06-C-0073 and HR-0011-08-C-0044 SOW and assistance instruments HR0011-06-2-0008, FA8650-07-2-7716, and HR0011-10-2-0001 funded through the Materials Processing Technology Project of the Materials and Biological Technology programme element;

   iv. the provision of access to USDOD equipment and employees with respect to the post-2006 USDOD procurement contracts and assistance instruments funded under

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27 Panel Report, para. 2.2.a.
28 Panel Report, para. 2.2.b.
29 Panel Report, para. 2.2.c.
30 Panel Report, para. 11.4.a.
31 Panel Report, para. 11.4.b-c.
32 Including amendments thereto pursuant to SSB 6828.
33 Including amendments thereto pursuant to HB 2466.
the 23 original RDT&E programme elements and the "additional" programme elements that the Panel found to be within the scope of these proceedings;

v. the FAA aeronautics R&D measure; and

vi. the South Carolina Project Gemini measures and Project Emerald measures.  

The following measures are outside the scope of these compliance proceedings:

i. the Washington State Joint Center for Aerospace Technology Innovation (JCATI) measure;

ii. Air Force Contract F19628-01-D-0016 funded under the DRAGON Project of the Airborne Warning and Control System (PE 0207417F) programme element; Air Force Contract FA8625-11-C-6600 funded under the KC-46, Next Generation Aerial Refueling Aircraft (PE 0605221F) programme element; and measures funded under the Multi-Mission Maritime Aircraft (P-8A) (PE 0605500N) programme element, including Navy Contracts N00019-04-C-3146, N00019-09-C-0022, and N00019-12-C-0112; and

iii. the provision of access to USDOD equipment and employees with respect to the pre-2007 NASA procurement contracts and USDOD assistance instruments funded under the 23 original RDT&E programme elements.  

d. The European Union is precluded from bringing claims under Articles 3.1(a) and 3.2 of the SCM Agreement against the following four original Washington State tax measures enacted under HB 2294: (i) the Washington State B&O tax rate reduction; (ii) the Washington State B&O tax credits for preproduction/aerospace product development; (iii) the Washington State B&O tax credit for property taxes; and (iv) the Washington State sales and use tax exemptions for computer software, hardware, and peripherals.  

e. The European Union is precluded from bringing claims under Articles 3.1(b) and 3.2 of the SCM Agreement, and under Article III:4 of the GATT 1994, with respect to the following four original Washington State tax measures enacted under HB 2294: (i) the Washington State B&O tax rate reduction; (ii) the Washington State sales and use tax exemptions for computer software, hardware, and peripherals; (iii) the Washington State B&O tax credits for preproduction/aerospace product development; and (iv) the Washington State B&O tax credit for property taxes; as well as the FSC/ETI measures.  

f. The European Union is precluded from bringing claims under Articles 3.1(a)-(b) and 3.2 of the SCM Agreement, and under Article III:4 of the GATT 1994, with respect to: (i) the City of Everett B&O tax rate reduction, the tax abatements related to the City of Wichita IRBs, and the pre-2007 NASA Space Act Agreements and USDOD procurement contracts at issue in the original proceedings; and (ii) the pre-2007 NASA procurement contracts and USDOD assistance instruments at issue in the original proceedings, as amended by the respective Boeing Patent Licence Agreements.  

1.17. With respect to whether the United States has failed to withdraw the subsidy within the meaning of Article 7.8 of the SCM Agreement:

a. With regard to the pre-2007 NASA and USDOD aeronautics R&D subsidies that were the subject of the recommendations and rulings of the DSB, the European Union established

34 Panel Report, para. 11.5.a.
35 Panel Report, para. 11.5.b.
36 Including amendments thereto pursuant to SSB 6828.
37 Including amendments thereto pursuant to HB 2466.
38 Panel Report, para. 11.6.a.
39 Including amendments thereto pursuant to SSB 6828.
40 Including amendments thereto pursuant to HB 2466.
41 Panel Report, para. 11.6.b.
42 Panel Report, para. 11.6.c.
that the modifications made by the United States through the Boeing Patent Licence Agreements to the terms of the pre-2007 NASA procurement contracts and USDOD assistance instruments do not constitute a withdrawal of the subsidy within the meaning of Article 7.8 of the SCM Agreement and that the United States, having taken no action with respect to pre-2007 Space Act Agreements, has failed to withdraw the subsidy within the meaning of Article 7.8 of the SCM Agreement.  

b. With regard to the post-2006 measures of the United States challenged in these proceedings, the European Union established that the following measures involve specific subsidies within the meaning of Articles 1 and 2 of the SCM Agreement, and that by granting or maintaining these specific subsidies after the end of the implementation period, the United States has failed to withdraw the subsidy within the meaning of Article 7.8 of the SCM Agreement:

i. certain transactions between NASA and Boeing pursuant to the post-2006 NASA procurement contracts, cooperative agreements, and Space Act Agreements, with respect to which the Panel was unable to estimate the amount of the subsidy on the basis of the evidence on the record, but considered the United States' estimate of the amount of the financial contribution at [BCI] between 2007 and 2012 to be credible;

ii. certain transactions between USDOD and Boeing pursuant to post-2006 USDOD assistance instruments, with respect to which the Panel was unable to estimate the amount of the subsidy on the basis of the evidence on the record, but considered the United States' estimate of the amount of the financial contribution at [BCI] between 2007 and 2012 to be credible;

iii. transactions pursuant to the FAA-Boeing CLEEN Agreement with respect to which the Panel was unable to estimate the amount of the subsidy on the basis of the evidence on the record, but considered the European Union's estimate of the amount of the financial contribution at US$27.99 million between 2010 and 2014 to be credible;

iv. Washington State B&O tax rate reduction for the aerospace industry, in the amount of US$325 million between 2013 and 2015;

v. Washington State B&O tax credits for preproduction/aerospace product development, as amended by Section 7 of Washington State SSB 6828, in the amount of [BCI] between 2013 and 2015;

vi. Washington State B&O tax credit for property taxes, as amended by HB 2466 to include leasehold excise taxes, in the amount of [BCI] between 2013 and 2015;

vii. Washington State sales and use tax exemptions for computer software, hardware, and peripherals, in the amount of [BCI] between 2013 and 2015;

viii. City of Everett B&O tax rate reduction, in the amount of US$54.1 million between 2013 and 2015;

ix. payments made by the State of South Carolina pursuant to commitments made in the Project Gemini Agreement\(^{44}\) to compensate Boeing for a portion of the costs incurred by Boeing with respect to the construction of the Gemini facilities and infrastructure through air hub bond proceeds, in the amount of US$50 million;

x. the State of South Carolina property tax exemption for Boeing's large cargo freighters, in the amount of US$25.82 million between 2013 and 2015; and

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\(^{43}\) Panel Report, para. 11.7.a.

\(^{44}\) Project Gemini Agreement between The Boeing Company and the State of South Carolina (1 January 2010) (Panel Exhibit EU-467).
xi. the State of South Carolina sales and use tax exemptions for aircraft fuel, computer equipment, and construction materials, in the amount of US$2.25 million between 2013 and 2015.\textsuperscript{45}

c. The European Union failed to establish that the following measures involve specific subsidies within the meaning of Articles 1 and 2 of the SCM Agreement, and therefore failed to establish that, by granting or maintaining these specific subsidies after the end of the implementation period, the United States has failed to withdraw the subsidy within the meaning of Article 7.8 of the SCM Agreement:

i. certain transactions between USDOD and Boeing pursuant to pre-2007 and post-2006 USDOD procurement contracts, on the grounds that, assuming \textit{arguendo} that these measures were to involve financial contributions within the meaning of Article 1.1(a)(1) of the SCM Agreement, they do not confer a benefit on Boeing within the meaning of Article 1.1(b) of the SCM Agreement;

ii. tax exemptions and exclusions under the FSC/ETI legislation and successor legislation, on the grounds that the European Union has failed to establish that Boeing actually received the FSC/ETI tax benefits after 2006, and that the measure therefore involves a financial contribution within the meaning of Article 1.1(a)(1)(ii) of the SCM Agreement;

iii. tax abatements provided through IRBs issued by the City of Wichita, on the grounds that these tax abatements are no longer specific within the meaning of Article 2.1(c) of the SCM Agreement and, as a result, the measure is no longer subject to the provisions of the SCM Agreement on actionable subsidies;

iv. the State of South Carolina’s sublease of the Project Site, on the grounds that the European Union has failed to establish that the sublease involves a subsidy to Boeing;

v. the State of South Carolina’s provision of Project Gemini and Project Emerald facilities and infrastructure, on the grounds that the European Union has failed to establish that these measures involve financial contributions within the meaning of Article 1.1(a)(1)(iii) of the SCM Agreement;

vi. the State of South Carolina’s fee-in-lieu-of taxes (FILOT) arrangements, set forth in the Boeing FILOT Agreement\textsuperscript{46} and Project Emerald FILOT Agreement, on the grounds that these arrangements are not specific within the meaning of Article 2 of the SCM Agreement;

vii. the State of South Carolina’s corporate income tax credits in connection with the designation of the Project Gemini and Project Emerald portions of the Project Site as part of the same multi-county industrial park (MCIP), on the grounds that the tax credits are not specific within the meaning of Article 2 of the SCM Agreement;

viii. the State of South Carolina’s Income Allocation and Apportionment Agreement, on the grounds that the European Union has failed to establish that the agreement involves a financial contribution within the meaning of Article 1.1(a)(1)(ii) of the SCM Agreement; and

ix. the State of South Carolina’s workforce recruitment, training, and development programme, on the grounds that the programme is not specific within the meaning of Article 2 of the SCM Agreement.\textsuperscript{47}

\textsuperscript{45} Panel Report, para. 11.7.b.
\textsuperscript{46} Fee Agreement by and between Charleston County, South Carolina, and The Boeing Company (1 December 2010) (Panel Exhibit EU-470).
\textsuperscript{47} Panel Report, para. 11.7.c.
1.18. With respect to whether the United States has failed to take appropriate steps to remove the adverse effects within the meaning of Article 7.8 of the SCM Agreement:

   a. The European Union failed to establish that the effects of certain aeronautics R&D subsidies and other subsidies are a genuine and substantial cause of significant lost sales, significant price suppression, impedence of imports to the US market or impedence of exports to various third country markets, or threats of any of the foregoing, within the meaning of Articles 5(c) and 6.3(a)-(c) of the SCM Agreement with respect to the A350XWB in the post-implementation period.48

   b. The European Union failed to establish that the original adverse effects of the pre-2007 aeronautics R&D subsidies with respect to the A330 and Original A350 continue in the post-implementation period as significant price suppression of the A330 and A350XWB, significant lost sales of the A350XWB, or a threat of impedence of exports of the A350XWB in the twin-aisle LCA market, within the meaning of Articles 5(c) and 6.3(a)-(c) of the SCM Agreement in the post-implementation period.49

   c. The European Union established that the effects of the Washington State B&O tax rate reduction are a genuine and substantial cause of significant lost sales within the meaning of Articles 5(c) and 6.3(c) of the SCM Agreement of the A320neo and A320ceo families of LCA in the single-aisle LCA market, with respect to the sales campaigns for Fly Dubai in 2014, Icelandair in 2013, and Air Canada in 2013, in the post-implementation period.50

   d. The European Union established that the effects of the Washington State B&O tax rate reduction are a genuine and substantial cause of a threat of impedence of imports of the A320ceo to the United States single-aisle LCA market, and a threat of impedence of exports of Airbus single-aisle LCA in the United Arab Emirates third country market, within the meaning of Articles 5(c) and 6.3(a)-(b) of the SCM Agreement in the post-implementation period.51

   e. The European Union failed to establish that the effects of the pre-2007 aeronautics R&D subsidies and the post-2006 subsidies are a genuine and substantial cause of significant price suppression of the A320neo or A320ceo, impedence of imports of the A320neo or A320ceo to the US market, or displacement and impedence of exports of the A320neo or A320ceo to the third country markets of Australia, Brazil, Canada, Iceland, Indonesia, Malaysia, Mexico, Norway, Russia, and Singapore, within the meaning of Articles 5(c) and 6.3(a)-(c) of the SCM Agreement, or threats of any of the foregoing, in the post-implementation period.52

1.19. With respect to the European Union's claims under Articles 3.1 and 3.2 of the SCM Agreement, and Article III:4 of the GATT 1994, the Panel found that the European Union failed to establish that the subsidies are inconsistent with these provisions.53

1.20. In light of the foregoing, the Panel concluded that, by continuing to be in violation of Articles 5(c) and 6.3(a)-(c) of the SCM Agreement, the United States has failed to comply with the recommendations and rulings of the DSB and, in particular, the obligation under Article 7.8 of the SCM Agreement to "take appropriate steps to remove the adverse effects or ... withdraw the subsidy".54 The Panel accordingly found that, to the extent that the United States has failed to comply with the recommendations and rulings of the DSB in the original dispute, those recommendations and rulings remain operative.55

48 Panel Report, para. 11.8.a.
49 Panel Report, para. 11.8.b.
50 Panel Report, para. 11.8.c.
51 Panel Report, para. 11.8.d.
52 Panel Report, para. 11.8.e.
53 Panel Report, para. 11.9.a-b.
54 Panel Report, para. 11.10.
55 Panel Report, para. 11.12.
1.2.2 Appellate proceedings and procedural issues

1.21. On 5 December 2016, the Appellate Body received a letter from the European Union referring to an anticipated appeal in this dispute, to the ongoing appeal in EC and certain member States – Large Civil Aircraft (Article 21.5 – US), and to an imminent appeal in US – Tax Incentives. Referring to Rule 16(1)-(2) of the Working Procedures for Appellate Review (Working Procedures) and Article 9 of the DSU, the European Union requested that the schedules for these three appeals be harmonized and that the hearings be sufficiently proximate in time, so that a particular matter would not be effectively disposed of in one appeal before the related matter is heard in the other appeals. The Chair of the Appellate Body invited the United States and the third parties to submit comments on the European Union’s request by 9 December 2016. The United States argued that the European Union’s request was not supported by the DSU or the Working Procedures and would result in delays in the proceedings. The United States stated that it remained open to proposals to set deadlines for written submissions and dates for oral hearings in a way that would allow the participants and third participants in each dispute to advocate effectively their positions on appeal and for the Appellate Body to consider fully the issues raised. The participants and third parties were invited to submit additional comments by 16 December 2016. The European Union reiterated its request that any oral hearings in these appeals be sufficiently proximate in time, but noted that it was content to leave it to the Appellate Body to determine what that would mean in practice. By letter dated 22 December 2016, the Appellate Body indicated that it would bear in mind the European Union’s request, as well as the comments received, during the appellate proceedings in these three disputes.

1.22. On 29 June 2017, the European Union notified the DSB, pursuant to Articles 16.4 and 17 of the DSU, of its intention to appeal certain issues of law covered in the Panel Report and certain legal interpretations developed by the Panel, and filed a Notice of Appeal and an appellant’s submission pursuant to Rule 20 and Rule 21, respectively, of the Working Procedures.

1.23. On that same date, the Chair of the Appellate Body also received a letter from the European Union requesting the Appellate Body Division hearing this appeal to adopt additional procedures to protect business confidential information (BCI) and highly sensitive business information (HSBI) in these appellate proceedings. In its letter, the European Union proposed that additional procedures that track those adopted by the Appellate Body in the appeal in EC and certain member States – Large Civil Aircraft (Article 21.5 – US) be adopted. The European Union argued that, inter alia, disclosure of certain sensitive information on the record of the Panel proceedings would be severely prejudicial to the LCA manufacturers concerned, and possibly to their customers and suppliers.

1.24. Also on 29 June 2017, on behalf of the Division hearing this appeal, the Chair of the Appellate Body sent a letter to the participants and third parties and invited the United States and the third parties to comment in writing on the request by the European Union by 5 July 2017. The Chair also informed the participants and the third parties that, pending a ruling by the Division on the request to adopt additional procedures to protect BCI and HSBI, the deadlines for the filing of the appellant’s submission, the Notice of Other Appeal, and the other appellant’s, appellee’s, and third participants’ submissions in this appeal were suspended. The participants and the third parties were also informed that, pending a final decision on the European Union’s request, interim additional protection was to be granted to all BCI and HSBI transmitted to the Appellate Body in this appeal.

1.25. On 5 July 2017, written comments were received from the United States, Australia, and Canada. The United States broadly agreed with the European Union’s request that the BCI and HSBI procedures adopted in the appeal in EC and certain member States – Large Civil Aircraft (Article 21.5 – US) should serve as the basis for BCI and HSBI procedures in this appeal. It requested, however, a change regarding the deadline to submit an HSBI appendix to any written submission, suggesting that, if an HSBI appendix is sent by an expedited courier service, that it be deemed filed and served on the date it is sent, instead of on the date it is delivered. Australia stated
that it did not object to the European Union’s request but commented that support of both of the participants would be important in ensuring fairness and orderly procedure in these appellate proceedings. Canada stated that, while it agreed with the European Union’s request that additional procedures to protect BCI and HSBI track the procedures adopted in EC and certain member States – Large Civil Aircraft (Article 21.5 – US), it considered that the requirement that note-taking by third participants in the designated reading room be handwritten was unnecessarily burdensome, and requested that the procedures be modified so as to provide for a stand-alone computer and printer to be made available to third participant BCI-approved persons in the designated reading room.

1.26. On 7 July 2017, the Chair of the Appellate Body, on behalf of the Division, invited the participants and third parties to provide, by 11 July 2017, any further views on the request by the European Union, taking into account the changes proposed by the United States and Canada. On 11 July 2017, comments were received from the European Union and the United States. The European Union objected to the United States’ proposal that an HSBI appendix sent by expedited courier should be deemed filed the day it is sent. For the European Union, Article 18 of the Working Procedures makes clear that the “filing” of a submission is not a clerical formality, but an event of legal significance, because the very status of the participants to an appeal derives from the act of filing the required documents. For the European Union, the Working Procedures clearly envisage a filing being made in Geneva, under the supervision of the Secretariat, and being completed upon the receipt of the relevant documents by the Secretariat. The European Union also stated that, while it understands that having to transmit an HSBI appendix to Geneva poses certain practical challenges, such challenges are not unique to the United States. The European Union urged that any measures taken to address the United States’ concerns should be even-handed. In addition, the European Union stated that it did not, in principle, object to Canada’s proposal to allow taking notes on a computer keyboard in the designated reading room, provided that it can be done in a manner that ensures the adequate protection of BCI. The European Union noted that the reason for excluding computers or other electronic devices from the designated reading room was to enhance the security of BCI, and that the risks of disclosure are heightened if computers or other electronic devices are allowed. The European Union also noted that the participants and their stakeholders agreed to the provision of BCI under the express understanding that computers or electronic devices would not be permitted in the designated reading room. For these reasons, the European Union considered that Canada’s proposal would be acceptable only if certain heightened protections were put in place. The United States indicated that it did not favour Canada’s request to allow note-taking on a computer with an attached printer. The United States considered that permitting voluminous reproduction of BCI with relative ease increases the risk of disclosure. According to the United States, the relative difficulty of copying large amounts of information, rather than more limited notes to summarize information, is an appropriate feature of the proposed procedures. The United States added that extensive notes on the facts seem particularly unnecessary in the context of this appeal, given that the purpose of access to BCI at this stage is to help participants understand the legal arguments.

1.27. On 21 July 2017, the Chair of the Appellate Body, on behalf of the Division hearing this appeal, issued a Procedural Ruling adopting additional procedures to protect the confidentiality of BCI and HSBI in these appellate proceedings. The Division did not adopt the modification requested by the United States to the additional procedures proposed by the European Union regarding the filing of an HSBI appendix but decided that it would endeavour to set filing dates for the participants such that the filing date for the HSBI appendix would be set three days following the deadline for the remainder of the submission itself. The Division accepted Canada’s proposal that third participant BCI-approved persons be allowed to take notes on a stand-alone computer and printer in the designated reading room. The Division also noted that it would make every effort to draft its Report without including sensitive information and that, if it considers it necessary to do so, it would provide the participants a timely opportunity to comment and indicate whether any BCI or HSBI was inadvertently included in the Report.

1.28. On 25 July 2017, the Division provided the participants and third parties with a Working Schedule for Appeal, setting out the dates for the filing of the appellant’s submission and an eventual Notice of Other Appeal and other appellant’s submission.

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61 The Procedural Ruling of 21 July 2017 is contained in Annex D-1 of the Addendum to this Report, WT/DS353/AB/RW/Add.1.
1.29. On 3 August 2017, the European Union filed an appellant's submission pursuant to Rule 21 of the Working Procedures.

1.30. On 7 August 2017, the Appellate Body received a communication from the United States requesting that the Division hearing this appeal extend the deadline, from 7 to 9 August 2017, for the United States to object to the inclusion of any BCI in the European Union's appellant's submission. The United States indicated that, due to the volume of the European Union's submission, it needed two additional days to conduct the necessary review. On 8 August 2017, the Chair of the Appellate Body, on behalf of the Division hearing this appeal, invited the European Union and the third participants to provide any comments on the United States' request by 9 August 2017. The European Union responded that it had no objections to the request by the United States.

1.31. On 9 August 2017, the Chair of the Appellate Body, on behalf of the Division hearing this appeal, issued a Procedural Ruling granting the extension by two days of the time period set out in the Procedural Ruling of 21 July 2017 for the United States to file an objection to the inclusion of any BCI. The Division also decided, in the interest of fairness, to extend by two days the time period set out in the Procedural Ruling of 21 July 2017 for the European Union to file an objection to the inclusion of any BCI in the United States' other appellant's submission.

1.32. On 10 August 2017, the United States notified the DSB, pursuant to Articles 16.4 and 17 of the DSU, of its intention to appeal certain issues of law covered in the Panel Report and certain legal interpretations developed by the Panel and filed a Notice of Other Appeal and an other appellant's submission pursuant to Rule 23 of the Working Procedures.

1.33. On 14 August 2017, the Appellate Body received a request from the United States to extend the deadline to file the HSBI appendix to its other appellant's submission from 14 to 15 August 2017. The United States explained that, on 10 August 2017, it had commenced transfer of the HSBI appendix to the Appellate Body and the European Union via expedited international courier service, with the expectation that it would arrive at the United States' Permanent Mission in Geneva by 14 August 2017. As the shipment had not arrived before the deadline, the United States sought this extension to complete the transfer of the HSBI appendix. On 15 August 2017, the United States submitted the HSBI appendix to the Appellate Body. On 17 August 2017, the Chair of the Appellate Body, on behalf of the Division hearing this appeal, invited the European Union and the third parties to comment on whether the Division should accept the late-filed HSBI appendix of the United States. On 21 August 2017, the European Union responded that the United States request did not place before the Appellate Body all the information that the Appellate Body would require in order to make a procedural ruling on the matter, and that it would welcome additional explanation and evidence, including proof of the date and time of shipment of the HSBI appendix.

1.34. On 24 August 2017, the Division requested that the United States provide relevant documentation relating to the time and date on which the HSBI appendix was delivered to the courier service for transmission to Geneva. On 28 August 2017, the United States responded by providing a printout of the tracking information for shipment of the HSBI appendix, together with additional details regarding the shipment. The United States explained that physical delivery of the package to the courier service occurred on 10 August 2017, and that, although the package arrived in Switzerland early in the morning on 14 August 2017, unexplained difficulties on the part of the courier service delayed delivery until the following day. The United States further maintained that, while it was unfortunate that the package arrived a day later than expected, a decision to grant its extension request would not result in prejudice.

1.35. On 30 August 2017, the Division issued a Procedural Ruling accepting the late-filed HSBI appendix to the United States' other appellant's submission.

1.36. On 5 September 2017, the Division provided the participants and third parties a revised Working Schedule for Appeal, setting out the dates for filing the appellees' and third parties' submissions.

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63 WT/DS353/28 (contained in Annex A-2 of the Addendum to this Report, WT/DS353/AB/RW/Add.1).
64 The Procedural Ruling of 30 August 2017 is contained in Annex D-3 of the Addendum to this Report, WT/DS353/AB/RW/Add.1.
submissions. The Division added that the dates for the oral hearing would be communicated in due course.

1.37. By letter dated 18 September 2017, the Chair of the Appellate Body notified the Chair of the DSB that the Appellate Body would not be able to circulate its Report in this appeal within the 60-day period pursuant to Article 17.5 of the DSU, or within the 90-day period pursuant to the same provision. The Chair indicated that this was due to a number of factors, including the exceptional size and complexity of these compliance proceedings, the substantial workload faced by the Appellate Body, the overlap in the composition of the Divisions hearing several concurrent appeals, and the shortage of staff in the Appellate Body Secretariat.

1.38. On 10 October 2017, the European Union and the United States each filed an appellee's submission.

1.39. On 11 October 2017, the Appellate Body received a communication from the European Union requesting the Division hearing this appeal to extend, from 12 to 13 October 2017, the deadline for the European Union to object to the inclusion of any BCI in the United States' appellee's submission. The European Union indicated that, due to the volume of the United States' submission, it needed one additional day to complete the necessary review regarding BCI. On the same day, the Division invited the United States and the third parties to provide any comments on the European Union's request by 12 October 2017. The United States responded that it would have no objection to an extension of the deadline for both participants to object to the inclusion of any BCI in the other participant's appellee's submission. Brazil, China, and Russia also stated that they do not object to the extension request, but Brazil and China indicated that third parties should be granted an extension of the deadline for their submissions.

1.40. On 12 October 2017, the Division issued a Procedural Ruling granting an extension by one day of the time period for the European Union and the United States each to file an objection to the inclusion of any BCI in the other participant's appellee's submission. In addition, the Division decided to extend the deadline for the filing of third participants' submissions and executive summaries, and notifications by third parties under Rule 24(2) of the Working Procedures, until 30 October 2017.

1.41. On 13 October 2017, the Appellate Body received a communication from the European Union, in which the European Union objected to the inclusion of certain HSBI in the HSBI-redacted version of the United States' appellee's submission, without proper designation of that information as HSBI. On the same day, the Division invited the United States to comment on the European Union's request. On 17 October 2017, the United States responded that the relevant information should be treated as HSBI, and requested that it be allowed to submit replacement pages for the BCI version (HSBI-redacted) and non-BCI version (BCI- and HSBI-redacted) of its appellee's submission, and a corrected HSBI appendix.

1.42. On 18 October 2017, the Division issued a Procedural Ruling granting the United States until 23 October 2017 to submit the replacement pages for the BCI and non-BCI versions of its appellee's submission, and until 26 October 2017 to submit its corrected HSBI appendix. The Division also decided to extend the deadline for the filing of third participants' submissions and executive summaries, and notifications by third parties under Rule 24(2) of the Working Procedures, until 7 November 2017.

1.43. Pursuant to the Procedural Ruling of 18 October 2017, on 23 October 2017, the United States filed the replacement pages for the BCI and non-BCI versions of its appellee's submission. On 26 October 2017, the United States filed the corrected HSBI appendix to its appellee's submission.

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65 WT/DS353/29.
66 Pursuant to Rules 22 and 23(4) of the Working Procedures.
67 The Procedural Ruling of 12 October 2017 is contained in Annex D-4 of the Addendum to this Report, WT/DS353/AB/RW/Add.1.
68 The Procedural Ruling of 18 October 2017 is contained in Annex D-5 of the Addendum to this Report, WT/DS353/AB/RW/Add.1.
1.44. On 26 October, Korea notified its intention to appear at the oral hearing as a third participant.\textsuperscript{69} On 7 November 2017, Brazil, Canada, China, and Japan each filed a third participant's submission.\textsuperscript{70} On the same day, Australia notified its intention to appear at the oral hearing as a third participant.\textsuperscript{71} On 13 November 2017, Russia notified its intention to appear at the oral hearing as a third participant.\textsuperscript{72}

1.45. By letter dated 15 November 2017, the Division informed the participants and third participants that the first session of the oral hearing would take place from 17 to 20 April 2018.

1.46. By letter dated 24 November 2017, the participants and third participants were informed that, in accordance with Rule 15 of the Working Procedures, the Chair of the Appellate Body had notified the Chair of the DSB of the Appellate Body's decision to authorize Appellate Body Member Mr Peter Van den Bossche to complete the disposition of this appeal, even though his second term of office was due to expire before the completion of these appellate proceedings.

1.47. By letter dated 12 March 2018, the Division invited the participants to indicate by 21 March 2018 whether they wished to request the sessions of the oral hearing in this appeal to be open to public observation, and, if so, to propose specific modalities in this respect. The Division also invited the third participants to provide comments by 23 March 2018 on any request made by the participants.

1.48. By a joint letter dated 21 March 2018, the participants proposed additional procedures to protect BCI and HSBI during the oral hearing in this appeal and requested that the Division allow observation by the public of the oral hearing. The participants proposed that the Division adopt the same additional procedures that the Appellate Body adopted in EC and certain member States – Large Civil Aircraft (Article 21.5 – US).

1.49. On 23 March 2018, Canada and China each submitted comments on the participants' request. Canada expressed its agreement with the joint proposal by the participants that the Appellate Body allow observation by the public of the oral hearing, while acknowledging that suitable protection for BCI is required. China stressed the importance of striking an appropriate balance between the risks of disclosure of sensitive information, on the one hand, and the rights and duties of the third participants and the WTO membership at large, on the other hand. China requested that its oral statement and its responses to questions at the oral hearing be treated as confidential.

1.50. On 5 April 2018, the Division issued a Procedural Ruling\textsuperscript{73} authorizing the participants' request to open the segments of the oral hearing dedicated to the delivery of opening and closing statements to public observation, subject to additional procedures for the conduct of the oral hearing that are essentially the same as those adopted by the Appellate Body in EC and certain member States – Large Civil Aircraft (Article 21.5 – US).

1.51. The first session of the oral hearing was held from 17 to 20 April 2018. During this session, the Division informed the participants and third participants that the second session of the oral hearing would take place in the latter part of September 2018. On 30 May 2018, the Division received a communication from the United States noting certain scheduling constraints regarding its participation in the second session of the oral hearing. By letter dated 31 May 2018, the Division informed the participants and third participants that the second session of the oral hearing would be held from 18 to 21 September 2018.

1.52. On 1 August 2018, the Division received a communication from the United States requesting that the Division, in organizing the second session of the oral hearing, take account of the absence of a key member of the US delegation on 19 September 2018. The United States suggested, as a first option, that the Division reserve questioning regarding technology effects for 19 September 2018, or, as a second option, alter the schedule so that the hearing begins on 17 September 2018.

\textsuperscript{69} Pursuant to Rule 24(2) of the Working Procedures.
\textsuperscript{70} Pursuant to Rule 24(1) of the Working Procedures.
\textsuperscript{71} Pursuant to Rule 24(2) of the Working Procedures.
\textsuperscript{72} Pursuant to Rule 24(4) of the Working Procedures.
\textsuperscript{73} The Procedural Ruling of 5 April 2018 is contained in Annex D-6 of the Addendum to this Report, WT/DS353/AB/RW/Add.1.
and does not take place on 19 September 2018. On 3 August 2018, the Division invited the European Union and the third participants to provide any comments on the United States’ request, if they so wished, by 8 August 2018. On 7 August 2018, the European Union responded that it preferred the second option proposed by the United States. The European Union indicated that reserving questioning regarding technology effects on 19 September would create a scheduling conflict for a member of the EU delegation.

1.53. By letter dated 9 August 2018, the Division notified the participants and third participants that it had decided to change the dates of the second session of the oral hearing. Specifically, the Division informed the participants and third participants that the second session of the oral hearing would begin on 17 September 2018 and continue through 18 September 2018, and, after a suspension on 19 September 2018, resume on 20 September 2018 and continue through 21 September 2018. The second session of the oral hearing was held accordingly.

1.54. The participants and third participants did not refer to BCI or HSBI in their opening or closing statements in either session of the oral hearing, except for the European Union in its closing statement in the second session of the oral hearing, which did include BCI. Pursuant to the Procedural Ruling of 5 April 2018, public observation of both sessions of the oral hearing was limited to the opening and closing statements of the participants and third participants, with the exception of China, who had requested that its oral statements be treated as confidential, and the European Union’s closing statement of the second session of the oral hearing, which included BCI. The public observation took place on 8 May 2018 and 9 October 2018 by means of a delayed broadcast of a video recording of such statements, after the participants had been given an opportunity to confirm that no BCI or HSBI had been inadvertently uttered.

1.55. By letter dated 15 February 2019, the Division informed the participants that, pursuant to paragraph 17(xiii) of the Procedural Ruling of 21 July 2017, the participants would be provided on 6 March 2019 with a confidential advance copy of the Appellate Body Report intended for circulation to WTO Members. The Division also invited the participants to indicate, by 13 March 2019, whether any BCI or HSBI was inadvertently included in the Report, and to request removal of such information. The Division further provided the participants with an opportunity to respond to each other’s comments, if any, by 15 March 2019. On 13 March 2019, the United States requested certain additional BCI redactions in the Report. On that same date, the European Union stated that it had no comments on the bracketing of BCI or HSBI in the Report, and on 14 March 2019, indicated that it had no objection to the United States’ request. On 15 March 2019, the Division informed the participants that it had redacted the BCI as identified by the United States.

1.56. By letter dated 15 March 2019, the Chair of the Appellate Body informed the Chair of the DSB that the Report in these proceedings would be circulated on 28 March 2019.

2 ARGUMENTS OF THE PARTICIPANTS

2.1. The claims and arguments of the participants are reflected in the executive summaries of their written submissions provided to the Appellate Body. The Notices of Appeal and Other Appeal, and the executive summaries of the participants’ claims and arguments, are contained in Annexes A and B of the Addendum to this Report, WT/DS353/AB/RW/Add.1.

3 ARGUMENTS OF THE THIRD PARTICIPANTS

3.1. The arguments of those third participants that filed a written submission are reflected in the executive summaries of their written submissions provided to the Appellate Body, which are contained in Annex C of the Addendum to this Report, WT/DS353/AB/RW/Add.1.

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74 Pursuant to the Appellate Body’s communication on “Executive Summaries of Written Submissions in Appellate Proceedings” and “Guidelines in Respect of Executive Summaries of Written Submissions in Appellate Proceedings” (WT/AB/23, 11 March 2015).
75 Pursuant to the Appellate Body’s communication on “Executive Summaries of Written Submissions in Appellate Proceedings” and “Guidelines in Respect of Executive Summaries of Written Submissions in Appellate Proceedings” (WT/AB/23, 11 March 2015).
4 ISSUES RAISED IN THIS APPEAL

4.1. The following issues are raised in this appeal:

a. whether the Panel erred in finding that the European Union's claims relating to the pre-2007 USDOD procurement contracts were within its terms of reference (claim by the United States);

b. with respect to the Panel's analysis of the pre-2007 and post-2006 USDOD procurement contracts:
   
i. whether the Panel acted inconsistently with Article 11 of the DSU when finding that the payments and access to USDOD facilities, equipment, and employees provided to Boeing through USDOD procurement contracts should be characterized as "purchases of services", rather than as a direct transfer of funds within the meaning of Article 1.1(a)(1)(i) of the SCM Agreement and the provision of goods and services within the meaning of Article 1.1(a)(1)(iii) of the SCM Agreement (claim by the European Union); and

   ii. whether the Panel acted inconsistently with Article 11 of the DSU when finding that the distribution of intellectual property (IP) rights under USDOD procurement contracts does not confer a benefit within the meaning of Article 1.1(b) of the SCM Agreement (claim by the European Union);

   c. whether the Panel erred in finding that, in order to establish the existence of a financial contribution in the form of revenue foregone under Article 1.1(a)(1)(ii) of the SCM Agreement, the European Union was required to demonstrate that Boeing used the FSC/ETI tax concessions, and that the European Union had not established the United States' failure to comply with its obligation under Article 7.8 of the SCM Agreement to withdraw the FSC/ETI subsidies to Boeing (claim by the European Union);

   d. whether, with respect to the Panel's analysis of the post-2006 NASA procurement contracts and cooperative agreements, the post-2006 USDOD assistance instruments, and the FAA-Boeing CLEEN Agreement, the Panel erred in its application of Article 1.1(b) of the SCM Agreement, or acted inconsistently with Article 11 of the DSU, by disregarding certain terms and evidence (conditional claim by the United States);

   e. whether the Panel acted inconsistently with Article 11 of the DSU in finding that South Carolina's payments to Boeing with respect to the Project Gemini facilities and infrastructure confer a benefit within the meaning of Article 1.1(b) of the SCM Agreement (conditional claim by the United States);

   f. whether the Panel erred in its interpretation and application of Article 2.1(c) of the SCM Agreement, or acted inconsistently with Article 11 of the DSU, when limiting its assessment of de facto specificity of the City of Wichita IRB subsidy programme to the period of time after the end of the United States' implementation period, and finding that the IRB programme is no longer specific within the meaning of Article 2.1(c) (claim by the European Union);

   g. whether the Panel erred in its interpretation and application of Article 2.1(c) of the SCM Agreement, or acted inconsistently with Article 11 of the DSU, when finding that the subsidy provided by the State of South Carolina to Boeing through economic development bond (EDB) proceeds, used to fund Project Gemini facilities and infrastructure, is not specific within the meaning of Article 2.1(c) of the SCM Agreement (claim by the European Union);

   h. whether the Panel erred in its application of Article 2.2 of the SCM Agreement, or acted inconsistently with Article 11 of the DSU, when finding that the subsidy provided by the State of South Carolina to Boeing through the MCIP job tax credits is not specific within the meaning of Article 2.2 of the SCM Agreement (claim by the European Union);
i. whether the Panel erred in the interpretation and application of Article 2.1(a) of the SCM Agreement in finding that the USDOD procurement contracts are specific within the meaning of that provision (conditional claim by the United States);

j. whether the Panel acted inconsistently with Article 11 of the DSU in finding that the subsidy provided by the State of South Carolina to Boeing through the EDB and Air Hub Bond proceeds conferred a benefit within the meaning of Article 1.1(b) of the SCM Agreement (conditional claim by the United States);

k. whether the Panel erred in the interpretation of Articles 5, 6.3, and 7.8 of the SCM Agreement in considering, in relation to significant price suppression, significant price depression, and significant lost sales, that a subsidized product can cause serious prejudice to another product only if the two products in question compete in the same market (claim by the European Union);

l. whether the Panel erred in the interpretation and application of Articles 5, 6.3, and 7.8 of the SCM Agreement, or acted inconsistently with Article 11 of the DSU, in its treatment of claims of continuing adverse effects from the original proceedings (claim by the European Union);

m. whether the Panel erred in the interpretation and application of Article 6.3(c) of the SCM Agreement, or acted inconsistently with Article 11 of the DSU, in finding that the European Union had not failed to make a prima facie case of significant price suppression with respect to the A330 LCA (conditional claim by the United States);

n. whether, in its assessment of adverse effects through a technology causal mechanism, the Panel erred in its application of Articles 5, 6.3, and 7.8 of the SCM Agreement, or acted inconsistently with Article 11 of the DSU, when finding that the European Union failed to demonstrate the existence of original subsidy technology effects and spill-over technology effects of the pre-2007 aeronautics R&D subsidies in the post-implementation period (claim by the European Union);

o. whether the Panel erred under Articles 5, 6.3, and 7.8 of the SCM Agreement in allegedly stating that, in order to find significant lost sales through a price causal mechanism, there must be no non-price factors that potentially contributed to Boeing having won those sales (claim by the European Union);

p. whether the Panel erred in the interpretation and application of Articles 5 and 6.3 of the SCM Agreement, or acted inconsistently with Article 11 of the DSU, in its assessment of the relative significance of the amount of the tied tax subsidies when reaching its findings that the tied tax subsidies cause serious prejudice in the single-aisle LCA market in the post-implementation period (claim by the United States); and

q. whether the Panel erred in the interpretation and application of Articles 5 and 6.3 of the SCM Agreement, or acted inconsistently with Article 11 of the DSU, by requiring that the European Union demonstrate that the untied subsidies actually altered Boeing’s pricing behaviour (claim by the European Union).

5 ANALYSIS OF THE APPELLATE BODY

5.1 United States’ claim relating to the Panel’s terms of reference

5.1. The United States requests us to reverse the Panel’s finding that its terms of reference include the European Union’s claims relating to the pre-2007 USDOD procurement contracts.76 The United States contends that the Panel erred in allowing the European Union to reassert in these compliance proceedings its claims that the USDOD procurement contracts involved financial contributions that confer a benefit.77 The United States argues that these claims had been rejected

76 United States’ other appellant’s submission, para. 11.
77 United States’ other appellant’s submission, para. 11.
in the original proceedings and that they cannot be relitigated in these compliance proceedings.78 The European Union requests us to uphold the Panel’s finding that its claims relating to the USDOD procurement contracts are within the scope of the compliance proceedings.79 The European Union contends that, because the Appellate Body declared moot the original panel’s finding that the USDOD procurement contracts were not financial contributions, there were no recommendations or rulings relating to the USDOD procurement contracts that the European Union would be relitigating.80

5.1.1 The Panel’s findings

5.2. Before the Panel, the United States requested a ruling that the European Union’s claims relating to the USDOD procurement contracts, which had also been at issue in the original proceedings, fell outside the scope of these compliance proceedings.81 Noting that there was no finding of WTO-inconsistency with respect to these measures at the conclusion of the original proceedings82, the United States claimed that this was because the European Union had specifically requested that the Appellate Body not complete the legal analysis in the event that it found fault with the original panel’s legal interpretation.83

5.3. In response, the European Union argued that in the original proceedings it had pursued the matter before the Appellate Body to the greatest extent possible.84 In particular, it had appealed the legal findings on which the panel had based its conclusion that the USDOD procurement contracts were not subsidies.85 The European Union explained that the Appellate Body had declared “moot and without legal effect” the original panel’s interpretation that transactions properly characterized as purchases of services are excluded from Article 1.1(a)(1) of the SCM Agreement, and the panel’s finding that the USDOD procurement contracts were properly characterized as purchases of services and were not financial contributions.86 However, given the lack of factual findings and uncontested facts relating to the benefit and adverse effects, it would have been impossible for the Appellate Body to complete the legal analysis of whether the USDOD procurement contracts constituted specific subsidies that cause adverse effects.87

5.4. The Panel began by noting that complaining parties had been permitted to reassert claims in compliance proceedings against aspects of measures that were unchanged from those unsuccessfully challenged in the original proceedings, provided that the finality of the recommendations and rulings of the DSB was not compromised, in particular where: (i) the original panel had exercised judicial economy with respect to one challenged aspect of an original measure, that aspect had become an integral part of the measure taken to comply, and the challenge was to that same aspect of the measure taken to comply88; and (ii) in original proceedings the Appellate Body had reversed a finding by the panel, but had subsequently been unable to complete the legal analysis due to insufficient factual findings or undisputed facts on the panel record.89

5.5. The Panel then reviewed how the panel and the Appellate Body in the original proceedings had dealt with the European Union’s claims relating to the USDOD procurement contracts. The Panel

78 United States’ other appellant’s submission, paras. 13-17.
79 European Union’s appellee’s submission, para. 45.
80 Panel Report, para. 7.95 (referring to United States’ request for preliminary rulings, dated 13 November 2012, paras. 8-9 and 60).
81 United States’ other appellant’s submission, paras. 13-17.
82 European Union’s appellee’s submission, para. 45.
83 Panel Report, para. 7.95 (referring to United States’ request for preliminary rulings, dated 13 November 2012, paras. 8-9 and 60).
84 Panel Report, para. 7.103 (referring to European Union’s request for preliminary rulings, dated 13 November 2012, para. 20).
85 Panel Report, para. 7.103 (referring to European Union’s supplemental submission on United States’ request for preliminary rulings, para. 10; opening statement at the Panel meeting, para. 15).
86 Panel Report, para. 7.102.
noted the original panel's findings that work performed by Boeing for the USDOD under the USDOD procurement contracts was properly characterized as a "purchase of services"; transactions characterized as purchases of services are excluded from the scope of Article 1.1(a)(1)(i) of the SCM Agreement, and therefore the USDOD procurement contracts did not involve financial contributions within the meaning of that provision.  

5.6. The Panel further noted that in the original proceedings the European Union had appealed the panel's interpretation of Article 1.1(a)(1) of the SCM Agreement, in particular the panel's finding that transactions properly characterized as purchases of services are excluded from the scope of Article 1.1(a)(1) of the SCM Agreement, and that the European Union had not appealed the application of the original panel's interpretation of Article 1.1(a)(1) to any specific measures. Moreover, the Panel noted the European Union's position that the Appellate Body's reversal of the panel's legal interpretation had implications for the panel's finding regarding the USDOD procurement contracts, and that the European Union considered itself entitled to request the Appellate Body to complete the legal analysis concerning these contracts, even though the European Union ultimately elected not to do so on the grounds that there were insufficient factual findings by the panel or undisputed facts.

5.7. Ultimately, the Panel concluded that, because the original panel had ended its analysis at the stage of financial contribution, it would have been impossible for the Appellate Body in the original proceedings to complete the legal analysis of benefit and specificity regarding the USDOD procurement contracts. In these circumstances, the Panel held that consideration of the USDOD procurement contracts in these compliance proceedings should not be precluded only because the European Union had not requested completion of the legal analysis in the original proceedings. The Panel also pointed to the time and resources that had been expended in this dispute, as well as to the aim of dispute settlement, as expressed in Article 3.7 of the DSU, to secure a positive resolution to a dispute. On this basis, the Panel found that by reasserting claims with respect to the USDOD procurement contracts the European Union would not be "unfairly' getting a second chance" to make a case that it failed to make in the original proceedings, and the Panel thus concluded that the European Union's claims relating to the USDOD procurement contracts fell within the scope of these compliance proceedings.

5.1.2 Claims and arguments on appeal

5.8. The United States requests us to reverse the Panel's finding that its terms of reference included the European Union's claims that the USDOD procurement contracts were financial contributions that confer a benefit. First, the United States contends that the Panel erred in allowing the European Union to reassert in these compliance proceedings claims regarding the USDOD procurement contracts that had been rejected in the original proceedings. While acknowledging "exceptions" to the principle that a party may not "relitigate" a claim on which it did not prevail in original proceedings, the United States asserts that such exceptions do not apply in these compliance proceedings. The United States asserts that the European Union did not appeal in the original proceedings whether the USDOD procurement contracts were purchases of services or whether they conferred a benefit. Accordingly, the United States asserts that the European Union decided to "leave in place" the original panel's finding that the USDOD procurement contracts were purchases of services and to "leave unanswered" the question of whether they conferred a benefit. For the United States, the failure to achieve a definitive resolution of the issue in the original proceedings must be "laid at the feet" of the European Union, and therefore the European Union is not entitled...
to pursue in these compliance proceedings a claim that the USDOD procurement contracts were not purchases of services that conferred a benefit.\textsuperscript{103}

5.9. Second, the United States contends that the Panel erred in finding that the European Union could pursue in these compliance proceedings its claim that the USDOD procurement contracts confer a benefit.\textsuperscript{104} In particular, the United States alleges that the Panel erred in attributing significance to the fact that the original panel had not analysed whether the USDOD procurement contracts conferred a benefit or caused adverse effects, and in finding that "it would have been impossible for the Appellate Body to complete the analysis regarding the DOD procurement contracts."\textsuperscript{105} For the United States, the Appellate Body did not consider whether it could complete the legal analysis in the original dispute, because the European Union had explicitly stated that it was not seeking completion of the legal analysis.\textsuperscript{106} For the United States, this is what bars the European Union from including claims relating to the USDOD procurement contracts in these compliance proceedings.\textsuperscript{107}

5.10. Finally, the United States maintains that the Panel's reference to the "time and resources" devoted to an issue in litigation and to the aim of the dispute settlement system is "legally irrelevant" to whether the European Union's claims against the USDOD procurement contracts fell within the Panel's terms of reference.\textsuperscript{108} For the United States, these considerations should have no bearing on the determination of the scope of compliance proceedings pursuant to Article 21.5 of the DSU.

5.11. In response, the European Union requests us to uphold the Panel's finding that the USDOD procurement contracts are within the scope of the compliance proceedings.\textsuperscript{109} First, in response to the United States' argument that the European Union should not be permitted to relitigate its claims relating to the USDOD procurement contracts, the European Union contends that, because the Appellate Body had declared moot the original panel's finding that the USDOD procurement contracts were not financial contributions, there were no recommendations or rulings in the original case relating to the USDOD procurement contracts that the European Union would be relitigating.\textsuperscript{110} Moreover, the European Union argues that the Panel was correct in considering that the Appellate Body has permitted complaining parties in compliance proceedings to reassert claims against aspects of measures where such claims were "unsuccessfully asserted" in the original proceedings in situations where the finality of the recommendations and rulings of the DSB would not thereby be compromised.\textsuperscript{111}

5.12. Second, the European Union maintains that its decision not to request the Appellate Body in the original proceedings to complete the legal analysis does not preclude the European Union from demonstrating that the USDOD procurement contracts confer a "benefit" to Boeing in the current compliance proceedings.\textsuperscript{112} The European Union points out that, because the original panel did not evaluate whether the USDOD procurement contracts conferred a benefit, there were no factual findings or uncontested facts related to these contracts with which the Appellate Body in the original proceedings could complete the legal analysis on "benefit". The European Union further stresses that, as the Panel correctly understood, the European Union cannot be penalised for refraining from asking the Appellate Body to do something that falls outside of the Appellate Body's competence.\textsuperscript{113} The European Union explains that the Appellate Body can complete legal analyses "only if the factual findings of the panel, or the undisputed facts in the panel record" provide a sufficient basis for the

\textsuperscript{103} United States' other appellant's submission, para. 16 (quoting Panel Report, para. 7.35).
\textsuperscript{104} United States' other appellant's submission, para. 18.
\textsuperscript{105} United States' other appellant's submission, para. 18 (quoting Panel Report, para. 7.128).
\textsuperscript{106} United States' other appellant's submission, para. 19 (quoting Panel Report, para. 7.128).
\textsuperscript{107} United States' other appellant's submission, para. 19.
\textsuperscript{108} United States' other appellant's submission, paras. 20-21 (quoting Panel Report, para. 7.129).
\textsuperscript{109} European Union's appellant's submission, para. 67 (referring to European Union's appellant's submission in \textit{US – Large Civil Aircraft (2nd complaint)}, para. 127 ("Because there are a number of contested facts related to the (USDOD RDT&E programme) measures that were found to constitute purchases of services, the European Union does not request that the Appellate Body complete the analysis.").)
\textsuperscript{110} United States' other appellant's submission, para. 19.
\textsuperscript{111} European Union's appellee's submission, para. 42 (quoting Panel Report, para. 7.33).
\textsuperscript{112} European Union's appellee's submission, paras. 48-49.
\textsuperscript{113} European Union's appellee's submission, paras. 50-51 (quoting Panel Report, para. 7.128).
Appellate Body to do so. The European Union further contends that, because the Appellate Body may complete the analysis regardless of whether a party requests it or objects to it, the question of whether the European Union requested the Appellate Body to complete the legal analysis is not relevant for determining whether the European Union’s claims are within the scope of these compliance proceedings.

5.13. Finally, the European Union agrees with the Panel’s reasoning that the efficiency and effectiveness of the dispute settlement process are relevant contextual considerations in evaluating the scope of compliance proceedings under Article 21.5 of the DSU. In this regard, according to the European Union, the Panel properly considered relevant that the aim of the dispute settlement mechanism is to secure a positive solution to a dispute.

5.1.3 Whether the Panel erred in finding that claims relating to the USDOD procurement contracts were within the scope of these compliance proceedings

5.14. We now turn to assess whether the Panel erred in finding that claims relating to the USDOD procurement contracts were within the scope of these compliance proceedings. We begin by addressing the question of when a Member may reassert in compliance proceedings, pursuant to Article 21.5 of the DSU, claims that were not resolved on the merits in original proceedings. Thereafter we review the Panel’s analysis of whether the European Union’s claims relating to the USDOD procurement contracts fell within the scope of these compliance proceedings.

5.15. At the outset, we note that the first sentence of Article 21.5 of the DSU provides:

Where there is disagreement as to the existence or consistency with a covered agreement of measures taken to comply with the recommendations and rulings such dispute shall be decided through recourse to these dispute settlement procedures, including wherever possible resort to the original panel.

5.16. Article 21.5 provides the basis for disputes concerning Members’ compliance with recommendations and rulings of the DSB. Both original disputes and compliance disputes consist of a matter referred to the DSB, which in turn comprises two elements: (i) the specific measures at issue; and (ii) the legal basis of the complaint (that is, the claims). In defining the scope of compliance proceedings, the Appellate Body has consistently distinguished between these two elements, and it has found certain limitations, both regarding the measures that can be challenged in compliance proceedings and the claims that can be raised in such proceedings.

5.17. In the present case, the participants’ disagreement relates to limitations on the claims that can be raised in Article 21.5 proceedings. The participants disagree as to whether claims relating to the USDOD procurement contracts fall within the scope of these compliance proceedings. With respect to limitations regarding claims that can be pursued in compliance proceedings pursuant to Article 21.5, the Appellate Body has distinguished between new claims asserted for the first time in compliance proceedings and claims pursued in original proceedings and reasserted in compliance proceedings.

5.18. First, with respect to new claims, ordinarily, a complainant is not allowed to raise claims in Article 21.5 proceedings that it could have pursued in original proceedings, but did not. However, this is not so for new claims against a measure taken to comply when such measure “incorporates components of the original measure that are unchanged, but are not separable from other aspects
of the measure taken to comply. Therefore, the possibility to challenge an element of the measure at issue for the first time in compliance proceedings, even if that element may not have changed, hinges on the "critical question" of whether such an element forms "an integral part of the measure taken to comply".

5.19. Second, concerning limitations on claims pursued in original proceedings and reasserted in compliance proceedings, we refer to the title of Article 21 of the DSU, which suggests that Article 21.5 proceedings are part of the process of "Surveillance of Implementation of Recommendations and Rulings" of the DSB, and to the fact that Article 17.14 of the DSU provides that adopted Appellate Body reports "shall be ... unconditionally accepted by the parties to the dispute". In this regard we also note that Article 3.3 of the DSU states that the "prompt settlement" of disputes "is essential to the effective functioning of the WTO". These considerations support the view that compliance proceedings cannot be used to "re-open" issues decided on the merits in the original proceedings, because that would allow a party in Article 21.5 proceedings a "second chance" to reargue a claim that has been decided in an adopted report.

5.20. The Appellate Body has treated differently, however, cases in which claims against aspects of a measure were not decided on the merits in the original proceedings, because such claims are not covered by the recommendations and rulings of the DSB. Accordingly, the Appellate Body has entertained in compliance proceedings certain claims that had been raised in original proceedings but on which no ruling on the merits of the claims had been rendered. One example is where the Appellate Body has reversed panel findings but has not been able to complete the legal analysis. Similarly, the Appellate Body has permitted claims to be reasserted in compliance proceedings when the exercise of judicial economy has caused a claim to remain unresolved in the original proceedings without a decision on the merits having been rendered.

5.21. In sum, compliance proceedings cannot be used to "re-open" issues that were decided on the merits in the original proceedings. But claims against aspects of a measure that are not decided on the merits in the original proceedings are not covered by recommendations and rulings of the DSB and thus can be reasserted in compliance proceedings.

5.22. With these considerations in mind, we now turn to review whether the Panel erred in finding that claims concerning the USDOD procurement contracts fell within its terms of reference. The United States asserts that these claims fall outside the Panel's terms of reference, because the European Union had already pursued these claims in the original proceedings.

5.23. The Panel explained that whether the European Union may reassert claims relating to the USDOD procurement contracts depended on the way in which these claims had been resolved in the original proceedings. More specifically, the Panel found that it had to consider whether the original measure had been "unsuccessfully" challenged on the merits in the original proceedings, such that it could not be raised again without compromising the finality of the recommendations and rulings of the DSB.

5.24. We consider that the approach articulated by the Panel comports with the approach we have outlined above. The Panel was correct in considering whether the original measure had been "unsuccessfully" challenged on the merits in the original proceedings, such that it could not be raised again without compromising the finality of the recommendations and rulings of the DSB.\(^{131}\) We also note that both the European Union and the United States agree with the Panel's reasoning that, in principle, a complainant is not precluded from reasserting a claim in compliance proceedings when there has been no decision on the merits of that claim in the original proceedings.\(^{132}\)

5.25. The United States asserts, however, that in the particular circumstances of this case, the failure to achieve a definitive resolution in the original proceedings must be "laid at the feet" of the European Union and that the European Union must therefore be barred from pursuing claims relating to the USDOD procurement contracts in these compliance proceedings.\(^{133}\) For the United States, this is so because the European Union requested in the original proceedings that the Appellate Body not complete the legal analysis with respect to its claims relating to the USDOD procurement contracts.

5.26. We observe that the European Union's claims relating to the USDOD procurement contracts were pursued in the original proceedings. In this respect, we note the Panel's finding that these claims were before the Appellate Body in the original proceedings.\(^{134}\) The Panel further found that the original panel's analysis had been limited to the question of a "financial contribution" and that the original panel had made no findings with respect to the question of whether the USDOD procurement contracts conferred a benefit or caused adverse effects.\(^{135}\) Accordingly, these claims were not resolved on the merits, and we consider that the Panel was correct in relying on that fact in resolving the issue.

5.27. We disagree with the United States' contention that the European Union must be barred from pursuing claims relating to the USDOD procurement contracts in these compliance proceedings because the failure to achieve a definitive resolution in the original proceedings must be "laid at the feet" of the European Union. We also disagree with the Panel's statement that the Appellate Body has been careful not to permit complaining parties to relitigate issues that were resolved adversely to them in original proceedings, except "where the failure to achieve a definitive resolution of a claim cannot reasonably ... be laid at the feet of the complaining party".\(^{136}\) The Appellate Body has not relied on "fault" or the lack of it as a criterion to determine whether claims fall within the scope of Article 21.5 proceedings. Instead, the Appellate Body has focused on whether certain claims were or were not decided on the merits in the original proceedings and were thus covered by the recommendations and rulings of the DSB.\(^{137}\)

5.28. In keeping with this approach, whether the European Union requested that the Appellate Body complete the legal analysis or whether the European Union requested that the Appellate Body not complete the legal analysis is not determinative for whether claims relating to the USDOD procurement contracts fell within the Panel's terms of reference. While it is true that in the original proceedings in the present dispute the Appellate Body referred to the absence of a request that it complete the legal analysis,\(^{138}\) the Appellate Body has completed the legal analysis regardless of the fact that neither participant had specifically requested it to do so.\(^{139}\)

5.29. In the context of the present case, we also note the Panel's finding that it would have been impossible for the Appellate Body in the original proceedings to complete the legal analysis relating to claims concerning the USDOD procurement contracts.\(^{140}\) Thus, even if the European Union had requested completion of the legal analysis in the original proceedings, absent factual findings by the

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\(^{131}\) Panel Report, paras. 7.41-7.42 and 7.109.

\(^{132}\) United States' other appellant's submission, para. 11; European Union's appellee's submission, para. 35.

\(^{133}\) United States' other appellant's submission, para. 16 (referring to Panel Report, para. 7.35).

\(^{134}\) Panel Report, para. 7.127.

\(^{135}\) Panel Report, para. 7.128.

\(^{136}\) Panel Report, para. 7.35.


\(^{138}\) Appellate Body Report, US – Large Civil Aircraft (2nd complaint), fn. 1298 to para. 620.


\(^{140}\) Panel Report, para. 7.128.
original panel or undisputed facts on the record with respect to benefit and specificity, the Appellate Body would not have been in a position to complete the legal analysis.

5.30. Accordingly, the Panel was correct not to attribute, in the particular circumstances of this dispute, significance to the question of whether, or to what extent, the European Union bore responsibility for the lack of resolution of its claims relating to the USDOD procurement contracts. We consider that instead the Panel correctly focused on whether the European Union's claims relating to the USDOD procurement contracts had been resolved on the merits in the original proceedings.

5.31. Finally, we note that the United States takes issue with the Panel's reliance on considerations relating to the time and resources devoted to an issue in litigation and the aim of the dispute settlement system. The United States argues that such considerations are "legally irrelevant" to assess whether the European Union's claims against the USDOD procurement contracts fell within the Panel's terms of reference.

5.32. In this respect, we note that the Panel concluded in paragraph 7.128 of its Report that, in the circumstances of this case, it did not consider the European Union's failure to request completion of the legal analysis in the original proceedings to preclude its consideration of the European Union's claims relating to the USDOD procurement contracts. The United States is taking issue with the Panel's statement in the next paragraph, introduced by the word "additionally." The structure of the Panel's analysis suggests that this "additional" consideration is not part of the reasoning its conclusion was based on. It is an afterthought by the Panel. As such it does not require further consideration in this appellate proceeding.

5.1.4 Conclusion

5.33. In sum, the question of whether a claim falls within the scope of Article 21.5 proceedings is to be decided based on whether the claim has been resolved on the merits in the original proceedings and was thus covered by the recommendations and rulings of the DSB. A party's "fault" for the non-resolution of a claim, or the lack of such fault, is not determinative of whether a claim can be reasserted in compliance proceedings. Accordingly, we find that the Panel did not err in admitting the European Union's claims relating to the pre-2007 USDOD procurement contracts in these compliance proceedings.

5.34. We therefore uphold the Panel's finding, in paragraphs 7.131 and 11.5.a.ii of the Panel Report, that the European Union's claims relating to the pre-2007 USDOD procurement contracts were within its terms of reference.

5.2 European Union's claims relating to the Panel's findings concerning the USDOD procurement contracts

5.35. The European Union requests us to reverse the Panel's finding that the payments and access to USDOD facilities, equipment, and employees provided to Boeing through the USDOD RDT&E programme, and in particular through USDOD procurement contracts, are not subsidies within the meaning of Article 1.1 of the SCM Agreement. The European Union alleges that the Panel failed to make an objective assessment of the matter, including the facts, in violation of Article 11 of the DSU both with respect to its findings on financial contribution under Article 1.1(a)(1) of the SCM Agreement and on benefit under Article 1.1(b) of that Agreement.

5.36. Specifically, the European Union contends that the Panel failed to make an objective assessment of the matter in characterizing the payments and access to USDOD facilities, equipment, and employees provided to Boeing through the USDOD procurement contracts as "purchases of

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141 United States' other appellant's submission, paras. 20-22 (quoting Panel Report, para. 7.129).
142 United States' other appellant's submission, para. 21.
143 Panel Report, para. 7.129.
144 European Union's appellant's submission, para. 104.
145 European Union's appellant's submission, para. 18 (referring to Panel Report, paras. 8.360-8.378 and 8.418-8.437). The European Union further requests us to complete the legal analysis and conclude that the payments and access to USDOD facilities, equipment, and employees provided to Boeing pursuant to the USDOD procurement contracts constitute specific subsidies. (Ibid., para. 93)
services" for purposes of Article 1.1(a)(1) of the SCM Agreement. In the European Union's view, had the Panel properly assessed the evidence before it, it would have found that the USDOD procurement contracts establish a joint-venture-type relationship in which USDOD provides financial contributions to Boeing akin to equity infusions, and in which USDOD provides Boeing with goods and services.\(^{146}\)

According to the European Union, the Panel failed to engage with the European Union's arguments and evidence, and failed to provide reasoned and adequate explanations and coherent reasoning in support of its findings.\(^{147}\) The European Union further argues that, in assessing whether the USDOD procurement contracts confer a benefit on Boeing within the meaning of Article 1.1(b) of the SCM Agreement, the Panel "built upon the same errors" as in its analysis relating to financial contribution under Article 1.1(a)(1) of the SCM Agreement.\(^{148}\)

5.37. The United States responds that the Panel analysed the USDOD procurement contracts, including their texts, the descriptions of the programme elements funding the contracts, and other evidence of how USDOD administered the contracts.\(^{149}\) The United States considers that the European Union has not established a lack of an objective assessment by the Panel. Instead, according to the United States, the European Union disagrees with the weight assigned by the Panel to certain evidence.\(^{150}\) In addition, in the event that we reverse the Panel's conclusion and complete the legal analysis and find that the payments and access provided to Boeing under the USDOD procurement contracts constitute financial contributions and confer a benefit, the United States conditionally appeals the Panel's findings relating to the specificity of the post-2006 NASA procurement contracts, cooperative instruments, and Space Act Agreements; the post-2006 USDOD assistance instruments; and the FAA-Boeing CLEEN Agreement.\(^{151}\)

5.38. We begin by setting out the relevant aspects of the measures at issue and describing the approach of the panel and the Appellate Body in the original proceedings. We then assess whether in these compliance proceedings the Panel failed to make an objective assessment of the matter under Article 11 of the DSU in its analysis of whether the USDOD procurement contracts provide a financial contribution within the meaning of Article 1.1(a)(1) of the SCM Agreement. Finally, we turn to the European Union's claim under Article 11 of the DSU relating to benefit and the United States' conditional appeal relating to specificity.

5.39. USDOD commissions Boeing to perform certain kinds of R&D work funded through RDT&E programme elements\(^{152}\) by means of specific legal instruments, namely "contracts", "cooperative agreements", "grants", and "technology investment agreements".\(^{153}\) Both in the original proceedings and in the compliance proceedings, the latter three legal instruments (cooperative agreements, grants, and technology investment agreements) were referred to collectively as the "DOD assistance instruments". The Panel distinguished these instruments from the category of "contracts"\(^{154}\),

\(^{146}\) European Union's appellant's submission, para. 85.

\(^{147}\) European Union's appellant's submission, para. 47.

\(^{148}\) European Union's appellant's submission, para. 86.

\(^{149}\) United States' appellee's submission, para. 34.

\(^{150}\) United States' appellee's submission, para. 27.

\(^{151}\) See United States' Notice of Other Appeal, para. 8.

\(^{152}\) The Panel explained that USDOD's budget historically has been divided into five broad budget categories: Military Personnel; Operations & Maintenance; Procurement; RDT&E; and Military Construction. The RDT&E budget category funds research, development, test, and evaluation spending by USDOD, including the three military departments of USDOD (US Army, US Navy, and US Air Force) and other USDOD agencies, with a view to designing and developing military systems or technology. The RDT&E budget category is a distinct category from "Procurement", which funds the actual acquisition costs of military systems that are in production. RDT&E budget activities are subdivided into a number of programme elements – the major aggregation at which RDT&E efforts are organized, budgeted, and reviewed. Each programme element is divided into one or more named and numbered projects, which may be further subdivided into activities. Each RDT&E programme element has specific programme objectives expressed in the "Mission Description" statement contained in the programme budgets. Programme elements are also identified by a particular "PE number". (Panel Report, paras. 7.82-7.83; Original Panel Report, para. 7.1147; CRA International, U.S. Department of Defense (DoD) Research, Development, Test and Evaluation (RDT&E) Funding Support to The Boeing Company for Dual-Use Aircraft R&D (November 2006) (2006 CRA Report) (Panel Exhibit EU-29), p. 5)

\(^{153}\) Panel Report, para. 8.298.a (referring to Original Panel Report, paras. 7.1140-7.1141, in turn referring to United States Code, Title 10, Section 2358).

\(^{154}\) In its Report, the Panel referred to these as "procurement contracts". (Panel Report, para. 8.298.a)
explaining that US procurement laws and regulations require that specific legal instruments be used in particular defined situations.\textsuperscript{155}

5.40. Assistance instruments are used to provide "assistance", defined in the USDOD Grant and Agreement Regulations as the "transfer of a thing of value to a recipient to carry out a public purpose of support or stimulation authorized by a law of the United States".\footnote{Panel Report, para. 8.298 (quoting Original Panel Report, paras. 7.1140-7.1142, in turn quoting United States Code, Title 10, Section 2358; USDOD Grant and Agreement Regulations, United States Code of Federal Regulations, Title 32, Subchapter C, Part 21).} The recipient is required to contribute its own funds to the R&D on a cost-sharing basis. Moreover, at least as concerns cooperative agreements, the US Government is required to have substantial involvement in the work performed, including through collaboration, participation, or intervention.\footnote{Panel Report, para. 8.298.b (quoting Original Panel Report, para. 7.1142, in turn referring to United States Code of Federal Regulations, Title 32, Section 21.615).} In contrast, a procurement contract is a legal instrument that "reflects a relationship between the Federal Government and a State, a local government, or other recipient when the principal purpose of the instrument is to acquire property or services for the direct benefit or use of the Federal Government".\footnote{Panel Report, para. 8.298 (quoting Original Panel Report, para. 7.1149; referring to Appellate Body Report, US – Large Civil Aircraft (2nd complaint), paras. 606-606).} A procurement contract, rather than an assistance instrument, should be used in all cases where a fee or profit is to be paid or the instrument is to be used to carry out a programme where a fee or profit is necessary to achieve programme objectives.\footnote{Panel Report, para. 8.298 (quoting Original Panel Report, para. 7.1142, in turn quoting United States Code of Federal Regulations, Title 32, Section 21.670; referring to Section 22.205 of the USDOD Grant and Agreement Regulations).}

5.41. The R&D commissioned by USDOD through the RDT&E programme falls into two general categories.\footnote{Panel Report, para. 8.300.} The first one consists of R&D commissioned under programme elements that fund basic research, applied research, and advanced technology developments to meet a variety of current and future military needs (science and technology (S&T) or "general aircraft" programme elements).\footnote{Panel Report, para. 8.301 (quoting United States' first written submission to the Panel, para. 316).} The second comprises R&D commissioned under programme elements that fund development of technologies for specific new weapon systems or components (systems acquisition or "military aircraft" programme elements).\footnote{Panel Report, para. 8.302. Nine of the 23 original RDT&E programme elements challenged by the European Union are systems acquisition or "military aircraft" programme elements.}

5.42. Before the original panel, the European Communities claimed that payments and access to USDOD facilities provided to Boeing under the 23 original RDT&E programme elements to conduct research into "dual-use" technologies,\footnote{Fourteen of the 23 original and three of the "additional" RDT&E programme elements challenged by the European Union are S&T or "general aircraft" programme elements.} in the sense of technologies having both military and civil applications,\footnote{The European Communities based its assessment of whether R&D conducted by Boeing under any of the RDT&E programme elements was likely to give rise to technologies with civil applications on an expert evaluation of the RDT&E programme budgets. (2006 CRA Report (Panel Exhibit EU-29), para. 1.1)} were specific subsidies that caused adverse effects to the interests of the European Communities.\footnote{Panel Report, para. 8.309.} Furthermore, the European Communities challenged the payments and access to NASA facilities, equipment, and employees that NASA provided to Boeing through R&D contracts and agreements entered into with Boeing under a number of aeronautics R&D programmes.\footnote{Panel Report, para. 8.309 (quoting Original Panel Report, para. 7.1142, in turn quoting United States Code of Federal Regulations, Title 32, Section 21.670; referring to Section 22.205 of the USDOD Grant and Agreement Regulations).}

5.43. The original panel concluded that transactions properly characterized as purchases of services are excluded from the scope of Article 1.1(a)(1)(i) of the SCM Agreement.\footnote{Panel Report, para. 8.300.} The panel then considered that whether the payments and access provided to Boeing could be properly characterized as purchases of services depended on whether the R&D that Boeing was required to conduct was principally for its own benefit and use, or whether it was principally for the benefit and
use of the US Government (or unrelated third parties). Ultimately, the panel found that the work that Boeing performed under the USDOD procurement contracts was principally for the benefit of the USDOD, it was therefore to be characterized as a "purchase of services", and the payments and access to facilities provided to Boeing under these contracts were therefore not financial contributions within the meaning of Article 1.1(a)(1). The panel also found that the work Boeing performed under the USDOD assistance instruments and the NASA aeronautics R&D measures was principally for the benefit of Boeing, and, accordingly, that the payments and access provided to Boeing under these instruments constituted financial contributions pursuant to Article 1.1(a)(1)(i) and (iii).

5.44. On appeal, the Appellate Body found fault with the original panel's analytical approach of interpreting Article 1.1(a)(1) of the SCM Agreement based on the assumption that the NASA procurement contracts and the USDOD assistance instruments are purchases of services, and only thereafter examining the proper characterization of these measures. The Appellate Body observed that, in assessing the applicability of specific provisions of the covered agreements to a measure properly before it, a panel must "identify all relevant characteristics of the measure, and recognize which features are the most central to that measure itself, and which are to be accorded the most significance for purposes of characterizing the relevant {measure}". This will allow the panel to determine the discipline(s) to which the measure is subject under the covered agreements. The Appellate Body also noted that the original panel had not arrived at a definitive characterization of the measures. Instead, the panel had arrived at the conclusion that the payments and other support are financial contributions by exclusion, proceeding mechanically from its conclusion that the NASA procurement contracts and the USDOD assistance instruments were not purchases of services. Furthermore, the Appellate Body observed that the European Communities had presented arguments 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. In this light, it was not clear to the Appellate Body why the original panel had 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. The Appellate Body pointed out that the original panel should first have examined relevant characteristics of the NASA procurement contracts and the USDOD assistance instruments, and then considered whether, in light of a proper interpretation of Article 1.1(a)(1), these measures fall within the scope of that provision.

5.45. Finally, the Appellate Body expressed concerns about the original panel's test for determining whether the measures could properly be characterized as purchases of services. For the Appellate Body, the legal basis of the original panel's test did not appear to be grounded in the terms of Article 1.1(a)(1) of the SCM Agreement. Moreover, the Appellate Body considered that requiring an inquiry into the degree to which either party (Boeing or the government/unrelated third parties) derives a disproportionate "benefit" from the transaction risked conflating the financial contribution and benefit elements of a subsidy analysis.

5.46. Regarding the characteristics of the NASA procurement contracts, the Appellate Body found that the transactions between Boeing and NASA comprise a number of interlinked elements and are collaborative in nature, and that these collaborative arrangements are akin to a species of joint venture. The Appellate Body explained that these transactions involve a provision of funds from NASA and a pooling of non-monetary resources (such as access to equipment, facilities, and employees) on the input side, while involving some sharing of the fruits of the research on the output side. Concerning the USDOD assistance instruments, the Appellate Body held that the transactions

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169 Original Panel Report, para. 7.1171.
170 Original Panel Report, para. 7.1027 and 7.1171.
172 Appellate Body Report, US – Large Civil Aircraft (2nd complaint), para. 586 (quoting Appellate Body Reports, China – Auto Parts, para. 171). (emphasis original)
179 Appellate Body Report, US – Large Civil Aircraft (2nd complaint), paras. 594-596.
under these instruments, similar to those under the NASA procurement contracts, are composite and collaborative in nature, and that these features resemble a joint venture arrangement. The Appellate Body concluded that the transactions under the NASA procurement contracts and under the USDOD assistance instruments are akin to a species of joint venture.

5.47. In analysing the types of financial contributions covered by Article 1.1(a)(1) of the SCM Agreement, the Appellate Body recalled that the panel had 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). Since this interpretative issue was not relevant for the purpose of resolving the dispute before the Appellate Body, it declared moot the original panel's interpretation that "transactions properly characterized as purchases of services are excluded from the scope of Article 1.1(a)(1)(i) of the SCM Agreement." The Appellate Body also declared moot the original panel's finding that the USDOD procurement contracts are properly characterized as "purchases of services" and thus are not financial contributions under Article 1.1(a)(1). The Appellate Body did not complete the legal analysis regarding the USDOD procurement contracts.

5.48. As to whether the NASA procurement contracts and the USDOD assistance instruments fall under one of the subparagraphs of Article 1.1(a)(1) of the SCM Agreement, the Appellate Body observed that these joint venture arrangements between NASA/USDOD and Boeing have characteristics analogous to equity infusions, one of the examples of financial contributions included in Article 1.1(a)(1)(i). According to the Appellate Body, this commonality indicated that the NASA procurement contracts and the USDOD assistance instruments fall within the concept of "direct transfers of funds" in Article 1.1(a)(1)(i). Thus, the Appellate Body held that payments provided by NASA and USDOD to Boeing to undertake the research constitute a "direct transfer of funds" within the meaning of Article 1.1(a)(1)(i). In addition, the Appellate Body found that, because Boeing was given access to NASA facilities, equipment, and employees and to USDOD facilities, these contributions constitute "the provision of goods or services" within the meaning of Article 1.1(a)(1)(iii).

5.2.1 The Panel's findings under Article 1.1(a)(1) of the SCM Agreement

5.49. The European Union's claim that the Panel failed to make an objective assessment of the matter in its financial contribution analysis under Article 1.1(a)(1) of the SCM Agreement is focused on certain arguments and evidence, which, in the European Union's view, the Panel disregarded or failed to sufficiently engage with. Specifically, the European Union argues that the Panel failed to engage with its evidence and arguments related to: (i) Boeing's contribution of its background IP, including that resulting from non-reimbursed independent research and development (IR&D) spending, to the joint venture between USDOD and Boeing; (ii) Boeing's ability to share in the rewards of the R&D conducted under the USDOD procurement contracts; and (iii) the nature and purpose of the USDOD procurement contracts.

5.50. At the outset of our analysis, we note that in assessing whether the USDOD procurement contracts constitute financial contributions, the Panel examined "the relevant characteristics of the DOD procurement contracts with a view to determining whether, like the NASA procurement contracts and DOD assistance instruments before the Appellate Body (in the original proceedings), the relationship between DOD and Boeing in the particular context is one of partnership, involving collaboration in pursuit of a common goal for the mutual benefit of DOD and Boeing". Ultimately,
the Panel found itself "unable to characterize the DOD procurement contracts in a similar manner" to the way in which the Appellate Body characterized the NASA procurement contracts and the USDOD assistance instruments, namely as joint venture arrangements between NASA/USDOD and Boeing with characteristics analogous to equity infusions.190

5.51. We note that the Panel's analysis was focused on examining the features of the USDOD procurement contracts by reference to the characteristics of instruments found to constitute financial contributions in the original proceedings rather than by reference to the legal standard for assessing the existence of financial contribution in Article 1.1(a)(1)(i) and (iii). In this respect, we recall the Appellate Body's observation that a panel's analysis of the relevant characteristics of the measure should be undertaken for the purpose of properly determining the discipline(s) to which the measure is subject under the covered agreements.191 In our view, therefore, the examination of the relevant characteristics of a measure and the consideration of whether a measure with such characteristics falls within the scope of Article 1.1(a)(1) must form part of one holistic assessment, in light of the aim to determine properly the applicability of the relevant provisions of the covered agreements with respect to that measure. Thus, the Panel in this case was tasked with analysing the key features of the USDOD procurement contracts from the perspective of the elements set out in both subparagraphs (i) and (iii) of Article 1.1(a)(1), in order to ascertain under which category of financial contributions these measures fell, or whether they fell outside of the scope of Article 1.1(a)(1) altogether.

5.52. We recognize that the focus of the Panel's analysis was shaped by the parties' arguments192 and the approach of the Appellate Body in the original proceedings.193 In its analysis of the relevant characteristics of the NASA procurement contracts and the USDOD assistance instruments in the original proceedings, the Appellate Body relied on the characteristics of the categories of measures listed in the subparagraphs of Article 1.1(a)(1), in particular (i) and (iii).194 While it was not inappropriate for the Panel to begin its analysis by considering the relevant characteristics of the USDOD procurement contracts from the perspective of whether they resemble collaborative arrangements, in a second step the Panel should have addressed expressly the legal question of whether measures with characteristics such as the USDOD procurement contracts fall within the scope of one of the categories of Article 1.1(a)(1) of the SCM Agreement.

5.53. We further note that, having found that the USDOD procurement contracts are most appropriately characterized as purchases of services, the Panel found it unnecessary to address the interpretive issue of whether such transactions fall within the scope of Article 1.1(a)(1) of the SCM Agreement, given its ultimate conclusion that the European Union had failed to establish that the USDOD procurement contracts confer a benefit within the meaning of Article 1.1(b).195 We observe in this regard that, pursuant to Article 1.1, a subsidy shall be deemed to exist if there is a financial contribution and "a benefit is thereby conferred."196 Furthermore, whether a "benefit" has been conferred is determined by reference to the trade-distorting potential of the "financial contribution" and can be identified by assessing whether the recipient has received a "financial

190 Panel Report, para. 8.376 (referring to Appellate Body Report, US – Large Civil Aircraft (2nd complaint), para. 624). The Appellate Body concluded that the payments that were part of the joint venture arrangement constituted a direct transfer of funds within the meaning of Article 1.1(a)(1)(i) of the SCM Agreement and that the provision of facilities, equipment, and employees constituted a provision of goods or services within the meaning of Article 1.1(a)(1)(iii).
192 The European Union submitted that "the DOD procurement contracts share all of the relevant characteristics of the pre-2007 NASA procurement contracts and DOD assistance instruments that led the Appellate Body to conclude that those instruments were collaborative research arrangements 'akin to a species of joint venture', which involved financial contributions to Boeing", and the United States responded that "a proper consideration of all of the characteristics of the DOD procurement contracts in fact leads to the conclusion that some are properly characterized as purchases of services and outside the scope of Article 1.1(a)(1)." (Panel Report, para. 8.356)
193 In the original proceedings, the Appellate Body stated that the panel should have undertaken a two-step approach by first examining the measures to determine their relevant characteristics, and then considering whether these measures fell within the scope of Article 1.1(a)(1). (Appellate Body Report, US – Large Civil Aircraft (2nd complaint), para. 589)
194 See Appellate Body Report, US – Large Civil Aircraft (2nd complaint), paras. 597, 609, and 624.
196 Emphasis added.
contribution" on terms more favourable than those available in the market. Thus, a finding with respect to the specific type of financial contribution under Article 1.1(a)(1) may be necessary in order to conduct a proper analysis of benefit as it relates to that category of financial contribution.

5.54. With these considerations in mind, we now turn to assess the question of whether the Panel failed to make an objective assessment of the matter before it under Article 11 of the DSU by characterizing the payments and access to USDOD facilities, equipment, and employees under the USDOD procurement contracts as "purchases of services".

5.2.1. The Panel's analysis regarding Boeing's contribution to a joint venture between USDOD and Boeing

5.55. The European Union takes issue with the Panel's finding that the privately funded and non-reimbursed IR&D expenditures incurred by Boeing in developing its background IP cannot be considered a contribution of "financial resources" to a "joint undertaking" with USDOD. According to the European Union, "the Panel correctly noted that these expenditures are internal costs Boeing incurs in order to maintain the technological competence and expertise necessary to perform the obligations in the R&D procurement contracts." However, the Panel then concluded that "in making use of its own intellectual property and know-how in order to carry out the R&D work for DOD, Boeing cannot be said to be 'contributing' its intellectual property to a joint venture with DOD." The European Union considers that, in arriving at this conclusion, the Panel failed to engage with relevant evidence, insofar as the procurement contracts "provide for partial reimbursement of IR&D expenditures by DOD", and "Boeing's civil technologies (funded with Boeing's own resources) may have potential military applications, such that civil to military flows can benefit DOD as well." Thus, "the non-reimbursed portion of Boeing's DOD-related IR&D expenditures should be seen as Boeing's contribution to the joint venture."

5.56. The United States responds that the European Union's argument is contrary to the original panel's finding that "U.S. law requires Boeing to allocate a share of the costs of any IR&D projects benefiting both its military segment (IDS) and its commercial segment (Boeing's LCA division) to each of those segments on a 'pro rata' basis." Thus, "to the extent that any Boeing IR&D activity is 'DoD-related,' Boeing allocates it to the relevant procurement contracts, and DoD reimburses Boeing's expenditures for that activity through the contracts." The United States also alleges that the European Union "cite{s} no evidence that Boeing 'contributed' IR&D expenditures to its work under DoD procurement contracts".

5.57. We note that, before the Panel, the European Union clarified that it does not argue that Boeing's non-reimbursed, internal IR&D expenditures are a contribution of financial resources under the USDOD procurement contracts in the same way as Boeing's contribution of financial resources

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198 We note that, in the particular circumstances of this case, the Panel based its benefit analysis on the fact that, since the USDOD procurement contracts were characterized as "principally and predominantly involving purchases of R&D services by DOD from Boeing", the determination of whether a benefit was conferred on Boeing had to involve, consistent with Article 14(d) of the SCM Agreement, "an assessment of whether Boeing was paid adequate remuneration for performing the R&D work". (Panel Report, para. 8.418) Therefore, the Panel appears to have taken into account the specific category of financial contribution that it considered the USDOD procurement contracts would potentially fall within, namely the provision of goods or services or purchase of goods within the meaning of Articles 1.1(a)(1)(iii) and 14(d).
200 European Union's appellant's submission, para. 52 (referring to Panel Report, para. 8.363).
201 European Union's appellant's submission, para. 52 (quoting Panel Report, para. 8.363).
202 European Union's appellant's submission, para. 53. (emphasis original)
203 European Union's appellant's submission, para. 53 (quoting Panel Report, para. 8.466).
204 European Union's appellant's submission, para. 53 (quoting Panel Report, para. 8.466).
205 United States' appellee's submission, para. 36 (quoting Original Panel Report, para. 7.1332).
206 United States' appellee's submission, para. 36 (quoting Original Panel Report, para. 7.1334).
207 United States' appellee's submission, para. 37.
under the USDOD assistance instruments.208 Rather, according to the European Union, in the case of the USDOD procurement contracts, there is a time lag between when Boeing funds its own IR&D and when it uses the background IP created from that IR&D as its "contribution" to the "joint undertaking" pursuant to a particular procurement contract.209 We therefore understand the European Union to argue that Boeing contributes to a joint venture with USDOD its own general professional expertise in the form of background IP that Boeing has accumulated over time, either in the context of research pursuant to governmental contracts, or independently through its own internal R&D expenditures.210

5.58. Turning to the European Union's contention that the Panel failed to engage with relevant evidence, namely with the fact that USDOD only partially reimburses Boeing for its independently conducted R&D, we recall the Appellate Body's observation in the original proceedings that one feature of the NASA procurement contracts and the USDOD assistance instruments that pointed to their collaborative nature was that both parties commit resources to the research project.211 Specifically, under the NASA procurement contracts, both NASA and Boeing contributed their facilities, equipment, and employees, and, under the USDOD assistance instruments, both USDOD and Boeing contributed financial resources to the research project.212 As we understand it, in the European Union's view, to the extent that Boeing is only partially reimbursed for its own background IP under the USDOD procurement contracts, the non-reimbursed investments constitute Boeing's contribution to a collaborative project that would be more akin to a species of joint venture, and thus relevant to an analysis of a financial contribution under subparagraph (i) of Article 1.1(a)(1) of the SCM Agreement.

5.59. In this regard, the Panel observed that the non-reimbursed IR&D expenditures referred to by the European Union are "internal costs that contractors like Boeing incur in order to maintain the technological competence and expertise that enable them to provide the R&D services for which they are contracted".213 The Panel reasoned that "{t}hese expenditures are not specified in the procurement contracts as contributions to be made by Boeing" and did not consider that "Boeing's privately funded IR&D expenditures can be considered a contribution of 'financial resources' to a 'joint undertaking' with DOD", or "that, in making use of its own intellectual property and know-how in order to carry out the R&D work for DOD, Boeing can be said to be 'contributing' its intellectual property to a joint venture with DOD".214

5.60. As we see it, rather than failing to engage with relevant evidence, the Panel disagreed with the European Union's argument. In particular, the Panel appears to have viewed Boeing's use of its own background IP and know-how in the context of the USDOD procurement contracts as an element not characteristic of a collaborative arrangement. It is in this light that we understand the Panel's statements that the IR&D expenditures are not specified in the procurement contracts as contributions to be made by Boeing, and that Boeing cannot be said to be "contributing" financial resources or IP to a joint venture with USDOD.215 We further note that Boeing's use of privately funded IR&D is qualitatively different from Boeing's participation under the USDOD assistance instruments, where the contracts themselves "commit{ted} Boeing to contribute financial resources", and therefore provided for "joint funding of the research projects".216 The USDOD assistance instruments are also different, insofar as in that case both parties commit non-monetary

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208 Panel Report, fn 1496 to para. 8.363 (referring to European Union's response to Panel question No. 16, para. 113). We recall the Appellate Body's finding in the original proceedings that the USDOD assistance instruments commit Boeing to contribute financial resources to the project, although, in all cases, USDOD funds at least 50% of the costs. (Appellate Body Report, US – Large Civil Aircraft (2nd complaint), para. 605)

209 Panel Report, fn 1496 to para. 8.363 (referring to European Union's response to Panel question No. 16, para. 113).

210 At the oral hearing, the European Union confirmed this understanding of its claim.

211 Appellate Body Report, US – Large Civil Aircraft (2nd complaint), paras. 609 and 611.

212 Appellate Body Report, US – Large Civil Aircraft (2nd complaint), paras. 595 and 605.


resources (facilities, equipment, and employees) to the research project.\textsuperscript{217} Therefore, we do not
see that the Panel failed to engage with relevant evidence.

5.61. The European Union also argues that the Panel failed to provide "reasoned and adequate explanations" to support its conclusions that Boeing's contribution of IR&D expenditures used to develop background IP does not constitute a contribution of resources to a collaborative project akin to a species of joint venture.\textsuperscript{218} Further, the European Union submits that "the Panel failed to explain why Boeing's making use of its own background IP ... in the course of performing the research funded under the DOD procurement contracts does not constitute a contribution of resources by Boeing to a joint venture."\textsuperscript{219} As we see it, the Panel did explain its rationale when stating that "these expenditures are internal costs that contractors like Boeing incur in order to maintain the technological competence and expertise that enable them to provide the R&D services for which they are contracted."\textsuperscript{220} In other words, as the United States points out, the Panel viewed Boeing's background IP and know-how as "threshold qualifications" required in order for a company to be able to engage competently in aeronautics research for USDOD, and not as something that Boeing "conveys as part of the effort" under the procurement contracts themselves.\textsuperscript{221} We are therefore not convinced that the Panel failed to explain sufficiently its rationale for rejecting the European Union's argument.

5.62. In view of the above, we do not consider that the Panel failed to engage with relevant evidence, or failed to provide a reasoned and adequate explanation, in reaching its conclusions regarding the question of whether Boeing's non-reimbursed IR&D expenditures can be considered as a contribution to a collaborative arrangement with USDOD.

5.2.1.2 The Panel's analysis of whether Boeing shares with USDOD the rewards of the R&D it conducts under the USDOD procurement contracts

5.63. The European Union submits that, in arriving at the conclusion that USDOD and Boeing cannot be said to share the fruits of the research under the USDOD procurement contracts, as they do under the NASA procurement contracts and the USDOD assistance instruments, the Panel failed to base its findings in evidence and failed to engage with the European Union's arguments and evidence that: (i) export controls, including the International Traffic in Arms Regulations (ITAR), have not prevented Boeing from using technologies developed under the USDOD procurement contracts for its own commercial purposes, and (ii) Boeing sells military aircraft to foreign governments.\textsuperscript{222}

5.64. The European Union's first line of argument concerns the Panel's conclusions on the question of whether export controls, including the ITAR, have prevented Boeing from using technologies developed under the USDOD procurement contracts for commercial purposes. The European Union points to a press report it provided to the Panel stating that Boeing has benefited from ITAR-controlled data in designing the 787 by "recreate{ing}" that data.\textsuperscript{223} The European Union explains that this evidence confirms that "Boeing finds ways to utilize military technology for its LCA, regardless of ITAR controls" and "is able to benefit from critical know-how and technology derived from DOD-supported R&D".\textsuperscript{224} Moreover, the European Union relies on the conclusion of the original panel that the ITAR does not make it effectively impossible for Boeing to utilize the R&D performed under the USDOD procurement contracts for its own purposes.\textsuperscript{225} Finally, the European Union submits that it "provided extensive evidence that patents arising from R&D performed pursuant to DOD procurement contracts have explicit applications to commercial aircraft (as Boeing, itself, explained

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\textsuperscript{217} In this regard the Panel found that "there {was} nothing before {the Panel} to suggest that the provision of facilities, equipment, and employees is anything but marginal." (Panel Report, para. 8.361)

\textsuperscript{218} European Union's appellant's submission, paras. 54-55.

\textsuperscript{219} European Union's appellant's submission, para. 55. (emphasis original)

\textsuperscript{220} Panel Report, para. 8.363.

\textsuperscript{221} United States' appellee's submission, para. 38.

\textsuperscript{222} European Union's appellant's submission, paras. 57-58 (referring to Panel Report, paras. 8.367-8.368 and 8.422; second written submission to the Panel, paras. 203 and 408; comments on United States' response to Panel question No. 67, para. 41).

\textsuperscript{223} European Union's appellant's submission, paras. 59-60 (quoting European Union's second written submission to the Panel, para. 408, in turn quoting D. Gates, "How B-2 data wound up in 787 program", \textit{Seattle Times}, 22 January 2006 (Panel Exhibit EU-333)).

\textsuperscript{224} European Union's appellant's submission, para. 60.

\textsuperscript{225} European Union's appellant's submission, para. 61 (referring to Appellate Body Report, \textit{US – Large Civil Aircraft (2nd complaint)}, para. 579, in turn referring to Original Panel Report, para. 7.1160).
in its own patent applications)" and that these registered patents are publicly available. For the European Union, "contrary to the Panel's findings, the evidence demonstrates that technologies developed by Boeing employees in the course of conducting R&D under the DOD procurement contracts, for which Boeing owns registered patents, are not subject to export controls or classification at all, such that Boeing (and only Boeing) is freely able to use these technologies for its LCA."227

5.65. For its part, the United States contends that the Panel's conclusion that Boeing's ability to exploit commercially the results of research conducted under the US DOD procurement contracts is "restricted" or "limited" by US export controls and that the classification of national security information is consistent with the original panel's findings with respect to US export controls, since the Panel's conclusion "implicitly recognizes that such exploitation is not completely impossible."228 According to the United States, "(i)t is, in fact, quite rare for Boeing's research under contract with DoD to result in a patentable invention", and the European Union's examples of situations in which the ITAR and classification rules did not preclude Boeing's public disclosure of the results of research performed under those contracts and instruments, namely the fact that Boeing obtained title to its inventions and rights to data, and NASA/USDOD received a royalty-free government-use licence.229

5.66. We note that the European Union's argument relates to the Appellate Body's reasoning in the original proceedings that one feature of the NASA procurement contracts and the US DOD assistance instruments, which characterized them as collaborative arrangements, was that, from the perspective of the outputs, "the fruits of the research are shared" between Boeing and NASA/USDOD.230 This conclusion was drawn by the Appellate Body on the basis of the distribution of IP rights and rights to data between Boeing and NASA/USDOD, resulting from the research performed under those contracts and instruments, namely the fact that Boeing obtained title to its inventions and rights to data, and NASA/USDOD received a royalty-free government-use licence.231

5.67. In these compliance proceedings, the Panel found that, although, by operation of US law, there is a "sharing" of IP rights resulting from Boeing's performance of R&D work under all US Government contracts, "the 'balance' of that sharing is substantially more in DOD's favour and less in Boeing's favour than under the DOD assistance instruments, or NASA procurement contracts."232 The Panel considered that "(t)his different 'balance' of allocation of intellectual property rights that results from the performance of work under a DOD procurement contract" also affected its assessment of whether US DOD and Boeing can be said to share in the "risks and rewards" of the commissioned R&D.233 Specifically, the Panel recognized that "Boeing's ownership of the patents to inventions made by its employees in the course of work under a DOD procurement contract does give Boeing the legal right to exploit the military technologies in question for commercial purposes" and that "some of the military technologies may also have potential civil applications."234 At the same time, the Panel considered that "Boeing's practical ability to exploit those technologies for civil applications {was} limited by legal restrictions on the use of information and technologies developed under the DOD procurement contracts outside the military context."235

5.68. With regard to whether the Panel's conclusion is contradicted by the original panel's findings, we note the original panel's conclusion that the United States had failed to substantiate its assertion that the ITAR made it "effectively impossible for Boeing to utilize any of the R&D performed under DOD R&D contracts and agreements towards LCA".236 Specifically, while the original panel "accept{ed} the United States' assertions that the ITAR restrict Boeing's ability to use certain R&D

226 European Union's appellant's submission, para. 63.
227 European Union's appellant's submission, para. 63.
228 United States' appellee's submission, para. 43.
229 United States' appellee's submission, para. 44.
230 Appellate Body Report, US – Large Civil Aircraft (2nd complaint), paras. 596 and 611.
231 In the case of the NASA procurement contracts, the US Government received an "unlimited rights" licence to use, for government purposes, any data produced by the contractor in the course of performing research funded by NASA. In the case of the US DOD assistance instruments, the US Government obtained only "limited rights" over data, because Boeing co-funds the research under these instruments. (Appellate Body Report, US – Large Civil Aircraft (2nd complaint), paras. 596 and 608)
233 Panel Report, para. 8.368.
235 Panel Report, para. 8.368.
236 Original Panel Report, para. 7.1160.
performed for DOD towards its civil aircraft", it also found that the United States "had failed to explain how its assertions regarding the ITAR can be reconciled with the fact that some of the R&D funded by DOD – including R&D performed by Boeing under assistance instruments entered into under the ManTech and DUS&T Programs, which were subject to the ITAR – had the explicit objective of being applied towards civil aircraft". 237

5.69. The original panel's finding does not directly contradict the Panel's conclusion that "Although some of the military technologies may also have potential civil applications, Boeing's practical ability to exploit those technologies for civil applications is limited by legal restrictions on the use of information and technologies developed under the DOD procurement contracts outside the military context." 238 Contrary to what the European Union argues, the Panel did not find that "export controls prevent Boeing from applying R&D conducted pursuant to DOD procurement contracts", 239 but recognized that Boeing has some practical ability, albeit restricted, to use military technologies for civil purposes.

5.70. Next, we turn to the two specific categories of arguments and evidence referred to by the European Union, relating to how Boeing has, in practice, benefited from ITAR-controlled data by re-creating it for purposes of designing the 787, and to the examples of patents arising from R&D performed pursuant to the USDOD procurement contracts. 240 We note that, in the context of its financial contribution analysis, the Panel stated that "Boeing's practical ability to exploit (the military technologies developed under the USDOD procurement contracts) for civil applications is limited by legal restrictions." 241 The Panel did not provide a basis for this conclusion in its financial contribution assessment. Nor did the Panel refer in this regard to the evidence presented by the European Union in order to demonstrate that Boeing had made use of some ITAR-controlled data and had patented technology developed pursuant to the USDOD procurement contracts. We observe that the Panel referred to the relevant section of its Report setting out the principal legal restrictions on the dissemination of military technologies and data, including the ITAR. 242 However, this section does not address the question of how such legal restrictions apply in the context of either the USDOD procurement contracts, or the NASA procurement contracts and the USDOD assistance instruments.

5.71. The Panel thus failed to engage in an analysis of the impact on Boeing of the legal restrictions on the use of military technologies on the basis of the European Union's evidence. Specifically, the Panel did not explain how the legal restrictions on the use of military technology under US law relate to the European Union's assertion that at least some part of the research under the USDOD procurement contracts has translated into USDOD-funded patents.

5.72. In support of its conclusion that Boeing's legal right to exploit military technologies developed under the USDOD procurement contracts for commercial purposes "is in practice restricted", the Panel also referred to its analysis of benefit. 243 In this analysis, the Panel reiterated that "Boeing's practical ability to exploit any military technologies for commercial purposes outside the military context is circumscribed by U.S. legal restrictions on the use of military technologies and data." 244 In that context, the Panel then explained what it considered to be the difference between the USDOD assistance instruments and the USDOD procurement contracts. 245 The Panel reasoned that the "DOD assistance instruments by definition involve 'assistance' in the sense of a transfer of a thing of value to a recipient." 246 The Panel therefore considered it "reasonable to assume that the nature of R&D undertaken in such a collaborative context would be expected by the parties to yield outcomes that Boeing would have the practical ability to commercially exploit". 247 Otherwise, according to the

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237 Original Panel Report, para. 7.1160. (emphasis original)
238 Panel Report, para. 8.368.
239 European Union's appellant's submission, para. 61. (emphasis original)
240 See European Union's appellant's submission, paras. 59-60 and 63-64.
242 See Panel Report, fn 1504 to para. 8.368 (referring to ibid., section 8.2.3.2.5).
243 Panel Report, para. 8.367. The Panel observed that "Boeing's ownership of the patents to inventions made by its employees in the course of work under a DOD procurement contract does give Boeing the legal right to exploit the military technologies in question for commercial purposes. However, as we explain in paragraphs 8.422 to 8.425 (i.e. the Panel's benefit analysis) the particular commercial context means that this legal right is in practice restricted." (Ibid.)
244 Panel Report, para. 8.422.
246 Panel Report, para. 8.423.
247 Panel Report, para. 8.424. (emphasis added)
Panel, "a commercial actor like Boeing would be unlikely to contribute to the costs of performing the R&D" and there would be no legal basis for the selection of "an assistance instrument as the appropriate instrument for the transaction with Boeing". In our view, this conclusion is based on the label given to the relevant legal instruments under municipal law rather than on a proper analysis of the characteristics of the instrument. However, such a label cannot be dispositive, and the analysis cannot be limited to consideration of the label.

5.73. The Panel further observed that "the fact that many of the assistance instruments were funded through program elements with explicitly dual-use objectives would tend to support this conclusion." We note, however, that only two of the RDT&E programme elements funding the USDOD assistance instruments challenged by the European Union had explicit dual-use objectives. Furthermore, the existence of explicit dual-use objectives in some of the USDOD assistance instruments, and not in others, was not among the relevant considerations taken into account by the Appellate Body in finding that these instruments constitute collaborative arrangements with characteristics analogous to equity infusions. Therefore, the fact that the USDOD procurement contracts do not fund research with explicit dual-use objectives does not determine the extent of limitations on Boeing's ability to exploit USDOD-funded research for civil applications.

5.74. Finally, the Panel contrasted the USDOD assistance instruments with the USDOD procurement contracts, as follows:

DOD and Boeing engage with each other on a different footing in the context of the DOD procurement contracts. As we have explained above, in this context, the government use licence would, as a practical matter, occupy the field of possibilities for commercial exploitation of the military technologies, and Boeing's practical ability to commercially exploit its patented technologies, whether in a military or non-military context, is consequently more limited.

5.75. We note that this is the very reason the Panel provided in support of its conclusion that "Boeing's practical ability to commercially exploit patents that it owns as a result of performing R&D work for DOD, and the practical consequences of the government use licence granted to DOD, differ in the context of DOD assistance instruments and DOD procurement contracts." In other words, the Panel considered that the differences between these two types of legal instruments provided support for the proposition that Boeing's practical ability to exploit commercially R&D and patents from the USDOD procurement contracts is more limited than its ability to exploit R&D and patents from the USDOD assistance instruments. However, the Panel's observation relating to the reasons for differences between the USDOD procurement contracts and the USDOD assistance instruments was itself based on the underlying contention that Boeing's practical ability to exploit commercially R&D stemming from the USDOD procurement contracts is limited. The Panel's reasoning appears somewhat circular and therefore does not provide sufficient explanation of the difference between Boeing's practical ability to exploit R&D and patents granted in the context of the USDOD procurement contracts and the USDOD assistance instruments.

5.76. In this respect, we observe that both the USDOD procurement contracts and the USDOD assistance instruments concern research primarily of a military nature that, however, has been, or at least has the potential of being, exploited for civil purposes in certain cases. Thus, the outcomes of the research under both categories of legal instruments could be expected to be covered under the ITAR thus leading to restrictions on Boeing's ability to use this research for civil purposes. In this light, it remains unclear on what basis the Panel concluded that Boeing's practical ability to exploit commercially its patented technologies in a non-military context under the USDOD procurement contracts was "more limited" than that under the USDOD assistance instruments. In particular,
the Panel did not engage with the European Union’s evidence that patents arising from R&D performed pursuant to certain USDOD procurement contracts have explicit applications to commercial aircraft, as evidenced by registered patents and examples of how Boeing has in practice benefited from ITAR-controlled data. Moreover, the Panel failed to address the question of whether Boeing’s use of USDOD-funded research under the USDOD procurement contracts, albeit more limited than the use of such research under the USDOD assistance instruments, may result in "sharing" of the fruits of the research and entail a relationship of collaboration between USDOD and Boeing.

5.77. We observe that the United States presented arguments and evidence that the European Union’s examples of situations in which the ITAR did not preclude Boeing’s use of research conducted under the USDOD procurement contracts only confirm that Boeing quite rarely benefits from USDOD-related research. The United States argued that “fewer than 1 in 100 DoD contracts results in a patentable invention that the EU considers worth highlighting” and “patents arising as a result of work under DoD contracts are not a significant part of Boeing’s intellectual property portfolio.” Faced with such conflicting propositions, the Panel should have further explored the matter and provided a reasoned explanation for rejecting the European Union’s argument relating to the sharing of the fruits of the research under the USDOD procurement contracts.

5.78. In light of the above, we consider that the Panel failed to assess properly the European Union’s evidence relating to the actual use of ITAR-controlled data and technology developed pursuant to the USDOD procurement contracts. Furthermore, the Panel did not provide a reasoned and adequate explanation for its conclusion that Boeing’s practical ability to exploit military technologies developed under the USDOD procurement contracts for civil purposes is more limited than under the USDOD assistance instruments.

5.79. The European Union’s second line of argument concerns the Panel’s conclusion as to Boeing’s sales of military aircraft to foreign governments. The European Union contends that “the Panel did not cite to a single piece of evidence in support of its assertion that ‘the rewards of the successful outcome of the research are primarily and in practical terms captured by the government use licence, owing to the fact that the technologies in question are military and DOD is Boeing’s only customer for such technologies.’” The European Union refers to evidence demonstrating that “the United States does have the largest defence budget in the world, ... the combined 2013 defence budgets of the next 15 highest-spenders is more than that of the United States.” The European Union further refers to a news article, stating that “international sales at Boeing’s (BA) defense division made up 24 percent of the company’s $33 billion in defense revenue last year, up from 7 percent in 2004.”

5.80. The United States responds that the evidence referred to by the European Union does not indicate whether Boeing made sales to any of the purchasers of military equipment listed there. Furthermore, the United States contends that “as Boeing’s defense division also sells satellites and commercial satellite launch vehicles, these data do not support any firm conclusion about Boeing’s sales of military equipment to foreign governments.” Moreover, according to the United States

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255 European Union’s appellant’s submission, para. 63.
256 United States' appellee's submission, para. 44 (referring to United States' first written submission to the Panel, paras. 372 and 377).
257 United States' first written submission to the Panel, paras. 372 and 377.
258 European Union’s appellant’s submission, para. 65 (quoting Panel Report, para. 8.368). (emphasis added by the European Union)
259 European Union’s appellant’s submission, para. 65 (quoting European Union's comments on United States’ response to Panel question No. 67, para. 41, in turn referring to International Institute for Strategic Studies, Military Balance 2014 Press Statement (5 February 2014) (Panel Exhibit USA-487), p. 2). (emphasis added by the European Union)
260 European Union’s appellant’s submission, para. 65 (quoting European Union’s comments on United States’ response to Panel question No. 67, para. 41, in turn quoting D. Lerman and R. Wall, “U.S. Defense Contractors Focus on Foreign Buyers”, Businessweek, 14 November 2013 (Panel Exhibit EU-1399)). (emphasis added by the European Union)
5.81. The Panel's statement in paragraph 8.368 of its Report that "DOD is Boeing's only customer for {military} technologies" is inaccurate, insofar as the evidence indicates that Boeing does make sales of military technologies to foreign governments. However, we note that the statement in question is only one of several Panel statements concerning the customer base of Boeing, and in all other statements the Panel consistently observed that USDOD is the predominant buyer of modern air weaponry and weapons technology in the world and the exclusive buyer of such weaponry and technology in the United States. We note that the Panel did not distinguish the statement in paragraph 8.368 from all other statements relating to the customer base of Boeing. Considering jointly all statements made by the Panel with respect to Boeing's customer base, we do not understand the Panel to have found that USDOD is Boeing's only customer for military technologies in the world.

5.82. Beyond these statements, the Panel did not discuss the European Union's evidence, which essentially establishes that (i) countries other than the United States also have significant defence budgets, and (ii) Boeing's defence division makes a certain, not insignificant, percentage of sales internationally. As we see it, the Panel's statement that the US government is the sole purchaser of modern air weaponry in the United States is compatible with the argument that Boeing also sells some military equipment to governments other than that of the United States. Moreover, the European Union's evidence does not demonstrate how the fact that Boeing may have foreign military customers contradicts the Panel's observation that Boeing would be limited in exploiting technology developed under the USDOD procurement contracts for military purposes outside the United States, especially in light of the existing US legal restrictions on the dissemination of military technology and data. At the same time, we recall our observation above that, even though Boeing's use of research funded under the USDOD procurement contracts may be more limited than its use of research funded under the USDOD assistance instruments, that in itself does not mean that there could be no "sharing" of the fruits of the research between USDOD and Boeing in the context of the USDOD procurement contracts.

5.83. We also note that the European Union's evidence relating to Boeing's military customers outside the United States was introduced in comments to the United States' answer to a Panel question, in which the United States discussed "military applications of an invention invented during work under a NASA or DoD contract". The European Union's financial contribution argument before the Panel was focused more on the potential civil applications of the R&D performed under the USDOD procurement contracts than on the military applications of this R&D to Boeing's other customers. In any event, the figures put forward by the European Union on the defence budgets of foreign governments and the percentage of Boeing's military sales outside the United States do not appear to establish a clear link between Boeing and sales to any of those governments. Thus, we consider that the European Union has not demonstrated that the Panel's failure to address explicitly and rely upon its evidence and arguments relating to Boeing's military customers outside the United States has a bearing on the objectivity of its factual assessment.

5.2.1.3 The Panel's analysis of the collaborative nature and purpose of the USDOD procurement contracts

5.84. According to the European Union, in distinguishing "the nature and purpose of the DOD procurement contracts from that of the NASA procurement contracts and DOD assistance instruments", and in concluding that the nature and purpose of the interaction between USDOD

\[\text{\textsuperscript{262} United States' appellee's submission, para. 47. (emphasis original)}\]
\[\text{\textsuperscript{263} Panel Report, para. 8.368.}\]
\[\text{\textsuperscript{264} The United States itself notes that "(s)ales to DOD (excluding foreign military sales) accounted for 70 percent of \{the Boeing Defense Systems division\}'s 2012 revenues, which include commercial and civil satellite sales." (United States' appellee's submission, para. 48 (referring to Boeing 2012 10-K (Panel Exhibit EU-407), p. 1))}\]
\[\text{\textsuperscript{265} See Panel Report, paras. 8.338, 8.340, 8.405, and 8.422.}\]
\[\text{\textsuperscript{266} European Union's comments on United States' response to Panel question No. 67, para. 41 (referring to United States' response to Panel question No. 67, para. 15; D. Lerman and R. Wall, "U.S. Defense Contractors Focus on Foreign Buyers", Businessweek, 14 November 2013 (Panel Exhibit EU-1399)).}\]
\[\text{\textsuperscript{267} European Union's appellant's submission, para. 67.}\]
and Boeing "is not the same as when two partners work together to set research topics based on their aligned interests in the outcomes" 268, "the Panel failed to base its findings in the evidence, failed to engage with or properly consider EU arguments and evidence, disregarded key evidence, and failed to explain its findings in light of the evidence, in violation of Article 11 of the DSU." 269

5.85. First, with regard to the nature of the USDOD procurement contracts, the European Union submits that "a primarily military technological purpose is not determinative of whether these programmes have the effect of developing technologies and knowledge that could be applicable to Boeing LCA." 270 The European Union alleges that the Panel failed to consider the following evidence:

a. examples of civil applications of R&D developed by Boeing pursuant to the USDOD procurement contracts, including 271:
   i. "data from the B-2 stealth bomber {utilized} to develop a manufacturing process used on the 787" 272;
   ii. "advanced 3-D modelling and simulation techniques developed on the F-22 programme played on the 777" 273; and
   iii. "the US Air Force … supporting research into Boeing's blended-wing body configuration, which is expected to be used for both military and civil application" 274

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268 European Union’s appellant's submission, para. 67 (quoting Panel Report, para. 8.364).
270 European Union’s appellant’s submission, para. 68 (referring to the European Union’s response to Panel question No. 29, paras. 171-174; second written submission to the Panel, paras. 398-400). (emphasis original)
271 European Union’s appellant’s submission, para. 69. The European Union observes that it further detailed the dual-use potential of a number of particular USDOD procurement contracts and even gave explicit references to civil applications in certain of those contracts (referring to European Union’s response to Panel question No. 29, fn 205 to para. 172).
272 European Union’s appellant’s submission, para. 69 (referring to European Union’s second written submission to the Panel, para. 408, in turn referring to D. Gates, "How B-2 data wound up in 787 program", Seattle Times, 22 January 2006 (Panel Exhibit EU-333)).
274 European Union’s appellant’s submission, para. 69 (referring to European Union’s second written submission to the Panel, para. 401; first written submission to the Panel, paras. 83-86, in turn referring to Alex Velicki and Dawn Jegley, PRSEUS Development for the Hybrid Wing Body Aircraft, NASA Report No. NF1676L-13290 (20 September 2011) (Panel Exhibit EU-107), pp. 1-4; Jeff Sloan, "PRSEUS preform for pressurized cabin walls", Composites World, 1 September 2011 (Panel Exhibit EU-100); Boeing News Release, "Boeing Flies X-48C Blended Wing Body Research Aircraft", 7 August 2012 (Panel Exhibit EU-108)). The European Union observes that it further detailed the dual-use potential of a number of particular USDOD procurement contracts and even gave explicit references to civil applications in certain of those contracts. (European Union’s appellant’s submission, para. 69 (referring to European Union’s response to Panel question No. 29, fn 205 to para. 172))
b. the Charles River Associates (CRA) and Rumpf expert opinions detailing how each of the RDT&E programme elements "provide(s) funding and support to Boeing for R&D that is potentially applicable to LCA (or 'dual-use')"; and

c. a list of "examples of DOD-funded patents owned by Boeing (with the language therein drafted by Boeing engineers and/or patent attorneys) that explicitly indicate, on the face of the patents themselves, that they have a potential LCA-related application". The European Union contends that, in addition, the proposition that the USDOD procurement contracts with a military objective result in developing patented technologies applicable to civil aircraft "is also supported by Boeing's 'One Boeing' concept, which is 'intended to share lessons between the distinct Boeing Military Aircraft and Boeing Commercial Airplanes sectors'", including "'the sharing of design tools and testing procedures', as well as collaborative work on materials, processes, physics and manufacturing technologies".

5.86. The United States submits that the evidence cited by the European Union is insufficient to establish that the USDOD procurement contracts had the effect of producing research with civil applications to any meaningful degree, that USDOD or Boeing expected research under the challenged USDOD procurement contracts to produce civil applications, or that any such expectation is similar to the NASA procurement contracts and the USDOD assistance instruments. The United States argues that: (i) the press accounts are "strictly anecdotal" and do not provide any support for the European Union's assertion that USDOD or Boeing expected that research under the application...
USDOD procurement contracts would have civil applications\(^{280}\); (ii) "the Panel addressed {the Rumpf expert opinion} in its evaluation of its terms of reference, and found that its 'generalized allegations regarding the potential applicability to LCA of certain broad technology areas' were not 'sufficient to demonstrate a close nexus between a new program element and the ones covered by the original proceeding'\(^{281}\); and (iii) four of the ten patents referred to by the European Union are irrelevant, insofar as the inventions in question resulted from research that was not funded by the USDOD procurement contracts under the programme elements challenged by the European Union.\(^{282}\)

5.87. We note that the European Union's argument that USDOD and Boeing "entered into the {USDOD procurement contracts} with some expectation that Boeing’s LCA (or other commercial) division would benefit despite the primary military objective\(^{283}\) relates to the Appellate Body's observation in the original proceedings that one feature of the NASA procurement contracts and the USDOD assistance instruments that characterized them as collaborative arrangements was that "looking at the output side of the transactions, {there is no} straightforward exchange of monetary resources for some kind of non-monetary consideration", but instead "the fruits of the research are shared" between Boeing and NASA/USDOD.\(^{284}\)

5.88. With respect to the European Union's allegation that the Panel failed to consider certain evidence presented before the Panel, we note that the Panel did not refer to any of the three categories of evidence presented by the European Union in the context of its analysis of financial contribution relating to the USDOD procurement contracts. In light of the detailed nature of the European Union's arguments before the Panel relating to the Rumpf expert opinion, we begin our analysis with this category of evidence. The Panel referred to this expert opinion mainly in the context of its analysis relating to its terms of reference.\(^{285}\) For instance, the Panel observed that:

Mr Rumpf's assessment of the R&D involved in {the KC-46} program element that is potentially dual-use to LCA ... refers in a very generalized way to technological areas such as the use of performance based logistics incorporating micro-sensors in the KC-46 airframe, avionics R&D related to communications, navigation and adverse weather capabilities, physics-based modelling and simulation activities for improved design of the test and evaluation flight and ground tests, and multiple systems management technologies and processes.

... We are not satisfied that generalized allegations regarding the potential applicability to LCA of certain broad technology areas, without an explanation of how those technology areas overlap with the technology areas that were the focus of the NASA and DOD aeronautics R&D subsidies {that are} the subject of the DSB recommendations and rulings, are sufficient to demonstrate the required close nexus, in terms of nature

\(^{280}\) United States' appellee's submission, para. 56 (referring to European Union's appellant's submission, paras. 69 and 74). In particular, the United States argues that two of those press accounts "discuss lessons learned in the B-2 and F-22 programs that Boeing applied to the 787 and 777, respectively". However, the B-2 programme element "did not fund any relevant contracts during the period covered by the Panel's inquiry, which makes evidence relating to the B-2 irrelevant to evaluation of the measures before the Panel", and "(t)he F-22 was an enormous systems acquisition, such that a single example of cross-application indicates at best that such cross-overs rarely occur." The United States adds that the third press account "addresses research on a blended wing body design that the EU characterizes as 'expected to be used for both military and civil applications,' but that is so far in the future as to be purely speculative'. (Ibid.) Finally, the United States argues that the "One Boeing" concept "describes Boeing's goal of sharing lessons between its military and civil divisions" and, "(t)o the extent this initiative is successful, it suggests similarities between Boeing's contracts with DoD and its relations with civil aircraft customers, which have never been alleged to be comparable to the company’s NASA procurement contracts, let alone a joint venture." (Ibid. (referring to the European Union's appellant's submission, para. 74))

\(^{281}\) United States' appellee's submission, para. 57 (quoting Panel Report, para. 7.198). The United States adds that "even assuming arguendo that the conclusions were accurate, the most they show is that certain observers (long after the fact) thought that certain research under the challenged program elements could produce results applicable to large civil aircraft. They indicate nothing about the likelihood of such results, whether DoD and Boeing expected such results at any point in time, or whether any civil applications actually resulted." (Ibid., para. 58) (emphasis original)

\(^{282}\) United States' appellee's submission, para. 59

\(^{283}\) European Union's appellant's submission, para. 68. (emphasis original)

\(^{284}\) Appellate Body Report, US – Large Civil Aircraft (2nd complaint), para. 596. See also ibid., para. 608.

\(^{285}\) The Panel described the methodology used therein (Panel Report, paras. 7.86-7.88) and addressed the Rumpf expert opinion on several occasions (Panel Report, paras. 7.189-7.190, 7.197-7.198, and 7.203).
or effect, between the measures identified with respect to the KC-46, Next Generation Aerial Refueling Aircraft program element and the NASA and DOD aeronautics R&D subsidies (that are) the subject of the DSB recommendations and rulings.286

5.89. These statements are reflective of the Panel's view as to the relevance of the Rumpf expert opinion in the context of its analysis relating to the Panel's terms of reference assessment. However, the relevant question before the Panel in that context was different from the legal question in the context of its financial contribution analysis. Notably, in its terms of reference assessment, the Panel considered the Rumpf expert opinion in its analysis of whether there were "sufficiently close links, in terms of nature, effects, and timing", between, on the one hand, certain programme elements that came into existence after the date of the panel request in the original proceedings and, on the other hand, the aeronautics R&D measures, which are the subject of the recommendations and rulings of the DSB.287 By contrast, in the context of the Panel's financial contribution analysis, the European Union argued that the Rumpf expert opinion demonstrated the potential applicability to Boeing's civil technologies of the research undertaken by Boeing under the USDOD procurement contracts. The fact that the Panel referred to the Rumpf expert opinion in the context of its terms of reference analysis is thus not relevant for determining whether the Panel properly considered this evidence in the context of its financial contribution analysis.

5.90. We note that the Panel also addressed the Rumpf expert opinion in describing the European Union's understanding of "dual-use" in the context of its evaluation of the European Union's challenge relating to the USDOD procurement contracts and assistance instruments. The Panel observed that the European Union used the term "dual-use" to "refer to the military technologies developed by Boeing under the various RDT&E program elements that the European Union considers, based on the opinions of its experts, have potential applicability to Boeing LCA."288 The Panel contrasted this use of the term with the "concept of 'dual-use', which describes the explicit objectives of certain of the DOD RDT&E program elements (and) encompasses both the application to military needs of technology solutions developed by industry for civilian application (military in-bound) and the flow of technologies from military-developed contexts to commercially useful application in civilian contexts".289

5.91. The Panel's reference to the Rumpf expert opinion in this context indicates that the Panel did not overlook or ignore the Rumpf expert opinion. At the same time, the Panel did not properly engage with this evidence in conducting its substantive analysis of whether the USDOD procurement contracts involve financial contributions within the meaning of Article 1.1(a)(1) of the SCM Agreement. Specifically, the Panel's observation regarding differences in the way the term "dual-use" is employed by the European Union and in the RDT&E programme elements is descriptive and does not demonstrate that the Panel assessed the pertinence of the European Union's evidence in determining the existence of a relationship of collaboration between USDOD and Boeing in the context of certain USDOD procurement contracts.

5.92. In its analysis of whether the USDOD procurement contracts involved financial contributions, the Panel stated that "(t)hough some of the military technologies may also have potential civil applications, Boeing's practical ability to exploit those technologies for civil applications is limited."290 This statement appears to refer to the European Union's evidence in the Rumpf expert opinion, which the Panel had earlier described as "the process by which the European Union identified the specific

286 Panel Report, paras. 7.197-7.198. (fns omitted)
287 Panel Report, para. 7.160.
288 Panel Report, para. 8.343. (emphasis original)
289 Panel Report, paras. 8.341-8.342 (referring to Second Supplemental Declaration of Richard A. Razgaitis, Sr., Ph.D., CLP (17 December 2014) (Panel Exhibit EU-1398) (BCI), para. 14). In this regard, the Panel further explained that:
   The European Union's expert, Mr Rumpf, describes his assignment as being to estimate the amounts of funding provided to Boeing by the RDT&E program elements that could benefit Boeing's commercial airplane division. ... Rumpf indicates that his identification of the relevant S&T/general aircraft R&D program elements is based on his opinion as to the program elements and activities that he considers involve "dual-use", non-engine aircraft R&D. ... Similarly, Mr Rumpf's discussion of the systems acquisition/military aircraft RDT&E program elements often refers to his opinion regarding the "potential" applicability to Boeing LCA, or "potential" to benefit Boeing's LCA development.
   (Ibid., fn 1478 to para. 8.343 (emphasis original))
290 Panel Report, para. 8.368. (emphasis added)
aspects of the various RDT&E program elements that it considers could potentially have application to Boeing’s LCA development. However, the Panel did not engage in an analysis of this evidence put forward by the European Union or address the significance it may have for the European Union’s argument that the USDOD procurement contracts were in the nature of collaborative arrangements with characteristics analogous to equity infusions.

5.93. Moreover, the Panel did not refer to the other two categories of evidence presented by the European Union, namely the examples of civil applications of R&D developed by Boeing pursuant to the USDOD procurement contracts and the list of the USDOD-funded patents owned by Boeing with potential LCA-related applications. In this regard, we observe that the United States argued before the Panel that this evidence demonstrated that "the chance of a given DoD procurement contract, task order, or assistance instrument producing an invention that the {European Union} considered applicable to large civil aircraft was … essentially zero." The United States also pointed out to the Panel that the examples given by the European Union reflect very rare instances in which USDOD-related research has translated into patents with civil applications. Where a panel faces such conflicting propositions in relation to a key element of a claim before it based on the evidence submitted to it by the parties, it is difficult to see how it can comply with the obligation to undertake an objective assessment of the matter without engaging with that evidence and reflecting the results of its assessment of the evidence in its report. In the present case, we consider that the absence of any substantive assessment of the examples of Boeing’s actual use of research conducted pursuant to the USDOD procurement contracts meant that the Panel did not sufficiently explore the evidence before it for purposes of its ultimate conclusion. Furthermore, as noted, the fact that Boeing’s practical use of USDOD-funded research under the USDOD procurement contracts was more limited than under the USDOD assistance instruments does not answer the question of whether a relationship of collaboration existed between USDOD and Boeing under the USDOD procurement contracts.

5.94. The European Union further argues that the Panel failed to address its arguments that the "actual and anticipated technological outcomes, rather than the stated objectives, of the R&D are most indicative of the collaborative character of the DOD procurement contracts." According to the European Union, the Panel’s conclusion that the USDOD procurement contracts have military objectives such that Boeing’s ability to exploit those military technologies for commercial purposes is in practice restricted is not based in evidence, and the Panel failed to provide reasoned and adequate explanations and coherent reasoning in this regard.

5.95. We note that, in its financial contribution analysis, the Panel assessed the "particular commercial context" in which payments by USDOD are provided in exchange for the performance of R&D by Boeing. The Panel, distinguished this commercial context from that of the NASA procurement contracts on the basis that "the R&D commissioned under DOD procurement contracts is solely directed to meeting DOD’s military needs, independent of enhancing the competitive position of contractors such as Boeing." Therefore, the Panel found that "the nature and purpose of this interaction is not the same as when two partners work together to set research topics based on their aligned interests in the outcomes." Furthermore, the Panel considered "contextual factors" suggesting that the balance of sharing of IP rights under the USDOD procurement contracts is "substantially more in DOD’s favour and less in Boeing’s favour than under the DOD assistance instruments, or NASA procurement contracts." Notably, the Panel relied on the fact that "DOD is commissioning R&D services to support the development of military systems for DOD’s own distinct purposes" and "{u}nlike the DOD assistance instruments, or NASA procurement contracts, DOD’s
objectives do not include, or align with, advancing Boeing's development of technologies applicable to LCA.300

5.96. The Panel's conclusion that there is not enough "in the relationship between DOD and Boeing under the DOD procurement contracts that points to it being one of 'partnership', 'collaboration' or 'joint-venture', in which both parties act in pursuit of a common goal for their mutual benefit" was also based on additional reasons.301 For example, the Panel recognized that "the provision of facilities, equipment, and employees {under the USDOD procurement contracts} is ... marginal"302, and that "{u}nder the vast majority of the DOD procurement contracts, Boeing is paid its costs for performing the R&D and earns a negotiated fee or profit, which is a smaller proportion of the overall cost."303 The Panel thus considered that "the risks and rewards {under the USDOD procurement contracts} are borne principally by DOD."304

5.97. At the same time, it is true that the Panel did not address the European Union's argument that, despite the military objectives of the R&D commissioned under these contracts, the nature of the interaction between USDOD and Boeing as one of collaboration was reflected in the actual and anticipated technological outcomes, rather than in the stated objectives of the R&D.305 Indeed, the Panel's analysis focused on the objectives of the USDOD procurement contracts and the military nature of the research, rather than on the actual effects of those contracts. We recall in this regard that, in order to identify the principal characteristics of a measure for the purpose of determining the obligations attaching to it, a panel must conduct a thorough scrutiny of the measure at issue, both in terms of its design and operation.306 Given that the research under both the USDOD procurement contracts and the USDOD assistance instruments is undertaken for military purposes, the Panel should have properly explained the reasons for distinguishing between the two categories of contracts. The Panel's reliance on how R&D is commissioned and conducted under the RDT&E programme elements only in the context of the USDOD procurement contracts therefore remains unclear, to the extent that these processes apply to both the USDOD procurement contracts and the USDOD assistance instruments.307 In the absence of such an explanation, the Panel was not in a position to provide reasoned and adequate explanations in reaching its conclusion as to the characterization of the USDOD procurement contracts. Furthermore, in light of the fact that this was the primary argument put forward by the European Union, as supported by the three categories of evidence outlined above, and given the conflicting propositions based on the evidence submitted to the Panel, it was necessary for the Panel to undertake a more detailed analysis of the European Union's evidence and arguments.

5.98. Second, with regard to the purpose of the USDOD procurement contracts, the European Union contends that "the Panel did not consider key EU arguments and evidence and failed to provide reasoned and adequate explanations to support its finding that 'the R&D commissioned under DOD procurement contracts is solely directed to meeting DOD's military needs, independent of enhancing the competitive position of contractors such as Boeing.'"308 The European Union refers to evidence demonstrating that the United States intends for, and encourages, USDOD contractors to extract commercial benefit from their work under the RDT&E programmes. In particular, the European Union refers to "the DOD's decision to end its previous policy of recouping 'a fair share of its investment in nonrecurring costs related to products, and/or a fair price for its contribution to the development of related technologies, when the products are sold, and/or when technology is transferred'".309

5.99. The United States responds that the European Union "never alleged that any of the Boeing products covered by this dispute would have given rise to fees under the policy, which DoD terminated in 1992", and "{(i)}ndeed, given the Panel's findings as to the amount of funding Boeing

300 Panel Report, para. 8.367. (emphasis added)
301 Panel Report, para. 8.369.
303 Panel Report, para. 8.368.
304 Panel Report, para. 8.368.
305 See European Union's appellant's submission, para. 76.
306 See Appellate Body Reports, China – Auto Parts, para. 171.
307 See Panel Report, para. 8.369 and fn 1505 there.
308 European Union's appellant's submission, para. 79 (quoting Panel Report, para. 8.364). (emphasis added by the European Union)
309 European Union's appellant's submission, para. 80 (quoting European Union's first written submission to the Panel, para. 239, in turn quoting United States Code of Federal Regulations, Title 48, Section 271.002(a) (Panel Exhibit EU-275)).
received under the challenged program elements, it is inconceivable that DoD procurement contracts would have led to such fees,”310 The United States further considers that “the existence of the recoupment policy 25 years ago”311 does not prove that “DoD could have recouped its investment in commercial(ised) technologies.”312

5.100. We note that the Panel did not address the European Union’s argument in its analysis of financial contribution. At the same time, we observe that, as evident from its submissions before the Panel, the European Union did not rely on this argument specifically in its financial contribution argumentation.313 In the context of its benefit assessment, the Panel reflected the parties' arguments on this issue314 and noted that it was “satisfied that the termination of the 1992 recoupment policy suggests that the U.S. Government recognizes the potential for crossover into development and production of civilian aircraft of benefits that may result from government support of research and development (R&D) on military items”. However, the Panel considered that this recognition was expressed “in very general terms” and was not persuaded that “DOD’s previous recoupment policy would have applied to the DOD-sponsored R&D at issue in this proceeding”, insofar as there was insufficient evidence “to conclude that Boeing LCA would have fallen within the definition of a ‘derivative’ of a DOD developed item under the previous recoupment rules”. The Panel therefore did not regard “DOD’s termination of the recoupment policy in 1992 as providing probative evidence in support of an inference that the DOD procurement contracts (or assistance instruments)” confer a benefit on Boeing.317

5.101. In our view, the Panel was not persuaded that the European Union’s argument regarding the termination of the USDOD recoupment policy in 1992, or the abstract possibility for USDOD to recoup any potential investments in commercialized technologies, had that policy stayed in place, established a sufficient link with the nature and functioning of the specific USDOD procurement contracts challenged by the European Union in these proceedings. In the absence of such link, the fact that the recoupment policy was terminated could not have an impact on the characterization of the USDOD procurement contracts as collaborative arrangements with characteristics analogous to equity infusions.

5.102. In any event, we note that the Appellate Body has observed that “the intent, stated or otherwise, of the legislators is not conclusive” as to the characterization of a measure under WTO law.318 While the intent of USDOD could have to a certain extent informed the understanding of the context of the USDOD procurement contracts, this alone could not have altered the Panel’s ultimate conclusion as to the characterization of the measures. Therefore, we consider that the Panel adequately addressed the European Union’s argument regarding the relevance of the 1992 recoupment policy and disagreed with it.

5.103. In sum, we make the following conclusions with respect to the European Union’s claim that the Panel failed to make an objective assessment of the matter under Article 11 of the DSU in its analysis of whether the USDOD procurement contracts provide a financial contribution within the meaning of Article 1.1(a)(1) of the SCM Agreement. We have found that the Panel did not fail to engage with relevant evidence, or to provide a reasoned and adequate explanation, in reaching its conclusions regarding the question of whether Boeing’s non-reimbursed IR&D expenditures can be considered as a contribution to a collaborative arrangement with USDOD. We further found that the European Union has not demonstrated that the Panel’s failure to address explicitly and rely upon its evidence and arguments relating to Boeing’s military customers outside the United States has a bearing on the objectivity of its factual assessment. Moreover, we considered that the Panel

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310 United States' appellee's submission, para. 64.
311 United States' appellee's submission, para. 66. (emphasis original)
312 United States' appellee's submission, para. 66 (quoting European Union's appellant's submission, para. 83, in turn referring to European Union's response to Panel question No. 29, fn 211 to para. 176). (emphasis original)
313 See European Union’s first written submission to the Panel, paras. 238-241; second written submission to the Panel, paras. 395-397.
adequately addressed the European Union's argument regarding the relevance of the 1992 recoupment policy.

5.104. At the same time, we have found certain deficiencies in the Panel's assessment of the European Union's claim that the USDOD procurement contracts involve financial contributions. We concluded that the Panel failed to assess properly the European Union's evidence relating to actual use of ITAR-controlled data and technology developed pursuant to the USDOD procurement contracts. Furthermore, the Panel did not provide a reasoned and adequate explanation for its conclusion that Boeing's practical ability to exploit military technologies developed under the USDOD procurement contracts for civil purposes is more limited than under the USDOD assistance instruments. We also found that the Panel failed to assess the European Union's evidence in the context of its financial contribution analysis relating to the USDOD procurement contracts, as well as the European Union's argument that the actual and anticipated technological outcomes of the R&D under these contracts are more indicative of their collaborative nature than their stated objectives. The Panel also failed to address the European Union's evidence relating to examples of actual use by Boeing of the research under the USDOD procurement contracts and the list of the USDOD-funded patents owned by Boeing with potential LCA-related applications.

5.105. We recall that Article 11 of the DSU requires panels to consider all the evidence presented to them, assess the credibility of that evidence, determine its weight, and ensure that their factual findings have a proper basis in that evidence. Panels have the discretion to address only those arguments that they deem necessary to resolve a particular claim and are not required to accord to factual evidence of the parties the same meaning and weight as do the parties. At the same time, panels may not make affirmative findings that lack a basis in the evidence contained on the panel record. The Panel in these proceedings failed to address several pieces of evidence and arguments put forward by the European Union in support of its claim that the USDOD procurement contracts involved financial contributions under Article 1.1(a)(1) of the SCM Agreement, because they were collaborative arrangements with characteristics analogous to equity infusions. Specifically, given that the Panel was faced with conflicting evidence submitted by both parties, in order to comply with the obligation to undertake an objective assessment of the matter before it, the Panel should have explained its conclusion with regard to the existence of a financial contribution in light of that evidence. In our view, taken together, these errors undermine the objectivity of the Panel's assessment of the matter before it.

5.106. In view of the above, we find that the Panel failed to make an objective assessment of the matter before it within the meaning of Article 11 of the DSU in its financial contribution analysis under Article 1.1(a)(1) of the SCM Agreement by not engaging sufficiently with the European Union's evidence and arguments, and by failing to provide reasoned and adequate explanations for its findings.

5.2.2 The Panel's findings under Article 1.1(b) of the SCM Agreement

5.107. The European Union argues that in assessing whether the USDOD procurement contracts confer a benefit on Boeing within the meaning of Article 1.1(b) of the SCM Agreement, "the Panel built upon the same errors" as in its analysis relating to financial contribution under Article 1.1(a)(1) of the SCM Agreement. According to the European Union, "[t]he Panel's benefit findings therefore require consequential reversal."

5.108. We recall that, having found that the USDOD procurement contracts are most appropriately characterized as purchases of services, the Panel found it unnecessary to address definitively the
issue of whether these transactions, properly characterized, involve financial contributions within
the meaning of Article 1.1(a)(1).325 This was in view of the Panel's ultimate conclusion that the
European Union failed to establish that the USDOD procurement contracts confer a benefit within
the meaning of Article 1.1(b).326 In assessing the existence of benefit, the Panel recalled that it had
not characterized the USDOD procurement contracts as collaborative R&D arrangements. Therefore,
the Panel did not consider that a focus on the allocation of IP rights, consistently with the approach
of the Appellate Body in the original proceedings, was "an appropriate means of determining whether
DOD as the purchaser of R&D services from Boeing, paid too much for what it acquired".327 Rather,
for the Panel, "(t)he question of whether Boeing was paid adequate remuneration for performing
the R&D work for DOD requires a consideration of all of the terms of the transaction, including how
much DOD paid in relation to the work that Boeing performed."328 The Panel nevertheless continued
its analysis and concluded that, even if the assessment of benefit under the USDOD procurement
contracts focused solely on the allocation of the IP rights arising from the performance of the R&D,
in isolation from the other terms of the transaction, it would not regard as appropriate benchmarks
the evidence put forward by the European Union in the form of private collaborative R&D
agreements.329

5.109. In reaching this conclusion, the Panel built on the same arguments and factual findings
relating to the USDOD procurement contracts that the European Union takes issue with in its financial
contribution claim. Thus, the Panel recalled its understanding that "the DOD procurement contracts
involve complex, long-term purchases of R&D services by DOD from Boeing for the development of
weapon systems", and considered that the examples of private collaborative R&D agreements
submitted as evidence sufficiently resemble the relevant characteristics of the NASA procurement
contracts and the USDOD assistance instruments, but not those of the USDOD procurement
contracts.330 The Panel explained that:

Unlike DOD assistance instruments, there is no cost-sharing between DOD and Boeing,
and no relationship of collaboration between DOD and Boeing wherein they can be said
to undertake a project of mutual interest. Unlike the NASA procurement contracts, the
objectives of the commissioned R&D do not include enhancing the competitiveness of
the U.S. aerospace industry. Rather, as we have said, the fundamental nature of the
DOD-Boeing relationship under the DOD procurement contracts is one of purchaser of
R&D services for DOD and supplier of those services for Boeing.331

5.110. The Panel also considered that "the government use licence granted to DOD in respect
of Boeing-owned patents that may result from the performance of the R&D work captures the economic
value of the R&D for DOD", because "DOD is the sole purchaser of modern air weaponry in the
United States" and "Boeing's practical ability to exploit any military technologies for commercial
purposes outside the military context is circumscribed by U.S. legal restrictions on the use of military
technologies and data."332

5.111. Above we found that, in its financial contribution analysis, the Panel did not sufficiently
address several pieces of evidence and arguments put forward by the European Union, and it failed
to explain its conclusion in light of the evidence before it. The Panel rejected the European Union's
evidence of the allocation of IP rights under the private actor collaborative R&D arrangements based

328 Panel Report, para. 8.420.
329 Panel Report, para. 8.421.
330 Panel Report, para. 8.421. The Panel discussed this evidence in its BCI Appendix 1 to the Panel
Report.
331 Panel Report, para. 8.421.
332 Panel Report, para. 8.422. The Panel explained why it considered that "Boeing's practical ability to
commercially exploit patents that it owns as a result of performing R&D work for DOD, and the practical
consequences of the government use licence granted to DOD, differ in the context of DOD assistance
instruments and DOD procurement contracts" and ultimately disagreed with the European Union that "whether
the R&D in question is funded through procurement contracts or assistance instruments, the US Government
systematically receives less than a commissioning party would in a market-based transaction, and Boeing
systematically receives more than a commissioned party would in a market-based transaction." (Ibid.,
paras. 8.423 and 8.425 (quoting European Union's comments on United States' response to Panel question
No. 67, para. 13))
on the same deficiencies with respect to which we found that the Panel failed to make an objective assessment of the matter under Article 11 of the DSU. We therefore consider that the Panel's benefit analysis suffers from the same shortcomings as its analysis of financial contribution, and we therefore find, for the same reasons, that the Panel erred in finding that the distribution of IP rights under the USDOD procurement contracts does not confer a benefit pursuant to Article 1.1(b) of the SCM Agreement.

5.2.3 Completion of the legal analysis

5.112. The European Union argues that the Appellate Body can complete the legal analysis, based on uncontested evidence and factual findings, and confirm that the USDOD procurement contracts involve joint ventures in which USDOD provides funding analogous to equity infusions similar to the NASA procurement contracts and the USDOD assistance instruments.333 The United States responds that the European Union does not identify evidence sufficient to justify its argument that the USDOD procurement contracts are best viewed as joint ventures.334

5.113. We recall that the Appellate Body may complete the legal analysis with a view to facilitating the prompt settlement and effective resolution of the dispute where the factual findings by the panel335 and/or undisputed facts on the panel record336 provide a sufficient factual basis for doing so.337 We thus turn to assess whether there are sufficient factual findings by the Panel or undisputed facts on the Panel record on which we can rely in completing the analysis.

5.114. Above we found that the Panel did not fail to engage with relevant evidence, and it did not fail to provide a reasoned and adequate explanation, in concluding that the privately funded and non-reimbursed IR&D expenditures incurred by Boeing in developing its background IP cannot be considered a contribution of "financial resources" to a "joint undertaking" with USDOD.338 We also found that the European Union has not demonstrated that the Panel's failure to address explicitly and rely upon its evidence and arguments relating to Boeing's sales of military aircraft to foreign governments has a bearing on the objectivity of its factual assessment. Finally, we found that the Panel adequately considered the European Union's argument regarding the relevance of the 1992 recoupment policy and disagreed with it. In completing the analysis, we can rely on the factual findings reached by the Panel in the context of these arguments.

5.115. There are other relevant factual findings by the Panel in its financial contribution analysis that are not covered by the European Union's Article 11 challenges and that we could also rely on in completing the analysis. For instance, the Panel found that USDOD commits to provide financial resources in the form of payments, which "for the most part represent Boeing's costs of performing the R&D work, plus a negotiated fee, representing Boeing's profit".339 The Panel also found that nothing on the Panel record suggested that the provision of facilities, equipment, and employees under the USDOD procurement contracts "is anything but marginal".340 Moreover, the participants do not dispute the Panel's factual description of the objectives of the USDOD procurement contracts.341

5.116. At the same time, we found several deficiencies in the Panel's analysis of financial contribution. Thus, we concluded that the Panel failed to assess properly the European Union's evidence relating to actual use of ITAR-controlled data and technology developed pursuant to the USDOD procurement contracts. Furthermore, the Panel did not provide a reasoned and adequate

333 European Union's appellant's submission, para. 94.
334 United States' appellee's submission, para. 79.
336 See e.g. Appellate Body Reports, US – Lamb, paras. 150 and 172; US – Shrimp, paras. 123-124, 132, and 140; US – Section 211 Appropriations Act, paras. 343-345; EC and certain member States – Large Civil Aircraft, para. 1176; US – Large Civil Aircraft (2nd complaint), paras. 1252 and 1262.
337 See also Appellate Body Reports, Colombia – Textiles, para. 5.30; US – Anti-Dumping Methodologies (China), para. 5.146; Russia – Pigs (EU), para. 5.141; EC and certain member States – Large Civil Aircraft, para. 1178; EC and certain member States – Large Civil Aircraft (Article 21.5 – US), para. 5.745.
explanation for its conclusion that Boeing's practical ability to exploit military technologies developed under the USDOD procurement contracts for civil purposes is more limited than under the USDOD assistance instruments. We also found that the Panel failed to assess the European Union's evidence in the Rumpf expert opinion in the context of its financial contribution analysis relating to the USDOD procurement contracts, as well as the European Union's argument that the actual and anticipated technological outcomes of the R&D under these contracts are more indicative of their collaborative nature than their stated objectives. Finally, the Panel also failed to address the European Union's evidence relating to examples of actual use by Boeing of the research under the USDOD procurement contracts, namely the cases of civil applications of R&D developed by Boeing pursuant to the USDOD procurement contracts and the list of the USDOD-funded patents owned by Boeing with potential LCA-related applications.

5.117. Furthermore, multiple aspects of the relevant evidence supporting the participants' arguments remain contested. Notably, there are no factual findings by the Panel relating to the effects of the USDOD procurement contracts challenged by the European Union, which was a major point of disagreement between the parties. The United States argued that the declared purpose of the USDOD procurement contracts to obtain technologies for military purposes, or to obtain new weapon systems or upgrade existing ones, is highly relevant for the Panel's assessment of these instruments.\(^342\) By contrast, the European Union considered that an exclusively military purpose is not determinative of whether the research under the USDOD procurement contracts has the effect of providing dual-use benefits.\(^343\) The evidence presented to the Panel was shaped by the parties' views relating to the importance of the objectives and effects of the USDOD procurement contracts. Specifically, it appears from the European Union's submissions to the Panel that the conclusions in the CRA and Rumpf expert opinions were central to its argument that the payments and access provided to Boeing under the USDOD RDT&E programme elements constitute financial contributions within the meaning of Article 1.1(a)(1)(i) and (iii), regardless of whether they are provided under assistance instruments or procurement contracts.\(^344\) In turn, the United States challenged the pertinence of these expert opinions and in particular the definition of "dual-use" in the Rumpf expert opinion\(^345\), the expertise and methodology on which the expert opinion relied\(^346\), and the probative value of its conclusions.\(^347\) In this regard, the parties presented detailed arguments with respect to each RDT&E programme element, further subdividing them under the categories S&T or "general aircraft" programme elements and systems acquisition/military aircraft programme elements.\(^348\) The United States further contested the value and weight to be accorded to the European Union's examples of civil applications of R&D developed by Boeing pursuant to the USDOD procurement contracts and the list of the USDOD-funded patents owned by Boeing with potential LCA-related applications.\(^349\) None of these arguments and related pieces of evidence was properly discussed by the Panel.\(^350\)

5.118. The elements outlined above are essential for the completion of the legal analysis. The determination of whether the funding and access provided to Boeing under the USDOD procurement contracts constitute collaborative arrangements with characteristics analogous to equity infusions within the meaning of Article 1.1(a)(1)(i) of the SCM Agreement involves a multifaceted analysis, which needs to take into account not only the objectives and nature of the USDOD procurement contracts, but also their actual and potential effects. In the absence of sufficient factual findings by the Panel or undisputed facts on the record relating to some essential elements characteristic of the nature and effect of the USDOD procurement contracts, we are not in a position to complete the

\(^{342}\) United States' second written submission to the Panel, paras. 276-279 and 391-392.
\(^{343}\) European Union's second written submission to the Panel, para. 398.
\(^{344}\) European Union's second written submission to the Panel, paras. 433-434.
\(^{345}\) United States' second written submission to the Panel, paras. 319-320.
\(^{346}\) United States' first written submission to the Panel, paras. 296-302; second written submission to the Panel, para. 321.
\(^{347}\) United States' second written submission to the Panel, paras. 315-317.
\(^{348}\) See e.g. European Union's first written submission to the Panel, paras. 243-362; United States' second written submission to the Panel, paras. 270-428.
\(^{349}\) United States' appellee's submission, para. 59 (referring to United States' first written submission to the Panel, paras. 371-372 and 377).
\(^{350}\) For instance, despite the fact that the Panel described how R&D under these two categories of programme elements is commissioned and conducted, the Panel did not explain their relevance for its analysis of the USDOD procurement contracts, as it did for the USDOD assistance instruments. (See Panel Report, paras. 8.300-8.310)
analysis and determine whether the USDOD procurement contracts involve financial contributions within the meaning of Article 1.1(a)(1) of the SCM Agreement.

5.2.4 United States' conditional appeal on specificity

5.119. We recall that, in its Notice of Other Appeal, the United States conditionally appeals the Panel's findings relating to the specificity of the post-2006 NASA procurement contracts, cooperative instruments, and Space Act Agreements; the post-2006 USDOD assistance instruments; and the FAA-Boeing CLEEN Agreement. The United States' claim is contingent upon us reversing the Panel and completing the legal analysis to find that the USDOD procurement contracts are collaborative R&D arrangements that result in the same financial contribution and confer benefit on the same basis as the other NASA, USDOD, and FAA instruments. Having found above that we are unable to complete the legal analysis with respect to the existence of financial contribution, the event triggering the United States' conditional appeal has not occurred.

5.2.5 Conclusion

5.120. In sum, we find that the Panel acted inconsistently with Article 11 of the DSU in its financial contribution analysis under Article 1.1(a)(1) of the SCM Agreement by not engaging sufficiently with the European Union's evidence and arguments, and by failing to provide reasoned and adequate explanations for its findings. Furthermore, we find that the Panel's benefit analysis suffers from the same shortcomings.

5.121. We therefore reverse the Panel's finding, in paragraphs 8.437.b and 11.7.c.i of the Panel Report, that, assuming arguendo the payments and access to USDOD facilities, equipment, and employees provided to Boeing through the pre-2007 and post-2006 USDOD procurement contracts were to involve financial contributions, the European Union has not established that they confer a benefit on Boeing within the meaning of Article 1.1(b) of the SCM Agreement. We also find that there are insufficient factual findings by the Panel or undisputed facts on the Panel record for us to complete the legal analysis in this respect.

5.3 European Union's claim relating to the Panel's finding concerning FSC/ETI tax concessions under Article 1.1(a)(1)(ii) of the SCM Agreement

5.122. The European Union requests us to reverse the Panel's finding that the European Union had failed to establish that, after the expiry of the implementation period, the United States continues to grant or maintain subsidies to Boeing in the form of tax concessions pursuant to the Foreign Sales Corporation/Extraterritorial Income (FSC/ETI) measures. The European Union further requests that we complete the legal analysis and find that the United States continues to grant or maintain prohibited subsidies, in that the subsidy found to exist in the original proceedings has not been withdrawn within the meaning of Article 7.8 of the SCM Agreement.

5.123. The United States requests us to uphold the Panel's finding that the European Union had not established that, after the expiry of the implementation period, the United States continues to grant or maintain subsidies to Boeing in the form of FSC/ETI tax concessions. The United States also requests that we reject the European Union's request to complete the legal analysis because the European Union failed to identify the Panel's findings of fact or undisputed evidence that would allow us to complete the legal analysis.

5.3.1 The Panel's findings

5.124. We begin by recalling the FSC/ETI measures at issue and related findings made in the original proceedings. Next, we turn to the arguments of the participants before the Panel and the Panel's findings in the compliance proceedings. Subsequently, we assess whether the Panel erred in finding

351 See United States' Notice of Other Appeal, para. 8.
352 United States' other appellant's submission, para. 255.
353 European Union's appellant's submission, para. 141.
354 European Union's appellant's submission, para. 141.
355 United States' appellee's submission, paras. 96 and 107.
356 United States' appellee's submission, para. 107.
that the European Union had failed to establish that, after the expiry of the implementation period, the United States continues to grant or maintain subsidies to Boeing in the form of tax concessions pursuant to the FSC/ETI measures.

5.125. The original panel found that, between 1989 and 2006, Boeing benefited from FSC/ETI tax concessions pursuant to the provisions of the US Internal Revenue Code relating to the income of FSCs and successor legislative acts.\(^{357}\) The legislative acts that allowed Boeing to receive FSC/ETI subsidies between 1989 and 2006 comprised certain provisions of the US Internal Revenue Code relating to Foreign Sales Corporations (the original FSC measure), the ETI Act, and the AJCA.\(^{358}\)

5.126. The original FSC measure\(^{359}\) granted FSCs a tax exemption on a portion of income generated by the sale or lease of "export property" – referred to as "exempt foreign income".\(^{360}\) It also allowed US parent companies of FSCs to defer paying taxes on certain "foreign trade income" that would normally be subject to immediate taxation and to avoid paying taxes on dividends received from their FSCs related to "foreign trade income".\(^{361}\) The United States repealed the original FSC measure by enacting the ETI Act.\(^{362}\) However, Section 5(c)(1) of the ETI Act grandfathered tax concessions, available under the original FSC measure, for certain transactions – in particular, transactions pursuant to a binding contract between an FSC and an unrelated person that was in effect on 30 September 2000.\(^{363}\) The ETI Act also introduced a new exclusion from taxation for income generated by certain qualifying transactions involving the sale or lease of "qualifying foreign trade property" ("extraterritorial income" exclusion).\(^{364}\) The United States repealed the ETI Act by enacting the AJCA on 22 October 2004.\(^{365}\) However, the AJCA provided for a transitional period between 1 January 2005 and 31 December 2006, during which the ETI tax concessions remained available to a limited extent for certain transactions.\(^{366}\) In addition, Section 101(f) of the AJCA, entitled "Binding Contracts", grandfathered the ETI Act exclusion of "extraterritorial income" from taxation for qualifying transactions pursuant to a binding contract in effect on 17 September 2003.\(^{367}\) The AJCA also left intact Section 5(c)(1) of the ETI Act, which grandfathered tax concessions under the original FSC measure with respect to certain qualifying transactions pursuant to a binding contract in effect on 30 September 2000.\(^{368}\)

5.127. The original panel found that the FSC/ETI tax concessions used by Boeing between 1989 and 2006 constituted export-contingent subsidies within the meaning of Article 3.1(a) of the SCM Agreement and found specificity of these subsidies on the basis of Article 2.3 of the SCM Agreement.\(^{369}\) As was also found in the original proceedings (first by the panel, and then, on different grounds, by the Appellate Body), the FSC/ETI subsidies received by Boeing caused serious prejudice to the interests of the European Communities in the LCA market within the meaning of Article 5(c) of the SCM Agreement.\(^{370}\)

5.128. On 17 May 2006, the United States enacted the Tax Increase Prevention and Reconciliation Act of 2005 (TIPRA).\(^{371}\) Section 513 of the TIPRA is entitled "Repeal of FSC/ETI Binding Contract Relief".\(^{372}\) Section 513(a) of the TIPRA repeals the provision in Section 5(c)(1) of the ETI Act that

\(^{357}\) Original Panel Report, para. 7.1419.
\(^{359}\) Panel Report, para. 8.567 (referring to United States Code, Title 26 (Internal Revenue Code), Sections 245, 921-927, and 951 (2000) (Panel Exhibit EU-402)).
\(^{360}\) Panel Report, para. 8.570.
\(^{361}\) Panel Report, para. 8.570 (referring to Original Panel Report, para. 7.1379).
\(^{363}\) Original Panel Report, para. 7.1381.
\(^{364}\) Panel Report, para. 8.571 and fn 1752 thereto. See also Original Panel Report, paras. 7.1380-7.1382.
\(^{365}\) Panel Report, para. 8.571. See also Original Panel Report, para. 7.1384.
\(^{367}\) Original Panel Report, para. 7.1384.
\(^{368}\) Original Panel Report, para. 7.1384.
\(^{372}\) Original Panel Report, para. 7.1385 (referring to TIPRA (Original Panel Exhibit EC-627)).
grandfathered the original FSC tax concessions with respect to transactions pursuant to a binding contract in effect on 30 September 2000. Section 513(b) of the TIPRA repeals the provisions in Section 101(f) of the AJCA that grandfathered the ETI Act exclusion of "extraterritorial income" from taxation with respect to transactions pursuant to a binding contract in effect on 17 September 2003. Section 513(c) of the TIPRA provides that "[t]he amendments made by this section shall apply to taxable years beginning after the date of the enactment of this Act."\[374\]

5.129. The European Union asserted in the original proceedings that the TIPRA did not fully repeal FSC/ETI tax concessions and argued on that basis that Boeing continued to benefit from FSC/ETI tax concessions after 31 December 2006. The original panel, however, considered that it was not necessary for it to decide whether Boeing would benefit from FSC/ETI tax concessions after 2006 and, consequently, made no finding on that issue.\[376\]

5.130. Before the Panel in these compliance proceedings, the European Union argued that, despite the purported repeal of FSC/ETI tax concessions by the TIPRA, certain concessions continued to be available to Boeing after 31 December 2006. The European Union asserted that, under the TIPRA, Boeing is eligible for FSC/ETI tax concessions with respect to income derived from certain pre-2006 transactions and received in the post-implementation period.\[377\] In support of its arguments, the European Union relied on Internal Revenue Service Memorandum No. AM 2007-001 (2006 IRS Memorandum), which provides that the TIPRA repeals FSC/ETI tax concessions prospectively for transactions entered into during a taxable year that begins after 17 May 2006.\[378\]

5.131. According to the European Union, based on the 2006 IRS Memorandum, Boeing continues to be eligible for FSC/ETI tax concessions with respect to foreign income received after 31 December 2006 from: (i) a sale or lease entered into before 1 January 2005; and (ii) a sale or lease entered into before 1 January 2007, pursuant to a binding contract that was in place with an unrelated person on 17 September 2003 and at all times thereafter. The European Union further submitted to the Panel a list of Boeing’s orders made pursuant to a sale or lease entered into before 1 January 2005 allegedly generating income after 2012 and qualifying for FSC/ETI tax concessions under the TIPRA.\[380\]

5.132. The European Union contended that, because the TIPRA had not fully repealed FSC/ETI tax concessions with respect to transactions based on certain pre-existing long-term binding contracts, those transactions involve a financial contribution in the form of revenue “foregone” within the meaning of Article 1.1(a)(1)(i) of the SCM Agreement.\[381\] The European Union further argued that FSC/ETI tax concessions confer a benefit within the meaning of Article 1.1(b) of the SCM Agreement and constitute specific subsidies within the meaning of Article 2.3 of the SCM Agreement. Thus, for the European Union, the United States continues to grant or maintain FSC/ETI subsidies with respect to Boeing, and therefore, failed to "withdraw the subsidy" within the meaning of Article 7.8 of the SCM Agreement.

5.133. In response, the United States argued that Boeing had not used FSC/ETI tax concessions after 2006 and that the mere availability of FSC/ETI tax concessions in the post-implementation period was insufficient to establish that the United States had not withdrawn the FSC/ETI subsidies

\[373\] Original Panel Report, para. 7.1385 (referring to TIPRA (Original Panel Exhibit EC-627)).
\[374\] Original Panel Report, para. 7.1385 (quoting TIPRA (Original Panel Exhibit EC-627)).
\[375\] Original Panel Report, para. 7.389.
\[376\] Original Panel Report, paras. 7.1427-7.1428.
\[377\] European Union’s first written submission to the Panel, paras. 394-397.
\[381\] European Union’s first written submission to the Panel, para. 401.
\[382\] European Union’s first written submission to the Panel, paras. 403-406.
with respect to Boeing.\textsuperscript{383} The United States further contended that the 2006 IRS Memorandum relied on by the European Union to show that Boeing did use FSC/ETI tax concessions in the post-implementation period was the same 2006 IRS Memorandum it had relied on in the original proceedings.\textsuperscript{384} According to the United States, the original panel examined that evidence and declined to find that Boeing would continue to receive FSC/ETI tax concessions after 2006.\textsuperscript{385} Therefore, in the United States' view, the European Union had not established that FSC/ETI tax concessions were provided to Boeing after 2006 and in the post-implementation period.\textsuperscript{386}

5.134. The Panel considered that the issue it had to resolve in order to determine whether the United States had failed to withdraw the FSC/ETI subsidies to Boeing was whether the United States continued to provide such subsidies to Boeing after 2006. In resolving that issue, the Panel addressed the following three questions: (i) whether the original panel had already made a determination as to whether Boeing continued to use FSC/ETI tax concessions after 2006; (ii) whether it would be sufficient for the European Union to establish that, after 2006, FSC/ETI tax concessions continued to be available, or whether it was required to establish that Boeing used FSC/ETI tax concessions; and (iii) whether, based on the evidence submitted by the parties, Boeing did in fact continue to use FSC/ETI tax concessions.\textsuperscript{387}

5.135. With respect to the first question, the Panel noted that the original panel confirmed that between 1989 and 2006, FSC/ETI tax concessions constituted specific subsidies. However, the European Communities' estimate of the amount of those subsidies did not include the alleged post-2006 tax concessions. Therefore, the original panel had found that it was not necessary for it to reach a conclusion as to whether Boeing continued to use FSC/ETI tax concessions after 2006.\textsuperscript{388} Accordingly, there was no determination by the original panel as to whether Boeing continued to use FSC/ETI tax concessions after 2006.\textsuperscript{389}

5.136. The Panel then turned to the second question, namely whether the European Union was required to establish that Boeing used the FSC/ETI tax concessions after 2006, or whether it was sufficient for the European Union to establish that the FSC/ETI tax concessions were available to Boeing, so that Boeing was eligible to use these concessions after 2006.\textsuperscript{390} The Panel concluded that, where a tax concession is made available – but a potential recipient does not take advantage of the concession – the recipient continues to pay government revenue that is otherwise due, and there is no act of "foregoing" or "failure to collect" revenue on the part of the government.\textsuperscript{391} Therefore, the Panel considered that the European Union was required to establish that Boeing received FSC/ETI tax concessions in order to demonstrate a financial contribution under Article 1.1(a)(1)(ii) of the SCM Agreement, and that it would be insufficient for the European Union to show only that FSC/ETI tax concessions were available to Boeing.\textsuperscript{392}

5.137. In addressing the third question, the Panel found that the evidence adduced by the European Union related to the question of whether FSC/ETI tax concessions were available to Boeing, and thus fell short of showing that Boeing used FSC/ETI tax concessions.\textsuperscript{393} In addition, the Panel found that the United States’ evidence constituted a \textit{prima facie} case that Boeing did not use FSC/ETI tax concessions after 2006 and that the European Union’s evidence was insufficient to rebut that.\textsuperscript{394}

\textsuperscript{383} Panel Report, para. 8.584 (referring to United States' first written submission to the Panel, para. 490; Statement of J. H. Zrust, Vice President of Tax of The Boeing Company (20 July 2009) (Panel Exhibit USA-232)).

\textsuperscript{384} Panel Report, para. 8.584 (referring to United States' first written submission to the Panel, paras. 491-492, in turn referring to Original Panel Report, paras. 7.1421-7.1428).

\textsuperscript{385} Panel Report, para. 8.584 (referring to United States' first written submission to the Panel, paras. 491-492, in turn referring to Original Panel Report, para. 7.1428).

\textsuperscript{386} United States' first written submission to the Panel, para. 492.

\textsuperscript{387} Panel Report, para. 8.588.

\textsuperscript{388} Panel Report, para. 8.590 (referring to Original Panel Report, paras. 7.1400, 7.1408, and 7.1427).

\textsuperscript{389} Panel Report, paras. 8.590-8.591 (referring to Original Panel Report, paras. 7.1400, 7.1408, and 7.1427).

\textsuperscript{390} Panel Report, para. 8.593.

\textsuperscript{391} Panel Report, para. 8.601.


\textsuperscript{393} Panel Report, para. 8.606.

\textsuperscript{394} Panel Report, para. 8.607.
5.138. The Panel thus concluded that the European Union had not established that, after the expiry of the implementation period, the United States continues to grant or maintain subsidies to Boeing in the form of tax concessions pursuant to the FSC/ETI measures, because the European Union had failed to demonstrate that those tax concessions involved a financial contribution within the meaning of Article 1.1(a)(1)(ii) of the SCM Agreement.395

5.3.2 Whether the Panel erred in its finding under Article 1.1(a)(1)(ii) of the SCM Agreement with respect to FSC/ETI tax concessions

5.139. The European Union appeals the Panel's finding that the European Union had not established that, after the expiry of the implementation period, the United States continues to grant or maintain subsidies to Boeing in the form of FSC/ETI tax concessions.396 The European Union argues that this finding is based on the Panel's erroneous interpretation of Article 1.1(a)(1)(ii) of the SCM Agreement as requiring the European Union to demonstrate that Boeing used FSC/ETI tax concessions in order to establish a financial contribution in the form of revenue foregone.397

5.140. The United States, for its part, submits that the Panel correctly found that the European Union had failed to establish that Boeing received FSC/ETI subsidies in the post-implementation period.398 We begin by setting out our interpretation of Article 1.1(a)(1)(ii) of the SCM Agreement as relevant to the claim before us. Then, we turn to review the Panel's analysis and assess whether it erred in the interpretation of this provision.

5.141. Article 1.1(a)(1)(ii) of the SCM Agreement provides that there is a financial contribution by a government where "government revenue that is otherwise due is foregone or not collected (e.g. fiscal incentives such as tax credits)."399 The term "revenue" is defined as an "individual source or item of (private or public income) or "the amount of income deriving from this".400 The term "government" qualifies the term "revenue" and indicates that Article 1.1(a)(1)(ii) is concerned with revenue to which a government is entitled. Article 1.1(a)(1)(ii) describes the relevant conduct that may constitute a financial contribution under this provision as the foregoing or not collecting of government revenue. The text of Article 1.1(a)(1)(ii) also indicates, by way of example, that government revenue may be "foregone" or "not collected" by means of fiscal incentives, such as tax credits.

5.142. The Appellate Body has held that the word "foregone" in Article 1.1(a)(1)(ii), on the one hand, suggests that a government has given up an entitlement to raise revenue.401 The word "collect", on the other hand, indicates an action of gathering something, such as contributions of money or taxes.402 Government revenue "not collected" in Article 1.1(a)(1)(ii) thus concerns the omission to gather revenue, while government revenue "foregone" refers to the relinquishment of an entitlement to raise revenue.

5.143. We recall that, in introducing the forms of financial contribution listed in subparagraphs (i) to (iv), Article 1.1(a)(1) of the SCM Agreement stipulates that "there is a financial contribution by a government". This indicates that each of the subparagraphs (i) to (iv) of Article 1.1(a)(1) of the SCM Agreement is concerned with a financial contribution made by a government.403 Thus, for a financial contribution to exist under Article 1.1(a)(1), it must be established that a type of conduct that matches the description in one of the subparagraphs (i) to (iv) has occurred and that this conduct has been carried out by a government. We note that the type of conduct that falls within the scope of subparagraph (ii) of Article 1.1(a)(1) includes foregoing or not collecting revenue.

395 Panel Report, paras. 8.612 and 11.7.c.ii.
398 United States' appellee's submission, para. 96.
399 Fn omitted.
403 We note that the term "government" in the introductory clause of Article 1.1(a)(1) refers to a government or any public body within the territory of a Member. Furthermore, Article 1.1(a)(1)(iv) refers to a situation where a government "entrusts or directs a private body to carry out one or more of the types of functions" illustrated in Article 1.1(a)(1)(i)-(iii). However, this does not change the requirement of a link between a financial contribution and a government.
Accordingly, the analysis of whether there is a financial contribution within the meaning of Article 1.1(a)(1)(ii) of the SCM Agreement requires a determination of whether there has been conduct by a government that amounts to foregoing or not collecting revenue.

5.144. As noted above, government revenue may be “foregone” or "not collected" through the provision of fiscal incentives to taxpayers. Taxpayers may either use or not use available tax concessions. However, because the introductory clause of Article 1.1(a)(1) of the SCM Agreement refers to "a financial contribution by a government", the determination of whether revenue is "foregone" or "not collected" within the meaning of Article 1.1(a)(1)(ii) must focus on the conduct of a government, rather than the use of tax concessions by the eligible taxpayers. This means that, in principle, "(e)vidence relied upon in such an analysis must be located in the 'rules of taxation that each Member, by its own choice, establishes for itself.'"404 At the same time, we are not suggesting that evidence relating to the use of available tax concessions by the eligible taxpayers cannot be relevant in the determination of whether a government has "foregone" or "not collected" revenue. While evidence concerning the responding Member’s rules of taxation is most relevant in making such a determination, the use of available tax concessions by the eligible taxpayers may provide additional indications that a government has "foregone" or "not collected" its revenue.

5.145. Article 1.1(a)(1)(ii) further refers to revenue that is "otherwise due".405 We note that the word "otherwise" is defined as "in another case" or "in other circumstances"406, while the word "due" denotes that something is owed or payable as an enforceable obligation or debt.407 Article 1.1(a)(1)(ii) thus refers to the foregoing of or not collecting revenue that would have been payable in other circumstances. Accordingly, Article 1.1(a)(1)(ii) does not cover any decision by a government not to tax certain income. The words "otherwise due" ensure that only revenue that would have been payable in other circumstances, that is revenue otherwise due, can constitute a financial contribution under Article 1.1(a)(1)(ii). In US – FSC (Article 21.5 – EC), the Appellate Body underscored that a "financial contribution" under Article 1.1(a)(1)(ii) does not arise simply because a government does not tax income that it could have taxed.408 While, from a fiscal perspective, a government might be said to "forego" revenue when it chooses not to tax certain income, it does not mean that this revenue is "otherwise due" within the meaning of Article 1.1(a)(1)(ii) of the SCM Agreement.409

5.146. As the Appellate Body observed in the past, the term "otherwise due" implies a comparison between the challenged measure and a "defined, normative benchmark".410 The Appellate Body considered that, because Members, in principle, have the sovereign authority to determine their own rules of taxation, the comparison under Article 1.1(a)(1)(ii) must necessarily be between the rules of taxation contained in the challenged measure and other rules of taxation of the Member concerned.411 The Appellate Body further recognized that it may be difficult to identify the appropriate benchmark for comparison under Article 1.1(a)(1)(ii), because domestic rules of taxation are varied and complex. The Appellate Body stated that, ""(i)n identifying the appropriate benchmark for comparison, panels must obviously ensure that they identify and examine fiscal situations which it is legitimate to compare", and that this will be the case when there is 'a rational

405 Emphasis added.
408 See Panel Report, Canada – Autos, para. 10.159.
basis for comparing the fiscal treatment of the income subject to the contested measure and the fiscal treatment of certain other income.”

5.147. The Appellate Body in the original proceedings further elaborated on how a panel should conduct the analysis of financial contribution under Article 1.1(a)(1)(ii) of the SCM Agreement. The Appellate Body observed that this analysis requires a comparison between the tax treatment that applies to the alleged subsidy recipients and the tax treatment of comparable income of comparably situated taxpayers. Accordingly, a panel examining a claim under Article 1.1(a)(1)(ii) of the SCM Agreement should first identify the tax treatment that applies to the income of the alleged recipients. As a second step, a panel should identify a benchmark for comparison, that is, the tax treatment of comparable income of comparably situated taxpayers. Identifying a benchmark involves an examination of the structure of the domestic tax regime and its organizing principles. As a third step, a 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 will enable a panel to determine whether, in light of the treatment of the comparable income of comparably situated taxpayers, a government has foregone or not collected revenue that is otherwise due in relation to the income of the alleged recipients.

5.148. In the present case, the European Union argues that the Panel erred in the interpretation of Article 1.1(a)(1)(ii) of the SCM Agreement in finding that, in order to establish that revenue otherwise due is foregone, the European Union was required to demonstrate that Boeing actually used FSC/ETI tax concessions. For the European Union, the phrase "government revenue that is otherwise due is foregone" refers to the foregoing of an entitlement to government revenue, irrespective of whether that entitlement is actually exercised by the recipient. The European Union submits that, as found by the Appellate Body in US – FSC, "the term 'otherwise due' implies some kind of comparison between the revenues due under the contested measure and revenues that would be due in some other situation" and that "the basis of comparison must be the tax rules applied by the Member in question." Therefore, an enquiry of whether "government revenue that is otherwise due is foregone" does not require consideration of whether a tax concession provided to a recipient is used by an individual recipient, but it does require a comparison between what the challenged tax treatment provides and what the baseline tax treatment provides.

5.149. Furthermore, the European Union argues that the Panel's interpretation of Article 1.1(a)(1)(ii) would allow for an easy circumvention of the SCM Agreement, thereby defeating its object and purpose. In particular, the European Union contends that, under the Panel's interpretation, all that would be required to "withdraw" a subsidy would be for the recipient to stop unilaterally using the available tax break between the end of the implementation period and the closing of the factual record in the compliance dispute. In the European Union's view, however, this would not prevent the recipient from using the tax break again at any point in the future.

5.150. For its part, the United States argues that the European Union's claim before the Panel was that Boeing used FSC/ETI tax concessions after the implementation period. Therefore, the dispositive question before the Panel was whether Boeing received the alleged subsidies. The United States thus contends that the Panel was correct in focusing on that question, without addressing the question of whether a financial contribution was "available" to Boeing.

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422 European Union's appellant's submission, para. 131.
423 European Union's appellant's submission, para. 138.
424 United States' appellee's submission, paras. 99-100 (referring to Panel Report, para. 8.596).
considers that the Panel applied a correct approach to the assessment of the European Union’s claim because the European Union challenged a subsidy recipient's use of a subsidy, rather than the measure at issue "as such". 425

5.151. The United States further submits that the European Union’s concerns about the circumvention of the SCM Agreement are not relevant in the present case, because the Panel found that Boeing stopped using FSC/ETI tax concessions in 2006, had not used them since, and had no intention of using them in the future. Thus, according to the United States, nothing in the Panel's reasoning would prevent a future panel from addressing manipulations of the kind described by the European Union if evidenced by the facts before it. 426

5.152. Turning to our assessment of the Panel's analysis, we recall that the Panel addressed whether the European Union was required to establish that "Boeing in fact 'received' or 'used' the FSC/ETI benefits after 2006", or whether it was sufficient for the European Union to establish "that the FSC/ETI benefits were available to Boeing, or that Boeing was eligible to use the FSC/ETI benefit after 2006". 427 The Panel did not consider that demonstrating that the "FSC/ETI benefits were available to Boeing is equivalent to demonstrating that Boeing receives a subsidy within the meaning of Article 1.1(a)(1)(ii) of the SCM Agreement". 428 The Panel explained that if a tax concession is made available – but the recipient does not take advantage of the concession – the recipient continues to pay revenue that is otherwise due, and there is no act of "foregoing" or "failure to collect" revenue on the part of the government. 429 The Panel thus considered that the European Union was required to demonstrate that Boeing used FSC/ETI tax concessions in order for a financial contribution under Article 1.1(a)(1)(ii) of the SCM Agreement to exist. 430

5.153. We recall that, according to our interpretation of Article 1.1(a)(1)(ii) of the SCM Agreement above, revenue "foregone", in the context of this provision, refers to a government relinquishing an entitlement to raise revenue. This means that the analysis of whether there is a financial contribution in the form of revenue "foregone" requires a determination of whether a government has relinquished an entitlement to raise revenue. In principle, evidence relied on in such an analysis will be located in a Member's taxation rules. 431 In the present case, the Panel did not make that determination. The Panel's analysis focused on whether the European Union had demonstrated whether Boeing used FSC/ETI tax concessions. This does not comport with our interpretation of Article 1.1(a)(1)(ii) of the SCM Agreement. As noted above, the determination of whether there is a financial contribution within the meaning of Article 1.1(a)(1)(ii) must focus on the conduct of a government, rather than the use of tax concessions by the eligible taxpayers. The Panel's statement that there is no act of "foregoing" or "failure to collect" revenue on the part of the government if a tax concession is made available but the recipient does not take advantage of the concession reflects an erroneous understanding of Article 1.1(a)(1)(ii) of the SCM Agreement. 432

5.154. In view of the above, we find that the Panel erred in its interpretation of Article 1.1(a)(1)(ii) of the SCM Agreement and its assessment of whether FSC/ETI tax concessions constitute a financial contribution within the meaning of this provision. Therefore, we reverse the Panel's finding, in paragraphs 8.612 and 11.7(c)(ii) of the Panel Report, that the European Union had not established that, after the expiry of the implementation period, the United States continues to grant or maintain subsidies to Boeing in the form of FSC/ETI tax concessions because the European Union had failed to demonstrate that those tax concessions involved a financial contribution within the meaning of Article 1.1(a)(1)(ii) of the SCM Agreement.

5.3.3 Completion of the legal analysis

5.155. We now turn to consider the European Union's request for the completion of the legal analysis. The European Union requests us to complete the legal analysis and find that the

425 United States’ appellee’s submission, para. 104.
426 United States’ appellee’s submission, para. 106.
427 Panel Report, para. 8.593. (emphasis original)
428 Panel Report, para. 8.596.
United States continues to grant or maintain prohibited FSC/ETI subsidies after the expiry of the implementation period and thus failed to "withdraw the subsidy" within the meaning of Article 7.8 of the SCM Agreement. The European Union has not requested the completion of the legal analysis with respect to whether the United States has taken "appropriate steps" to remove the adverse effects of FSC/ETI subsidies. The United States responds that the European Union has failed to identify findings of fact or undisputed evidence that would allow the Appellate Body to complete the legal analysis.

5.156. We recall the Panel's finding that the European Union had failed to establish that, after the expiry of the implementation period, the United States continues to grant or maintain subsidies to Boeing in the form of tax concessions pursuant to the FSC/ETI measures. We note, however, that the scope of the European Union's request for the completion of the legal analysis appears to be formulated broadly. On its face, it may be understood to encompass FSC/ETI subsidies at large, and not only FSC/ETI subsidies provided to Boeing. We emphasize that the recommendations and rulings of the DSB in this dispute concern only the FSC/ETI subsidies to Boeing. Accordingly, the scope of our completion of the legal analysis in this dispute is confined to FSC/ETI subsidies with respect to Boeing.

5.157. The Appellate Body may complete the legal analysis, with a view to facilitating the prompt settlement and effective resolution of the dispute, when the factual findings by the panel and/or facts on the Panel record, which are uncontested by the disputing parties, provide a sufficient factual basis for doing so. Accordingly, we proceed to assess whether there is a sufficient factual basis for us to complete the legal analysis in the present case and to determine whether the United States has complied with Article 7.8 of the SCM Agreement. We begin by noting that Article 7.8 sets out two options for the Member granting or maintaining a subsidy to comply with the recommendations and rulings of the DSB. The Member in question shall either: (i) take appropriate steps to remove the adverse effects; or (ii) withdraw the subsidy.

5.158. The Appellate Body underscored that the use of the word "or" in the text of Article 7.8 suggests that the Member concerned may implement the recommendations and rulings of the DSB under Part III of the SCM Agreement by choosing either of these alternative pathways to achieving compliance. The Member concerned is not required to "take appropriate steps to remove the adverse effects" of a subsidy and to "withdraw" the same subsidy. Rather, either of these actions can achieve compliance. The Appellate Body also recognized that the words "granting or maintaining" a subsidy indicate that Article 7.8 reflects an obligation of the Member concerned to cease any conduct amounting to the "granting or maintaining" of subsidies that cause adverse effects.

5.159. In US – Upland Cotton (Article 21.5 – Brazil), the Appellate Body explained that this obligation is "of a continuous nature, extending beyond subsidies granted in the past". Furthermore, the Appellate Body noted that the phrases "shall take" and "shall withdraw" indicate...
that compliance with Article 7.8 "will usually involve some action" or "affirmative action" by the subsidizing Member, such that it "would normally not be able to abstain from taking any action on the assumption that the subsidy will expire or that the adverse effects of the subsidy will dissipate on their own". This does not suggest that an implementing Member has a compliance obligation with respect to a subsidy or subsidies that no longer exist. Rather, it reflects that the obligation under Article 7.8 extends to recurring annual payments "maintained" by the respondent beyond the original reference period. As observed by the Appellate Body in EC and certain member States – Large Civil Aircraft (Article 21.5 – US), if a subsidy has ceased to exist, an implementing Member is not required to withdraw the subsidy or "take appropriate steps to remove the adverse effects" with respect to such a subsidy.

5.160. In the present dispute, the United States asserts that it has "enacted legislation terminating the Foreign Sales Corporation and Extraterritorial Income ('FSC/ETI') tax benefits". We understand the United States to argue that, by enacting the TIPRA, the United States has withdrawn the FSC/ETI subsidies with respect to Boeing by ceasing to provide the financial contribution forming the basis of those subsidies. Our analysis therefore focuses on whether, by enacting the TIPRA, the United States has ceased to provide the financial contribution underpinning the FSC/ETI subsidies to Boeing and, by that means, has withdrawn these subsidies with respect to Boeing.

5.161. We have found above that the Panel erred in focusing on whether Boeing had used FSC/ETI concessions in its assessment of whether the United States continues to provide a financial contribution in the form of revenue foregone after the expiry of the implementation period. The analysis of whether there is a financial contribution in the form of revenue "foregone" should focus on whether a government has given up its entitlement to revenue, instead of whether the available tax concessions were used by the eligible taxpayers. Accordingly, we now examine whether uncontested evidence on the Panel record of these proceedings and the original proceedings allows us to determine if, by enacting the TIPRA, the United States has ceased to provide the financial contribution in a manner that the US government may no longer be considered to be giving up its entitlement to revenue vis-à-vis Boeing.

5.162. We recall that the TIPRA was enacted on 17 May 2006 and is the latest legislative act concerning FSC/ETI tax concessions. Section 513 of the TIPRA seeks to repeal the two remaining FSC/ETI tax concessions – the original FSC tax concessions, grandfathered by the ETI Act, and the ETI Act exclusion of "extraterritorial income" from taxation, grandfathered by the AJCA. Section 513(c) of the TIPRA provides that "(t)he amendments made by this section shall apply to taxable years beginning after the date of the enactment of this Act." On 22 December 2006, the IRS Office of Chief Counsel issued the 2006 IRS Memorandum clarifying that the TIPRA repeals FSC/ETI tax concessions prospectively on a transaction-by-transaction basis for transactions entered into during a taxable year that begins after 17 May 2006. Before the Panel, the European Union relied on the 2006 IRS Memorandum in support of its position that the TIPRA allows Boeing to claim concessions with respect to income derived from certain pre-2006 transactions and received in the post-implementation period. The United States did not specifically contest the proposition advanced by the European Union. Instead the United States submitted evidence seeking to establish that Boeing did not use FSC/ETI tax

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447 Appellate Body Report, EC and certain member States – Large Civil Aircraft (Article 21.5 – US), para. 5.383.
448 United States’ compliance communication to the DSB of 23 September 2012 (WT/DS353/15), para. 7.
449 Original Panel Report, para. 7.1385 (quoting TIPRA (Original Panel Exhibit EC-627)).
451 European Union’s first written submission to the Panel, paras. 394-397.
concessions. The United States also confirmed in these panel proceedings that no guidance superseding the 2006 IRS Memorandum had been issued.

5.164. On appeal, the European Union submits that the 2006 IRS Memorandum is uncontested evidence regarding the meaning of the TIPRA that we can rely on in the completion of the legal analysis. The United States, however, asserts that the 2006 IRS Memorandum does not set out a "binding interpretation" of the TIPRA.

5.165. We note that in deciding whether evidence is uncontested, and can thus be relied on for the purpose of completing the legal analysis, we must consider it as presented to the panel, and cannot take into account subsequent contestation of such evidence in the appellate proceedings without substantiation based on the panel record. In the present case, the European Union presented before the Panel the 2006 IRS Memorandum in support of its argument that, pursuant to the TIPRA, Boeing remains eligible for FSC/ETI tax concessions in the post-implementation period. In response, the United States submitted its own evidence regarding Boeing's use of FSC/ETI tax concessions, but did not challenge the interpretative value of the 2006 IRS Memorandum regarding the TIPRA. Thus, as presented to the Panel, the 2006 IRS Memorandum is uncontested evidence for the purposes of our completion of the legal analysis. In any event, even if the 2006 IRS Memorandum does not set out a "binding interpretation" of the TIPRA under US law, this does not mean that it cannot be relied on as pertinent evidence in these proceedings. Therefore, we can rely on the 2006 IRS Memorandum in our completion of the legal analysis. We now turn to examine the relevant text of this Memorandum.

5.166. The 2006 IRS Memorandum provides, in relevant part:

The TIPRA repeal date repeals the binding contract rules for taxable years that begin after May 17, 2006. Because the binding contract rules apply on a transaction-by-transaction basis, we interpret the TIPRA repeal date as repealing the binding contract rules prospectively, on a transaction-by-transaction basis, for transactions entered into during a taxable year that begins after May 17, 2006. In other words, the binding contract rules apply to certain transactions, but only if such transactions are not entered into in a taxable year that begins after May 17, 2006.

5.167. The quoted passage from the 2006 IRS Memorandum clarifies that the TIPRA repeals the "binding contract rules", referred to in Sections 513(a) and 513(b) of the TIPRA, prospectively, for transactions entered into during a taxable year that begins after 17 May 2006. It also explicitly recognizes that the "binding contract rules" continue to apply to transactions that are not entered into during a taxable year that begins after 17 May 2006. The "binding contract rules" refer to the provision of the ETI Act, which grandfathered the original FSC tax concessions, and the provisions of Section 101(f) of the AJCA, which grandfathered the ETI Act exclusion of "extraterritorial income" from taxation, with respect to certain transactions occurring pursuant to a "binding contract" that was in effect on a specified date. Thus, based on the interpretative guidance in the 2006 IRS Memorandum, the TIPRA terminates the binding contract rules of the ETI Act and the AJCA for transactions that are entered into during a taxable year that begins after 17 May 2006. However, Section 513(c) of the TIPRA allows the application of the binding contract rules of the ETI Act and the AJCA to certain transactions that are entered into during taxable years before 17 May 2006. For
purposes of the present dispute, this means that Section 513 of the TIPRA has not removed FSC/ETI tax concessions for certain qualifying transactions entered into during taxable years before 17 May 2006. This has also been confirmed by the United States in the course of the oral hearing.  

5.168. The European Union argued before the Panel that the continued availability of FSC/ETI tax concessions for certain qualifying transactions entered into during taxable years before 17 May 2006 allows Boeing to claim FSC/ETI tax concessions with respect to income generated by such transactions after the end of the period covered by the findings of the original panel, that is, after 31 December 2006. The European Union further submitted a list of orders for Boeing aircraft that allegedly qualify for the remaining FSC/ETI tax concessions and generate income after 31 December 2006. The United States did not respond to that evidence but referred instead to the Zrust statement that Boeing, as a company, did not consider income received after 31 December 2006 to be eligible for FSC/ETI tax concessions.

5.169. In its analysis, the Panel did not address the European Union's argument regarding Boeing's eligibility for FSC/ETI tax concessions in the post-implementation period and did not examine the list of orders for Boeing aircraft submitted by the European Union. The Panel focused instead on the evidence submitted by the United States pertaining to the question of Boeing's use of FSC/ETI tax concessions. The Panel thus did not reach a conclusion regarding the extent of Boeing's eligibility for FSC/ETI tax concessions.

5.170. As noted above, Section 513 of the TIPRA has not removed FSC/ETI tax concessions for certain qualifying transactions entered into during taxable years before 17 May 2006. This means that if Boeing entered into such qualifying transactions during taxable years before 17 May 2006, then Boeing is entitled to claim FSC/ETI tax concessions with respect to income generated by those transactions. Therefore, to the extent that Boeing remains entitled to FSC/ETI tax concessions in the post-implementation period, the United States has not ceased to provide a financial contribution and thus has not withdrawn FSC/ETI subsidies with respect to Boeing within the meaning of Article 7.8 of the SCM Agreement.

5.3.4 Conclusion

5.171. In sum, for revenue to be considered "foregone" under Article 1.1(a)(1)(ii) of the SCM Agreement, a government must relinquish an entitlement to raise revenue. Accordingly, establishing that such a financial contribution exists requires a determination that a government has relinquished an entitlement to raise revenue. This determination must focus on the conduct of a government, rather than on the use of tax concessions by the eligible taxpayers. We find that the Panel erred by focusing instead on whether Boeing used FSC/ETI tax concessions.

5.172. We therefore reverse the Panel's finding, in paragraphs 8.612 and 11.7.c.ii of the Panel Report, that the European Union had not established that, after the expiry of the implementation period, the United States grants or maintains subsidies to Boeing in the form of FSC/ETI tax concessions because the European Union had failed to demonstrate that those tax concessions involved a financial contribution within the meaning of Article 1.1(a)(1)(ii) of the SCM Agreement. Furthermore, we have completed the legal analysis and find that, to the extent that Boeing remains entitled to FSC/ETI tax concessions in the post-implementation period, the United States has not

458 We note that, in response to questioning at the oral hearing, the United States confirmed that, pursuant to the TIPRA, if a company entered into a qualifying transaction in taxable years before 17 May 2006, it would be entitled to FSC/ETI tax concessions with respect to income generated by such transaction after 2006.

459 Panel Report, para. 8.579 (referring to European Union's first written submission to the Panel, para. 394 and fn 1030 thereto and para. 395; 2006 IRS Memorandum (Panel Exhibit EU-406), p. 6). The original panel found that Boeing received FSC/ETI subsidies between 1989 and 2006, but declined to make a finding on whether Boeing would continue to receive FSC/ETI subsidies after 2006. (Original Panel Report, paras. 7.1419 and 7.1427)

460 Panel Report, para. 8.580 (referring to European Union's first written submission to the Panel, para. 396; ITR FSC/ETI Report (Panel Exhibit EU-24), attachment 1).

461 Panel Report, para. 8.585 (referring to United States' response to Panel question No. 34, para. 146; Statement of J. H. Zrust, Vice President of Tax of The Boeing Company (20 July 2009) (Panel Exhibit USA-232); Updated Statement of J. H. Zrust, Vice President of Tax of The Boeing Company (3 December 2013) (Panel Exhibit USA-382)).

ceased to provide a financial contribution and thus has not withdrawn FSC/ETI subsidies with respect to Boeing within the meaning of Article 7.8 of the SCM Agreement.

5.4 European Union’s claims relating to the Panel’s findings concerning specificity under Article 2.1(c) of the SCM Agreement

5.173. In relation to the Panel’s findings under Article 2.1(c) of the SCM Agreement, the European Union raises two sets of claims relating to two different subsidy measures. First, the European Union requests us to reverse the Panel’s finding that the subsidies provided to Boeing through the City of Wichita IRBs are not specific within the meaning of the third factor in Article 2.1(c), second sentence (“the granting of disproportionately large amounts of subsidy to certain enterprises”), and its conclusion that the European Union failed to establish that the United States has not withdrawn the subsidy.463 In support of this request, the European Union argues that the Panel erred in its interpretation and application of Article 2.1(c) of the SCM Agreement and failed to make an objective assessment of the matter before it under Article 11 of the DSU, in limiting its assessment of de facto specificity of the City of Wichita IRB subsidy programme to the period of time after the end of the United States’ implementation period.464 For its part, the United States asserts that the Panel did not err in finding that the subsidy provided through the IRBs is no longer specific and correctly based the specificity analysis on information post-dating the implementation period.465

5.174. Second, the European Union requests us to reverse the Panel’s finding that the subsidies to Boeing provided by South Carolina through EDBs for the funding of Project Gemini facilities and infrastructure are not specific within the meaning of Article 2.1(c) of the SCM Agreement.466 In support of this request, the European Union claims that the Panel erred in the interpretation of Article 2.1(c) by interpreting the term “limited number” in the first factor in Article 2.1(c), second sentence (“use of a subsidy programme by a limited number of certain enterprises”), as meaning a number smaller than three. The European Union also argues that the Panel erred in its interpretation and application of the term “certain enterprises” in the same clause by including in its analysis EDBs issued to public entities, such as cities and public colleges. Furthermore, the European Union submits that the Panel erred in interpreting the term “predominant” in the second factor in Article 2.1(c), second sentence (“predominant use by certain enterprises”), to involve a concept entirely different from the term “disproportionately” in the third factor in Article 2.1(c), second sentence (“the granting of disproportionately large amounts of subsidy to certain enterprises”).467 In addition, the European Union alleges that the Panel failed to make an objective assessment as required pursuant to Article 11 of the DSU of the factors in the third sentence of Article 2.1(c).468 In response, the United States submits that the Panel's specificity findings relating to EDBs were based on a correct interpretation and application of Article 2 of the SCM Agreement as well as on an objective assessment of the evidence, consistent with Article 11 of the DSU.469

5.175. We begin by addressing Article 2.1(c) of the SCM Agreement. We then turn to the European Union’s claims relating to the IRB subsidies that the Panel erred in its interpretation and application of Article 2.1(c) and failed to make an objective assessment of the matter when finding that the relevant period over which to consider the existence of “disproportionately large amounts of subsidy” in these proceedings is the period after the end of the United States’ implementation period. In this context, we also consider the European Union’s request for completion of the legal analysis with respect to the IRB subsidies. Thereafter, we address the European Union’s claims relating to the EDB subsidies that the Panel erred in its interpretation of the term “limited number”, its interpretation and application of the term “certain enterprises”, and its interpretation of the term “predominant use” in Article 2.1(c), second sentence. Finally, we consider the European Union’s claim under Article 11 of the DSU regarding the Panel’s assessment of the factors in the third sentence of Article 2.1(c), and its request for completion of the legal analysis with regard to the EDB subsidies.

463 Panel Report, paras. 8.640 and 11.7.c.iii.
464 European Union’s appellant’s submission, para. 145.
465 United States’ appellee’s submission, para. 108.
466 Panel Report, para. 8.843.
467 European Union’s appellant’s submission, para. 224.
468 European Union’s appellant’s submission, para. 224.
469 United States’ appellee’s submission, para. 9.
5.4.1 Article 2.1(c) of the SCM Agreement

5.176. Article 2.1 of the SCM Agreement reads:

2.1 In order to determine whether a subsidy, as defined in paragraph 1 of Article 1, is specific to an enterprise or industry or group of enterprises or industries (referred to in this Agreement as "certain enterprises") within the jurisdiction of the granting authority, the following principles shall apply:

(a) Where the granting authority, or the legislation pursuant to which the granting authority operates, explicitly limits access to a subsidy to certain enterprises, such subsidy shall be specific.

(b) Where the granting authority, or the legislation pursuant to which the granting authority operates, establishes objective criteria or conditions\textsuperscript{(a)} governing the eligibility for, and the amount of, a subsidy, specificity shall not exist, provided that the eligibility is automatic and that such criteria and conditions are strictly adhered to. The criteria or conditions must be clearly spelled out in law, regulation, or other official document, so as to be capable of verification.

(c) If, notwithstanding any appearance of non-specificity resulting from the application of the principles laid down in subparagraphs (a) and (b), there are reasons to believe that the subsidy may in fact be specific, other factors may be considered. Such factors are: use of a subsidy programme by a limited number of certain enterprises, predominant use by certain enterprises, the granting of disproportionately large amounts of subsidy to certain enterprises, and the manner in which discretion has been exercised by the granting authority in the decision to grant a subsidy.\textsuperscript{(b)} In applying this subparagraph, account shall be taken of the extent of diversification of economic activities within the jurisdiction of the granting authority, as well as of the length of time during which the subsidy programme has been in operation.

\textsuperscript{(a)} Objective criteria or conditions, as used herein, mean criteria or conditions which are neutral, which do not favour certain enterprises over others, and which are economic in nature and horizontal in application, such as number of employees or size of enterprise.

\textsuperscript{(b)} In this regard, in particular, information on the frequency with which applications for a subsidy are refused or approved and the reasons for such decisions shall be considered.

5.177. At the outset, we note that the chapeau of Article 2 refers to "principles" that shall apply in determining whether a subsidy is specific to certain enterprises. We recall that the use of the term "principles" in the chapeau of Article 2.1 of the SCM Agreement (instead of, for instance, "rules") suggests that subparagraphs (a) through (c) of this provision are to be considered within an analytical framework that recognizes and accords appropriate weight to each principle.\textsuperscript{470} Consequently, the application of one of the subparagraphs of Article 2.1 may not by itself be determinative in arriving at a conclusion that a particular subsidy is or is not specific. Specifically, in accordance with the first sentence of Article 2.1(c), despite the conclusion that there is an "appearance of non-specificity" following the application of the principles set out in Article 2.1(a) and (b), panels may consider that, in light of the arguments and evidence submitted by the parties, "there are reasons to believe that the subsidy may in fact be specific."\textsuperscript{471} In such circumstances, panels should consider the relevant factual features of a challenged subsidy in light of the factors listed in Article 2.1(c).\textsuperscript{472} The aim of the inquiry under Article 2.1(c) is to identify evidence of allocation or use of a subsidy that supports a finding of specificity, notwithstanding any appearance


\textsuperscript{471} Appellate Body Report, US – Large Civil Aircraft (2nd complaint), para. 877.

of non-specificity that might arise from a review of the relevant legislation or the express acts of a granting authority.473

5.178. The second sentence of Article 2.1(c) prescribes the following factors for consideration: (i) use of a subsidy programme by a limited number of certain enterprises; (ii) predominant use by certain enterprises; (iii) the granting of disproportionately large amounts of subsidy to certain enterprises; and (iv) the manner in which discretion has been exercised by the granting authority in the decision to grant a subsidy. The third sentence of Article 2.1(c) adds that, in applying this provision, account shall be taken of the extent of diversification of economic activities within the jurisdiction of the granting authority, as well as of the length of time during which the subsidy programme has been in operation. Which factors are relevant to the analysis of specificity under Article 2.1(c) will be a function of what reasons there are to believe that the subsidy may in fact be specific. Thus, a conclusion as to the existence of specificity in fact may, depending on the circumstances of the case, rely on an assessment of one, several, or all of those factors.474

5.179. The first factor in the second sentence of Article 2.1(c) refers to the "use of a subsidy programme by a limited number of certain enterprises". The word "limited" refers to something that is "{c}ircumscribed within definite limits, bounded, restricted ... small, slight, low (in number or extent)".475 Specifically, the term "limited number" pertains to a quantity of "certain enterprises" that must be found to have used the subsidy programme, and it suggests "an inquiry into whether the enterprises or industries so particularized constitute a quantitatively limited group".476 The concept of limitation is contained in both Article 2.1(a) and Article 2.1(c) of the SCM Agreement. However, whereas subparagraph (a) concerns limitations found explicitly in, for example, the legal instruments of a government authority, subparagraph (c) centres on the existence of limitations on the number of enterprises or industries that actually use the subsidy.477

5.180. In this respect, we note the European Union's argument that what constitutes a "limited number" of certain enterprises in a particular case can be determined either by reference to the universe of enterprises eligible to receive the subsidy, or, alternatively, by reference to all enterprises within the jurisdiction of the granting authority.478 According to the European Union, it is for the complainant to make this choice. In this regard, we note that the principles in subparagraphs (a) to (c) of Article 2.1 are to be interpreted in context.479 The text of Article 2.1(c) makes it clear that the application of Article 2.1(c) proceeds on the basis of the conclusions reached as a result of the application of the preceding subparagraphs of that provision.480 The analysis under Article 2.1(a) and (b) involves consideration of legislation or of a granting authority's acts or pronouncements that explicitly limit access to the subsidy or establish objective access criteria or conditions. Consequently, where a panel's assessment proceeds from Article 2.1(a) and (b) to Article 2.1(c), the panel's analysis under subparagraph (c) would normally build upon the relevant legislative framework, and in particular the conditions of eligibility for the subsidy, examined under Article 2.1(a) and (b).481 In this regard, the Appellate Body has stated that the inquiry under Article 2.1(c) requires a panel to examine the reasons as to why the actual allocation or use of the subsidy differs from an allocation or use that would be expected if the subsidy were administered in accordance with the conditions of eligibility for that subsidy.482

5.181. At the same time, a de facto specificity inquiry under Article 2.1(c) does not require identification of an explicit subsidy programme implemented through law or regulation or through other explicit means.483 In this regard the Appellate Body has observed that "in the absence of any written instrument or explicit pronouncement, evidence of a 'systematic activity or series of activities' may provide a sufficient basis to establish the existence of an unwritten subsidy

473 Appellate Body Report, US – Carbon Steel (India), para. 4.373.
477 Appellate Body Report, US – Carbon Steel (India), para. 4.375.
478 See European Union's appellant's submission, paras. 232 and 262.
481 See e.g. Appellate Body Report, US – Countervailing Measures (China), para. 4.146.
programme in the context of assessing de facto specificity.”

Thus, depending on the specific facts at issue and the arguments made by the parties, the assessment of specificity may commence with an inquiry under subparagraph (c) rather than proceed from subparagraphs (a) and (b).

Moreover, it may not always be possible to come to a definitive conclusion as to the existence of objective criteria or conditions governing the eligibility for, and the amount of, a subsidy within the meaning of Article 2.1(b), without examining factual evidence from the perspective of Article 2.1(c).

In such circumstances, it may not be possible or appropriate for a panel to assess whether the number of users of the subsidy programme is small or restricted within the meaning of the first factor in Article 2.1(c), second sentence, in light of the conditions of eligibility for that subsidy, either because no de jure conditions of eligibility exist or because their objectivity is contested. However, in those cases where the granting authority or the legislation pursuant to which the granting authority operates sets out explicit eligibility criteria for the subsidy, panels should normally examine the question of whether the subsidy is used by a limited number of certain enterprises in light of these eligibility criteria, as assessed under subparagraphs (a) and (b). In any event, we consider that the universe of enterprises relevant for the purpose of this assessment depends on the characteristics of the measure and the circumstances of the case, rather than on how a complainant decides to frame its claim.

5.182. Turning to the term "certain enterprises" in the first factor of Article 2.1(c), second sentence, we note that this term also appears in the chapeau of Article 2.1 and in Article 2.1(a). The chapeau of Article 2.1 defines "certain enterprises" as "an enterprise or industry or group of enterprises or industries". As the provision stipulates, this definition applies throughout the SCM Agreement.

The Appellate Body has observed that "enterprise" may be defined as "(a) business firm, a company".

Furthermore, we note that the term "enterprise" may refer to "(a) commercial or industrial undertaking, esp. one involving risk; a firm, company, or business".

In turn, "industry" signifies "(a) particular form or branch of productive labour; a trade, a manufacture; "an industry, or group of 'industries', may be generally referred to by the type of products they produce"; "the concept of an 'industry' relates to producers of certain products"; and the "breadth of this concept of 'industry' may depend on several factors in a given case."

The Appellate Body has further held that the term "certain enterprises" may refer to a single enterprise or industry or a class of enterprises or industries that are known and particularized; that the concept of "certain enterprises" involves a certain amount of indeterminacy at the edges; and that any determination of whether a number of enterprises or industries constitute "certain enterprises" can be made only on a case-by-case basis.

5.183. As regards the second factor in Article 2.1(c), second sentence, namely the phrase "predominant use by certain enterprises", we note that definitions of the term "predominant" include "(c) constituting the main ... or strongest element; prevailing". As we see it, in the context of Article 2.1(c), "predominance" may relate to the number of certain enterprises using the subsidy,
the *amounts* of subsidy used by certain enterprises, or the *incidence* with which certain enterprises use a subsidy. The first factor in Article 2.1(c), second sentence ("use of a subsidy programme by a limited number of certain enterprises"), already captures the aspect of predominance relating to the number of subsidy users. In turn, the third factor in Article 2.1(c), second sentence ("the granting of disproportionately large amounts of subsidy to certain enterprises"), specifically captures the aspect of predominance relating to the amounts of subsidy used by certain enterprises. The fact that both the number of subsidy users and the amounts of subsidy used are captured by the other factors of Article 2.1(c) suggests that "predominant use by certain enterprises" covers primarily the element of the incidence or frequency with which the subsidy is used by certain enterprises.

5.184. Finally, the third factor in Article 2.1(c), second sentence, concerns "the granting of disproportionately large amounts of subsidy to certain enterprises". The Appellate Body has noted that the language of this phrase indicates that the first task of a panel is to identify the "amounts of subsidy" granted and then to assess whether the amounts of subsidy are "disproportionately large". According to the Appellate Body, determining the existence of disproportionality "requires an assessment as to whether the amounts of subsidy are out of proportion, or relatively too large" and "requires a panel to determine whether the actual allocation of the 'amounts of subsidy' to certain enterprises is too large relative to what the allocation would have been if the subsidy were administered in accordance with the conditions of eligibility for that subsidy as assessed under Article 2.1(a) and (b)". Thus, in examining whether disproportionately large amounts of subsidy have been granted to certain enterprises within the meaning of Article 2.1(c), panels need to assess: (i) whether the granting of the subsidy indicates a disparity between the expected distribution of that subsidy, as determined by the conditions of eligibility, and its actual distribution; and (ii) the reasons for that disparity so as to determine whether there has been a granting of disproportionately large amounts of subsidy to certain enterprises.

5.4.2 The Panel's findings concerning industrial revenue bonds

5.185. The European Union argues that the Panel erred in its interpretation and application of the term "disproportionately large amounts of subsidy" in Article 2.1(c) of the SCM Agreement when it failed to follow the provision in Article 2.1(c) that "account shall be taken ... of the length of time during which the subsidy programme has been in operation" (i.e. 1979 onwards) and instead limited its assessment of specificity of Wichita IRB subsidy programme to the period of time "after the end of the implementation period" (i.e. 2013 onwards). Further, the European Union submits that the Panel failed to make an objective assessment of the matter before it when it inappropriately deviated from the approach taken by the panel and the Appellate Body in the original proceedings to assess the existence of specificity based on the entire duration of the subsidy programme. The United States asserts that the Panel did not err in finding that the subsidy provided through the IRBs is no longer specific and correctly based the specificity analysis on information post-dating the reasonable period of time for compliance.

5.186. At the outset, we note that IRBs are issued by cities in Kansas, including the City of Wichita, and are sold to the general public on behalf of a qualifying private entity. The proceeds are used by the entity on whose behalf the IRBs are issued to purchase, construct, or improve commercial or industrial property (Project Property). In general, the City of Wichita acts as the "issuer" of the IRBs and retains legal title to the Project Property during the term of the IRB. The private entity leases the property, making rent payments to the holders of the IRBs. For a private entity, the advantages of having IRBs issued on its behalf include the ability to borrow funds at lower-than-

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494 Appellate Body Report, *US – Large Civil Aircraft (2nd complaint)*, para. 879.
495 Appellate Body Report, *US – Large Civil Aircraft (2nd complaint)*, para. 879.
496 Appellate Body Report, *US – Large Civil Aircraft (2nd complaint)*, para. 879.
497 European Union's appellant's submission, para. 145.
499 European Union's appellant's submission, para. 145.
500 United States' appellee's submission, para. 108.
501 Original Panel Report, para. 7.651. The relevant state law that grants cities in Kansas the authority to issue IRBs is *Kansas Statutes Annotated* (KSA). (Ibid., para. 7.652 (refering to KSA, Section 12-1740 et seq. (2001) (Original Panel Exhibit EC-167)))
market interest rates, property tax abatements for up to ten years on Project Property, and sales tax exemptions on Project Property and services acquired with the proceeds of IRBs.502

5.187. The IRB scheme operated differently for Boeing and, subsequently, Spirit Aerosystems (Spirit).503 In particular, rather than being purchased by the public, the IRBs issued on behalf of Boeing or Spirit were purchased by the companies themselves. Therefore, the advantages of the IRB issuances to Boeing and Spirit were limited to property tax and sales tax exemptions. The City of Wichita issued IRBs to Boeing every year from 1979 to 2007.504 IRBs foresee property tax abatements on Project Property for up to ten years. Accordingly, property tax abatements stemming from IRBs issued to Boeing terminated in 2017. In January 2012, Boeing announced that it would close all of its Wichita operations by the end of 2013.505

5.188. Before the Panel, the key point of disagreement between the parties was the relevant time period for the assessment of specificity.506 The Panel reasoned that, in the original proceedings, the European Communities had challenged the entirety of the subsidy received by Boeing since the inception of the IRB programme in 1979, so it was consistent with the scope of that challenge for the panel to consider the entirety of the IRBs granted to Boeing between 1979 and 2005. However, the Panel considered that, in the compliance proceedings, "the relevant financial contribution is that which was granted after the end of the implementation period" and that it was "concerned only with those tax abatements granted to Boeing from 2013 onwards".507 The Panel also noted that the amount of the tax abatements Boeing received after 2012 was determined by the value of the IRBs that were granted from 2002 onwards.508 Therefore, the Panel decided to assess "whether the subsidy is de facto specific by determining what percentage of the total amount of IRBs provided from 2002 onwards was granted to Boeing and Spirit".509

5.189. The Panel then noted that, from 2002 onwards, Boeing and Spirit received 32% of the total amount of IRBs issued, and that this was considerably less than the 69% in the original proceedings.510 Taking into account that the IRB programme is open to enterprises with the capacity and inclination to make certain investments in commercial or industrial property, the Panel did not consider that "Boeing and Spirit's receipt of 32% of the total amount of IRBs issued indicates a distribution of the subsidy that is at odds with what one would expect were the IRB programme to be administered in accordance with the SCM Agreement."511 In light of these considerations, the Panel found that the subsidies provided to Boeing in the form of property and sales tax abatements related to IRBs issued by the City of Wichita after the expiry of the implementation period were not specific within the meaning of Article 2.1(c) of the SCM Agreement.512

502 Original Panel Report, para. 7.656. The authority for the latter two benefits arises from KSA, Section 79-201a, which provides that all IRB-financed real property shall be exempt from state and local property taxes for a period of up to ten years, and from KSA, Section 79-3640, which provides that tangible personal property and services acquired with IRB proceeds shall be exempt from all sales taxes. (Ibid., para. 7.657)

503 Original Panel Report, para. 7.658. Boeing's Wichita division produced commercial airplanes and their components in Wichita for more than 70 years. In 2005, Boeing sold its Wichita facilities to Spirit. (Ibid., para. 7.649)

504 Panel Report, para. 8.614. Even though Boeing sold its Wichita facilities to Spirit in 2005, for IRBs issued to Boeing prior to that date, Boeing continued to receive directly the tax benefits deriving from the IRBs because Boeing maintained its leasehold interest in the Project Property. The City of Wichita continued to issue IRBs to Boeing following the sale of Boeing's Wichita facilities to Spirit in 2005. (Original Panel Report, para. 7.662)

505 Panel Report, para. 8.617 (referring to A.G. Sulzberger, "Boeing Departure Shakes Wichita's Identity as Airplane Capital", New York Times, 18 January 2012 (Panel Exhibit USA-338)).

506 The European Union argued that the Panel should assess specificity over the entire period the subsidy has been available, during which Boeing received 53%, and Boeing and Spirit together 59%, of the subsidy. The United States contended that because no IRBs were issued to Boeing after 2007, assessing specificity over a shorter, more recent period of time causes the percentage of the subsidy received by Boeing and Spirit to fall considerably. (Panel Report, para. 8.627)

507 Panel Report, para. 8.634.

508 Panel Report, para. 8.635.

509 Panel Report, para. 8.635.


511 Panel Report, para. 8.637.

512 Panel Report, para. 8.638.
5.4.2.1 Whether the Panel erred in its interpretation of Article 2.1(c) of the SCM Agreement

5.190. The European Union argues that the Panel erred in its interpretation of Article 2.1(c) of the SCM Agreement when, in conducting its de facto specificity analysis to determine whether the City of Wichita had granted "disproportionately large amounts of subsidy to certain enterprises", it found that the relevant period over which to consider disproportionality is "after the end of the implementation period". Instead, according to the European Union, the Panel should have considered whether the IRB subsidy programme is specific on the grounds that Boeing and Spirit received disproportionately large amounts of the subsidy over the three-decade period of time during which the subsidy programme had been in operation (including, but not limited to, the period that passed since the beginning of the original panel proceedings), that is, from 1979 to 2012.

5.191. The United States disagrees with the European Union's argument that the Panel interpreted the terms in Article 2.1(c) to mean something different in compliance proceedings than in original proceedings. For the United States, the Panel "simply applied the same meaning to a different data set because the facts had changed – most importantly, the structure of Kansas' economy and the role of the aerospace industry in it". Furthermore, the United States considers that "with respect to Article 2.1, the relevant question is whether a subsidy is specific, not whether it was specific at a prior point in time."

5.192. As noted above, the Appellate Body has stated that "disproportionality" is a relational concept. In particular, the analysis under the third factor in the second sentence of Article 2.1(c) requires determining the amounts of subsidy actually granted to the recipients under a subsidy programme within a certain time period, and assessing whether there is a disparity between the expected and actual distribution of the subsidy. In the present case, the specific question before us is whether the existence of disproportionality in the context of these compliance proceedings should be established on the basis of the amounts of subsidy granted during the entire period over which the subsidy programme has been in operation, or whether consideration of subsidies provided over a more limited period of time may be appropriate.

5.193. We note that the text of Article 2.1(c) does not contain an express indication as to how to determine the time period relevant for assessing the existence of disproportionality. We recall, however, that the principles in subparagraphs (a) to (c) of Article 2.1 should be interpreted together and a proper understanding of specificity must allow for the concurrent application of these principles to the various legal and factual aspects of a subsidy. Thus, in the event of an appearance of non-specificity resulting from an analysis under Article 2.1(a) and (b), indications as to the appropriate time period for assessing disproportionality under Article 2.1(c) may be drawn from the legislative framework examined under those subparagraphs. At the same time, the analysis under Article 2.1(c) will normally focus on evidence other than of the kind found in written documents or express acts or pronouncements by a granting authority. Thus, indications relating to the appropriate time period for the assessment of disproportionality may be drawn also from the structure and operation of the subsidy at issue, the circumstances of the case, and the evidence presented by the parties.

5.194. We note that pursuant to the third sentence of Article 2.1(c), "account shall be taken of the extent of diversification of economic activities within the jurisdiction of the granting authority, as well as of the length of time during which the subsidy programme has been in operation." In our view, the third sentence of Article 2.1(c) directs panels to include in their analyses the two factors listed in that sentence. Specifically, the use of the word "shall" appears in the context of "account shall be taken of", which suggests the existence of an obligation for panels to consider the factors in the third sentence of Article 2.1(c) as part of their assessment of de facto specificity, together with any other pertinent factor. However, the provision does not prescribe a particular manner in

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513 European Union's appellant's submission, paras. 173 and 181 (quoting Panel Report, para. 8.634). (fn omitted)
515 United States' appellee's submission, para. 112.
516 United States' appellee's submission, para. 113. (emphasis original)
which panels must consider the relevance of these factors or the importance of the factors for the panels' overall analysis. What precisely the import of those factors would be in a panel's assessment under Article 2.1(c) would thus depend on the particular circumstances of each case.

5.195. In particular, while "the length of time during which the subsidy programme has been in operation" must be taken into account by panels in their assessment of specificity, it does not follow from the third sentence of Article 2.1(c) that the *entire* period during which the programme has been in operation has necessarily to be chosen as the relevant time period in determining whether, under the second sentence, disproportionately large amounts of subsidy have been granted to certain enterprises. Accordingly, the temporal baseline for the assessment of disproportionality under the second sentence of Article 2.1(c) may not necessarily be the entire duration of the subsidy programme at issue. For instance, where modifications to a subsidy programme have been made, consideration of a shorter time period for the assessment of disproportionality may be appropriate. In particular, this may be the case in the context of compliance proceedings, depending on the characteristics and functioning of the subsidy programme at issue and the existence and the nature of a measure taken to comply. We recall in this regard that the relevant question under Article 7.8 is whether the Member granting or maintaining the subsidy has taken appropriate steps to remove the adverse effects of the subsidy or to withdraw the subsidy. Thus, in order to withdraw a subsidy within the meaning of Article 7.8, "an implementing Member may be able to take action to align the terms of the subsidy with a market benchmark, or to otherwise modify the terms of the subsidy such that it no longer qualifies as a subsidy." 520

5.196. We recall the European Union's contention that the Panel erred by interpreting the term "disproportionately large" to mean "something different in a compliance proceeding than it does in an original proceeding", and to require, in the context of compliance proceedings, consideration only of financial contributions expected "after the end of the implementation period". 521 The European Union further argues that the Panel's interpretation would allow Members faced with compliance obligations easily to circumvent their obligations under the SCM Agreement by "manipulating" the appearance of specificity for a short time following the end of the implementation period. 522

5.197. With respect to these contentions by the European Union, we note our observation above that the assessment of disproportionality under the third factor in the second sentence of Article 2.1(c) does not necessarily have to be based on the entire duration of the subsidy programme. In this light, we consider that the Panel cannot be said to have erred in its interpretation of the term "disproportionately large" in Article 2.1(c) simply because it assessed disproportionality on the basis of a time period shorter than the entire duration of the subsidy programme.

5.198. In light of the above, we find that the Panel did not err in its interpretation of Article 2.1(c) of the SCM Agreement when concluding that the relevant period over which to consider disproportionality is "after the end of the implementation period".

5.4.2.2 Whether the Panel erred in its application of Article 2.1(c) of the SCM Agreement

5.199. The European Union further alleges that the Panel erred in applying Article 2.1(c) of the SCM Agreement "when it assessed specificity based on facts restricted to 'after the end of the implementation period' and failed to consider data for the entire duration of the subsidy programme in evaluating disproportionality". 523 According to the European Union, the Panel's finding on facts involving a time period quite different from "the length of time during which the subsidy programme has been in operation" constitutes an error in the application of Article 2.1(c). 524

5.200. In the present case, the Panel decided to use in its assessment of disproportionality the subsidy amounts (or tax abatements) granted after the end of the implementation period (i.e. from 2013 onwards), rather than those granted under the entirety of the subsidy programme since its

520 Appellate Body Report, EC and certain member States – Large Civil Aircraft (Article 21.5 – US), para. 5.366. (emphasis added)
521 European Union's appellant's submission, paras. 180-181.
522 European Union's appellant's submission, para. 182.
523 European Union's appellant's submission, para. 186.
524 European Union's appellant's submission, para. 187.
inception in 1979. The Panel reasoned that "(i)n this proceeding ... the relevant financial contribution is that which was granted after the end of the implementation period", and that, therefore, it is concerned only with those tax abatements granted to Boeing from 2013 onwards. The Panel thus contrasted the challenge in the original proceedings, where the measure before the panel was the entirety of the subsidy received by Boeing since the inception of the IRB programme in 1979, with the challenge in these compliance proceedings, where the measure before the Panel was the measure taken to comply notified by the United States. In this context, the question before us is whether, in the specific situation of the present compliance proceedings, the Panel erred in its application of Article 2.1(c) in considering tax abatements provided to Boeing relating to less than the entire duration of the subsidy programme.

5.201. We noted above that, in the context of compliance proceedings, it may be appropriate for a panel to base its assessment of disproportionality under the third factor in the second sentence of Article 2.1(c) on a time period different from the entire duration of the subsidy programme, in order to assess whether, at the end of the reasonable period of time for compliance, the implementing Member has taken appropriate steps to withdraw the subsidy. This should be analysed on a case-by-case basis and will depend on the characteristics and functioning of the subsidy programme at issue, as well as other relevant facts, including the existence and the nature of a measure taken to comply.

5.202. The Panel explained its decision to focus on the post-implementation period in its assessment of disproportionality with the fact that the relevant financial contribution in these compliance proceedings is different from that in the original proceedings. In other words, the Panel relied on the nature of these compliance proceedings for its finding that the subsidy is no longer de facto specific. We note that the Panel provided little explanation for this approach. For instance, the Panel did not explain how, in the context of these compliance proceedings, it was warranted to base its assessment on a period of time different from that of the original proceedings in light of the particular circumstances of the case. Furthermore, although the Panel outlined the functioning of the IRB subsidies, it did not clarify how its decision to limit its assessment to the timeframe after the end of the implementation period related to the nature and functioning of the particular subsidy at issue.

5.203. At the same time, we recall that the subsidy measure in the present case consists of issuance of IRBs to Boeing every year between 1979 and 2007. The subsidy thus has been disbursed on a regular and periodic basis. Furthermore, the structure of the subsidy is such that IRBs are used to purchase property on which tax abatements are received for the following ten consecutive years. The Panel recognized this structure and assessed its specificity "by determining what percentage of the total amount of IRBs provided from 2002 onwards was granted to Boeing and Spirit", i.e. the amount of IRBs granted to Boeing and Spirit ten years before the end of the implementation period. In this way, the Panel took into consideration in its analysis the ten-year lifetime of the IRB subsidies.

5.204. Moreover, in its Compliance Communication, the United States advised that the City of Wichita "has not provided any IRBs to Boeing since 2007". The Panel concluded that "(b)y reducing considerably the proportion of the subsidy programme received by Boeing after the end of the implementation period, the United States has brought the measure into conformity with the SCM Agreement because, as a non-specific-subsidy, the measure is no longer subject to the provisions of Part III of the SCM Agreement." We note that, since the amounts of tax abatements received by Boeing are directly proportionate to the amount of IRBs granted, these abatements continuously diminished since 2007, and in 2017 "Boeing {was} due to receive a single tax abatement on Project Property purchased with IRB issuance in 2007." Furthermore, Boeing announced that it would close all of its Wichita operations by the end of 2013. While the Panel did

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525 Panel Report, para. 8.634.
526 Thus, for Project Property purchased with IRBs granted in 2007, Boeing received ten annual tax abatements from 2008 to 2017. (Panel Report, para. 8.632)
530 Panel Report, para. 8.632.
531 Panel Report, para. 8.617 (referring to A.G. Sulzberger, "Boeing Departure Shakes Wichita's Identity as Airplane Capital", New York Times, 18 January 2012 (Panel Exhibit USA-338)).
not elaborate on these aspects in its substantive assessment of the IRB subsidies, these facts are pertinent to determining the relevant time period for the assessment of disproportionality.

5.205.  In sum, while the Panel could have better explained the choice of the time period for assessing whether disproportionately large amounts of IRBs were used by Boeing in determining the existence of *de facto* specificity, the time period effectively used by the Panel does not appear inappropriate in the particular circumstances of these compliance proceedings and specifically in light of the nature and operation of the IRB subsidies, as well as of the nature of the alleged measure taken to comply.

5.206. In any event, the Panel had to assess whether the total amount of IRBs issued indicates a distribution of the subsidy that differs from the allocation that one would expect were the IRB programme to be administered in accordance with its conditions of eligibility. In this regard, we draw attention to the Panel's analysis and findings concerning the comparison between the expected and actual distribution of the subsidy. The Panel noted that, based on the European Union's evidence, from 2002 onwards, Boeing and Spirit received 32% of the total amount of IRBs issued, and that this was considerably reduced from the percentage in the original proceedings, where the panel found that Boeing and Spirit had received 69% of the total amount. Taking into account that the IRB programme is open to any enterprises seeking to purchase, construct, or improve various types of commercial or industrial property, and that, therefore, its availability is somewhat restricted to entities with the capacity and inclination to make such investments, the Panel did not consider that "Boeing and Spirit's receipt of 32% of the total amount of IRBs issued indicates a distribution of the subsidy that is at odds with what one would expect were the IRB programme to be administered in accordance with the SCM Agreement."

5.207. With respect to the Panel's observation that the distribution of the IRB subsidy "is not at odds with what one would expect were the IRB programme to be administered in accordance with the SCM Agreement", we note that assessing disproportionality requires a panel to determine "whether the actual allocation of the 'amounts of subsidy' to certain enterprises is too large relative to what the allocation would have been if the subsidy were administered *in accordance with the conditions for eligibility for that subsidy* as assessed under Article 2.1(a) and (b)". The Appellate Body has further stated that, where the granting of the subsidy indicates a disparity between the expected distribution of that subsidy, as determined by the conditions of eligibility, and its actual distribution, a panel will be required to examine the reasons for that disparity so as ultimately to determine whether there has been a granting of disproportionately large amounts of subsidy to certain enterprises. Thus, the inquiry is directed at whether the allocation of the subsidy is in accordance with its conditions of eligibility, rather than with the SCM Agreement.

5.208. We observe that, earlier in its analysis, the Panel correctly stated that "assessing whether Boeing and Spirit have received a disproportionate amount of the subsidy should be based on the amount of the tax abatements Boeing and Spirit have received, relative to the amount of tax abatements that all other IRB recipients have received." In order to determine whether, regardless of the discrepancies in the way the Panel articulated the legal standard, it conducted a proper analysis, we now turn to review the Panel's analysis with respect to the facts of the present case.

5.209. We note that in its analysis, the Panel mainly relied on the observation that Boeing and Spirit's receipt of 32% of the total amount of IRBs was considerably lower than the 69% in the original proceedings. It is true that the IRB programme is available to those enterprises with the capacity to make investments in industrial and commercial property. In the original proceedings, however, the Appellate Body found that, despite the fact that not all enterprises in Wichita would, at any given time, wish to enjoy the benefits of IRBs with respect to property development, it "would nonetheless expect that the allocation of such benefits over the 25-year period between 1979 and 2005 would have produced a wider distribution of those benefits across different sectors of the
Wichita economy. On this basis, the Appellate Body concluded that the actual distribution of the subsidy deviates materially from its expected distribution.

5.210. We agree with the Panel that the percentage of IRBs issued to Boeing and Spirit since 2002, namely 32%, is reduced from the original proceedings, where the panel found that Boeing and Spirit had received 69% of the total amount of IRBs. However, this fact says little about the existence of disproportionality under the third factor in the second sentence of Article 2.1(c). In itself, the fact that Boeing and Spirit received 32% of the total amount of IRBs between 2002 and 2012 does not answer the question of whether any disparity existed between the expected distribution of the subsidy, as determined by the conditions of eligibility, and its actual distribution. The existence of a disparity would depend, inter alia, on the extent of diversification of economic activities within Wichita's economy, in line with the first factor of Article 2.1(c), third sentence. The Panel, however, did not engage in any such assessment and provided no explanation as to why 32% of the total amount of IRBs received by Boeing and Spirit in a much shorter period of time than in the original proceedings, namely between 2002 and 2012, does not reveal the existence of a disparity. The Panel's only argument that "(t)he IRB programme remains open to any enterprises that seek to purchase, construct, or improve various types of commercial or industrial property" and its availability "is therefore somewhat restricted to entities with the capacity and inclination to make such investments" does not explain why 32% of the IRBs does not reveal the existence of a disparity. We therefore conclude that the Panel had no basis for finding whether any disparity existed between the expected and actual distribution of the subsidy and that thereby the United States had brought its measure into conformity with the SCM Agreement.

5.211. In light of the above, we find that the Panel erred in its application of Article 2.1(c) of the SCM Agreement by providing insufficient reasoning for its conclusion that the distribution of the subsidy was not "at odds with what one would expect were the IRB programme to be administered in accordance with the SCM Agreement". We therefore reverse the Panel's finding, in paragraphs 8.640 and 11.7.c.iii of the Panel Report, that the European Union has failed to establish that the tax abatements provided through IRBs issued by the City of Wichita involve specific subsidies within the meaning of Articles 1 and 2 of the SCM Agreement.

5.4.2.3 Whether the Panel failed to make an objective assessment under Article 11 of the DSU

5.212. The European Union asserts that the Panel failed to undertake an objective assessment of the matter, pursuant to Article 11 of the DSU, by inappropriately deviating from the findings of the original panel and the Appellate Body. According to the European Union, "(i)n interpreting or applying Article 2.1(c), the Panel failed to take into account the intervening guidance provided by the original panel and the Appellate Body" that requires consideration of the "whole" subsidy programme when assessing whether disproportionately large amounts of subsidy have been granted to certain enterprises. In this respect, the European Union relies on the Appellate Body's statement that "doubts could arise about the objective nature of an Article 21.5 panel's assessment if, on a specific issue, that panel were to deviate from the reasoning in the original panel report in the absence of any change in the underlying evidence in the record." We therefore find that the Panel failed to make an objective assessment of the matter.

5.213. The United States considers that the European Union failed to establish that any deviation from the reasoning of the original panel occurred. In the United States' view, the original panel itself recognized that specificity can be based on "a time period shorter than the life of the subsidy

540 Furthermore, in case a disparity was found to exist, any potential reasons for the existence of such disparity would need to be assessed.
541 Panel Report, para. 8.637. (fn omitted)
543 European Union's appellant's submission, para. 189.
544 European Union's appellant's submission, para. 195.
545 European Union's appellant's submission, paras. 190 (referring to Original Panel Report, paras. 7.755 and 7.757; Appellate Body Report, US – Large Civil Aircraft (2nd complaint), paras. 884 and 888-889).
547 United States' appellee's submission, para. 116.
programme ... if 'there has been a significant change in the structure of the economy and the importance of the subsidized activities in the economy over the life of the subsidy'”.

5.214. Having reversed the Panel's finding that the European Union failed to establish that the tax abatements provided through IRBs issued by the City of Wichita involve specific subsidies within the meaning of Articles 1 and 2 of the SCM Agreement, we do not consider it necessary to examine further the objectivity of the Panel's factual assessment in support of this finding.

5.4.2.4 Completion of the legal analysis

5.215. Having found that the Panel erred in its application of Article 2.1(c) of the SCM Agreement, we now turn to the European Union's request that we complete the legal analysis and find that the subsidies provided to Boeing under the IRB programme are specific, and, thus, that the United States has failed to withdraw these subsidies. The European Union considers that we can complete the analysis based on uncontested evidence on the record to the effect that between 1979 and 2012 Boeing and Spirit received 59% of the subsidy, which represents an allocation at variance from what would have been expected from the allocation of IRBs in accordance with their conditions of eligibility.

5.216. We note the European Communities' contention in the original proceedings that, in assessing whether a subsidy granted to certain enterprises is "disproportionately large", some information about Boeing, such as employment levels, should be compared to comparable information relating to the entire economy in the jurisdiction of the granting authority. By contrast, the United States argued that such information about Boeing should be compared to information about the group of recipients of the alleged subsidy. The original panel ultimately concluded that "there is a significant disparity between the proportion of IRBs received by Boeing and Spirit and their place within the goods sector of the economy, as indicated by the proportion of the sector they employ." On appeal, the Appellate Body disagreed with the approach taken by the original panel focusing on the share of manufacturing employment of Boeing and Spirit, and it agreed with the United States that "examining qualifying investments would have been a reasonable basis on which to show why the 69% figure does not indicate that IRB subsidies were granted in disproportionately large amounts." However, the United States had not provided evidence explaining why Boeing and Spirit had received over two thirds of the subsidy's benefits.

5.217. The reasoning provided by the Appellate Body in upholding the panel's finding in the original proceedings is instructive in the context of completion of the legal analysis in these compliance proceedings. We recall that, in order to determine whether certain enterprises "are grant(ed) disproportionately large amounts of subsidy" within the meaning of the second sentence of Article 2.1(c), two things should be assessed: (i) whether the granting of the subsidy indicates a disparity between the expected distribution of that subsidy, as determined by the conditions of eligibility, and its actual distribution, and (ii) what the reasons that might explain this disparity are, with a view to determining whether there has been a granting of disproportionately large amounts of subsidy to certain enterprises.

5.218. Above, we found that the Panel erred in its application of Article 2.1(c) in concluding that Boeing and Spirit's receipt of 32% of the total amount of IRBs issued since 2002 does not indicate a distribution of the subsidy that is at odds with what one would expect were the IRB programme to

548 United States' appellee's submission, para. 116 (quoting European Union's appellant's submission, fn 385 to para. 179, in turn quoting Original Panel Report, para. 7.757).
549 European Union's appellant's submission, para. 197.
550 European Union's appellant's submission, paras. 198 and 201.
551 Original Panel Report, para. 7.759.
552 Original Panel Report, para. 7.769. Boeing and Spirit received 69% of the IRBs that included tax abatements issued between 1979 and 2005, but Spirit, after it acquired Boeing's LCA operations in Wichita, accounted for 3.5% of total employment or 16% of manufacturing employment in Wichita. Furthermore, even though Boeing's employment levels during most of the period over which the IRBs were issued were double those of Spirit, the Panel considered that 32% of manufacturing employment was still disproportionate to a ratio of 69%. (Ibid.)
554 Appellate Body Report, US – Large Civil Aircraft (2nd complaint), paras. 886-887.
be administered in accordance with the conditions of eligibility for the subsidy. However, we also found that the Panel did not err in basing its assessment of disproportionality in these compliance proceedings on a time period shorter than the entire duration of the IRB subsidy programme. In completing the legal analysis, we can therefore rely on the same facts the Panel relied on in its assessment of disproportionality.

5.219. The first question before us is whether this allocation of the subsidy indicates a disparity between the expected distribution of that subsidy, as determined by the conditions of eligibility, and its actual distribution. In the original proceedings, the panel found that Boeing and Spirit had received 69% of all IRBs that included property tax abatements. The Appellate Body considered that a wide distribution of the benefits across various sectors of the Wichita economy is to be expected on the basis of the conditions of eligibility for IRBs.\(^556\) The Appellate Body reasoned that "(e)ven taking into account the fact that not all enterprises in Wichita would, at any given time, wish to enjoy the benefits of IRBs in respect of property development, we would nonetheless expect that the allocation of such benefits over the 25-year period between 1979 and 2005 would have produced a wider distribution of those benefits across different sectors of the Wichita economy."\(^557\)

5.220. Turning to the present compliance proceedings, we note that Boeing and Spirit received 32% of the total amount of IRBs issued from 2002 onwards. While the IRB programme is available to enterprises with the capacity to make the required investments in industrial and commercial property, and while the percentage of IRBs issued to Boeing and Spirit since 2002 is reduced from the original proceedings (69%), we have no specific information on record that would permit us to evaluate whether this actual distribution of the subsidy is at odds with its expected distribution in light of the conditions of eligibility. Specifically, while the receipt of 69% of all IRBs over the entire duration of the IRB subsidy clearly reflects an actual distribution that "deviates materially from the expected distribution of that subsidy"\(^558\) in light of its conditions of eligibility, the receipt of 32% of the subsidy in the relevant time period of these compliance proceedings may or may not represent such deviation, depending, \textit{inter alia}, on the diversification of Wichita’s economy.

5.221. Furthermore, even if we were to find the existence of a disparity, the second question before us would then be whether there are any reasons that explain the existence of that disparity between the actual and expected distributions of the subsidy. In the original proceedings, the Appellate Body explained that, in view of the conditions of eligibility for the IRB subsidy, examining qualifying investments would have been a reasonable basis on which to show why one company and its successor received over two thirds of the subsidy's benefits over a 25-year period.\(^559\) In this respect, however, there is no data on record as to the percentage of companies that funded, constructed, or improved industrial and/or commercial property within Wichita’s economy during the relevant period of time (i.e. those companies that actually made investments in such property and could potentially benefit from the IRB subsidy), or to the diversification of Wichita’s economy, namely the qualifying investments of the companies that made investments in industrial and commercial property, and what percentage of those investments came from companies that focused on aircraft production.

5.222. In light of the above and in the absence of sufficient factual findings by the Panel or undisputed facts on the Panel record, we are unable to complete the legal analysis in relation to the European Union’s claim that the Panel erred in its application of Article 2.1(c) of the SCM Agreement.

\textbf{5.4.2.5 Conclusion}

5.223. In sum, the length of time during which the subsidy programme has been in operation must be taken into account by panels in their assessment of specificity under Article 2.1(c) of the SCM Agreement. However, it does not follow from this that the entire period during which the programme has been in operation has necessarily to be chosen as the relevant time period in determining whether, under the second sentence of this provision, disproportionately large amounts of subsidy have been granted to certain enterprises.

\(^{556}\) Appellate Body Report, \textit{US – Large Civil Aircraft (2\textsuperscript{nd} complaint)}, para. 883.
\(^{557}\) Appellate Body Report, \textit{US – Large Civil Aircraft (2\textsuperscript{nd} complaint)}, para. 884.
\(^{558}\) Appellate Body Report, \textit{US – Large Civil Aircraft (2\textsuperscript{nd} complaint)}, para. 883.
\(^{559}\) See Appellate Body Report, \textit{US – Large Civil Aircraft (2\textsuperscript{nd} complaint)}, para. 887.
5.224. We therefore find that the Panel did not err in its interpretation of Article 2.1(c) of the SCM Agreement in concluding that, in the specific circumstances of this case, the relevant time period over which to consider disproportionality was as from the end of the implementation period.

5.225. With respect to the Panel's application of Article 2.1(c) of the SCM Agreement, we find that the Panel erred in finding that no disparity existed between the expected and actual distribution of the subsidy.

5.226. We therefore reverse the Panel's finding, in paragraphs 8.640 and 11.7.c.iii of the Panel Report, that the European Union has failed to establish that the tax abatements provided through IRBs issued by the City of Wichita involve specific subsidies within the meaning of Articles 1 and 2 of the SCM Agreement. We also find that there are insufficient factual findings by the Panel or undisputed facts on the Panel record for us to complete the legal analysis in this respect. Having reversed the Panel's finding, we do not consider it necessary to address whether, in addition, the Panel acted inconsistently with Article 11 of the DSU.

5.4.3 The Panel's findings concerning economic development bonds

5.227. The European Union claims that the Panel erred in the interpretation of the terms "limited number", "certain enterprises", and "predominant" in the second sentence of Article 2.1(c) of the SCM Agreement. The European Union further submits that the Panel erred in the application of Article 2.1(c), by including EDBs issued to public entities in its evaluation of whether the EDBs were used by a "limited number of certain enterprises". Finally, the European Union alleges that the Panel failed to make an objective assessment under Article 11 of the DSU of the factors in the third sentence of Article 2.1(c). The United States submits that the Panel's specificity findings relating to EDBs were based on a correct interpretation and application of Article 2 of the SCM Agreement and on an objective assessment of the evidence, consistent with Article 11 of the DSU.

5.228. We begin by noting that, before the Panel, the European Union alleged that several South Carolina state and local measures in connection with the production and assembly of 787s in North Charleston are specific subsidies to Boeing. These measures were adopted pursuant to Project Gemini and Project Emerald. In particular, with regard to Project Gemini, the European Union challenged the:

Provision of facilities and infrastructure at the Charleston International Airport site, as provided for in the Project Gemini Agreement between Boeing and the State of South Carolina, dated 1 January 2010, funded through state general obligation bonds issued pursuant to Title 11, Chapter 41 of the S.C. Code, as amended by Section 5 of H3130, Act No. 124, 2009 S.C. Acts 1092 (H3130), and S.C. Code § 55-11-520, at no cost to Boeing.

5.229. As a matter of background, when Boeing considered potential locations for its second 787 final assembly and delivery line, South Carolina legislators proposed an incentive package that included US$170 million in government bonds, the elimination of Boeing's state corporate income taxes, and sales tax exemptions for computers, fuel for test flights, and construction materials and equipment. On 28 October 2009, Boeing announced that it had decided to locate the second 787 assembly line (the Project Gemini facilities and infrastructure) at the same site as its recently acquired North Charleston 787 fuselage fabrication and integration complex (the Project Emerald facilities and infrastructure). Also on 28 October 2009, the South Carolina General Assembly passed an act that was signed into law on 30 October 2009 (H3130), which amended several South Carolina laws in order to: (i) authorize the issuance of additional general EDBs up to US$170 million aggregate principal amount; (ii) authorize an agreement to apportion the income of taxpayers either planning a new facility in the state, or expanding an existing facility, conditional on the taxpayer investing at least US$750 million in a single county and creating at least 3,800 new full-time jobs in the county;

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560 European Union's appellant's submission, para. 224.
561 European Union's appellant's submission, para. 224.
562 European Union's appellant's submission, para. 224.
563 United States' appellee's submission, para. 9.
565 Panel Report, para. 8.708 (referring to A. Shain, "S.C. traveled a long road to land Boeing", Charlotte Observer, Charlotte, NC, 1 November 2009 (Panel Exhibit EU-9)).
and (iii) exempt from sales and use tax aircraft fuel, computer equipment, and construction materials
where the taxpayer invests at least US$750 million in a single county and creates at least 3,800 new
full-time jobs in the county.566

5.230. Under the Project Gemini Agreement, dated 1 January 2010, South Carolina committed to
issue a total of US$220 million in state EDBs to offset the costs of infrastructure associated with the
project and a total of US$50 million in air hub bonds to offset the costs associated with air carrier
hub terminal facilities that Boeing agreed to operate in support of the project.567 In return, Boeing
agreed to make a new investment in real and personal property of US$750 million (the minimum
investment requirement) and to employ 6,000 employees in the state (the minimum job
requirement) within a specified period. If those requirements are not met during the applicable time
period, Boeing will be obligated to reimburse the State of South Carolina.568 The Project Gemini
Agreement procedures provided that Boeing enter into contracts to construct infrastructure and
facilities, pay the invoices, and then submit the invoices to South Carolina for reimbursement.569

5.231. The Panel found that the payments made by South Carolina to Boeing pursuant to the
Project Gemini Agreement involve a financial contribution and confer a benefit.570 In the context of
specificity, the Panel considered that the European Union had not offered sufficient reasoning to
establish that the Project Gemini incentive package is explicitly limited to certain enterprises within
the meaning of Article 2.1(a) of the SCM Agreement.571 The European Union further argued that the
transfer of bond proceeds is specific within the meaning of Article 2.1(c) on the grounds that it had
been used only by a limited number of enterprises and that Boeing and its suppliers had been the
predominant users of the subsidy.572

5.232. With regard to the factor "limited number of certain enterprises" in Article 2.1(c) of the
SCM Agreement, the Panel noted that the evidence before it indicated that since the adoption of
South Carolina legislation authorizing the issuance of EDBs in 2002, South Carolina had issued such
bonds for BMW (in 2003 in the amount of up to US$105 million)573, the Project Emerald companies
(in 2004 in the amount of up to US$160 million), and Boeing (in 2010 in the amount of up to
US$220 million).574 In addition, EDBs had been issued to three public entities in 2005, namely, the
City of Greenville, the City of Myrtle Beach, and Trident Technical College, in the amount of up to
US$7 million each.575 The Panel found that the European Union had provided "no reasoning as to
why, in light of the level of diversification in the South Carolina economy and the duration of the
economic development bond scheme, the grant of economic development bond proceeds to BMW,
the Project Emerald companies and Boeing amounts to use by a limited number of enterprises".576

5.233. With respect to the factor of "predominant use by certain enterprises" in Article 2.1(c), the
Panel noted the original panel's finding that predominant use "requires consideration of whether the

566 Panel Report, para. 8.709 (referring to Act No. 124 (H3130) (30 October 2009), South Carolina Code
(Panels Exhibit EU-466)).
567 Panel Report, para. 8.765 (referring to Project Gemini Agreement between The Boeing Company and
the State of South Carolina (1 January 2010) (Project Gemini Agreement) (Panels Exhibit EU-467),
Articles II(A) and II(B), p. 3).
568 Project Gemini Agreement (Panel Exhibit EU-467), Article II, p. 3. See also Panel Report,
para. 8.688.
569 Panel Report, para. 8.766.
570 Panel Report, paras. 8.813 and 8.823.
571 Panel Report, para. 8.835.
572 Panel Report, para. 8.837 (referring to European Union's first written submission to the Panel,
para. 505; second written submission to the Panel, para. 639).
573 Panel Report, para. 8.838 (referring to United States' response to the Panel's request for information
pursuant to Article 13 of the DSU, dated 28 February 2013, response to Panel question No. 67, para. 150;
Letter dated 23 July 2012 from the South Carolina State Budget and Control Board regarding a Freedom of
Information Act Request (Panel Exhibit EU-490), p. 1; Letter dated 31 July 2012 from the South Carolina State
Budget and Control Board regarding a Freedom of Information Act Request Supplement (Panel Exhibit
EU-491)).
574 Panel Report, para. 8.838 (referring to Letter dated 23 July 2012 from the South Carolina State
See also Panel Report, para. 8.766.
575 Panel Report, para. 8.838 (referring to Letter dated 23 July 2012 from the South Carolina State
subsidy programme in issue is mainly or most frequently used by 'certain enterprises'. The Panel then noted the European Union's argument that Boeing and its suppliers have been the predominant users of the subsidy, benefiting from US$390 million of a total US$495 million in EDBs and air hub bonds, or 79% of the bonds by value. However, the Panel considered that this information did not show that the EDB scheme had mainly or most frequently been used by certain enterprises. Whereas the information could be relevant to an argument that a disproportionately large amount of subsidy had been granted to certain enterprises, the European Union had not made this argument. Therefore, the Panel could not take the information into account without confounding the factor "predominant use by certain enterprises" with the factor "the granting of disproportionately large amounts of subsidy to certain enterprises".

5.234. Furthermore, the Panel rejected the European Union's contention that the specificity analysis under Article 2.1(c) should not include EDBs issued for public entities, such as cities or public colleges, because specificity must be assessed with respect to enterprises and industries. For the Panel, the fact that EDBs have been issued to public entities, namely two cities and a public college, in addition to private entities, suggested that the scheme was not limited to "certain enterprises" within the meaning of Article 2.1(c). Ultimately, the Panel concluded that the European Union failed to establish that the subsidy provided by South Carolina through EDB proceeds to compensate Boeing for part of the cost of constructing the Project Gemini facilities is specific within the meaning of Article 2.1 of the SCM Agreement.

5.4.3.1 Whether the Panel erred in its interpretation of the term "limited number" in Article 2.1(c) of the SCM Agreement

5.235. The European Union alleges that the Panel erred in its interpretation of the phrase "limited number of certain enterprises" in Article 2.1(c) of the SCM Agreement, insofar as the Panel's interpretation precluded the possibility that a group of three enterprises would constitute a "limited number". According to European Union, the Panel's finding that air hub bonds were used by a "limited number of certain enterprises" because they were granted to only one enterprise, Boeing, while EDBs, which were granted to only three enterprises, were not so "limited" reflects an interpretation of "limited number" to mean "one" or, at least, "fewer than three".

5.236. The United States responds that the Panel did not find that the terms "limited number" could never refer to three, but instead found that, in the circumstances of this case, the European Union had failed to explain why the grant of the subsidy to three particular companies showed that the subsidy was de facto specific.

5.237. Above, we observed that the term "limited number" in the first factor of Article 2.1(c), second sentence, suggests an inquiry into whether the enterprises or industries so particularized constitute a quantitatively limited group. Furthermore, the concept of "limitation" in subparagraph (c), as opposed to in subparagraphs (a) and (b), directs the inquiry specifically towards whether the users of the subsidy programme are small or restricted in number. For the reasons explained above, what constitutes a quantitatively limited group of enterprises must be determined on a case-by-case basis, taking into account the particular characteristics of the subsidy programme and the prevailing circumstances of the case; such an analysis also has to take account of the factors in the third sentence of Article 2.1(c), namely, "the extent of diversification of economic activities within the jurisdiction of the granting authority, as well as of the length of time during which the subsidy programme has been in operation".

5.238. Turning to the facts of the present case, we note the European Union's contention that the Panel's reasoning in the context of its analysis of the EDBs and air hub bonds under Article 2.1(c) reflects an implicit interpretation of the terms "limited number" as meaning "one" – or, at least,
fewer than three. We further note that, according to the Panel, the evidence before it indicated that, since the adoption of its legislation authorizing the issuance of EDBs in 2002, South Carolina had issued EDBs for BMW, the Project Emerald companies, and Boeing. In addition, EDBs have been issued to certain public entities, namely the City of Greenville, the City of Myrtle Beach, and Trident Technical College. The Panel took the view that the European Union "failed to establish that the transfer of funds to Boeing through economic development bond proceeds is specific within the meaning of Article 2.1(c) because it is used by a limited number of certain enterprises". In particular, the Panel found that the European Union provided "no reasoning as to why, in light of the level of diversification in the South Carolina economy and the duration of the economic development bond scheme, the grant of economic development bond proceeds to BMW, the Project Emerald companies and Boeing amounts to use by a limited number of enterprises".

5.239. In the context of its analysis under Article 2.1(a) of the SCM Agreement, the Panel considered that whether the subsidy is specific should be determined on the basis of the text of the relevant legislative framework relating to the issuance of EDBs, rather than, as the European Union argued, based on the individual resolutions adopted by South Carolina authorizing the issuance of the EDBs. In this regard, Section 11-41-40 of the South Carolina Code provides that EDBs can be used to fund financing for infrastructure. In order for EDBs to be issued, the South Carolina Department of Commerce must notify the Joint Bond Review Committee and the State Budget and Control Board that the related infrastructure project meets certain requirements, including a minimum investment and contribution to employment. In this context, "economic development project" is defined as "a project in this State as defined in Section 12-44-30(16) in which a total of at least $400 million is invested in the project by the sponsor and at least 400 new jobs are created at the project by the sponsor".

5.240. As noted above, the meaning of a quantitatively limited group should be determined, inter alia, in light of the factors in Article 2.1(c), third sentence, that require panels to take account of "the extent of diversification of economic activities within the jurisdiction of the granting authority, as well as of the length of time during which the subsidy programme has been in operation". While the import of these factors in any given case would depend on the particular circumstances at issue, they constitute important considerations that have to form part of a panel's assessment of specificity, together with any other pertinent factors. Therefore, to the extent that the two factors in the third sentence of Article 2.1(c) form part of the legal test under that provision, it would be for the European Union to provide evidence in making a prima facie case. Moreover, we observed that

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585 European Union's appellant's submission, para. 226.
589 Panel Report, para. 8.830.
590 Panel Report, para. 8.832. "Financing for infrastructure" includes land acquisition, site preparation, road and highway improvements, water service, wastewater treatment, employee training, environmental mitigation, training and research facilities, and building associated with an air hub facility or located on government land. (Ibid., fn 1943 to para. 8.685)
591 Panel Report, fn 1943 to para. 8.685. After approval by the Joint Bond Review Committee, the State Budget and Control Board adopts a resolution issuing the bonds. EDBs are backed by the full faith, credit, and taxing power of the State of South Carolina. The monetary value of EDBs that the State may issue depends on the provision under which the State issues the bonds. (Panel Report, fn 1943 to para. 8.685)
592 Panel Report, para. 8.832 (quoting State General Obligation Economic Development Bond Act, South Carolina Code, Title 11, Chapter 41 (Panel Exhibit EU-477), Section 11-41-30). The South Carolina General Assembly Act No. 124 (H3130) of 30 October 2009 amended several South Carolina laws and, in particular, provided for the authorization to issue additional general obligation EDBs in an aggregate principal amount that does not exceed $170 million. (Ibid., para. 8.685) Thereafter, on 1 January 2010, Boeing and South Carolina concluded the Project Gemini Agreement, under which South Carolina committed to issue, inter alia, a total of US$220 million in state EDBs to offset the costs of infrastructure associated with Project Gemini. Boeing in return committed to "attain the Minimum Job requirement and the Minimum Investment requirement". (Ibid., para. 8.765 (quoting Project Gemini Agreement (Panel Exhibit EU-467), Article II, p. 3))
where a panel's assessment proceeds from Article 2.1(a) and (b) to Article 2.1(c), the panel's
analysis under subparagraph (c) would normally build upon the relevant legislative framework
examined under Article 2.1(a) and (b).

5.241. In the present case, based on the *de jure* conditions of eligibility for the subsidy, namely the
relevant provisions of the South Carolina Code, EDBs may be issued only to companies complying
with the minimum investment and employment requirements. That means that companies eligible
to receive EDBs are those prepared to invest at least US$400 million in an economic development
project and create at least 400 new jobs.594 We observe that the eligibility requirements under the
subsidy programme appear to be onerous. With respect to the legislation setting out these
requirements, the Panel found that "{t}here is no provision in South Carolina law limiting access for
funds raised through economic development bonds ... to certain enterprises", and "none of the
individual pieces of legislation pursuant to which the bonds are issued limit access to certain
enterprises."595 In these circumstances, the question before the Panel under Article 2.1(c) was
whether, notwithstanding the appearance of non-specificity resulting from the application of the
principles in Article 2.1(a), there were reasons to believe that the subsidy may in fact be specific by
virtue of the subsidy programme being used by a limited number of certain enterprises. In these
circumstances, it was for the European Union to provide evidence demonstrating that the actual
allocation of the subsidy differs from an allocation that would have been expected if the subsidy
were administered in accordance with its conditions of eligibility, as well as in light of the
diversification of South Carolina's economy and the length of time during which the subsidy was in
operation.

5.242. The Panel did not elaborate on the reasons for rejecting the European Union's claim that the
EDB subsidy had been used by a limited number of certain enterprises. In particular, the Panel
did not explicitly set out its understanding of the term "limited number" in Article 2.1(c). However, we
also do not see that the European Union gave specific reasons in support of its argument. In its
written submissions before the Panel, in the context of Article 2.1(c), the European Union argued
that "{t}his form of subsidy has been utilized by only a limited number of enterprises", insofar as
"{o}ther than Boeing, economic development bonds have been issued to support projects by private
firms on only two occasions: 1) in 2003 for a new BMW manufacturing facility ($105 million), and
2) in 2004 for Project Emerald ($120 million)."596 The United States, by contrast, submits that:

BMW, the Project Emerald companies, and Boeing are among the largest employers in
the State of South Carolina. As of early 2008, BMW employed 5,400 full-time
equivalents in South Carolina. The Project Emerald companies committed to invest
$450 million in Project Emerald and employ 745 people in South Carolina. In addition,
Boeing was the largest employer in South Carolina, with 6,000 employees and Boeing
had invested a total of [BCI] in infrastructure in the state.597

5.243. In light of these arguments, the Panel's conclusion reflects an understanding that the
granting of the subsidy to only three companies does not necessarily demonstrate that the subsidy
was used by a "limited number" of certain enterprises within the meaning of the first factor in
Article 2.1(c), second sentence. First, we note that the recipients of the subsidy are not all from the
same sector of the economy. Furthermore, there are no indications that, in light of the eligibility
requirements under the subsidy scheme and the diversification of economic activities within
South Carolina or the length of time during which the subsidy has been in operation, the actual
allocation of the subsidy differed from its expected allocation. The European Union did not argue,
for instance, that other enterprises within South Carolina's economy could have potentially met the

594 Panel Report, para. 8.832.
595 Panel Report, para. 8.831 (referring to United States' first written submission to the Panel,
para. 626).
596 European Union’s first written submission to the Panel, para. 585. (fns omitted) In its second written
submission to the Panel, the European Union simply referred back to this reasoning. (See European Union's
second written submission to the Panel, para. 770)
597 United States' appellee's submission, para. 122 (referring to Project Emerald Confidential Site
Paulo Guimarães, BMW in South Carolina: The Economic Impact of a Leading Sustainable Enterprise
(September 2008) (Panel Exhibit USA-188), pp. 2 and 9-10; Boeing Investment in South Carolina
(2010-3Q2012) (Panel Exhibit USA-324) (BCI); Charleston S.C. MSA Largest Manufacturing Employers,
Charleston Regional Development Alliance (February 2013) (Panel Exhibit USA-335)). (fns omitted) See also
United States' first written submission to the Panel, para. 632.
requirements to receive EDBs but were not granted the subsidy during the ten years of operation of the subsidy programme. It may well be that, depending on the diversification of South Carolina’s economy, only a small number of companies were ready to make the necessary investments and create the required number of jobs, and therefore be able to satisfy the legal conditions for access to the EDB subsidy. Thus, given the specific de jure conditions of eligibility under the EDB scheme, the small number of enterprises to which EDBs were issued between 2002 and 2012 would not necessarily reflect “use of a subsidy programme by a limited number of certain enterprises” within the meaning of Article 2.1(c). The European Union has also not demonstrated that other enterprises, outside South Carolina’s economy, have applied for the subsidy but have not been considered eligible, or that there are other reasons to believe that the actual allocation of the subsidy renders it de facto specific.

5.244. Therefore, as we understand it, in stating that “{t}he European Union provides no reasoning as to why, in light of the level of diversification in the South Carolina economy and the duration of the economic development bond scheme, the grant of economic development bond proceeds to BMW, the Project Emerald companies and Boeing amounts to use by a limited number of enterprises”\textsuperscript{598}, the Panel has not implicitly interpreted the term “limited number” as “one” or “fewer than three”.\textsuperscript{599} Rather, we understand the Panel to have considered that the European Union has not met its burden of proof in demonstrating that, in the circumstances of the present case, the EDB subsidy has been used by a limited number of certain enterprises within the meaning of the first factor in Article 2.1(c), second sentence.

5.245. The European Union also argues that it presented evidence on EDBs and air hub bonds jointly, but the Panel found fault with its reasoning on why the bonds were used by a limited number of certain enterprises, in light of the diversification of South Carolina’s economy and the duration of the bond scheme, only in the context of EDBs. According to the European Union, “{t}his suggests that the motivating factor behind the Panel’s decision was the fact that three enterprises received EDBs, whereas only one enterprise received air hub bonds.”\textsuperscript{600}

5.246. The Panel found that the European Union established that the grant of air hub bond proceeds to Boeing is specific within the meaning of Article 2.1(c), in the sense that the use of the subsidy programme is limited to certain enterprises. The Panel’s reasoning was based on the undisputed fact that “air hub bonds have only been issued to Boeing during the almost three-decade long existence of the scheme”, which was “unsurprising since the evidence before the Panel suggests that only Boeing meets the requirements to benefit from air hub bond proceeds, namely to be the operator of an ‘air carrier hub terminal facility’ as defined in the South Carolina Code”.\textsuperscript{601}

5.247. As we see it, the Panel's finding with regard to the air hub bonds was not based simply on the fact that these bonds were granted only to Boeing. Instead, it was made in light of the specific language in the South Carolina Code that appeared, de facto, to restrict the eligibility for those bonds to an enterprise with Boeing's specific profile. We do not consider that the Panel's reasoning in this context translates into an implicit interpretation of “limited number of certain enterprises” as “just one (or two) enterprise(s)”, as alleged by the European Union.\textsuperscript{602} Instead, in our view, the statements that the Panel made in applying the law to the facts of the present case do not suggest that the Panel considered that three or more enterprises could not constitute a “limited number” within the meaning of Article 2.1(c).

5.248. In view of the above, we find that the Panel did not err in its interpretation of the phrase “limited number of certain enterprises” in Article 2.1(c) of the SCM Agreement by implicitly interpreting the term “limited number” as referring to “one” or “fewer than three” entities.
5.4.3.2 Whether the Panel erred in its interpretation and application of the term "certain enterprises" in Article 2.1(c) of the SCM Agreement

5.249. The European Union further argues that the Panel erred in interpreting the term "certain enterprises" in Article 2.1(c) of the SCM Agreement as encompassing public entities, such as cities and public colleges. The European Union asserts that the Appellate Body Report in US – Washing Machines stands for the proposition that the term "certain enterprises" encompasses only private entities, i.e. business firms or companies involved in commercial transactions and engagements. Since public entities do not qualify as "certain enterprises", they should be omitted from the specificity analysis. Moreover, the European Union alleges that issuance of funds within the government or between different levels of government should not be considered a financial contribution, to the extent that Article 1.1(a)(1), by its text, concerns "a financial contribution by a government or any public body", not a financial contribution to a government. Furthermore, since subparagraphs (a)-(c) of Article 14 of the SCM Agreement indicate that a recipient of a subsidy is understood to be a non-governmental entity, a government cannot be the recipient of a benefit either. The European Union also submits that the Panel erred in its application of Article 2.1(c) by including in its specificity analysis EDBs provided to public entities, such as cities and public colleges, which are not "enterprises" within the meaning of Article 2.1.

5.250. The United States disagrees with the European Union that the Panel found public entities that received the subsidy at issue to be "enterprises". Rather, according to the United States, the Panel found that the receipt of the subsidy by three public entities "suggests that the scheme is not limited to 'certain enterprises' within the meaning of Article 2.1(c)". The United States thus contends that if a subsidy is granted to entities that are not "certain enterprises" as defined in the chapeau to Article 2.1 – regardless of whether those entities are themselves enterprises – this weighs against a finding of de facto specificity. In the United States' view, the European Union fails to address this point.

5.251. As noted above, the term "enterprises" in the first factor of Article 2.1(c), second sentence, refers to a single enterprise or industry or a class of enterprises or industries that are known and particularized. Whereas "enterprise" can be defined as "{a} business firm, a company" or an "activity undertaken with an economic or commercial end in view" or "industry" signifies "{a} particular form or branch of productive labour; a trade, a manufacture", In any event, the concept of "certain enterprises" involves a certain amount of indeterminacy at the edges, and any determination of whether a number of enterprises or industries constitute "certain enterprises" has to be made on a case-by-case basis.

5.252. The European Union's appeal raises the question of how to define the contours of "enterprises" in the sense of Article 2.1(c). In our view, read together, the above definitions indicate that the term "enterprise" in Article 2.1 can be interpreted as an entity that engages in certain activities of a business or commercial nature. The term "enterprise" thus refers to an entity that conducts certain economic activities in the market. The reference to "an enterprise or industry or group of enterprises or industries" also suggests that the terms of the provision relate primarily to the type of activity carried out by the entity and do not necessarily limit the scope of entities based on whether they are publicly or privately owned. The understanding that ownership is not dispositive of the definition of "enterprise" finds support also in the third sentence of Article 2.1(c), which requires that account be taken of "the extent of diversification of economic activities within the

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603 European Union’s appellant’s submission, para. 236.
604 European Union’s appellant’s submission, para. 237.
605 European Union’s appellant’s submission, para. 238. (emphasis added by the European Union)
606 European Union’s appellant’s submission, para. 238.
607 European Union’s appellant’s submission, para. 250.
608 United States' appellee's submission, para. 131 (quoting Panel Report, para. 8.841).
609 United States' appellee's submission, para. 131.
jurisdiction of the granting authority”\(^\text{612}\), thereby confirming the focus of Article 2.1 on activities that are economic in nature.

5.253. Turning to the relevant context for the interpretation of the term "enterprise" in Article 2.1, we note that Article 1 sets out the definition of a subsidy for purposes of the SCM Agreement. According to the _chapeau_ of Article 2.1, the analysis of specificity must relate to the measure that has been determined to constitute a subsidy under Article 1.1 in terms of financial contribution and benefit.\(^\text{613}\) However, Article 1.1(a)(1) describes the types of financial contributions by reference to the specific governmental action of _granting_ the subsidy, and not the nature or activities of the entity _receiving_ the contributions. Thus, in defining the circumstances in which "a subsidy shall be deemed to exist", Article 1.1 does not specifically address the scope of recipients of these financial contributions.

5.254. In light of the above, we consider that the determination of whether a number of enterprises or industries constitute "certain enterprises" within the meaning of Article 2.1(c) should be made in light of all relevant characteristics of the entities concerned, including the nature and purpose of their activities in the markets in question and the context in which these activities are exercised. The ownership of the entity may be a relevant factor but is not determinative of whether an entity qualifies as an "enterprise" for purposes of Article 2. The organization of the Member's national economy and the classification of these activities in its legal order may also constitute relevant considerations in determining whether the activities examined are of economic character.

5.255. Turning to the Panel's analysis of the term "certain enterprises", we recall that, since the adoption of South Carolina legislation authorizing the issuance of EDBs in 2002, such bonds have been issued to BMW, the Project Emerald companies, and Boeing, as well as to certain public entities, namely the City of Greenville, the City of Myrtle Beach, and Trident Technical College.\(^\text{614}\) Before the Panel, the European Union took the view that the subsidy provided by South Carolina through EDBs for the funding of Project Gemini facilities and infrastructure is _de facto_ specific because it has been used only by a limited number of enterprises, and Boeing and its suppliers have been the predominant users.\(^\text{615}\) In this regard, the European Union argued that because specificity is assessed with respect to enterprises and industries, the European Union does not include EDBs issued for public entities, such as cities or public colleges.\(^\text{616}\)

5.256. In its analysis, the Panel referred to the European Union's contention regarding the relevance of the three public entities at issue to the Panel's specificity analysis, and considered that "precisely the fact that economic development bonds can be and have been issued to public entities, namely two cities and a public college, in addition to private entities, suggests that the scheme is not limited to 'certain enterprises' within the meaning of Article 2.1(c)."\(^\text{617}\) It is not entirely clear what the Panel meant when making this statement. On the one hand, the fact that a subsidy has been granted to both public and private entities may be potentially relevant to an assessment of _de facto_ specificity, to the extent that all of these entities are "certain enterprises" in the sense of that provision. On the other hand, however, in making this statement, the Panel refrained from making an assessment and reaching a conclusion as to whether the three public entities at issue should be considered as "enterprises", but nevertheless considered these entities relevant to its analysis of _de facto_ specificity.

5.257. We have noted above that an "enterprise" within the meaning of Article 2.1 is an entity that engages in certain economic activities. Whether this is the case should be analysed on a case-by-case basis by reference to all relevant characteristics of the entity, including its nature and operation in the markets in question. The European Union's contention implies that, by its very nature, a public entity cannot be considered as an "enterprise" under Article 2.1(c). We disagree with this proposition. As we have explained above, the ownership of an entity is not a decisive

\(^{612}\) Emphasis added.

\(^{613}\) Appellate Body Report, _US – Large Civil Aircraft (2nd complaint)_ , para. 747. See also Appellate Body Report, _US – Countervailing Measures (China)_ , para. 4.140.

\(^{614}\) Panel Report, para. 8.838.

\(^{615}\) Panel Report, para. 8.782 (referring to European Union's first written submission to the Panel, paras. 706–708).

\(^{616}\) Panel Report, para. 8.841 (quoting European Union's second written submission to the Panel, fn 1064 to para. 642, in turn referring to first written submission to the Panel, para. 585).

\(^{617}\) Panel Report, para. 8.841.
criterion in determining whether the entity constitutes an "enterprise". At the same time, we note that the Panel provided no analysis with regard to the features of the entities at issue and the types of activities they engage in. Thus, the Panel's analysis suggests that the Panel took into account the three public entities in its analysis of specificity under Article 2.1(c) without having established that they constitute "certain enterprises" within the meaning of Article 2.1.

5.258. We disagree with this approach. The *chapeau* of Article 2.1 explicitly directs panels to assess whether a subsidy is "specific to an enterprise or industry or group of enterprises or industries (referred to in {the SCM} Agreement as 'certain enterprises')". The notion of specificity within the meaning of the SCM Agreement therefore encompasses the universe of entities that constitute "certain enterprises", as determined in light of the principles in subparagraphs (a) through (c) of Article 2.1. We do not see the pertinence of subsidy recipients that fall outside the definition of an "enterprise" for a panel's determination of whether a subsidy is specific to "certain enterprises".

5.259. It follows that, if a subsidy is found to be specific "to an enterprise or industry or group of enterprises or industries", the fact that this subsidy has also been granted to certain other entities that do not fall within the definition of an "enterprise" has no bearing on the finding of specificity that has to be made with regard to the group of "enterprises". We recall, in this regard, the Appellate Body's statement in the context of Article 2.1(a) that "(w)here access to certain funding under a subsidy programme is explicitly limited to a grouping of enterprises or industries that qualify as 'certain enterprises', this ... leads to a provisional indication of specificity ..., irrespective of how other funding under that programme is distributed." Similarly, if funding under the same subsidy programme is granted to certain enterprises, as well as to other entities that do not constitute "enterprises" within the meaning of Article 2, the specificity of the subsidy programme should be assessed only by reference to those entities that constitute "enterprises".

5.260. At the same time, the Panel also concluded, with respect to the factor "use of a subsidy programme by a limited number of certain enterprises", that "(t)he European Union provides no reasoning as to why, in light of the level of diversification in the South Carolina economy and the duration of the economic development bond scheme, the grant of economic development bond proceeds to BMW, the Project Emerald companies and Boeing amounts to use by a limited number of enterprises." We note that the Panel reached its conclusion before making its statement as to the relevance of "public entities" in the assessment of de facto specificity. Similarly, before making the statement in question, the Panel had already rejected the relevance of the European Union's evidence for establishing "predominant use by certain enterprises" and had found that "(t)he European Union makes no other arguments why, in light of the diversification of the South Carolina economy and the duration of the economic development bond scheme, economic development bond proceeds have been mainly or most frequently used by certain enterprises." Therefore, we do not think that the Panel's rejection of the European Union's claims that the EDB subsidy is specific within the meaning of Article 2.1(c) hinges upon its statement relating to the relevance of the three public entities in its analysis of de facto specificity. Thus, the Panel's error in its analysis relating to the relevance of subsidies provided to the City of Greenville, the City of Myrtle Beach, and Trident Technical College in the assessment of specificity does not invalidate the Panel's ultimate finding that the European Union failed to establish that the subsidy provided by South Carolina through EDBs is specific within the meaning of Article 2.1(c).

5.4.3.3 Whether the Panel erred in its interpretation of the term "predominant use" in Article 2.1(c) of the SCM Agreement

5.261. The European Union argues that the Panel erred in interpreting the term "predominant" in the factor "predominant use by certain enterprises" in the second sentence of Article 2.1(c) of the SCM Agreement as involving a concept entirely different from the term "disproportionate{}" in the factor "disproportionately large amounts of subsidy to certain enterprises". In the European Union's view, based on this erroneous distinction, the Panel rejected the European Union's evidence as inadequate or irrelevant for determining the existence of "predominant use". The United States...
considers that the Panel merely explained "why it was not addressing whether the subsidy was de facto specific because of 'the granting of disproportionately large amounts of subsidy to certain enterprises'" and "did not state that 'predominant use' and 'the granting of disproportionately large amounts' cannot rely on overlapping evidence".623

5.262. We observed above that the term "predominant" in the factor "predominant use by certain enterprises" in Article 2.1(c), second sentence, may relate to the number of certain enterprises using the subsidy, the amounts of subsidy used by certain enterprises, or the incidence with which certain enterprises use that subsidy. However, given the focus of the other factors of the second sentence ("use of a subsidy programme by a limited number of certain enterprises" and "the granting of disproportionately large amounts of subsidy to certain enterprises"), this term is to be interpreted as relating primarily to the incidence or frequency with which the subsidy is used by certain enterprises.

5.263. At the same time, the different focus of the various factors listed in Article 2.1(c), second sentence, does not imply that the analyses under those factors have to rely on completely distinct sets of evidence. This is because whether a subsidy programme is mainly, or for the most part, used by "certain enterprises" is necessarily a question that should be answered on a case-by-case basis, taking into account the particular characteristics of the subsidy programme at issue and the prevailing circumstances of the case, and in light of the factors in the third sentence of Article 2.1(c). Furthermore, the Appellate Body has highlighted that determining which factors in Article 2.1(c) will be relevant to the analysis of specificity is "a function of what reasons there are to believe that the subsidy may in fact be specific", and panels should "remain open to the applicability of each of the elements set out in Article 2.1(c), and to the possibility that a conclusion in respect of specificity in fact may, depending on the circumstances of the case, rely on an assessment of one, several, or all of those elements".624 Ultimately, the aim is to determine whether, notwithstanding any appearance of non-specificity resulting from the application of subparagraphs (a) and (b), the evidence of actual allocation or use of the subsidy provides sufficient assurance as to the existence of specificity.625

5.264. With respect to the European Union's evidence presented in relation to the factor "predominant use", the Panel noted the original panel's reasoning that predominant use "requires consideration of whether the subsidy programme in issue is mainly or most frequently used by 'certain enterprises', taking into account the extent of diversification of economic activities within the jurisdiction of the granting authority and the length of time during which the subsidy programme has been in operation.626 Having noted the European Union's argument that Boeing and its suppliers (the Project Emerald companies) have been the predominant users of the subsidy, benefiting from US$390 million out of a total of US$495 million in EDBs and air hub bonds, or 79% of the bonds by value, the Panel "did not consider this information to show that the economic development bond scheme has mainly or most frequently been used by certain enterprises".627 The Panel reasoned that:

While this information could be relevant to an argument that a disproportionately large amount of subsidy has been granted to certain enterprises, this is not an argument that the European Union makes. To find otherwise would be to confound predominant use by certain enterprises …, and the granting of disproportionately large amounts of subsidy to certain enterprises ….628

5.265. We note that, beyond quoting the original panel's observations about "predominant use", the Panel did not develop its own understanding of the meaning of this term and what evidence might be relevant to establishing that the EDB scheme was mainly, or most frequently, used by certain enterprises in the present circumstances. In this regard, the European Union argues that "(t)here is nothing in Article 2.1(c), itself, or any other aspect of Article 2.1 indicating that evidence relevant to one of the 'factors' in Article 2.1(c) is exclusive to that factor, and irrelevant for

623 United States' appellee's submission, para. 132.
624 Appellate Body Report, US – Large Civil Aircraft (2nd complaint), para. 878. (emphasis added)
625 Appellate Body Report, US – Carbon Steel (India), para. 4.373.
628 Panel Report, para. 8.840. (fn omitted)
5.265. Considering the other 'factors', according to the European Union, given that the overall enquiry is the same, that is, to determine whether a subsidy is specific to certain enterprises, the factors listed in Article 2.1(c) are closely related, and evidence demonstrating one factor of Article 2.1(c) could also be relevant to other factors.

5.266. We agree with the European Union that there may be overlap in the evidence demonstrating the existence of "predominant use of a subsidy programme by certain enterprises" and the "disproportionately large amounts of subsidy to certain enterprises", depending on the nature, functioning, and actual distribution of the particular subsidy programme; other relevant factual circumstances; and the assessment of the factors in the third sentence of Article 2.1(c). Evidence about the number of enterprises receiving a subsidy, the amounts received by certain enterprises, and the frequency with which the subsidy has been received by those enterprises may therefore be complementary and, depending on the circumstances of the case, point to the existence of de facto specificity based on one or another factor under Article 2.1(c), second sentence. Thus, evidence on the percentage of bonds by value used by certain enterprises may be potentially relevant to showing the existence of predominant use, insofar as "[t]he only way to show that a subsidy programme is mainly or most frequently used by 'certain enterprises' is to show how much of that subsidy programme is used by certain enterprises."631

5.267. In the present case, the European Union put forward evidence that, since the adoption of its legislation authorizing the issuance of EDBs in 2002, South Carolina has issued EDBs to the following recipients: BMW (up to US$105 million in 2003); the Project Emerald companies (up to US$160 million in 2004); each of three public entities (the City of Greenville, the City of Myrtle Beach, and Trident Technical College) (up to US$7 million in 2005); and Boeing (up to US$220 million in 2010).632 The subsidy has been granted to relatively few entities, relatively infrequently, and in relatively large amounts. In these circumstances, the question as to whether the subsidy programme has been used predominantly by certain enterprises would have to take into account not just the incidence or frequency with which Boeing and other enterprises have been granted the subsidy, but also the value of the EDBs granted. Only then would it be possible to answer the question of whether the subsidy has been mainly, or for the most part, used by certain enterprises for the purposes of Article 2.1(c). Thus, by excluding a category of evidence potentially relevant to the assessment of the existence of "predominant use by certain enterprises" and ultimately for determining de facto specificity, on the sole basis that this evidence was more relevant to the assessment of another factor under Article 2.1(c), second sentence, the Panel erred in its interpretation of these factors in Article 2.1(c).

5.268. We also do not share the Panel's concern that to find otherwise "would be to confound" the two factors under Article 2.1(c), second sentence.633 There is no reason why a priori certain categories of evidence should not be relevant in the context of more than one legal question, all of which have the purpose of establishing "whether a subsidy, although not apparently limited to certain enterprises from a review of the relevant legislation or express acts of a granting authority, is nevertheless allocated in a manner that belies the apparent neutrality of the measure".634 Therefore, in our view, the Panel should not have excluded from consideration certain categories of evidence simply because they appear to relate more specifically to one, as opposed to another, factor under Article 2.1(c), second sentence.

5.269. In light of the above, we find that the Panel erred in its interpretation of the factors "predominant use by certain enterprises" and "granting of disproportionately large amounts of subsidy to certain enterprises" in Article 2.1(c) of the SCM Agreement. We therefore reverse the Panel's finding, in paragraph 8.843 of the Panel Report, that the European Union has failed to

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629 European Union's appellant's submission, para. 242.
630 European Union's appellant's submission, para. 242.
631 European Union's appellant's submission, para. 247.
632 See Panel Report, para. 8.838.
establish that the subsidy provided by South Carolina through EDB proceeds is specific within the meaning of Article 2.1 of the SCM Agreement.635

5.4.3.4 Whether the Panel failed to make an objective assessment under Article 11 of the DSU

5.270. The European Union contends that the Panel failed to make an objective assessment under Article 11 of the DSU of the factors in the third sentence of Article 2.1(c) of the SCM Agreement, namely the extent of diversification of economic activities within the jurisdiction of the granting authority, and the length of time during which the subsidy programme has been in operation.636 According to the European Union, "{t}he Panel had undisputed evidence before it of (i) a granting authority (i.e., the State of South Carolina) with a diverse economy in which many companies operated, and (ii) the length of time that the measure authorising the EDBs had existed (since 2002)."637

5.271. The United States argues that the total number of manufacturing establishments in South Carolina does not indicate the number of companies that were eligible for the EDB programme, namely "those that establish a new economic development project in South Carolina, involving an investment of at least $400 million and the creation of 400 new jobs".638 Furthermore, the United States considers that the European Union "offers no reason to expect that, in light of the demanding eligibility requirements, more than six entities should have qualified for the EDB program during the period from 2002 to 2012".639

5.272. Having reversed the Panel's finding that the European Union has failed to establish that the subsidy provided by South Carolina through EDB proceeds is specific within the meaning of Article 2.1 of the SCM Agreement, we do not consider it necessary to examine further the objectivity of the Panel's assessment with respect to the factors in the third sentence of Article 2.1(c).

5.4.3.5 Completion of the legal analysis

5.273. In our analysis above, we found that the Panel erred in its interpretation of Article 2.1(c) of the SCM Agreement by interpreting the factors "predominant use by certain enterprises" and "the granting of disproportionately large amounts of subsidy to certain enterprises" as mutually exclusive in terms of the evidence on the basis of which their existence can be established. We therefore now turn to the European Union's request for completion of the legal analysis.

5.274. The European Union requests us to complete the legal analysis and conclude that the EDB subsidies are specific within the meaning of Article 2.1(c) of the SCM Agreement.640 In the European Union's view, the Appellate Body should rely on factual findings by the Panel that, since the adoption of its legislation authorizing the issuance of EDBs in 2002, South Carolina has issued EDBs benefiting only three private ventures: BMW (US$105 million), the Project Emerald companies (US$120 million), and Boeing (US$220 million).641 The European Union considers that the Appellate Body can also take into account undisputed factual evidence that the South Carolina economy is diverse, including: (i) the Panel's finding that "a wide variety of industries and enterprises" in South Carolina entered into 954 FILOT agreements with the State; (ii) evidence that "{d}ata from the United States Census Bureau indicates that, in 2012, there were ... 3,867 manufacturing establishments" in South Carolina; and (iii) evidence that "many more {than two}
(manufacturing) enterprises in South Carolina invest in facilities and infrastructure" and therefore "had access to {the EDB} subsidy". 642

5.275. We recall that whether a subsidy programme is mainly, or for the most part, used by certain enterprises is necessarily a question that should be answered on a case-by-case basis, taking into account the particular characteristics of the subsidy programme at issue and the prevailing circumstances of the case, and in light of the factors in the third sentence of Article 2.1(c). As observed above, the European Union's evidence does not provide specific information concerning the number of entities with the capacity to make an investment and to create employment of the scale required by the criteria of eligibility under the EDB subsidy. Accordingly, we see no basis for assessing whether the actual allocation of the EDBs differed from the allocation that would have been expected in light of the investment and employment requirements, which in turn may establish the existence of predominant use of the subsidy programme by certain enterprises. Similarly, the fact that "many more {than two} (manufacturing) enterprises in South Carolina invest in facilities and infrastructure" 643 does not necessarily mean that those other enterprises have the potential to comply with the minimum investment and employment requirements and are thereby in a position actually to avail themselves of the EDB benefits. There are no other factual findings by the Panel or undisputed facts on the Panel record relevant to the assessment of whether the EDB subsidy has been predominantly used by certain enterprises.

5.276. In view of the above and in the absence of sufficient factual findings by the Panel or undisputed facts on the Panel record, we are unable to complete the legal analysis in relation to the European Union's claim that the EDB subsidy programme is de facto specific because of its predominant use by certain enterprises within the meaning of Article 2.1(c) of the SCM Agreement.

5.4.3.6 Conclusion

5.277. With regard to the European Union's claim that the Panel erred in its interpretation of the term "limited number" in the second sentence of Article 2.1(c) of the SCM Agreement, we observed that what constitutes a quantitatively limited group of enterprises must be determined on a case-by-case basis, taking into account the particular characteristics of the subsidy programme and the circumstances of the case. We disagree with the European Union that the Panel implicitly interpreted the term "limited number" as "one" or "fewer than three". Rather, the Panel considered that the European Union had not met its burden of proof as to whether the EDB subsidy has been used by only a "limited number" of certain enterprises. Accordingly, we find that the Panel did not err in its interpretation of the term "limited number" of certain enterprises in Article 2.1(c) of the SCM Agreement.

5.278. With regard to the European Union's claim that the Panel erred in its interpretation and application of the term "certain enterprises" in the second sentence of Article 2.1(c), we observed that the determination of whether a number of enterprises or industries constitute "certain enterprises" should be made in light of all relevant characteristics of the entities, including the nature and purpose of their activities in the markets in question and the context in which these activities are exercised. The Panel erred by taking into account three specific entities in its analysis under Article 2.1(c) without having established that they constitute "certain enterprises". However, the Panel's rejection of the European Union's claims does not hinge on its statement relating to the relevance of the three specific entities in its analysis of de facto specificity.

5.279. With regard to the European Union's claim that the Panel erred in its interpretation of the term "predominant use" in the second sentence of Article 2.1(c), we observed that this term refers primarily to the incidence or frequency with which the subsidy is used by certain enterprises. Furthermore, we found that evidence demonstrating the existence of "predominant use by certain enterprises" may also be pertinent for demonstrating the granting of "disproportionately large amounts of subsidy to certain enterprises". Accordingly, we find that, by excluding a category of evidence potentially relevant to the assessment of the existence of "predominant use by certain

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642 European Union's appellant's submission, para. 262 (quoting Panel Report, para. 8.899; European Union's comments on United States' response to Panel question No. 142, para. 22, in turn quoting Data from US Census Bureau, Geography Area Series: County Business Patterns (2010-2012) (Panel Exhibit EU-1437), p. 1; European Union's response to Panel question No. 110, fn 319 to para. 179).

643 European Union's response to Panel question No. 110, fn 319 to para. 179.
enterprises" and ultimately for determining de facto specificity, on the basis that this evidence was more relevant to the assessment of another factor under Article 2.1(c), second sentence, the Panel erred in its interpretation of these factors in Article 2.1(c).

5.280. We therefore reverse the Panel's finding, in paragraph 8.843 of the Panel Report, that the European Union has failed to establish that the subsidy provided by South Carolina through EDB proceeds is specific within the meaning of Article 2.1 of the SCM Agreement. We also find that there are insufficient factual findings by the Panel or undisputed facts on the Panel record for us to complete the legal analysis in this respect. Having reversed the Panel's finding, we do not consider it necessary to address whether, in addition, the Panel acted inconsistently with Article 11 of the DSU.

5.5 European Union's claims relating to the Panel's findings concerning South Carolina MCIP job tax credits

5.281. The European Union requests us to reverse the Panel's finding that the European Union had failed to establish that the subsidy provided through the additional corporate income tax credits is specific within the meaning of Article 2.2 of the SCM Agreement and its conclusion that the European Union had not established that the United States failed to withdraw this subsidy within the meaning of Article 7.8 of the SCM Agreement. The European Union submits that, in reaching its finding, the Panel erred in the application of Article 2.2 and also acted inconsistently with Article 11 of the DSU. The European Union also requests us to complete the legal analysis and find that the subsidy is specific within the meaning of Article 2.2 of the SCM Agreement.

5.282. The United States requests us to uphold the Panel's finding that the subsidy provided to Boeing through the additional corporate income tax credits is not specific within the meaning of Article 2.2 of the SCM Agreement. The United States submits that the Panel did not err in the application of Article 2.2 of the SCM Agreement and did not fail to conduct an objective assessment of the matter, as required by Article 11 of the DSU.

5.283. In our analysis below, we first outline the measure at issue and recall the parties' arguments before the Panel and the Panel's findings, as relevant for the claims before us. Then, we turn to the analysis of the European Union's claims on appeal, which will proceed in three steps. We begin by addressing the legal standard under Article 2.2 of the SCM Agreement. Subsequently, we evaluate whether the Panel erred in the application of this provision. Finally, we address the European Union's claim under Article 11 of the DSU.

5.5.1 The Panel's findings

5.284. Before the Panel, the European Union challenged the additional corporate income tax credits provided to Boeing by virtue of the inclusion of Boeing's production facilities within the industrial park jointly established by Charleston County and Colleton County (Charleston-Colleton MCIP). According to Section 12-6-3360 of the South Carolina Income Tax Act, taxpayers that create new full-time jobs in South Carolina may receive two types of corporate income tax credits – standard tax credits and additional tax credits. All taxpayers that meet certain employment-related criteria are eligible for the standard tax credits. However, in order to receive the additional tax credits, such taxpayers must be located in a business or industrial park jointly established and developed by a group of South Carolina counties pursuant to Section 13 of Article VIII of the Constitution of South Carolina.

5.285. Section 13 of Article VIII of the Constitution of South Carolina provides that "(c)ounties may jointly develop an industrial or business park with other counties within the geographical boundaries of one or more of the member counties." Pursuant to this authority, Charleston County and

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645 European Union's appellant's submission, para. 299.
646 United States' appellee's submission, para. 143.
647 Panel Report, para. 8.912 (referring to South Carolina Income Tax Act, South Carolina Code, Title 12, Chapter 6 (Panel Exhibit EU-509), Section 12-6-3360(C); quoting ibid., Section 12-6-3360(E)(1)).
Colleton County jointly established the Charleston-Colleton MCIP.\(^\text{649}\) The territory of this MCIP was subsequently extended in order to include Boeing's production facilities in South Carolina.\(^\text{650}\) As a result of the inclusion of Boeing's production facilities within the Charleston-Colleton MCIP, Boeing became "located" within an industrial park jointly developed by a group of South Carolina counties in accordance with Section 13 of Article VIII of the Constitution of South Carolina. This entitled Boeing to the additional corporate income tax credits under Section 12-6-3360 of the South Carolina Income Tax Act, its eligibility for the standard corporate income tax credits not being in dispute before the Panel.\(^\text{651}\)

5.286. The Panel found that the provision of the additional corporate income tax credits to Boeing involved a financial contribution in the form of revenue "foregone" within the meaning of Article 1.1(a)(1)(ii) and conferred a benefit within the meaning of Article 1.1(b) of the SCM Agreement.\(^\text{652}\) The European Union argued that the resulting subsidy (MCIP subsidy) was specific under Articles 2.1(a), 2.1(c), and 2.2 of the SCM Agreement.\(^\text{653}\) The Panel found that the European Union had failed to establish that the MCIP subsidy is specific within the meaning of those provisions.\(^\text{654}\) On appeal, the European Union challenges only the Panel's finding with respect to Article 2.2 of the SCM Agreement.

5.287. Before the Panel, the European Union argued that the MCIP subsidy is specific under Article 2.2 of the SCM Agreement because it is "limited to certain enterprises located within a designated geographical region within the jurisdiction of the granting authority".\(^\text{655}\) The European Union asserted that: (i) the Charleston-Colleton MCIP is a particular geographical region designated by two counties; (ii) the State of South Carolina is the granting authority, within the jurisdiction in which that region is located; and (iii) the number of enterprises located within that region is irrelevant for the specificity analysis under Article 2.2.\(^\text{656}\)

5.288. The United States argued before the Panel that the MCIP subsidy is not "limited to certain enterprises located within a designated geographical region" within the meaning of Article 2.2 of the SCM Agreement but is provided to a number of enterprises located within any number of different MCIPs throughout South Carolina. The United States asserted that MCIPs are pervasive in South Carolina and are available to any business that requests the inclusion of its property within an MCIP.\(^\text{657}\) Furthermore, because counties can freely add property to or subtract it from MCIPs at any time, an MCIP is not a "designated" region within the meaning of Article 2.2 of the SCM Agreement.\(^\text{658}\)

5.289. The Panel began by noting the findings of previous panels to the effect that: (i) any identified tract of land within the jurisdiction of the granting authority may be a "designated geographical region" within the meaning of Article 2.2 of the SCM Agreement;\(^\text{659}\) and (ii) an industrial park or economic development zone could constitute such a region.\(^\text{660}\) The Panel further observed that when a subsidy is provided only to enterprises located within a region that has a "fixed geographic
identity", such a subsidy is limited to certain enterprises within that region because it is not possible for enterprises not located within that designated region to have access to the subsidy.661 The Panel noted, however, that this logic did not apply to the MCIP subsidy at issue, because the "MCIP designation" is "readily available upon request"662 to any enterprise regardless of its particular location in South Carolina. The Panel thus considered that the availability of the MCIP subsidy only to enterprises located within an MCIP "cannot be meaningfully considered to amount to a limitation under Article 2.2".663 On that basis, the Panel found that the European Union had failed to establish that the subsidy provided through the additional corporate income tax credits is specific within the meaning of Article 2.2 of the SCM Agreement.664

5.5.2 Claims and arguments on appeal

5.290. The European Union claims that, in finding that the MCIP subsidy is not "limited to certain enterprises located within a designated geographical region", the Panel erred in the application of Article 2.2 of the SCM Agreement and reached, on this basis, an erroneous conclusion that the European Union had failed to establish that the United States had not withdrawn this subsidy within the meaning of Article 7.8 of the SCM Agreement.665 In addition, the European Union argues that the Panel acted inconsistently with Article 11 of the DSU because the Panel's conclusion that the MCIP subsidy is not specific under Article 2.2 of the SCM Agreement is not based on an objective assessment of the facts.666

5.291. The European Union submits that the Panel erred in the application of Article 2.2 of the SCM Agreement because it failed to recognize that limiting access to the MCIP subsidy to enterprises located within an MCIP constitutes a geographical limitation on this subsidy.667 The European Union argues that the Panel based its finding that the limitation on access to the subsidy to enterprises located within an MCIP "cannot be meaningfully considered to amount to a limitation under Article 2.2" on the mere possibility that the geographical boundaries of MCIPs could be reduced or expanded in the future.668 In the European Union's view, just the possibility that this might occur in the future cannot justify a finding that, at present, the MCIP subsidy is not specific within the meaning of Article 2.2 of the SCM Agreement.669 The European Union further contends that the Panel's finding suggests that the term "designated geographical region" can encompass only a "fixed geographic identity" that cannot be changed or amended in the future.670 However, for the European Union, the "designated geographical region" within the meaning of Article 2.2 need not be strictly defined or fixed.671

5.292. Furthermore, the European Union claims that the Panel acted inconsistently with Article 11 of the DSU in finding that the MCIP designation is "readily available upon request" to any enterprise.672 The European Union argues that the Panel did not refer to any evidence in support of that finding and failed to conduct an independent assessment of whether the MCIP designation was indeed available upon request to any enterprise.673 According to the European Union, the Panel's finding is contrary to undisputed evidence on the record, which shows that the MCIP designation requires a multi-county legislative action, and is therefore not easily available to any enterprise requesting it.674 The European Union further argues that the Panel failed to explain how its finding that the MCIP designation is readily available to any enterprise accords with the distinction between the standard corporate income tax credits (for which an enterprise does not need to be located within an MCIP) and additional corporate income tax credits (for which an enterprise is required to be located in an MCIP) under South Carolina law. The European Union argues, therefore, that the

661 Panel Report, para. 8.931.
663 Panel Report, para. 8.931.
664 Panel Report, para. 8.931.
665 European Union's appellant's submission, para. 266 and fn 516 thereto.
666 European Union's appellant's submission, para. 267.
667 European Union's appellant's submission, paras. 283-286.
669 European Union's appellant's submission, paras. 288-289.
671 European Union's appellant's submission, para. 287.
672 European Union's appellant's submission, para. 293 (quoting Panel Report, para. 8.931).
673 European Union's appellant's submission, para. 295.
674 European Union's appellant's submission, para. 294.
Panel's view of the facts is implausible and unsupported by reasoned and adequate explanations and coherent reasoning, as required by Article 11 of the DSU.675

5.293. Referring to the European Union's argument that the Panel's finding suggests that the term "designated geographical region" can encompass only a "fixed geographic identity" that cannot be changed or amended in the future,676 the United States responds that, in making this argument, the European Union inaccurately ascribes a legal interpretation to the Panel that it did not adopt.677 According to the United States, the Panel found that the MCIP designation does not operate as a genuine limitation on access to the subsidy because the MCIP designation is "infinitely mutable".678 In the United States' view, however, this does not imply that a geographical designation must be "immutable" in order to fall under Article 2.2 of the SCM Agreement.679 In addition, the United States points out that the measure at issue provides no way of identifying, either explicitly or implicitly, the areas included within MCIPs. For the United States, this supports the conclusion that the MCIP subsidy is not specific under Article 2.2 of the SCM Agreement.680

5.294. With respect to the European Union's claim under Article 11 of the DSU, the United States argues that the Panel's finding that the MCIP designation is "readily available upon request"681 to any enterprise is supported by the fact that the text of the Charleston-Colleton MCIP Agreement contemplates changes to the territory of that MCIP682, as well as by the fact that such changes had occurred 18 times between 1995 and 2013.683 The United States further contends that the European Union failed to provide evidence of applications for the receipt of the subsidy being rejected. Therefore, there is no indication that the Panel's finding regarding the availability of the MCIP designation lacked objectivity.684

5.5.3 Whether the Panel erred in its application of Article 2.2 of the SCM Agreement

5.295. In this section, we examine the European Union's claim on appeal that the Panel erred under Article 2.2 of the SCM Agreement in finding that the European Union had failed to establish that the subsidy provided through the additional corporate income tax credits is specific within the meaning of Article 2.2 of the SCM Agreement. We first address the legal standard under Article 2.2 and then turn to review the Panel's analysis under that provision.

5.296. Article 2.2 of the SCM Agreement provides, in relevant part:

A subsidy which is limited to certain enterprises located within a designated geographical region within the jurisdiction of the granting authority shall be specific.

5.297. Article 2.2 concerns regional specificity of subsidies, i.e. specificity by reason of the location of eligible subsidy recipients within a particular geographical region.685 The phrase "(a) subsidy which is limited to" refers to the concept of a limitation, similar to the one contained in Articles 2.1(a) and 2.1(c) of the SCM Agreement. The dictionary definition of the verb "to limit" is to "confine within

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675 European Union's appellant's submission, para. 296 (referring to Appellate Body Reports, EC and certain member States – Large Civil Aircraft, para. 1317; US – Upland Cotton (Article 21.5 – Brazil), fn 618 to para. 293).
676 United States' appellee's submission, para. 141 (quoting European Union's appellant's submission, para. 286).
677 United States' appellee's submission, para. 141 (quoting European Union's appellant's submission, para. 286).
678 United States' appellee's submission, para. 141.
679 United States' appellee's submission, para. 141.
681 United States' appellee's submission, para. 140 (referring to European Union's appellant's submission, para. 293, in turn referring to Panel Report, para. 8.931).
682 United States' appellee's submission, para. 140 (referring to Charleston County Council Ordinance 1475 (5 December 2006) (Panel Exhibit EU-555)).
683 United States' appellee's submission, para. 140 (referring to United States' response to Panel question No. 149, para. 18; Charleston County Council Ordinance 1475 (5 December 2006) (Panel Exhibit USA-555)).
684 United States' appellee's submission, para. 140 (referring to Panel Report, para. 8.928).
limits, to set bounds to", "to bound, restrict". Accordingly, Article 2.2 concerns those subsidies that are provided within certain bounds or limits. As Article 2.2 deals with regional specificity, the term "limited", in the context of this provision, suggests that access to a subsidy must be limited to eligible recipients located within a "designated geographical region" within the jurisdiction of the granting authority.

5.298. We note that, in contrast to Article 2.1(a) of the SCM Agreement, the term "limited" in the text of Article 2.2 is not qualified by the word "explicitly". This suggests that, in principle, Article 2.2 covers both explicit and implicit limitations on access to a subsidy. We also observe that Article 2.2 does not prescribe a particular manner in which a limitation on access to a subsidy must be imposed. Unlike Article 2.1(a), the text of Article 2.2 does not specify that such a limitation must necessarily be found in "the legislation pursuant to which the granting authority operates", or that it must be imposed by the granting authority itself.

5.299. In order for a subsidy to be specific within the meaning of Article 2.2 of the SCM Agreement, a subsidy must be limited to "certain enterprises". The term "certain enterprises" is defined in the chapeau of Article 2.1 as "an enterprise or industry or group of enterprises or industries". As we noted above, the term "enterprise" may be understood to refer to an entity that engages in certain economic activities in the market. The Appellate Body has further held that the term "certain enterprises" refers to a single enterprise or industry or a class of enterprises or industries that are known and particularized. The Appellate Body also noted that this concept involves a certain amount of indeterminacy at the edges and that any determination of whether a number of enterprises or industries constitute "certain enterprises" can be made only on a case-by-case basis.

5.300. The chapeau of Article 2.1 offers interpretative guidance with regard to the scope and meaning of the rest of Article 2, including the term "certain enterprises" employed in different parts of Article 2. Therefore, in principle, the definition of the term "certain enterprises" provided therein is also relevant for the interpretation of this term in Article 2.2. However, it does not follow that this term necessarily has an identical meaning across all of the provisions of Article 2. Rather, it must be read in the context of the specific provision of Article 2 in which it appears. As already observed, Article 2.2 concerns specificity by reason of the location of eligible subsidy recipients within a particular geographical region. Accordingly, we understand the term "certain enterprises" in Article 2.2 to refer to those enterprises that are located within a "designated geographical region" within the jurisdiction of the granting authority.

5.301. We further noted above that the term "enterprise" refers to an entity engaged in economic activities in the market. The term "located", in turn, connotes a place where an enterprise has established itself. As observed by the Appellate Body, an enterprise may be considered to be established in a variety of places, including at the sites of its headquarters, branch offices, or manufacturing facilities. This means that, for purposes of specificity under Article 2.2 of the SCM Agreement, access to a subsidy must be limited to entities that are engaged in economic activities in the market; have their headquarters, branch offices, or manufacturing facilities in a "designated geographical region"; or are otherwise established within such a region.

5.302. Turning now to examine the meaning of the term "designated geographical region" in Article 2.2 of the SCM Agreement, we note that the word "region" refers to "any area, space, or place of more or less definite extent or character", while "geographical" denotes that something

is "considered or defined in relation to a particular place, area, or region". This suggests that the term "geographical region" in Article 2.2 refers to a geographical area, space, or place of more or less definite extent or character within the jurisdiction of the granting authority. Article 2.2 does not further specify any criteria that may distinguish a particular "geographical region" from the rest of the area within the jurisdiction of the granting authority. We note, in this regard, the conclusion of the panel in US – Anti-Dumping and Countervailing Duties (China) that Article 2.2 does not require that a region have any formal administrative or economic identity and that a "geographical region" in the sense of that provision may encompass any identified tract of land within the jurisdiction of the granting authority.

5.303. Article 2.2 of the SCM Agreement requires that the relevant geographical region within the jurisdiction of the granting authority be "designated". The term "designated" presupposes a certain degree of identification of this region. As observed by the Appellate Body in US – Washing Machines, certain aspects of the meaning of the verb "designate" – such as "specify" and "call by name" – point to an act of explicit or affirmative identification, whereas other aspects – such as "indicate" and "describe" – suggest that identification may also be carried out through indirect means. The identification of a region for the purposes of Article 2.2 of the SCM Agreement may be explicit or implicit, provided that the relevant region is clearly discernible from the text, design, structure, and operation of the subsidy measure at issue.

5.304. In sum, a subsidy is specific under Article 2.2 of the SCM Agreement when it is limited to "certain enterprises" located within a "designated geographical region within the jurisdiction of the granting authority". This is the case when access to a subsidy is either explicitly or implicitly limited to entities that are engaged in economic activities in the market; have their headquarters, branch offices, or manufacturing facilities in a "designated geographical region" within the jurisdiction of the granting authority; or are otherwise established within such a region. A "designated geographical region" refers to an identified geographical area, space, or place of more or less definite extent or character. The identification of a geographical region for the purposes of Article 2.2 of the SCM Agreement may be explicit or implicit, provided that the relevant region is clearly discernible from the text, design, structure, and operation of the subsidy measure at issue.

5.305. With these considerations in mind, we turn to examine whether the Panel erred in the application of Article 2.2 of the SCM Agreement in its assessment of the specificity of the MCIP subsidy. We recall that the Panel commenced its analysis by noting the findings of previous panels to the effect that: (i) any identified tract of land within the jurisdiction of the granting authority may be a "designated geographical region" within the meaning of Article 2.2 of the SCM Agreement; and (ii) an industrial park or economic development zone could constitute such a region. The Panel further observed that when a subsidy is provided only to enterprises located within a region that has a "fixed geographic identity", such a subsidy is "limited" to certain enterprises within that region because it is not possible for enterprises not located within that "designated region" to have access to the subsidy. With respect to whether the MCIP subsidy is "limited" within the meaning of Article 2.2 of the SCM Agreement, the Panel found that it was available only to taxpayers located in an MCIP. We understand that this was based on Section 12-6-3360 of the South Carolina Income Tax Act, which provides that only taxpayers located in an MCIP are eligible for this subsidy. Thus, there is an explicit limitation on access to the MCIP subsidy based on the location of the

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702 Panel Report, para. 8.931.
703 Panel Report, para. 8.931.
704 Panel Report, para. 8.912 (referring to South Carolina Income Tax Act, South Carolina Code, Title 12, Chapter 6 (Panel Exhibit EU-509), Section 12-6-3360(C); quoting ibid., Section 12-6-3360(E)(1)).
potential subsidy recipient. We note, however, that instead of assessing whether this is a limitation concerning "certain enterprises" located in a "designated geographical region" in the sense of Article 2.2, the Panel reasoned that, due to the availability of the MCIP designation upon request to any enterprise, this "cannot be meaningfully considered to amount to a limitation under Article 2.2" of the SCM Agreement. On this basis, the Panel concluded that the European Union had failed to demonstrate that the MCIP subsidy is specific within the meaning of Article 2.2 of the SCM Agreement.

5.306. As we see it, the explicit requirement that taxpayers be located in an MCIP in order to receive the additional corporate income tax credits is a limitation on access to the MCIP subsidy. This limitation is not made void by the fact that enterprises not located in an MCIP may become part of an MCIP in the future and then qualify for the subsidy. We understand that the size and configuration of MCIPs in South Carolina may change over time. The territory of existing MCIPs may be reduced or expanded, and new MCIPs may be established. However, this does not change the fact that only enterprises located in an MCIP are eligible to receive the MCIP subsidy. We therefore disagree with the Panel that the requirement of Section 12-6-3360 of the South Carolina Income Tax Act that taxpayers be located in an MCIP in order to receive the additional corporate income tax credits cannot be "meaningfully" considered as a "limitation" under Article 2.2 of the SCM Agreement.

5.307. In view of the foregoing, we find that the Panel erred in the application of Article 2.2 of the SCM Agreement in stating that the availability of the MCIP subsidy only to enterprises located within an MCIP "cannot be meaningfully considered to amount to a limitation under Article 2.2" of the SCM Agreement. Therefore, we reverse the Panel's finding, in paragraph 8.931 of the Panel Report, that the European Union had failed to establish that the subsidy provided through the additional corporate income tax credits is specific within the meaning of Article 2.2 of the SCM Agreement.

5.5.4 Whether the Panel failed to make an objective assessment under Article 11 of the DSU

5.308. The European Union also claims that the Panel acted inconsistently with Article 11 of the DSU. Specifically, the European Union argues that the Panel's finding that the MCIP designation is "readily available upon request", which led it to conclude that the European Union had not established that the MCIP subsidy is specific under Article 2.2 of the SCM Agreement, is not based on an objective assessment of the facts.

5.309. We have reversed above the Panel's finding that the European Union had failed to establish that the subsidy provided through the additional corporate income tax credits is specific within the meaning of Article 2.2 of the SCM Agreement on account of the Panel's error in the application of Article 2.2 of the SCM Agreement. Having reversed this finding, it is not necessary for us to examine further the objectivity under Article 11 of the DSU of the Panel's factual assessment in support of this finding.

5.5.5 Completion of the legal analysis

5.310. We now turn to consider the European Union's request that we complete the legal analysis and find that the MCIP subsidy is specific within the meaning of Article 2.2 of the SCM Agreement.

5.311. We recall that the Appellate Body may complete the legal analysis with a view to facilitating the prompt settlement and effective resolution of the dispute when the factual findings by the
5.312. With these considerations in mind, we proceed to assess whether there is a sufficient factual basis for us to complete the legal analysis in the present appeal and determine whether the MCIP subsidy is specific under Article 2.2 of the SCM Agreement. We begin by addressing the question of whether there is a limitation on access to the MCIP subsidy. We recall in this regard that Section 12-6-3360 of the South Carolina Income Tax Act sets forth the conditions of eligibility for the MCIP subsidy and provides that, in order to be eligible for this subsidy, taxpayers must be located in an MCIP.715 We thus consider that Section 12-6-3360 of the South Carolina Income Tax Act imposes a limitation on access to the MCIP subsidy.

5.313. Turning to the question of whether this limitation concerns "certain enterprises located within a designated geographical region" within the meaning of Article 2.2 of the SCM Agreement, we note that the European Union’s claim pertains to the availability of the MCIP subsidy to Boeing as a result of the inclusion of its manufacturing facilities within the Charleston-Colleton MCIP.716 As observed by the Appellate Body in the original proceedings, the specificity inquiry:

{F} focuses not only on whether the subsidy was provided to the particular recipients identified in the complaint, but focuses also on all enterprises or industries eligible to receive that same subsidy. Thus, even where a complaining Member has focused its complaint on the grant of a subsidy to one or more enterprises or industries, the inquiry may have to extend beyond the complaint to determine what other enterprises or industries also have access to that same subsidy under that subsidy scheme.717

5.314. Thus, while the European Union’s claim focuses on the availability of the MCIP subsidy to Boeing because of its location in the Charleston-Colleton MCIP, the assessment of whether this subsidy is specific under Article 2.2 of the SCM Agreement is broader. It concerns the question of whether the MCIP subsidy is limited to "certain enterprises" located within a "designated geographical region" and not whether it is available only to Boeing, due to its location in the Charleston-Colleton MCIP.

5.315. In addressing this issue, we note that Section 12-6-3360 of the South Carolina Income Tax Act provides that, in order to be eligible for this subsidy, taxpayers must be "located in a business or industrial park jointly established and developed by a group of counties".718 It does not, on its face, designate any particular MCIP(s) within which enterprises eligible for this subsidy must be located. The United States further submits that Section 12-6-3360 does not allow the identification of the applicability of the subsidy to a specific geographical area.

710 See e.g. Appellate Body Reports, US – Lamb, paras. 150 and 172; US – Shrimp, paras. 123-124, 132, and 140; US – Section 211 Appropriations Act, paras. 343-345; EC and certain member States – Large Civil Aircraft, para. 1176; US – Large Civil Aircraft (2nd complaint), paras. 1252 and 1262.
711 See also Appellate Body Reports, Colombia – Textiles, para. 5.30; US – Anti-Dumping Methodologies (China), para. 5.146; Russia – Pigs (EU), para. 5.141; EC and certain member States – Large Civil Aircraft, para. 1178; EC and certain member States – Large Civil Aircraft (Article 21.5 – US), para. 5.745.
712 See e.g. Appellate Body Reports, EC – Asbestos, paras. 81-82; EC and certain member States – Large Civil Aircraft (Article 21.5 – US), para. 7.571; EC – Seal Products, para. 5.69; Russia – Commercial Vehicles, para. 5.141.
713 See e.g. Appellate Body Reports, EC – Export Subsidies on Sugar, para. 339; EC – Seal Products, para. 5.69.
715 Panel Report, para. 8.912 (quoting South Carolina Income Tax Act, South Carolina Code, Title 12, Chapter 6 (Panel Exhibit EU-509), Section 12-6-3360(E)(1)), in turn referring to Section 12-6-3360(C)).
716 Panel Report, para. 8.914 (referencing to European Union's first written submission to the Panel, paras. 631-641, 675-682, and 709-720; second written submission to the Panel, paras. 675-682 and 733-736).
718 Panel Report, para. 8.912 (referencing to South Carolina Income Tax Act, South Carolina Code, Title 12, Chapter 6 (Panel Exhibit EU-509), Section 12-6-3360(C); quoting ibid., Section 12-6-3360(E)(1)).
of the areas included within MCIPs, either explicitly or implicitly.\footnote{United States' appellee's submission, para. 142.} On this basis, the United States argues that Section 12-6-3360 of the South Carolina Income Tax Act does not designate the relevant "geographical region" within the meaning of Article 2.2, and that, as a consequence, the MCIP subsidy is not specific within the meaning of this provision.\footnote{United States' appellee's submission, para. 142.}

5.316. We agree with the United States to the extent that Section 12-6-3360 of the South Carolina Income Tax Act does not itself predetermine the geographical areas of the MCIPs established in South Carolina. However, we disagree with the suggested implications of this for the analysis of whether the MCIP subsidy is specific under Article 2.2 of the SCM Agreement. We recall that a "designated geographical region" within the meaning of Article 2.2 refers to an identified geographical area, space, or place of more or less definite extent or character. The identification of a geographical region for the purposes of Article 2.2 may be explicit or implicit, provided that the relevant region is clearly discernible from the text, design, structure, and operation of the subsidy measure at issue.\footnote{Appellate Body Report, \textit{US – Washing Machines}, para. 5.229.}

5.317. In the present case, the Panel found that, while the MCIP subsidy is provided at the state level\footnote{Panel Report, para. 8.925.}, MCIPs are established by the South Carolina counties, pursuant to the authority granted to them by Section 13 of Article VIII of the Constitution of South Carolina.\footnote{Panel Report, para. 8.913.} In exercising this authority, Charleston County and Colleton County entered into an agreement establishing the Charleston-Colleton MCIP.\footnote{Panel Report, para. 8.913.} The Charleston-Colleton MCIP is thus an MCIP that allows taxpayers located within its boundaries to claim the additional corporate income tax credits, in accordance with Section 12-6-3360 of the South Carolina Income Tax Act. The uncontested facts on the Panel record further indicate that the geographical area and location of the Charleston-Colleton MCIP are defined in the Agreement for Development for Joint County Industrial Park, as subsequently amended.\footnote{Panel Report, para. 8.913 (referring to Agreement for Development for Joint County Industrial Park between Charleston County and Colleton County (1 September 1995) (Panel Exhibit USA-554); Inducement and Millage Rate Agreement between Charleston County and Project Emerald (21 December 2004) (Panel Exhibit EU-555); Boeing FILOT Agreement (Panel Exhibit EU-470), section 5.3; Charleston County Ordinance 1626 (2 February 2010) (Panel Exhibit EU-516), section 1).} In this respect, we recall that a "designated geographical region" under Article 2.2 may encompass any "identified tract of land within the jurisdiction of a granting authority"\footnote{Panel Report, \textit{US – Anti-Dumping and Countervailing Duties (China)}, para. 9.144.} and that it is not required that it have a "formal administrative or economic identity".\footnote{Panel Report, \textit{US – Anti-Dumping and Countervailing Duties (China)}, para. 9.140.} While the geographical area of a particular MCIP, such as the Charleston-Colleton MCIP, is not explicitly specified in Section 12-6-3360 of the South Carolina Income Tax Act, it may be discerned from the instrument establishing an MCIP. We thus consider that the subsidy measure at issue designates the "geographical region" within which enterprises must be located in order to receive the subsidy.

5.318. We note that it was not contested before the Panel that multiple MCIPs may be created in South Carolina, and that the size and configuration of MCIPs may change over time. The parties, however, did not submit to the Panel information on the number of MCIPs established in South Carolina and the frequency of changes in the size and configuration of the MCIPs,\footnote{We note that the United States submitted to the Panel the list of Charleston County ordinances amending the boundaries of the Charleston-Colleton MCIP (United States' response to Panel question No. 149, para. 18). There is, however, no information on the Panel record with regard to the existence and number of other MCIPs in South Carolina, or changes made to their boundaries.} and the Panel did not conduct an assessment of those factors. We thus see no basis on the Panel record supporting the United States' contention that, because of a potentially unlimited number of MCIPs that may be created in South Carolina, or because of the flexible nature of the territorial borders of the existing MCIPs, the subsidy at issue is not limited to enterprises located within the geographical area of an MCIP, but is in fact widely available in South Carolina.\footnote{Panel Report, para. 8.930 (referring to United States' first written submission to the Panel, para. 643; second written submission to the Panel, para. 612.).} We have taken note of the Panel's statement that the MCIP designation is "readily available upon request to any company".\footnote{Panel Report, para. 8.931.}
However, the Panel did not provide any explanation or reasoning in support of that statement. Moreover, the Panel did not provide any explanation as to how, in the circumstances of this case, the extent of potential access to the subsidy served to overcome the express geographical delimitation that attaches to each MCIP designation. In the absence of such an explanation, we consider that the manner in which this subsidy measure designates the geographical area of an MCIP provides a sufficient basis for a finding that the subsidy measure at issue designates the "geographical region" within which enterprises must be located in order to receive the subsidy.

5.319. In view of the foregoing, we find that the subsidy provided to Boeing through the additional corporate income tax credits, pursuant to Section 12-6-3360 of the South Carolina Income Tax Act, is specific within the meaning of Article 2.2 of the SCM Agreement.

5.5.6 Conclusion

5.320. In sum, a subsidy is specific under Article 2.2 of the SCM Agreement when access to it is either explicitly or implicitly limited to entities engaged in economic activities in the market that have their headquarters, branch offices, or manufacturing facilities in a "designated geographical region" within the jurisdiction of the granting authority, or that are otherwise established within such a region. In the present case, such limitation contained in Section 12-6-3360 of the South Carolina Income Tax Act is not made void by the fact that enterprises not currently located in an MCIP may become part of an MCIP in the future and then qualify for the subsidy. We find that the Panel erred in the application of Article 2.2 of the SCM Agreement in stating that the availability of the MCIP subsidy only to enterprises located within an MCIP 731 cannot be meaningfully considered to amount to a limitation under Article 2.2" of the SCM Agreement. Consequently, we reverse the Panel's finding, in paragraphs 8.931 and 11.7.c.vii of the Panel Report, that the European Union has failed to establish that the subsidy provided through the additional corporate income tax credits is specific within the meaning of Article 2.2 of the SCM Agreement.

5.321. Furthermore, we complete the legal analysis and find that the subsidy provided to Boeing through the additional corporate income tax credits, pursuant to Section 12-6-3360 of the South Carolina Income Tax Act, is specific within the meaning of Article 2.2 of the SCM Agreement.

5.6 Continuing adverse effects from the original reference period

5.322. The European Union presents two sets of challenges to the Panel's finding that the European Union had failed to establish that certain forms of serious prejudice, which were found by the original panel to be the effects of the pre-2007 aeronautics R&D subsidies in the original reference period in the form of significant price suppression, significant lost sales, and a threat of displacement or impediment with respect to the A330 and Original A350, continue into the post-implementation period as serious prejudice with respect to the A330 and A350XWB. 732

5.323. First, the European Union requests us to reverse the Panel's finding that the effects of the pre-2007 aeronautics R&D subsidies in the original reference period in the form of significant price suppression, significant lost sales, and a threat of displacement or impediment with respect to the A330 and Original A350, continue into the post-implementation period as serious prejudice with respect to the A330 and A350XWB. 732

5.324. Second, the European Union requests us to reverse the Panel's finding that the continuing adverse effects were not caused by subsidies in instances where LCA orders occurred prior to the end of the implementation period, but for which deliveries remained outstanding in the post-implementation period. The European Union submits that the Panel erred under Article 7.8 of the SCM Agreement, and acted inconsistently with Article 11 of the DSU, by excluding specific transactions found to cause adverse effects during the original proceedings from the obligation to take appropriate steps to remove adverse effects.

5.325. The European Union requests us to reverse the Panel's finding that the European Union's claim of continuing adverse effects was unsupported by the evidence and/or was in contradiction with the findings made in the original proceedings. The European Union argues that the Panel acted inconsistently with Article 11 of the DSU by deviating from the adopted findings in the original proceedings concerning the 200-300 seat LCA market by now focusing on separate aircraft models. The European Union further alleges that the Panel erred under Articles 5 and 6.3 of

731 Panel Report, para. 8.931.
732 Panel Report, paras. 9.332 and 11.8.b. This aspect of the European Union's claims was referred to by the Panel as the European Union's "parallel argument" and was considered separately from the European Union's "main case" regarding present adverse effects in the post-implementation period through technology and price causal mechanisms. (See Panel Report, paras. 9.109-9.113)
the SCM Agreement by failing to conduct a proper counterfactual analysis when assessing whether there was continuing price suppression of the A330 in the post-implementation period.

5.6.1 Whether the Panel erred under Article 7.8 of the SCM Agreement, or acted inconsistently with Article 11 of the DSU, by excluding transactions found to cause adverse effects during the original reference period from the obligation to take appropriate steps to remove adverse effects

5.325. The European Union considers that the Panel erred in the interpretation of Article 7.8 of the SCM Agreement by purportedly excluding adverse effects "found in relation to specific transactions during the original reference period" from the obligation to take appropriate steps to remove adverse effects.733 Thus, according to the European Union, the Panel erroneously found that the original adverse effects were no longer present adverse effects, but rather "continuing manifestations or effects of past adverse effects".734 As the European Union argues, to the extent a subsidy is maintained and its adverse effects still exist in the post-implementation period, the implementing Member has an obligation to take appropriate steps to remove the adverse effects, including with respect to the specific transactions addressed in the original proceedings. The European Union also submits that the Panel erred in the application of Article 7.8 of the SCM Agreement, and acted inconsistently with Article 11 of the DSU, by erroneously finding that lost sales and price suppression begin and end at the time at which an LCA is ordered, and do not exist throughout the life of the contract until the final aircraft is delivered. For the European Union, this runs counter to the original panel's finding that the phenomena of lost sales and price suppression in the LCA market "should be understood to begin at the time at which an LCA order is obtained (or an order is lost), and to continue up to and including the time at which that aircraft is delivered (or not delivered)".735

5.326. The United States maintains that the Panel correctly rejected the European Union's interpretation of Article 7.8, which is fundamentally at odds with the prospective nature of that provision.736 According to the United States, the fact that deliveries (from orders that were found to constitute adverse effects in the original reference period) were scheduled after the expiration of the implementation period does not mean that they represent harm in the post-implementation period. Rather, the United States argues, this is simply a consequence of the original lost sale, and to require action with respect to those deliveries would require the United States retrospectively to remedy the specific indicia of harm from the original proceedings. For the United States, the use of the present tense in Article 6.3 is critical, and thus the United States considers that the "effects" that a complying Member must "remove" are those that result from the subsidies at the time of the obligation – that is, effects occurring after the end of the implementation period – and not those that resulted during the original reference period.737 Regarding the European Union's assertion that the Panel improperly deviated from the original panel's statement on the phenomena of lost sales and price suppression, the United States maintains that the Panel carefully considered the statement highlighted by the European Union and concluded that the original panel and the Appellate Body relied on sales campaign evidence and the resultant orders, not delivery data.738

5.327. At the outset, we note the United States' contention that the European Union's appeal of the Panel's interpretation of Article 7.8 is "moot" because the Panel provided "an independent basis for the Panel's ultimate conclusion that the transactions were not evidence of lost sales or price suppression".739 This concerns the Panel's finding that the European Union's claim of continuing adverse effects was unsupported by the evidence and/or in contradiction with the findings made in the original proceedings.740 The United States' suggestion appears to be that, if we see no reason to disturb the Panel's conclusions based on these evidentiary grounds, we need not consider the interpretation claim in order to sustain the Panel's ultimate conclusion that the European Union had failed to establish that serious prejudice found to exist in the original proceedings continues into the post-implementation period. We note that this interpretation claim raises issues of law covered in

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735 European Union's appellant's submission, para. 357 (quoting Original Panel Report, para. 7.1685).
736 United States' appellee's submission, paras. 161-162.
737 United States' appellee's submission, para. 165.
738 United States' appellee's submission, paras. 171-176 and 185.
739 United States' appellee's submission, para. 151.
740 Panel Report, para. 9.332.
the Panel Report and legal interpretations developed by the Panel, within the meaning of Article 17.6 of the DSU. We further note that the question as to how the United States' compliance obligation under Article 7.8 of the SCM Agreement relates to the timing of LCA orders and deliveries has a bearing on subsequent claims at issue in this appeal. We therefore proceed in examining the European Union's claim.

5.328. Article 7.8 provides that, when a panel or Appellate Body report is adopted "in which it is determined that any subsidy has resulted in adverse effects ... the Member granting or maintaining such subsidy shall take appropriate steps to remove the adverse effects or shall withdraw the subsidy." By indicating that the removal of adverse effects relates to "such subsidy" that was found to have caused the effects in the original proceedings, Article 7.8 clearly specifies that the focus of the analysis concerns the removal of adverse effects caused by the subsidy that was challenged in the original proceedings, to the extent that such subsidy continues to be "grant(ed) or maintain(ed)" by the implementing Member after the end of the implementation period. As the Appellate Body recently stated, "Article 7.8 reflects an obligation to cease any conduct amounting to the 'granting or maintaining' of subsidies that cause adverse effects." The Appellate Body has added that Article 7.8 sets out an obligation "of a continuous nature, extending beyond subsidies granted in the past"; "(w)hile a past subsidy that no longer exists may 'be found to cause or have caused adverse effects that continue to be present during the reference period’, the source of the inconsistency under Article 5 is nonetheless the subsidy that causes adverse effects." Accordingly, in assessing whether a Member has taken appropriate steps to remove the adverse effects of subsidies within the meaning of Article 7.8, developments up to and including the post-implementation period must be taken into account. Moreover, while the starting point of the analysis under Article 7.8 must be the effects of the original subsidy or subsidies found to have caused adverse effects in the original proceedings, the inquiry must also take into account any developments concerning those subsidies, as well as any new subsidies found to be closely related to such subsidies, and the impact this has for any adverse effects in the post-implementation period.

5.329. The participants disagree as to the ongoing impact of the serious prejudice phenomena of significant price suppression and significant lost sales, as they relate to particular transactions that were found to form the basis of adverse effects findings in the original reference period. More concretely, the question is when the market phenomena of significant price suppression and significant lost sales that arose in the original reference period could be said to continue after the end of the implementation period, and whether the Panel was justified in excluding the potential relevance of deliveries in the post-implementation period as the basis for establishing such a case.

5.330. Article 6.3(c) refers to significant price suppression and significant lost sales. In US – Upland Cotton, the Appellate Body endorsed the view of the panel that "price suppression" arises when prices are "prevented or inhibited from rising (i.e. they do not increase when they otherwise would have) or they do actually increase, but the increase is less than it otherwise would have been." The Appellate Body has also observed that price suppression is not a directly observable phenomenon, and inevitably requires a counterfactual analysis involving "a comparison of an observable factual situation (prices) with a counterfactual situation (what prices would have been)".

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741 Emphasis added.
742 Appellate Body Report, EC and certain member States – Large Civil Aircraft (Article 21.5 – US), para. 5.364.
744 Appellate Body Report, EC and certain member States – Large Civil Aircraft (Article 21.5 – US), para. 5.371 (quoting Appellate Body Report, EC and certain member States – Large Civil Aircraft, para. 712). (emphasis original; fn omitted) The Appellate Body further explained that "{(t)he option to 'withdraw the subsidy' under Article 7.8 contemplates action in relation to the subsidy found to have caused adverse effects ... (t)he extent that the underlying subsidy has ceased to exist, there is no additional requirement, under Article 7.8, to remove any lingering effects that may flow from that subsidy." (Ibid.) Unlike in EC and certain member States – Large Civil Aircraft (Article 21.5 – US), the Appellate Body is not confronted in this dispute with the question of whether adverse effects in the post-implementation period are caused by subsidies that have since expired.
where one has to determine whether, in the absence of the subsidies (or some other controlling phenomenon), prices would have increased or would have increased more than they actually did.\(^746\)

5.331. In EC and certain member States – Large Civil Aircraft, the Appellate Body explained that "lost sales" are sales that suppliers of the complaining Member "failed to obtain" and that instead were won by suppliers of the respondent Member.\(^747\) The Appellate Body added that it is a "relational concept" and that its assessment "requires 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."\(^748\) For the Appellate Body, an assessment of lost sales also normally entails a counterfactual assessment, in this case in order to establish that "sales won by the subsidized firm(s) of the respondent Member would have been made instead by the competing firm(s) of the complaining Member, thus revealing the effect of the challenged subsidies."\(^749\)

5.332. With regard to the meaning of "significant", the Appellate Body noted in EC and certain member States – Large Civil Aircraft that the term appears before the phrase "price suppression, price depression or lost sales" in Article 6.3(c), and accordingly understood the term "significant" as qualifying all three situations.\(^750\) In US – Upland Cotton, the Appellate Body endorsed the panel's view that the term 'significant' means "important, notable or consequential", and that such a term, depending on the circumstances, could have both quantitative and qualitative aspects.\(^751\)

5.333. Depending on the circumstances of a particular transaction or set of transactions that form the basis for a finding of significant price suppression or significant lost sales under Article 6.3(c), we do not see that the foregoing terms suggest that the particular phenomena of significant price suppression or significant lost sales must be limited to the moment at which the transaction or set of transactions first occur. With regard to price suppression, for example, there may be circumstances in which certain payment terms in the future will continue to be a reflection of suppressed prices. Indeed, as the Appellate Body noted, the determination as to whether price suppression exists is focused on whether, in the absence of subsidies, prices would have increased or would have increased more than they actually did. We do not see that such an assessment, even with respect to the original transactions that formed the basis of the original adverse effects findings, could not continue to be relevant even after the end of the implementation period to the extent that the pricing terms of those transactions continue to indicate an ongoing effect of price suppression. With respect to lost sales, we acknowledge that there may be a stronger case for understanding the phenomena as limited to the moment at which the suppliers of the complaining Member "failed to obtain" a sale that was instead won by suppliers of the respondent Member. At the same time, depending on the nature and scope of the transaction, there may be elements affecting finalization of the transaction, or concerning follow-on transactions in the form of options or purchase rights, that may be indicative of an ongoing phenomenon of lost sales. In any event, we would emphasize that the extent to which elements of the transactions underlying the original finding of adverse effects in the form of price suppression or lost sales endure in a manner so as to indicate the ongoing existence of adverse effects will very much depend on the nature, timing, and scope of those underlying transactions. In addition, we are cognizant of the fact that such variables will be affected by the particular dynamics of transactions in a particular industry, and that how the phenomena of price suppression and lost sales manifest themselves in the LCA industry may not be extrapolated to other industries.

5.334. In the context of the LCA industry in particular, the original panel remarked that, given the particularities of LCA production and sale, the phenomena of price suppression and lost sales "do not begin and end at the time at which an LCA is ordered", but "should be understood to begin at the time at which an LCA order is obtained (or an order is lost), and to continue up to and including the time at which that aircraft is delivered (or not delivered)".\(^752\) The original panel also considered that, because the phenomena of price suppression and lost sales exist from the time an LCA is ordered to the time it is delivered, "data pertaining to both LCA orders and to LCA deliveries will

\^747\: Appellate Body Report, EC and certain member States – Large Civil Aircraft, para. 1220.
\^748\: Appellate Body Report, EC and certain member States – Large Civil Aircraft, para. 1220.
\^749\: Appellate Body Report, EC and certain member States – Large Civil Aircraft, para. 1216.
\^750\: Appellate Body Report, EC and certain member States – Large Civil Aircraft, para. 1215.
\^752\: Original Panel Report, para. 7.1685.
potentially be relevant to demonstrating the existence of significant price suppression and significant lost sales.”  

5.335. We consider that, in the LCA market, the market phenomena of price suppression and lost sales are not limited to what occurs at the time of an LCA order, and that such phenomena may, in appropriate factual circumstances, continue up to the point of LCA delivery. As both the panel and the Appellate Body remarked in the original proceedings, LCA are sold to customers through long-term contracts, often involving staggered deliveries over several years.  

5.336. At the same time, it would be improper to suggest that in all instances involving the phenomena of price suppression and lost sales in the LCA market, the phenomena manifest themselves to the same degree throughout the time period from order to delivery. As the Appellate Body has noted, “effects of a subsidy will ordinarily dissipate over time and will end at some point after the subsidy has expired” and thus a panel “should consider, where relevant for the adverse effects analysis, that the effects of a subsidy will ordinarily dissipate over time and will come to an end”.  

5.337. Turning to the Panel’s analysis, we observe that, although the Panel took note of the original panel’s statements that the phenomena of price suppression and lost sales exist from the time of LCA order through delivery, the Panel then sought to dismiss the relevance of these statements in the circumstances of this case on several grounds. The Panel noted that when the original panel reached findings of adverse effects consisting of significant price suppression and significant lost sales, the Panel then sought to dismiss the relevance of these statements in the circumstances of this case on several grounds. The Panel noted that when the original panel reached findings of adverse effects consisting of significant price suppression and significant lost sales.

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753 Original Panel Report, para. 7.1686.  
754 Although not appealed, these findings were also referenced by the Appellate Body. (Appellate Body Report, US – Large Civil Aircraft (2nd complaint), para. 901)  
758 Appellate Body Report, EC and certain member States – Large Civil Aircraft, para. 713. The Appellate Body added that “(i)ndeed, as with a subsidy that has a finite life and materializes over time, so too do the effects of a subsidy accrue and diminish over time.” (Ibid.)  
759 Appellate Body Report, EC and certain member States – Large Civil Aircraft, para. 714.  
760 Original Panel Report, para. 7.1685.  
sales, it did not explicitly recall this general proposition, but instead relied exclusively on order data. Accordingly, the Panel considered that "it is somewhat unclear whether and, if so, how the idea that price suppression and lost sales 'exist from the time an order is made, up to and including its delivery' is reflected in the actual findings of significant price suppression and lost sales made in the original proceeding."  

5.338. We consider that the Panel did not have a sound basis for distinguishing the original panel's general pronouncements regarding the phenomena of price suppression and lost sales, and the original panel's subsequent findings regarding those phenomena. The original panel stated that, because the phenomena of price suppression and lost sales exist from the time an LCA is ordered to the time it is delivered, "data pertaining to both LCA orders and to LCA deliveries will potentially be relevant to demonstrating the existence of significant price suppression and significant lost sales." As an evidentiary matter, a party may offer, and a panel may choose to rely upon, some combination of order and delivery data in seeking to establish the existence of significant price suppression or significant lost sales. It may even be that such a determination could be made on the basis of order data alone. A panel's reliance on such data in a particular dispute, however, does not, in our view, undermine the broader proposition that the serious prejudice phenomena themselves may not be confined to the time of the LCA order only, but instead may continue through the point of delivery.

5.339. The Panel then went on to identify additional, "more important" reasons for finding the European Union's claim under Article 7.8 to be "problematic". The essential difficulty the Panel had with the European Union's claim is that it suggested that, in order for the United States to take appropriate steps to remove the adverse effects of significant price suppression and lost sales, it must cease such phenomena with respect to the original transactions. For the Panel, such an approach: (i) is not "meaningful in a practical sense" since it is not clear how the United States could remove price suppression or lost sales occurring with respect to those specific transactions; and (ii) cannot be "reconcile{d}" with the prospective interpretation of Article 7.8 since it would seem to require the United States to undo retrospectively those original transactions. The Panel accordingly disagreed with the European Union's proposition that, where aircraft that were the subject of a past order found in the original proceedings to be a lost sale are undelivered at the time of the expiry of the implementation period, this is a present adverse effect. Instead the Panel considered this to be "a consequence or manifestation of an event that occurred in the past" or as "continuing manifestations or effects of past adverse effects".

5.340. We consider that the Panel adopted an overly rigid approach with respect to the question of whether outstanding deliveries concerning LCA orders that were relied on to find significant price suppression or significant lost sales may still provide a basis for a finding of such effects in the post-implementation period. As we have noted, the original panel seems to have developed reasonable grounds for understanding such market phenomena, in the specific context of the LCA market, as potentially encompassing the period from order through delivery. In our view, this does not mean that the existence of any outstanding deliveries in the post-implementation period is necessarily sufficient to establish the existence of adverse effects in that period. However, it would seem that what transpires between LCA orders and their subsequent deliveries would be relevant, particularly as it relates to evidence demonstrating the ongoing existence of price suppression or lost sales. Moreover, establishing the existence of serious prejudice under Article 6.3(c) with respect to the market phenomena of price suppression or lost sales also requires that the phenomena be found to be "significant". Thus, simply because certain market phenomena of price suppression or lost sales may be shown to persist after the end of the implementation period, this will not necessarily mean that such price suppression or lost sales would be "significant" in the post-implementation period.

5.341. For the foregoing reasons, the mere existence of outstanding deliveries after September 2012 relating to original orders found to have resulted in significant price suppression or significant lost sales between 2004 and 2006 would not necessarily, by itself, be dispositive as to

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762 Panel Report, para. 9.308.
763 Panel Report, para. 9.310.
764 Original Panel Report, para. 7.1686. (emphasis added)
765 Panel Report, para. 9.310.
766 Panel Report, para. 9.312.
767 Panel Report, para. 9.313.
768 Panel Report, para. 9.314.
the existence of significant price suppression or significant lost sales in the post-implementation period. Deliveries in the post-implementation period may indeed be relevant to an adverse effects analysis if there is evidence that significant price suppression or lost sales occurring between the time of order and delivery continues into the post-implementation period. Specifically, there would need to be some indication that subsequent developments following the initial order confirm the ongoing existence of such market phenomena. Therefore, while we would not agree with the European Union’s assertion before the Panel that outstanding deliveries in the post-implementation period are necessarily sufficient to establish the existence of present adverse effects, we likewise would disagree with the Panel’s suggestion that such evidence can never form the basis of a finding as to the ongoing existence of such effects.

5.342. We also find the Panel’s reasoning with respect to Article 7.8 unpersuasive. The Panel’s concern that the European Union’s claim would result in a retrospective remedy appears premised on the notion that the only means by which the United States could bring itself into compliance under the European Union’s theory is to undo the original orders. However, Article 7.8 does not specify what “steps” are “appropriate” for purposes of removing the adverse effects, which suggests that it covers a range of possible actions. While certain actions regarding a subsidy may not lead to its withdrawal, they could, for example, alter the benefit of the subsidy such that it attenuates the causal link between the subsidy and the adverse effects. While the Panel may be correct to note that the European Union did not explain “what kind of action the United States could have taken with respect to that undelivered aircraft that would have removed the ‘present’ adverse effects,” this does not mean that such removal is not possible, and does not support the Panel’s apparent assumption that the only way to remove such effects would therefore have to be a retrospective undoing of the original orders.

5.343. More importantly, the Panel’s approach leads it to draw a faulty distinction between “present adverse effects”, on the one hand, and “consequence(s) or manifestation(s) of an event that occurred in the past” or “continuing manifestations or effects of past adverse effects”, on the other hand. On this basis, the Panel sought to disregard the significance of outstanding deliveries in the post-implementation period by characterizing them as a mere consequence of past adverse effects. However, as we have noted, Article 7.8 calls on panels to assess whether an implementing Member has ceased conduct amounting to the granting or maintaining of subsidies that cause adverse effects. To the extent that adverse effects arising in the post-implementation period are shown to have been caused by subsidies that have not expired, they are themselves adverse effects, not something consequential to the original adverse effects. In this respect, we see no basis to categorically exclude consideration of delivery data concerning the post-implementation period to the extent that such evidence, in conjunction with other evidence, shows ongoing price suppression or lost sales in the post-implementation period. As we have said, while evidence pertaining to outstanding deliveries is unlikely by itself to be dispositive as to adverse effects occurring well after the LCA sales that gave rise to the original findings were made, we see no tenable basis to exclude the potential relevance of such evidence in establishing such a case.

5.344. For the foregoing reasons, we find that the Panel erred in its interpretation of Article 7.8 of the SCM Agreement by excluding \textit{ab initio}, from an inquiry into whether the United States had failed to take appropriate steps to remove the adverse effects of the subsidies, evidence relating to transactions for which the orders arose in the original reference period but for which deliveries remain outstanding in the post-implementation period. Accordingly, we reverse the Panel’s interpretation of Article 7.8, in paragraphs 9.311 to 9.314 of the Panel Report, and its statement in paragraph 9.332 of the Panel Report, that reliance on the role of deliveries of aircraft in the post-implementation period as evidence of a continuation of serious prejudice “is inconsistent with a prospective interpretation of Article 7.8”.

5.345. Additionally, the European Union claims that the Panel erred in the application of Article 7.8 of the SCM Agreement, and acted inconsistently with Article 11 of the DSU, by departing from the original panel’s finding that “price suppression and lost sales ... exist from the time an order for LCA is made, up to and including its delivery.” Having examined above the role of orders and deliveries

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769 Panel Report, para. 9.312.
771 Panel Report, para. 9.332. (emphasis omitted)
in assessing a claim of continuing adverse effects, and having reversed the Panel’s interpretation of Article 7.8 of the SCM Agreement, we need not further consider these corollary claims by the European Union.

5.346. We further note that, as a consequence of our reversal of the Panel’s interpretation of Article 7.8 as it relates to the significance of deliveries for establishing significant price suppression and significant lost sales, the European Union additionally requests that we reverse the Panel’s finding in paragraph 9.407 regarding significant lost sales caused by the tied tax subsidies in the single-aisle LCA market insofar as it excluded the Fly Dubai 2008 and Delta Airlines 2011 sales campaigns. It is not clear to us whether the Panel’s decision to exclude these two sales campaigns from its finding of significant lost sales resulted from the error we have associated with the Panel’s interpretation of Article 7.8. Indeed, the Panel did not provide any reason for the treatment of these two sales campaigns other than to state in footnotes that it was “not necessary” for it to consider whether these two sales campaigns constitute evidence of significant lost sales in the post-implementation period. Additionally, it appears that the basis for the European Union’s allegation that these two sales campaigns also constitute significant lost sales is the contention that there remain outstanding deliveries at the end of the implementation period. As we have explained, we do not consider this to be a sufficient basis upon which to establish the existence of serious prejudice in the form of significant lost sales in the post-implementation period. Accordingly, we decline to reverse this finding by the Panel in the manner requested by the European Union.

5.6.2 Whether the Panel erred under Articles 5 and 6.3 of the SCM Agreement, or acted inconsistently with Article 11 of the DSU, in its treatment of claims of continuing adverse effects from the original proceedings

5.347. The European Union also appeals the Panel’s separate conclusion that the European Union’s arguments regarding continuing adverse effects were “unsupported by the evidence and/or in contradiction with the findings made in the original proceeding”. We first examine the European Union’s claim that, in reaching this conclusion, the Panel acted inconsistently with Article 11 of the DSU by deviating from the adopted findings in the original proceedings concerning the 200-300 seat LCA market. According to the European Union, although the original panel made intermediate findings that were based on evidence relating to the A330 and the Original A350, the ultimate findings of the original panel related to the 200-300 seat LCA market as a whole, which had been defined to include those two LCA models as well as the A350XWB-800. The European Union considers that, where the Panel’s findings confirmed the continued existence of the same LCA market for which the original panel and the Appellate Body made their respective findings of significant price suppression, significant lost sales, and threat of displacement or impedance, the Panel had no basis to deviate from the findings in the original proceedings. The European Union submits that the fact that the Panel deviated from the original findings and focused its adverse effects assessment on different aircraft models therefore constitutes legal error under Article 11 of the DSU.

5.348. The United States responds that the Panel did not improperly deviate from the original panel’s findings. According to the United States, the European Union cannot fault the Panel for focusing on argumentation and evidence for specific aircraft models because the original panel adopted the same approach in the original proceedings, as did the European Union when presenting its arguments and evidence in these compliance proceedings. In addition, the United States considers that the European Union is wrong to assert that the circumstances of these compliance proceedings are the same as, and therefore require the same conclusions as, the situation before the original panel. This proposition, the United States maintains, is legally incorrect and contrary to the evidence, and the Panel was therefore required to carefully consider the evidence and argumentation concerning developments since the original reference period.

773 European Union’s appellant’s submission, para. 376.
774 Panel Report, fn 3329 to para. 9.403 and fn 3335 to para. 9.406.
775 European Union’s appellant’s submission, para. 377.
776 European Union’s Notice of Appeal, paras. 15-16 (quoting Panel Report, para. 9.332). (emphasis omitted)
777 European Union’s appellant’s submission, para. 955.
778 United States’ appellee’s submission, paras. 509-511.
779 United States’ appellee’s submission, paras. 513-515.
5.349. The central proposition underpinning this claim on appeal is the European Union’s contention that the Panel acted in a manner inconsistent with Article 11 of the DSU because it “deviated” from the findings in the original proceedings. The European Union adds that, instead of following those findings, the Panel focused on the “entirely irrelevant” fact that the A330, Original A350, and the A350XWB are “different aircraft”. The paragraphs cited by the European Union pertain to the Panel’s consideration of the European Union’s claims regarding significant price suppression, significant lost sales, and threat of displacement of the A350XWB. As the European Union explains, because there has been no change to the LCA competing in the 200-300 seat LCA market for which the original panel and the Appellate Body made their respective adverse effects findings, the Panel had no basis for deviating from the approach in the original proceedings by now focusing on separate aircraft models. In this respect, the European Union relies on the observation that, although the original panel made intermediate findings that were based on a consideration of evidence that related to the A330 and the Original A350, the ultimate findings made by the original panel related to the 200-300 seat LCA market as a whole, which was defined also to include the A350XWB-800.

5.350. Beginning with the original panel’s findings of adverse effects, we understand that the original panel appears to have accepted the European Communities’ contention that the 200-300 seat LCA market consisted of the Boeing 787 LCA family as well as the Airbus A330, Original A350, and A350XWB-800 LCA. Moreover, we note that the original panel appeared to base its findings on evidence relating to the A330 and the Original A350, but not the A350XWB. Thus, with regard to significant price suppression, the original panel found that it was able to conclude, “based on the evidence” that, absent the subsidies, “prices of the A330 and the Original A350 in the 2004 to 2006 period would have been significantly higher.” Similarly, with regard to significant lost sales, the original panel found that, absent the subsidies, “Airbus would have made additional sales of the A330 and Original A350 over the same period.” Furthermore, regarding the threat of displacement or impedance, the original panel found that, absent the subsidies, “Airbus would have obtained additional orders for its A330 and Original A350 LCA from customers in third country markets Australia, Ethiopia, Kenya and Iceland in 2005 and 2006.” It is therefore clear that the original panel’s findings were not based on evidence relating to the A350XWB. In addition, we note that, at least with respect to significant price suppression, the original panel explicitly excluded any finding of price suppression for the A350XWB-800 because it had no pricing data before it on which to reach such a finding. In any event, we would note that the fact that the Panel’s findings were not based on evidence pertaining to the A350XWB-800 may not be surprising given that the A350XWB-800 was launched in December 2006, which was the last month of the original reference period from 2004 to 2006.

5.351. At the same time, the European Union is correct to note that, in each instance, the original panel also seemed to frame its conclusions with respect to a product market and/or geographic markets as a whole. Thus, following its reference to the evidence as limited to the A330 and Original A350, the panel found significant price suppression and 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”, and

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780 European Union’s appellant’s submission, paras. 954, 957, and 965.
781 European Union’s appellant’s submission, para. 954.
783 Although the European Union also makes reference to the Panel’s finding of significant price suppression with regard to the A330, the Panel did not rely on the fact that the A330 and the A350XWB-800 are different aircraft in order to sustain its rejection of that claim by the European Union. (See Panel Report, paras. 9.316-9.321) We address below the European Union’s claim on appeal that the Panel erred under Articles 5 and 6.3 of the SCM Agreement in its treatment of the European Union’s claim of significant price suppression regarding the A330.
784 European Union’s appellant’s submission, para. 958.
785 European Union’s appellant’s submission, para. 955 (referring to Original Panel Report, paras. 7.1670 and 7.1672; Appellate Body Report, US – Large Civil Aircraft (2nd complaint), paras. 897-898).
786 Original Panel Report, paras. 7.1670 and 7.1672.
787 Original Panel Report, para. 7.1794.
788 Original Panel Report, para. 7.1794.
789 Original Panel Report, para. 7.1794.
790 Original Panel Report, para. 7.1793. (“There is no evidence before the Panel as to price trends for the A350XWB-800, nor has the European Communities presented evidence concerning the actual pricing of the A350XWB in the context of specific LCA sales campaigns.”)
791 Original Panel Report, para. 7.1777.
threat of displacement or impedance "of exports from third country markets within the meaning of Article 6.3(b) of the SCM Agreement".  

5.352. In the compliance proceedings, the Panel did not accept that the original adverse effects findings that were made with respect to the Original A350 could be transposed into findings of continuing adverse effects with respect to the A350XWB. Thus, in addressing the European Union's claim of continuing significant price suppression for the A350XWB in the post-implementation period, the Panel considered that the European Union's contention was "in contradiction with the fact that the price suppression that occurred in 2004-2006 was price suppression of a different aircraft, the Original A350".  

With regard to the claim of continuing significant lost sales for the A350XWB, the Panel stated that there was no "logical basis" to now treat lost sales of the A330 and Original A350 as lost sales of the A350XWB, and further observed that "at the time the 787 sales were made, they caused lost sales of the A330 and Original A350, not the A350XWB."  

With regard to the claim of a continuing threat of displacement in the Australian market, the Panel stated that there was "no basis" to treat a threat of displacement regarding the Original A350 now as a finding of a threat of displacement concerning the A350XWB. 

5.353. In light of the foregoing discussion, we make several observations. First, although the original panel made ultimate findings for each serious prejudice phenomenon with respect to the 200-300 seat LCA market as a whole, the evidentiary basis for doing so regarding the original reference period related solely to the A330 and the Original A350, but not the A350XWB. In our view, this is a relevant consideration in evaluating the extent to which the original adverse effects may be said to continue into the post-implementation period, and, at a minimum, does not seem to support the European Union's assertion that the Panel in these compliance proceedings somehow departed from the approach taken by the original panel in focusing on evidence relating to specific LCA models. Indeed, we understand the Panel to be making the point that, because the original adverse effects findings were associated with particular evidence of serious prejudice suffered by the A330 and the Original A350, it cannot simply be assumed that such findings would necessarily extend to the A350XWB-800, an LCA model that, while part of the same product market, had not been shown to have suffered serious prejudice in the original reference period. 

5.354. We further recall, in particular, our discussion in the preceding section regarding the role served by original findings of adverse effects in establishing whether, in compliance proceedings, the original adverse effects continue after the end of the implementation period. As we have noted, although original findings of adverse effects necessarily serve as the starting point of the analysis in compliance proceedings, it is incumbent on a complaining Member to establish afresh through arguments and evidence whether, and to what extent, the specific serious prejudice phenomena from the original proceedings continue to exist in the post-implementation period. Therefore, while the analysis begins with the original findings of adverse effects, the European Union had also to demonstrate how those particular adverse effects that were based on findings regarding certain aircraft could be transposed to a different aircraft model that did not provide a foundation for the findings in the original proceedings. As we understand it, however, the European Union sought to make this demonstration by relying principally on the fact that orders of Original A350 were converted to orders of A350XWB, and that certain deliveries of the latter remained outstanding at the end of the implementation period. While we have faulted the Panel for disregarding the relevance of developments following the original findings of adverse effects in assessing whether those effects continue into the post-implementation period, we have also disagreed with the European Union's proposition that the mere existence of outstanding deliveries in the post-implementation period would suffice to establish continuing adverse effects. 

5.355. We also believe that the Panel had grounds to consider that developments concerning the relevant LCA market since the original reference period precluded mere transposition of the original panel's findings into the post-implementation period. We again note that, although the European Union is correct to observe that the original panel accepted that the A350XWB-800 formed part of the 200-300 seat LCA market, that aircraft was launched at the very end of the original reference period in December 2006. Accordingly, while the original panel was aware of the existence of that LCA model, and even acknowledged that it would be in competition with the Boeing 787 LCA model.
in that product market segment, the findings by the original panel were not based on any evidence pertaining to the A350XWB-800. Even within product markets there can be a degree of product differentiation that may be of relevance to an adverse effects analysis. Just because the Original A350 and the A350XWB-800 compete with the 787 does not mean that they do so in the same way. In this respect, it is important to note that, while the A350XWB-800 was accepted for inclusion in the product market delineation established by the original panel, by the time of the compliance proceedings, the Original A350 no longer featured in the product market defined by the Panel.796 As has been well rehearsed in both the original and compliance proceedings, this is because the newer model A350XWB represented the replacement aircraft for the older model Original A350.797

5.356. For the foregoing reasons, we do not think it was improper for the Panel to consider that it could not merely transpose the findings from the original proceedings – that were based on evidence of significant lost sales, significant price suppression, and a threat of displacement or impedance concerning the Original A350 – to establish the same serious prejudice phenomena with regard to the A350XWB-800, an LCA model that received only limited consideration in the original panel's analysis, and did not form the evidentiary basis for any of its adverse effects findings. While we do not exclude that, as a general matter, serious prejudice phenomena may be established on a product-market-wide basis such that product differentiation within that market may be less relevant, we consider that, in the context of this dispute, the Panel did not err in relying on the manner in which the twin-aisle LCA market had evolved between the original and compliance proceedings. We therefore find that the Panel did not act inconsistently with Article 11 of the DSU by deviating from the adopted findings in the original proceedings concerning the 200-300 seat LCA market.

5.357. The European Union further alleges that the Panel erred under Articles 5 and 6.3 of the SCM Agreement by failing to conduct a proper counterfactual analysis when assessing whether there was continuing price suppression of the A330 in the post-implementation period.798 According to the European Union, a proper counterfactual analysis required a comparison of actual A330 prices with counterfactual A330 prices in the absence of subsidies, and that, since neither the 787 nor the A350XWB would have been launched and delivered by the end of the implementation period, prices for the A330 would have been higher.799 Instead, according to the European Union, the Panel erroneously compared actual A330 prices with the actual situation in which the 787 and A350XWB would have already changed the competitive dynamics of the market.800

5.358. The United States maintains that the Panel conducted a proper counterfactual analysis. The United States points to the various evidentiary shortcomings and methodological flaws that were noted by the Panel regarding the European Union's case.801 In addition, the United States observes that, in response to the simplistic contention by the European Union that "something" must be holding down A330 prices in the post-implementation period, the Panel's analysis reflected a proper counterfactual evaluation that the prevailing A330 prices would not have been different in the absence of the subsidies because the competitive dynamic driving those prices after the end of the implementation period would have been the same.802

5.359. This challenge on appeal is focused on the Panel's rejection of the European Union's contention that competition from the 787 is what was holding down A330 prices during the relevant period. In particular, the European Union challenges the Panel's statement that it was not clear "why Airbus could have legitimately expected A330 prices to ever 'recover' to their pre-2004 levels, when the A330 was the technological market leader, given the reality that since then, the 787 and

796 Panel Report, para. 9.43, Table 7.
797 The original panel stated that "the A350XWB-800 is regarded as a technologically superior product to the Original A350." (Original Panel Report, para. 7.1793) See also Panel Report, paras. 9.221-9.228.
798 European Union's appellant's submission, para. 967. In the European Union's view, the errors in the application of Articles 5 and 6.3 of the SCM Agreement also involve errors in the application of Article 7.8 of the SCM Agreement. However, in its appellant's submission, "{f}or the sake of brevity, the European Union refers to this error as an error in the application of Articles 5 and 6.3." (European Union's appellant's submission, fn 1325 to para. 913) As we see it, the European Union's claim of error in the application of Article 7.8 is consequential to those under Articles 5 and 6.3. Thus, we focus our assessment on the alleged errors in the application of Articles 5 and 6.3 of the SCM Agreement.
799 European Union's appellant's submission, para. 969.
800 European Union's appellant's submission, para. 970.
801 United States' appellee's submission, paras. 525 and 529.
802 United States' appellee's submission, paras. 523 and 526-527.
A350XWB have changed the competitive dynamics of this market.\footnote{Panel Report, para. 9.319.} By referring to "the reality" of competition between the 787 and the A350XWB, the argument by the European Union is that the Panel was referring to what was taking place in the actual world, rather than in the counterfactual world. The suggestion is that, by failing to account for what that competitive dynamic would have been in a counterfactual scenario, the Panel did not properly consider that the accelerated entry in the market of the 787 and the A350XWB is what caused suppression of A330 prices.

5.360. We do not consider that the Panel's statement in this context indicates that it failed to conduct a proper counterfactual analysis. We note, first of all, that the Panel properly explained that, in examining claims of significant price suppression, "price trend data alone is not sufficient", and that "it is also necessary to present counterfactual argumentation demonstrating that, in the absence of the subsidies, prices would have been higher."\footnote{Panel Report, fn 3182 to para. 9.321.} In addition, we note the Panel's prior conclusion that Boeing, even without these subsidies, would have been able to launch the 787 well before the end of the implementation period, which means that the competitive dynamic between the more technologically advanced Boeing and Airbus LCA offerings would already have been present by the end of that period.\footnote{Panel Report, para. 9.176.} Thus, the Panel would have considered in the context of this analysis that the "actual" and the "counterfactual" situations were the same in the sense that, as of the end of the implementation period, the 787 would have been launched in the LCA market regardless of subsidization and would have been competing with the A350XWB. In this light, we consider that the Panel's view that the A330 would not have been able to command the sort of price it once did, in view of the technological superiority of the 787 and the A350XWB, did not reflect a failure to conduct a proper counterfactual analysis.

5.361. Moreover, we note that the Panel identified other reasons for its rejection of the European Union's claim.\footnote{Panel Report, fn 3182 to para. 9.321.} While these reasons do not explicitly reference a counterfactual analysis, they do underscore the Panel's view that the European Union had not substantiated that A330 pricing would have been higher in the absence of the subsidies.

5.362. For the foregoing reasons, we find that the Panel did not err under Articles 5 and 6.3 of the SCM Agreement by failing to conduct a proper counterfactual analysis when assessing whether there was continuing price suppression of the A330 in the post-implementation period.

5.363. Having found no Panel error under either Article 11 of the DSU, or under Articles 5 and 6.3 of the SCM Agreement, we uphold the Panel's separate finding, in paragraph 9.332 of the Panel Report, that "the European Union's arguments are unsupported by the evidence and/or in contradiction with the findings made in the original proceeding."\footnote{See also Panel Report, para. 9.315.}

5.6.3 Conclusion

5.364. In assessing whether appropriate steps have been taken to remove the adverse effects of a subsidy within the meaning of Article 7.8 of the SCM Agreement, the time period for assessing the removal of adverse effects may include developments subsequent to the time of order, including through the point of delivery. Accordingly, we find that the Panel erred in its interpretation of Article 7.8 by excluding ab initio, from an inquiry into whether the United States had failed to take appropriate steps to remove the adverse effects of the subsidies, evidence relating to transactions...
for which the orders arose in the original reference period but for which deliveries remain outstanding in the post-implementation period. We therefore reverse the Panel’s interpretation of Article 7.8 of the SCM Agreement, in paragraphs 9.311 to 9.314 of the Panel Report, and its statement in paragraph 9.332 of the Panel Report, that reliance on the role of deliveries of aircraft in the post-implementation period as evidence of a continuation of serious prejudice would be inconsistent with Article 7.8. Having reversed this finding, we do not address whether, in addition, the Panel erred in the application of Article 7.8, or acted inconsistently with Article 11 of the DSU. However, because it is not clear whether the Panel’s decision to exclude two additional sales campaigns as significant lost sales resulted from the above error, and because the European Union’s request is based on a premise that we rejected, we decline to reverse the Panel’s finding, in paragraph 9.407 of the Panel Report, insofar as it excludes the Fly Dubai 2008 and Delta Airlines 2011 sales campaigns.

5.365. We further find that the Panel did not err under Articles 5 and 6.3 of the SCM Agreement, or act inconsistently with Article 11 of the DSU, in separately finding that the European Union’s arguments are unsupported by evidence and/or in contradiction with the findings made in the original proceedings. We therefore uphold the Panel’s finding, in paragraphs 9.332 and 11.8.b of the Panel Report, that the European Union had failed to establish that the original adverse effects of the pre-2007 aeronautics R&D subsidies continue into the post-implementation period as present serious prejudice in relation to the A330 and A350XWB, within the meaning of Articles 5(c) and 6.3 of the SCM Agreement.

5.366. In addition, because we uphold the Panel’s rejection of the European Union’s claim regarding continuing adverse effects with respect to the A330, we need not consider the United States’ conditional claim that the Panel erred in finding that the European Union had not failed to make a prima facie case of significant price suppression with respect to the A330.808

5.7 Technology effects

5.367. The European Union requests us to reverse the Panel’s finding that the European Union failed to establish that the pre-2007 aeronautics R&D subsidies are a genuine and substantial cause of adverse effects in the post-implementation period through a technology causal mechanism. The European Union contends that the Panel, in reaching this finding, committed several legal errors in the application of Articles 5, 6.3, and 7.8 of the SCM Agreement, and failed to make an objective assessment of the matter under Article 11 of the DSU.809

5.368. With regard to its application claims, the European Union maintains that the Panel erred by: (i) focusing its counterfactual assessment solely on the impact of the pre-2007 aeronautics R&D subsidies on the launch date of the 787810, without taking into consideration the timing of its delivery; (ii) focusing on technology development involving later stages of LCA development (i.e. near-term R&D activities), while it should have also taken into account the early phases of fundamental R&D, which were the focus of the original panel’s analysis; (iii) focusing solely on the identification of the amount of time needed to perform certain fundamental research, without considering the implications for the sequencing of the relevant R&D in the overall process; and (iv) requiring the European Union to show the precise amount of time that Boeing would have required to perform each of a series of R&D tasks absent the pre-2007 aeronautics R&D subsidies, contrary to the applicable causation standard.814 The European Union also brings various challenges under Article 11 of the DSU that the Panel failed to conduct an objective assessment of the matter under Article 11 of the DSU that the Panel failed to conduct an objective assessment of the matter under Article 11 of the DSU.

808 United States’ Notice of Other Appeal, para. 10; other appellant’s submission, section V. If we were to disturb the Panel’s findings with respect to the A330, the United States submits a conditional appeal, under Article 6.3(c) of the SCM Agreement and Article 11 of the DSU, of the Panel’s finding that the European Union made a prima facie case of significant price suppression. The United States claims that, because the European Union never alleged that the A330 is in the same market as a subsidized Boeing product, it did not demonstrate the existence of competition required in order to establish the existence of adverse effects.

809 European Union’s appellant’s submission, para. 693.

810 In the technology effects section of this Report, unless otherwise indicated, a reference to the Boeing 787 is one to the 787-8 variant of this aircraft.

811 European Union’s appellant’s submission, para. 698.

812 European Union’s appellant’s submission, paras. 699-701.

813 European Union’s appellant’s submission, para. 702.

814 European Union’s appellant’s submission, para. 704.
before it by: (i) providing internally inconsistent reasoning; (ii) deviating from findings in the original proceedings; (iii) imposing an “impossible” burden of proof; and (iv) failing to base its findings on a sufficient evidentiary basis.

5.369. Before addressing the European Union’s challenge to the Panel's analysis of the technology effects of the pre-2007 aeronautics R&D subsidies, we first summarize key aspects of that analysis.

5.7.1 The Panel's analysis

5.370. Before the Panel, the European Union argued that the pre-2007 aeronautics R&D subsidies cause significant competitive harm to the European Union's LCA-related interests following the end of the implementation period through their genuine and substantial contribution to Boeing's accelerated development of technologies for its current LCA and for future Boeing LCA. The European Union alleged that Boeing benefits from the effects of the pre-2007 aeronautics R&D subsidies in the following ways:

a. Original subsidy technology effects: Boeing continues to benefit from 787 technologies that were “found to be the effect” of the original pre-2007 aeronautics R&D subsidies, which impact the market through sales of the 787.

b. Spill-over technology effects: Boeing has benefited from the application of the “subsidized 787 technologies” to Boeing's more recent 787, 777X, and 737 MAX LCA developments.

5.371. The Panel divided its analysis of the European Union’s claims of serious prejudice through a technology causal mechanism into two main sections. First, the Panel examined the European Union’s claims regarding the technology effects of the aeronautics R&D subsidies in the

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815 The European Union submits that the Panel acted inconsistently with Article 11 of the DSU because the Panel's focus on the timing of the launch of the 787 is internally inconsistent with other findings of its Report. (European Union's appellant's submission, para. 698)

816 The European Union claims that the Panel acted inconsistently with Article 11 of the DSU by failing to provide a reasoned and adequate explanation of how instances of near-term R&D activities can replace early-stage fundamental R&D in the context of the counterfactual analysis. (European Union's appellant's submission, para. 701) In addition, the European Union argues that, by using an incorrect sequence in its counterfactual analysis, the Panel acted inconsistently with Article 11 by failing to provide a reasoned and adequate explanation for its understanding of the progression of the R&D at issue. (Ibid., para. 702)

817 The European Union submits that the Panel acted inconsistently with Article 11 of the DSU because, by focusing on the timing of the launch of the 787, it inappropriately deviated from the findings of the original panel and the Appellate Body. (European Union's appellant's submission, para. 698) The European Union also considers that, by using an incorrect sequence in its counterfactual analysis, the Panel acted inconsistently with Article 11 of the DSU by deviating from the adopted findings in the original proceedings. (Ibid., para. 811)

818 European Union's appellant's submission, para. 704. The European Union argues that the Panel subjected the European Union to an impossible burden of proof because the evidence it demanded would have simply been impossible for the European Union to adduce, as its participant in the LCA markets, Airbus, does not have insight into the proprietary internal R&D operations of its sole competitor, Boeing. (Ibid., para. 843)

819 European Union's appellant's submission, paras. 705 and 861. The European Union claims that the Panel failed to base its findings on a sufficient evidentiary basis by “misconstruing” one of its statements before the original panel and using that “misconstruction” to find that the European Union had accepted in the original proceedings that Boeing would have been able to launch the 787 in 2006, absent the pre-2007 aeronautics R&D subsidies. (Ibid., para. 857)

820 The European Union also contended that Boeing benefits from the effects of the pre-2007 aeronautics R&D subsidies through “sleeper technology effects”. According to the European Union, pursuant to sleeper technology effects, Boeing has developed new innovative technologies based in part on research conducted under the original aeronautics R&D programmes, which it is now beginning to apply to its most recent LCA developments. (Panel Report, para. 9.118 (referring to European Union’s first written submission to the Panel, para. 985)) In addition, the European Union also argued before the Panel that certain post-2006 aeronautics R&D subsidies operate through a “main technology effect”. According to the European Union, Boeing is the beneficiary of new post-2006 NASA, USDOD, and FAA aeronautics R&D subsidies, which have enabled Boeing to develop new technologies for its more recent LCA models, such as the 787-10, 777X, and 737 MAX. (Panel Report, paras. 9.119 and 9.343 (referring to European Union’s first written submission to the Panel, para. 986)) The European Union has not appealed the Panel's analysis regarding the above-mentioned effects. (European Union’s appellant's submission, fn 998 to para. 695 and fn 999 to para. 696)

821 Panel Report, para. 9.118 (referring to European Union’s first written submission to the Panel, paras. 983-984).
twin-aisle LCA market. In assessing the technology effects of the aeronautics R&D subsidies in the twin-aisle LCA market, the Panel indicated that it would evaluate the European Union's claims by first examining whether the pre-2007 aeronautics R&D subsidies and certain post-2006 aeronautics R&D subsidies, alleged to operate through a technology causal mechanism, give rise to the particular forms of technology effects in the post-implementation period argued by the European Union. To the extent that it would find that these subsidies have such effects on Boeing's product development of the relevant LCA, the Panel indicated that, as a second step, it would assess the consequent impact on Airbus' LCA sales and prices in the post-implementation period so as to determine whether the subsidies in question, through these technology effects, constitute a genuine and substantial cause of the particular forms of serious prejudice alleged by the European Union.

5.373. The Panel began its analysis of the European Union's claims regarding the original subsidy technology effects of the pre-2007 aeronautics R&D subsidies by indicating that neither the original panel nor the Appellate Body considered that the 787 technologies were themselves the effects of the pre-2007 aeronautics R&D subsidies. In other words, the pre-2007 aeronautics R&D subsidies were not found to have brought into existence any technology or product that would not have otherwise existed. Instead, the Panel noted that the original panel and the Appellate Body found that the pre-2007 aeronautics R&D subsidies accelerated Boeing's development of technologies for the 787, which in turn enabled Boeing to launch the 787 earlier than otherwise would have been possible, thereby reducing Boeing's time to market for the 787. Therefore, the Panel pointed out that the issue before it was whether the acceleration of Boeing's development of advanced LCA technologies that the pre-2007 aeronautics R&D subsidies were found to have in the original proceedings is still evident or whether it had ended by the end of the implementation period. The Panel considered that the counterfactual question before it was "whether it is likely that, absent these subsidies, the 787 technologies would still not have been developed by the end of the implementation period and thus the 787 would not have been present in the market by that time."

5.374. The European Union argued before the Panel that it would have taken Boeing "at least 10 years to develop only a number of select LCA technologies and design tools necessary for the 787" and that Boeing "would further require considerable time to develop the knowledge it has acquired through decades of experience participating in the US Government-supported R&D programmes". In contrast, the United States submitted that, absent the pre-2007 aeronautics R&D subsidies, Boeing would have launched the 787 most likely no later than 2006. The United States maintained that this left "ample time" for Boeing to adapt the 787 technologies to the 777X and 737 MAX.

5.375. The Panel first examined the arguments presented by the European Union in support of its time estimate, which were based on a statement by Airbus engineers submitted to the Panel.

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822 In this context, the Panel assessed the European Union's claim that the pre-2007 aeronautics R&D subsidies and certain post-2006 aeronautics R&D subsidies benefiting the 787 and 777X cause serious prejudice to the interests of the European Union with respect to the A350XWB in the post-implementation period.
823 Panel Report, para. 9.15. The Panel's analysis in this context focused on the European Union's claim that certain aeronautics R&D subsidies benefiting the 737 MAX cause serious prejudice to the interests of the European Union with respect to the A320neo in the post-implementation period.
824 Panel Report, para. 9.122.
825 Panel Report, para. 9.127.
826 Panel Report, para. 9.126.
827 Panel Report, para. 9.128. In this regard, the Panel considered it pertinent to inquire about the additional time that Boeing would have required in order to develop the 787 absent the pre-2007 aeronautics R&D subsidies. In the Panel's view, this would indicate whether it is likely that Boeing would have been in the market with an unsubsidized 787 prior to the expiration of the implementation period. (Ibid.)
828 Panel Report, para. 9.128 (quoting European Union's second written submission to the Panel, para. 975).
829 Panel Report, para. 9.130 (referring to United States' first written submission to the Panel, para. 709).
830 Panel Report, para. 9.130 (quoting European Union's second written submission to the Panel, para. 975).
831 Response by Burkhard Domke, Phil A. Brown, Jörg Kumpfert, and Ian Whitehouse to the June 2013 Statement by Boeing Engineers, 19 July 2013 (Airbus Engineers' Response) (Panel Exhibit EU-1014) (BCI/HSBI).
According to the European Union, the counterfactual question should focus on the amount of additional time that it would have taken Boeing to research, develop, produce, certify, and deliver the 787. The Panel indicated that, if it were to formulate the counterfactual question in the terms proposed by the European Union, its conclusion would also include time to undertake activities (internal R&D conducted by Boeing and its suppliers, production, certification, and delivery) that were not found to have been effects of the pre-2007 aeronautics R&D subsidies in the original proceedings. In the Panel's view, the original panel did not consider that Boeing's technology development in relation to the 787 was solely the result of Boeing's subsidized participation in the NASA and USDOD aeronautics R&D programmes, or that the acceleration effects of the pre-2007 aeronautics R&D subsidies encompassed phases in the development of the 787 beyond its launch. Thus, the Panel found that "the European Union's estimate erroneously attributes to the pre-2007 aeronautics R&D subsidies aspects of the 787's development that were not found to have been accelerated by Boeing's participation in the relevant NASA and DOD aeronautics R&D programmes." In addition, the Panel noted that the European Union had not provided a clear statement, or supporting evidence, that the 787 would not have launched until after the end of the implementation period.

5.376. Turning to the United States' time estimate, the Panel began by agreeing with the United States that there was no evidence, and no support in the findings in the original proceedings, that suggested the possibility that Boeing would have taken a commercial decision not to proceed with the development of the 787, absent the pre-2007 aeronautics R&D subsidies. The Panel then turned to address the European Union's criticisms of the United States' time estimate. In particular, the Panel addressed the argument that the United States had failed to demonstrate that it would have been technically feasible to launch the 787 in 2006 (rather than the actual launch in 2004) absent the pre-2007 aeronautics R&D subsidies, as concluded by certain Boeing engineers in the Statement of Boeing Engineers Regarding the Technologies and Development of the 787, 737 MAX, and 777X (Boeing Engineers' Statement).

5.377. First, the Panel examined the European Union's criticism of the methodology used by the Boeing engineers. In this context, the Panel reiterated its disagreement with the European Union's argument that the counterfactual assessment should consider the entire development period of the 787 beyond its launch. In the Panel's view, the European Union's approach is inconsistent with the findings in the original proceedings and risks attributing unsubsidized aspects of the 787's development to the effects of the pre-2007 aeronautics R&D subsidies. In addition, the Panel considered the European Union's criticism of the Boeing engineers' methodology to be "highly-generalized in nature, and ultimately unpersuasive".

5.378. Second, the Panel indicated that the European Union did not itself enumerate the specific additional tasks that the Boeing engineers should have reflected in the Boeing Engineers' Statement. Nor did the European Union provide evidence of how long Boeing would have needed to conduct any of the R&D tasks that were actually performed under the NASA and USDOD aeronautics R&D programmes. The Panel further noted that the European Union failed to provide specific evidence to rebut the timing estimates that the Boeing engineers provided for the specific R&D tasks discussed in their statement. The Panel noted that "(i)t is the European Union's burden to establish that the pre-2007 aeronautics R&D subsidies continue to cause any of the alleged serious prejudice market phenomena in the post-implementation period." Consequently, in the absence of any clear estimate from the European Union as to how much additional time Boeing would have needed to conduct any of the R&D tasks, the Panel found it difficult to accept the European Union's generalized criticisms of the United States' estimate.

5.379. Finally, the Panel also examined the development time of the Airbus A350XWB as a benchmark to assess the Boeing engineers' time estimate for the counterfactual analysis regarding
the 787. The Panel indicated that its comparison would focus on the time required to conclude the pre-launch development of the two aircraft. The Panel observed that "the time from the start of intensive pre-launch R&D on the 787 until formal launch (April 2004) was approximately [BCI]. In addition, the Boeing engineers assert that Boeing could have conducted all of the necessary research to launch the 787 before the end of April 2006 (with promised deliveries in 2010) absent the pre-2007 aeronautics R&D subsidies. The Panel indicated that if it were to accept the Boeing engineers' estimate, "the time from the start of intensive pre-launch R&D on the 787 until a counterfactual-adjusted, non-subsidized launch of the 787 (April 2006), would be approximately [BCI]." Turning to the A350XWB, the Panel indicated that, if it were to treat "the starting point of pre-launch R&D for the A350XWB as the date when work began on the composite wing design for the A350XWB until its official launch in December 2006, Airbus spent approximately [BCI] on pre-launch R&D before formally offering the A350XWB to customers." Therefore, the Panel found that "the United States' counterfactual allows for two additional years of pre-launch development, which means that the 787 pre-launch development period would exceed the A350XWB pre-launch development period by [BCI]." In the Panel's view, despite the differences in the design and technical solutions of the 787 and the A350XWB, the time that Airbus spent developing the A350XWB provides "a general sense of what range of estimates is reasonable." 5.380. For the foregoing reasons, the Panel concluded that "it is simply not plausible, and the European Union has failed to establish that, absent the aeronautics R&D subsidies, Boeing would not have launched the 787 by the end of the implementation period in September 2012." The Panel then added that, while it was "more difficult" to "confidently predict" exactly when Boeing would have been able to launch the 787 absent the pre-2007 aeronautics R&D subsidies, "it would be well before (i.e. at least several years before) the end of the implementation period." Consequently, the Panel concluded that the European Union had failed to demonstrate that the acceleration effects of the pre-2007 aeronautics R&D subsidies in relation to Boeing's technology development for the 787 have continued into the post-implementation period. 5.381. The Panel then turned to examine the European Union's claim that the pre-2007 aeronautics R&D subsidies, through their effects on Boeing's development of 787 technologies that have subsequently been adapted and applied to the more recently launched 787-9/10 and 777X, give rise to "spill-over technology effects" with respect to those aircraft in the post-implementation period. The Panel indicated that the relevant question before it was whether, owing to the acceleration in the development of the 787 technologies, any alleged so-called "spill-over technologies" applied to the 787-9/10 and 777X also came into existence earlier than would otherwise have been the case, enabling an earlier launch of these aircraft. The Panel recalled its finding that the European Union had failed to establish that, absent the pre-2007 aeronautics R&D subsidies, Boeing would have launched the 787 after the end of the implementation period in September 2012. The Panel considered that, regardless of whether Boeing would have launched the 787 before the end of 2006
or somewhat later, an unsubsidized launch of the 787 would nevertheless have occurred "multiple years in advance" of the launch of the 787-10 (in June 2013) or the 777X (in November 2013).  

5.382. The Panel added that the onus was on the European Union to demonstrate that Boeing would not have had sufficient time, following the unsubsidized launch of the 787, to leverage its knowledge and experience to proceed with the respective launches of the 787-9/10 and 777X. The Panel considered that the European Union had not provided credible evidence to demonstrate this. Consequently, the Panel concluded that the European Union failed to demonstrate the existence of spill-over technology effects of the pre-2007 aeronautics R&D subsidies with respect to the 787-9/10 or 777X in the post-implementation period.

5.383. In addressing the alleged technology effects of the aeronautics R&D subsidies in the single-aisle LCA market, the Panel began by indicating that the relevant question was whether, owing to the acceleration in the development of the 787 technologies due to the pre-2007 aeronautics R&D subsidies, any alleged spill-over technologies in relation to the 737 MAX also came into existence earlier than would otherwise have been the case, enabling an earlier launch of this aircraft. The Panel recalled its earlier conclusion that the European Union had failed to demonstrate that, absent the pre-2007 aeronautics R&D subsidies, Boeing would have launched the 787 after the end of the implementation period in September 2012. While the Panel considered it more difficult to confidently predict exactly when Boeing would have been able to launch the 787 absent the pre-2007 aeronautics R&D subsidies, Boeing would have done so well before (i.e. at least several years before) the end of the implementation period. Thus, in the Panel's view, it was not unrealistic to believe that Boeing would have been in a position to have launched the 737 MAX before the end of the implementation period. Moreover, in the Panel's view, the European Union had not provided credible evidence that, absent the pre-2007 aeronautics R&D subsidies, the 787 technologies could not have been adapted to the 737 MAX in sufficient time to enable its launch in August 2011. For these reasons, the Panel concluded that the European Union failed to demonstrate the existence of spill-over technology effects of the pre-2007 aeronautics R&D subsidies with respect to the 737 MAX in the post-implementation period.

5.384. For the foregoing reasons, the Panel stated that the European Union had failed to demonstrate any effect of the pre-2007 aeronautics R&D subsidies on Boeing's product development with respect to the 787, 777X, and 737 MAX in the post-implementation period. Consequently, the Panel found that the European Union failed to establish that the pre-2007 aeronautics R&D subsidies are a genuine and substantial cause of any of the forms of serious prejudice alleged with respect to the A350XWB and the A320neo in the post-implementation period, through a technology causal mechanism.

5.385. Having described the main findings by the Panel with respect to technology effects, we turn to our analysis of the European Union's claims on appeal.

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Panel Report, para. 9.184. We note that, in this part of its analysis, the Panel did not refer to the launch of the 787-9 (see ibid., para. 5.98).

Panel Report, para. 9.185. The Panel explained that "this is because the European Union misconstrues the findings from the original proceeding as to the effects of the pre-2007 aeronautics R&D subsidies." (Ibid., fn 2955 to para. 9.185)

Panel Report, para. 9.186. The Panel indicated that, in light of this conclusion, it need not address the question of whether any of the alleged technologies identified by the European Union in relation to the 787-10 and 777X are in some way related or linked to those on the 787. (Ibid., fn 2956 to para. 9.186)


Panel Report, para. 9.353.


Panel Report, para. 9.355. The Panel added that, in light of this conclusion, it need not address the question of whether any of the alleged technologies identified by the European Union in relation to the 737 MAX are in some way related or linked to those on the 787. (Ibid., fn 3251 to para. 9.355)

Panel Report, paras. 9.218 and 9.372. We note that the Panel's findings regarding the effects of the pre-2007 aeronautics R&D subsidies also addressed the European Union's claim regarding the existence of "sleeper technology effects" with respect to the 787-9/10 or 777X in the post-implementation period. Similarly, in its technology effects analysis, the Panel also addressed the European Union's claims regarding the existence of "new technology effects" of certain post-2006 aeronautics R&D subsidies with respect to the 787-9/10, 777X, or 737 MAX in the post-implementation period. (Ibid.)

5.7.2 Whether the Panel erred under Articles 5, 6.3, and 7.8 of the SCM Agreement, or acted inconsistently with Article 11 of the DSU, by failing to consider in its counterfactual analysis the impact of the acceleration effects of the pre-2007 aeronautics R&D subsidies on the timing of delivery of the 787

5.386. We begin with the European Union's fundamental concern that the Panel erred in assessing the existence of adverse effects of the pre-2007 aeronautics R&D subsidies by limiting its analysis to the counterfactual launch date of the 787 and excluding consideration of the impact of these subsidies on the timing of delivery of the 787. The European Union challenges this aspect of the Panel's analysis on the basis of a claim of error in the application of Articles 5, 6.3, and 7.8 of the SCM Agreement and of allegations that the Panel acted inconsistently with its obligations under Article 11 of the DSU.863

5.387. We first assess the European Union's claim as it relates to the Panel's application of Articles 5 and 6.3 of the SCM Agreement.864 The European Union considers that the Panel correctly identified the relevant counterfactual question as follows: "whether it is likely that, absent these subsidies, the 787 technologies would still not have been developed by the end of the implementation period and thus the 787 would not have been present in the market by that time", 865 However, the European Union contends that a proper application of Articles 5 and 6.3 requires a counterfactual consideration of not just their impact on the launch of an aircraft, but also on the delivery of the aircraft. The European Union maintains that such an analysis "would necessarily need to take into account (i) the time spent on pre-launch R&D, (ii) the time it takes to further develop technologies and mature them to the stage where they are ready for production, as well as (iii) the time until the aircraft can first be delivered to customers".866 Moreover, the European Union submits that the findings of the original panel and the Appellate Body stressed the importance of considering the effect of the subsidies on the timing of both the launch and the available delivery positions of an aircraft.867

5.388. The United States disagrees with the European Union's claim that the Panel erred in applying Articles 5 and 6.3 of the SCM Agreement because it focused exclusively on the counterfactual launch date of the 787, rather than on both launch and deliveries.868 According to the United States, the Panel properly focused on the counterfactual launch date while duly considering deliveries.869 In particular, the United States argues that the Panel correctly focused on the 787's counterfactual launch timing, given that "(u)pon the 787's launch, it would unquestionably be 'present in the market' because it would be competing for sales against Airbus LCA."870 The United States also considers that the Panel's focus on launch is consistent with the analysis of the panel and the Appellate Body in the original proceedings. Indeed, according to the United States, the Panel's approach follows the "common thread" from the original panel through the Appellate Body that the
launch date is the critical timing consideration for assessing the competitive effects of the aeronautics R&D subsidies.871

5.389. Although the participants do not take issue with the manner in which the Panel articulated the counterfactual question before it872, they disagree on the scope and import of the findings in the original proceedings regarding the type of counterfactual analysis that should be conducted in these compliance proceedings. In light of this disagreement, we turn to examine certain key passages from the original panel and Appellate Body reports.

5.390. The original panel considered that the main issue before it was whether the pre-2007 aeronautics R&D subsidies caused serious prejudice to the interests of the European Communities by reason of their effects on Boeing's development of technologies in relation to the 787.873 According to the original panel, the pre-2007 aeronautics R&D subsidies at issue were "precisely focused on those areas which, from a commercial perspective, are considered to be the most crucial to the LCA industry, in the sense that they carry the greatest prospect of creating significant competitive advantage".874 In the original panel's view, "(t)hese are technologies that promise airline customers lower direct operating costs and those that reduce the time to market."875 Moreover, as indicated in the original proceedings, NASA has a system to categorize technologies according to their level of maturity or technology readiness level (TRL).876 In this context, the original panel stated that "there is clearly evidence that the development of higher risk technologies up to TRL 6 (due to the aeronautics R&D subsidies) results in an acceleration of the overall technology development process for an airframe manufacturer like Boeing and would therefore facilitate an earlier product launch than would otherwise have been possible."877

5.391. The original panel indicated that certain developments in the LCA market878 likely meant that Boeing needed to develop an LCA to replace the 767 in the 200-300 seat LCA market, and that it would have done so in the early to mid-2000s. The original panel specified that the question was "what sort of aircraft Boeing could have developed, and when that aircraft could have been launched and first entered into service, in the absence of the aeronautics R&D subsidies".879 The original panel indicated that two scenarios would be most likely: (i) Boeing would have developed a 767-replacement that incorporated all of the technologies that are incorporated on the 787, but its launch would have been significantly later than 2004, and Boeing would not have been able to promise first deliveries for 2008; or (ii) Boeing would have launched a 767-replacement in 2004 that was technologically superior to the 767, but did not offer the degree of technological innovation of the 787.880 The original panel did not consider that it would need to reach a definitive view on which of these two scenarios would have occurred because it was clear 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."881

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871 United States' appellee's submission, para. 375.
872 European Union's appellant's submission, para. 707; United States' appellee's submission, para. 374.
873 Original Panel Report, paras. 7.1709-7.1773. In addressing this issue, the original panel examined a series of factors, such as: (i) the structure and design of the aeronautics R&D subsidies; (ii) the operation of the aeronautics R&D subsidies; and (iii) the conditions of competition in the LCA industry. (Ibid.)
874 Original Panel Report, para. 7.1742.
875 Original Panel Report, para. 7.1742. (emphasis added) The original panel added that those technologies that reduce the time to market do so, for example, by reducing development and production cycles. (Ibid., para. 7.1744)
876 The Peisen Study was a study that explained NASA's system of categorizing research according to its TRL, 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"). (Appellate Body Report, US – Large Civil Aircraft (2nd complaint), para. 974 (referring to Peisen et al., Case Studies: Time Required to Mature Aeronautic Technologies to Operational Readiness (SAIC and GRA, Inc., November 1999) (Peisen Study) (Original Panel Exhibit EC-795)))
877 Original Panel Report, para. 7.1748. (emphasis added)
878 The original panel pointed to Boeing's assessment in the late 1990s that route fragmentation would lead to a larger number of lower-volume routes, best served by a mid-sized, extended-range aircraft, and that this was a commercial assessment unrelated to the subsidies. (Original Panel Report, para. 7.1774)
879 Original Panel Report, para. 7.1774. (emphasis added)
880 Original Panel Report, para. 7.1775.
881 Original Panel Report, para. 7.1775.
5.392. As part of its appeal in the original proceedings, the United States alleged that, by misreading a table in an exhibit\(^{882}\), the original panel 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.\(^{883}\) The Appellate Body disagreed with the United States and pointed out that the original panel’s findings meant 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.”\(^{884}\)

5.393. The Appellate Body also expressed its agreement with the original panel that "{}t was the aeronautics R&D subsidies that enabled Boeing to overcome the disincentives in investing in aeronautics R&D, and which therefore accelerated Boeing’s launch of the 787 with all of its technological advancements in 2004."\(^{885}\) The Appellate Body also noted that, while the original panel recognized NASA’s contribution to the development of technologies, it “also appreciated that at ‘some point in time’, the contribution of that research could reasonably be expected to diminish”, such that NASA’s research could no longer be considered a “genuine and substantial” contribution to the technologies applied to future Boeing LCA.\(^{886}\) However, the Appellate Body highlighted that the original panel found that this point “had not been reached in 2004”, when the 787 “entered the market.”\(^{887}\) After evaluating the claims on appeal, the Appellate Body did not consider that the original panel had erred in finding 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.”\(^{888}\)

5.394. Having examined the findings in the original proceedings, we consider it important to note that the technology effects of the pre-2007 aeronautics R&D subsidies were acceleration effects with respect to the development of technologies for the 787. In other words, neither the original panel nor the Appellate Body considered that the 787 technologies were themselves the effects of the pre-2007 aeronautics R&D subsidies. Rather, the original panel and the Appellate Body found that the pre-2007 aeronautics R&D subsidies accelerated Boeing’s development of technologies for the 787, which in turn enabled Boeing to reduce the time to market for the 787.\(^{889}\)

5.395. Moreover, on the basis of the above findings, we consider that the concept of "launch" was particularly relevant in the original proceedings. For purposes of the original reference period from 2004 to 2006, launch was the principal accelerated event that enabled the original panel to reach conclusions of adverse effects arising from a subsidized 787. Any acceleration of the 787’s first delivery occurred after the 2004-2006 reference period and was a consequence of its accelerated launch. Indeed, the original panel and the Appellate Body acknowledged that there were also acceleration effects with respect to the promised first deliveries of the 787 by affirming that, through the pre-2007 aeronautics R&D subsidies, Boeing was able to offer "promised deliveries commencing in 2008".\(^{890}\) We further note that, while the original panel and the Appellate Body found that the pre-2007 aeronautics R&D subsidies accelerated both the 787’s launch and its first delivery, what was of critical relevance was the fact that the adverse effects arising in the 2004-2006 period could be attributed to the pre-2007 aeronautics R&D subsidies since, absent the subsidies, the 787 would not have existed with those technologies in the 200-300 seat LCA market during that period.

5.396. We further note the apparent view of the Panel and the participants that the findings in the original proceedings already settle the question of whether, in these compliance proceedings, the

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\(^{882}\) The piece of evidence in question was the Peisen Study. (Appellate Body Report, US – Large Civil Aircraft (2nd complaint), para. 972 (referring to Peisen Study (Original Panel Exhibit EC-795)))


\(^{884}\) Appellate Body Report, US – Large Civil Aircraft (2nd complaint), para. 980. (emphasis original)

\(^{885}\) Appellate Body Report, US – Large Civil Aircraft (2nd complaint), para. 986. (emphasis added)


\(^{889}\) Panel Report, para. 9.126.

\(^{890}\) Original Panel Report, para. 7.1775; Appellate Body Report, US – Large Civil Aircraft (2nd complaint), para. 1036.
analysis of the technology effects claims should focus on the timing of the 787's launch or whether such an analysis should also take into account the impact of the acceleration effects of the pre-2007 aeronautics R&D subsidies on the timing of first delivery of the 787. The Appellate Body has stated that a compliance panel is expected to assess the claims before it in light of the findings in the original proceedings adopted by the DSB. However, this does not mean that the legal issues before an original panel and a compliance panel are the same. As noted by the Appellate Body, "the utility of the review envisaged under Article 21.5 of the DSU would be seriously undermined if a panel were restricted to examining the new measure from the perspective of the claims, arguments and factual circumstances that related to the original measure, because an Article 21.5 panel would then be unable to examine fully the 'consistency with a covered agreement of the measures taken to comply', as required by Article 21.5 of the DSU." Moreover, as noted in section 5.6 above, Article 7.8 of the SCM Agreement sets out an obligation "of a continuous nature, extending beyond subsidies granted in the past". The Appellate Body has indicated that, "by its terms, Article 7.8 is concerned only with subsidies that the Member is 'granting or maintaining' in the implementation period. In assessing conformity under this provision, a panel's analysis should focus on the subsidies that continue to exist in the post-implementation period." The Appellate Body has also observed that, in assessing a compliance dispute under Article 7.8, "the source of inconsistency is the 'granting or maintaining' of subsidies that cause adverse effects. It is in respect of such 'granting or maintaining' that the findings made by an original panel require cessation."

5.397. Thus, as we see it, in assessing the existence of adverse effects in the context of original proceedings, a panel is called upon to determine whether, under Article 5 of the SCM Agreement, a Member has caused adverse effects at a given point in time to the interests of another Member through the use of subsidies. By contrast, in the context of compliance proceedings, the analysis focuses on whether the adverse effects found pursuant to Article 5 in the original proceedings have ceased by the end of the implementation period. Accordingly, because compliance is assessed at a new point in time – namely, after the implementation period has expired – the question of the existence of adverse effects in the post-implementation period must address developments subsequent to those that transpired in the original proceedings, including during the post-implementation period.

5.398. We consider that the relevant counterfactual question in the original proceedings was different from the one at issue in these compliance proceedings. The original panel was not required to examine whether the acceleration effects caused by the pre-2007 aeronautics R&D subsidies continued to exist at a particular point in time. Rather, the original panel's task concerned the issue of whether the pre-2007 aeronautics R&D subsidies at issue caused a technology effect by accelerating the development of the 787 technologies and, if so, whether such acceleration effects caused serious prejudice to the interests of the European Communities during the 2004-2006 reference period. In fact, the Appellate Body emphasized in the original proceedings that "(t)he exact amount of time was not critical: that the NASA research enabled Boeing to accelerate the research process was." For this reason, in the Appellate Body's view, it was sufficient for the original panel to find 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...

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891 Appellate Body Report, US - FSC (Article 21.5 – EC II), para. 61. As the Appellate Body has noted, "Article 21.5 proceedings do not occur in isolation but are part of a 'continuum of events.'" (Appellate Body Report, US - Softwood Lumber VI (Article 21.5 – Canada), para. 103 (quoting Appellate Body Report, Mexico - Corn Syrup (Article 21.5 – US), para. 121)) This is a consequence of the mandate of an Article 21.5 panel, namely, to examine whether recommendations and rulings from the original dispute have been implemented consistently with the covered agreements. (Appellate Body Reports, US - Softwood Lumber VI (Article 21.5 – Canada), para. 103; US – Zeroing (EC) (Article 21.5 – EC), para. 301)
892 Appellate Body Report, Canada – Aircraft (Article 21.5 – Brazil), para. 41.
894 Appellate Body Report, EC and certain member States – Large Civil Aircraft (Article 21.5 – US), para. 5.373. (emphasis original)
895 Appellate Body Report, EC and certain member States – Large Civil Aircraft (Article 21.5 – US), para. 5.374. The Appellate Body added that “Article 7.8 of the SCM Agreement requires the cessation of ongoing conduct consisting of the ‘granting or maintaining’ of subsidies that are causing adverse effects.” (Ibid., para. 5.375)
896 Appellate Body Report, EC and certain member States – Large Civil Aircraft (Article 21.5 – US), para. 5.373.
897 Original Panel Report, para. 7.1774.
its technologies to market. Therefore, the analysis revolved around the issue of whether, not by how long, the pre-2007 aeronautics R&D subsidies accelerated the 787's technology development process.

5.399. By contrast, in these compliance proceedings, the Panel's inquiry focused on the issue of whether the acceleration effects of the pre-2007 aeronautics R&D subsidies that were found to exist by the original panel still exist in the post-implementation period and, if so, whether such acceleration effects cause serious prejudice to the interests of the European Union in the post-implementation period. In these circumstances, we do not see why the Panel, in addressing the European Union's technology effects claims in these compliance proceedings, would have been bound by the approach adopted by the original panel, which addressed a different counterfactual question.

5.400. In these compliance proceedings, the European Union argues that, in its counterfactual analysis, the Panel focused solely on the counterfactual launch date and did not assess the impact of the pre-2007 aeronautics R&D subsidies on the timing of delivery of the 787. In contrast, the United States argues that "the Panel properly focused on the counterfactual launch date while duly considering deliveries." The United States adds that, in focusing on the timing of the counterfactual launch of the 787, the Panel did not take the position that a delay in the 787's launch would have no impact on the timing of promised and actual first delivery. Rather, the United States considers that, for the Panel, "(t)he subsidies accelerated the launch of the 787, which in turn accelerated promised and actual first delivery by the same amount of time." In light of these arguments, we turn next to examine whether the Panel's counterfactual analysis included consideration of the timing of both the 787's launch and its first delivery, or whether such analysis covers only the timing of the 787's launch. We note that, unless otherwise specified, our references below to "first delivery of the 787" cover both promised first delivery and actual first delivery.

5.401. Before the Panel, the European Union argued that it was necessary to consider in the counterfactual analysis a number of timeframes in relation to the development of LCA, including the time to develop individual LCA technologies and design tools, and the time to integrate technologies into a final design solution. This included a ten-year incubation period, to allow for necessary certification, quality testing, and material proofs. The Panel dismissed the European Union's counterfactual time estimate on the basis that it not only concerned the time estimate to launch the 787, but also the time to undertake certain activities, such as internal R&D conducted by Boeing and its suppliers, production, certification, and delivery. The main reason provided by the Panel for its conclusion was that, in its view, the original panel did not consider that "the acceleration effect of the aeronautics R&D subsidies encompassed phases in the development of the 787 beyond its launch." Subsequently, the Panel reiterated that a counterfactual analysis that would consider the entire development period of the 787 beyond its launch would be inconsistent with the findings in the original proceedings and would risk attributing unsubsidized aspects of the 787's development to the effects of the subsidies.

5.402. It is clear that the Panel based its conclusion solely on the counterfactual time estimates with respect to the 787's launch. Thus, the Panel's counterfactual analysis ultimately did not include consideration of the time estimates with respect to the counterfactual first delivery of the 787. Indeed, the Panel's conclusion was that "the European Union has failed to establish that, absent the aeronautics R&D subsidies, Boeing would not have launched the 787 by the end of the

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899 Appellate Body Report, US – Large Civil Aircraft (2nd complaint), para. 980. (emphasis original)
900 European Union's appellant's submission, para. 698.
901 United States' appellee's submission, para. 373.
902 United States' appellee's submission, para. 376.
903 United States' appellee's submission, para. 398.
904 Panel Report, para. 9.133.
905 Panel Report, para. 9.152. (emphasis added)
implementation period in September 2012.\(^907\) On this basis, the Panel found that "the European Union has failed to demonstrate that the acceleration effect of the pre-2007 aeronautics R&D subsidies in relation to Boeing's technology development for the 787 ... has continued into the post-implementation period."\(^908\)

5.404. Having clarified that the focus of the Panel's counterfactual analysis was on the timing of the 787's launch, we observe that the European Union maintains that the notion of presence in the market of the 787 – a factor mentioned by the Panel in framing the counterfactual question – concerns not only the launch of a product that Boeing offers, but also the time at which the product is offered for delivery to customers and the timing of actual delivery.\(^909\) In contrast, the United States submits that the Panel correctly focused on the 787's counterfactual launch timing, given that "upon the 787's launch, it would unquestionably be present in the market because it would be competing for sales against Airbus LCA."\(^910\)

5.405. As we see it, a central element in the Panel's counterfactual question indeed relates to the moment by which the 787 is deemed to be "present in the market".\(^911\) We recall that the Panel's counterfactual question was whether it is likely that, absent the pre-2007 aeronautics R&D subsidies, the 787 technologies would still not have been developed by the end of the implementation period and thus the 787 would not have been present in the market by that time.\(^912\) With regard to the role of the 787's delivery in the counterfactual analysis, the European Union maintains that such analysis should include the time estimates for promised and actual first delivery.\(^913\) Thus, the key issue before us in these compliance proceedings is whether the Panel properly addressed the counterfactual question by limiting its analysis of the acceleration effects of the pre-2007 aeronautics R&D subsidies to the timing of the 787's launch or whether a proper application of that counterfactual question also required consideration of the acceleration effects of the pre-2007 aeronautics R&D subsidies on the timing of first delivery of the 787.

5.406. We recall certain features of the LCA industry that shed light on this question. As noted by the Appellate Body in the original proceedings, "(s)everal of the issues relating to serious prejudice implicate the structure of the LCA industry as well as the nature of competition between LCA manufacturers."\(^914\) In particular, the Appellate Body observed that "LCA are sold to customers through long-term contracts, often involving staggered deliveries of aircraft over several years. The terms and conditions of each purchase contract are set at the time the order is made, and include many different elements, such as aircraft specification, net price, discounts, non-price concessions, and financing arrangements."\(^915\) It was further observed that, while a non-refundable deposit is paid at the time of signature of the order contract, complete payment does not occur until delivery of the aircraft.\(^916\) Moreover, "LCA purchase contracts provide both the basic airframe price, as well as for the 'escalation' of that price to account for the time that elapses between the negotiation of the price at the time of order and the delivery of the aircraft."\(^917\) In this regard, the Appellate Body pointed out that, "(d)e pending upon the number of years between the order and delivery of aircraft and the escalation terms agreed at the time the order is placed, price escalation factors can significantly impact the purchase price ultimately paid upon delivery."\(^918\)

\(^{907}\) Panel Report, para. 9.176. (emphasis added) The Panel further added that, while it is more difficult to predict confidently exactly when Boeing would have been able to launch the 787 absent the pre-2007 aeronautics R&D subsidies, it would be well before (i.e. at least several years before) the end of the implementation period. (Ibid.)

\(^{908}\) Panel Report, para. 9.177. (fn omitted)

\(^{909}\) European Union's appellant's submission, para. 727.

\(^{910}\) United States' appellee's submission, para. 374 (quoting Panel Report, para. 9.128).

\(^{911}\) Panel Report, para. 9.128.

\(^{912}\) Panel Report, para. 9.128.

\(^{913}\) European Union's appellant's submission, para. 727.

\(^{914}\) Appellate Body Report, \textit{US – Large Civil Aircraft (2nd complaint)}, para. 902.

\(^{915}\) Appellate Body Report, \textit{US – Large Civil Aircraft (2nd complaint)}, para. 904.

\(^{916}\) Appellate Body Report, \textit{US – Large Civil Aircraft (2nd complaint)}, para. 904 (referring to Original Panel Report, para. 7.1685).

\(^{917}\) Appellate Body Report, \textit{US – Large Civil Aircraft (2nd complaint)}, para. 904. (fn omitted)

\(^{918}\) Appellate Body Report, \textit{US – Large Civil Aircraft (2nd complaint)}, fn 1842 to para. 907 (referring to Original Panel Report, para. 7.1685, in turn referring to Declaration of Christian Scherer (Original Panel Exhibit EC-11) (BCI), para. 49).
5.407. In addition, in these compliance proceedings, the Panel referred to the relevance of an aircraft's delivery availability as a significant consideration for the outcome of certain sales campaigns presented by the parties. In particular, the Panel held that, "{in} the majority of the LCA sales campaigns, a critical factor was the airline customers' preference for the delivery availability of the Boeing aircraft over the competing Airbus aircraft, in light of the airlines' particular fleet replacement requirements as well as Airbus' delivery delays."919

5.408. The Panel's counterfactual analysis was part of a broader inquiry seeking to determine whether the pre-2007 aeronautics R&D subsidies continue to cause serious prejudice within the meaning of Articles 5 and 6.3 in the post-implementation period.920 Thus, to the extent that acceleration effects from the pre-2007 aeronautics R&D subsidies are found to exist in the post-implementation period, then assessing whether any of the forms of serious prejudice under Article 6.3 at issue was the effect of these subsidies may involve evaluating evidence related to events occurring after an aircraft's launch. As noted in section 5.6 above, in the LCA market, the market phenomena of price suppression and lost sales are not limited to what occurs at the time of an LCA order and, therefore, such phenomena may continue up to the point of LCA delivery.921 Indeed, the terms of a sale, and the extent to which those terms may be modified until the point of delivery, may have a bearing on the nature and scope of adverse effects caused by a subsidy. Thus, depending on the nature and scope of the transaction at issue, establishing the existence of certain forms of serious prejudice in the LCA industry may require examining events subsequent to the point of order, potentially including events taking place up to the point of delivery. Consequently, in the context of the LCA market, determining whether the forms of serious prejudice under Article 6.3 at issue in this dispute still exist in the post-implementation period requires assessing whether any acceleration effects from the pre-2007 aeronautics R&D subsidies also had an impact on the timing of first delivery of the 787 in the post-implementation period.

5.409. According to the United States, the European Union has never established that the Panel, in focusing on the timing of the counterfactual launch, failed to properly capture the effects of the pre-2007 aeronautics R&D subsidies.922 By way of example, the United States asserts that the European Union "never even attempted to demonstrate that, in a counterfactual featuring a 787 launch in 2006, promised first delivery in 2010, and actual first delivery in 2013, greater attention to the delivery dates would make any difference for the adverse effects analysis".923 The United States further argues that, "in the counterfactual scenario, Boeing's promised first delivery date (and actual first delivery, i.e., entry into service) ... can be assumed to experience a delay equivalent to the counterfactual launch delay."924 However, "what cannot be assumed, and what the {European Union} failed to establish, is that the delivery positions Boeing offered in any particular sales campaign would have been at all different, much less that the positions offered would have been less attractive vis-à-vis Airbus's counterfactual offer in that campaign."925

5.410. The difficulty we have with the United States' argumentation is that it asserts that the European Union failed to establish something that, in our view, the Panel never considered in its adverse effects analysis. As we have explained, the Panel rejected any consideration of whether any acceleration effects from the pre-2007 aeronautics R&D subsidies had an impact on the timing of first delivery of the 787 in the post-implementation period, on the basis of the incorrect understanding that it was constrained by the scope of the counterfactual question addressed by the original panel. The Panel considered that a counterfactual analysis that includes "the entire development period of the 787 beyond its launch (including the time it would have taken Boeing to develop, mature, produce, and certify 787 technologies, and the time to integrate those components..."

918 United States' appellee's submission, para. 378.
920 We recall that the Panel indicated that, to the extent that it would find that the aeronautics R&D subsidies have acceleration effects in the post-implementation period, it would then assess the consequent impact on sales and prices of the relevant Airbus LCA in the post-implementation period so as to determine whether the subsidies in question, through these technology effects, constitute a genuine and substantial cause of the particular forms of serious prejudice alleged by the European Union. (Panel Report, para. 9.122)
921 At the same time, it would be improper to suggest that, in instances involving the phenomena of price suppression and lost sales in the LCA market, the phenomena manifest themselves to the same degree throughout the time period from order to delivery. (See section 5.6 above)
922 United States' appellee's submission, para. 378.
923 United States' appellee's submission, para. 378.
924 United States' appellee's submission, para. 380.
925 United States' appellee's submission, para. 380.
into a single aircraft, as the European Union argues) … {would be} inconsistent with the findings in the original proceeding and would risk attributing unsubsidized aspects of the 787’s development to the effects of the subsidies.”

5.411. Moreover, if the pre-2007 aeronautics R&D subsidies had an impact on stages of the 787’s development – either before or after its launch – that affected the timing of first delivery of the 787 in relation to the end of the implementation period, then assessing the timing of this aircraft’s first delivery would have been particularly appropriate for determining whether the acceleration effects still exist in the post-implementation period and could be attributed to the pre-2007 aeronautics R&D subsidies. If there were no such acceleration effects that affected the timing of first delivery of the 787, then the Panel should have reasoned why that is the case, rather than excluding consideration of this issue ab initio.

5.412. In addition to the above considerations, we are of the view that there were several indications before the Panel that should have led it to evaluate whether the forms of serious prejudice alleged by the European Union are still present in the post-implementation period by examining whether, absent the pre-2007 aeronautics R&D subsidies, first delivery of the 787 would have occurred after the end of the implementation period. As a starting point, the original panel and the Appellate Body considered that the technology effects of the pre-2007 aeronautics R&D subsidies accelerated both the 787’s launch and its promised first delivery. Furthermore, it should have been telling for the Panel that both parties in these compliance proceedings presented argumentation related to activities pertaining to, and time estimates for, the 787’s launch and its first delivery. Indeed, the European Union argued that “the relevant counterfactual question concerns the amount of additional time that it would have taken an LCA manufacturer like Boeing to research, develop, produce, certify, and deliver the 787.” In turn, the United States estimated that Boeing could have conducted all of the necessary research to launch the 787 before the end of April 2006 (with promised deliveries in 2010) absent the pre-2007 aeronautics R&D subsidies.

5.413. Moreover, we recall that the Boeing Engineers’ Statement, which sets out the counterfactual time estimates put forward by the United States, “is based on examples of the time and effort taken by Boeing and its suppliers to address early-stage R&D challenges that were either comparable to, or more demanding than, the types of activities conducted under the NASA and DOD programs”. Some of the R&D tasks used to estimate the time that Boeing would have required to develop certain 787 technologies absent the subsidies refer to activities that. For instance, in relation to the counterfactual time estimate to develop the composite fuselage, the Panel noted that, according to the Boeing engineers, “Boeing could have replicated in less than two years the particular tasks that were accomplished under NASA’s Advanced Technology Composite Aircraft Structures (ATCAS) program.” For this comparison, the Boeing engineers relied on “Boeing’s work developing a one-piece composite barrel design concept for incorporation into the 7E7 baseline design, its completion of a full-scale demonstration barrel fuselage section and development of design, tooling

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927 We recall that, in a finding upheld by the Appellate Body, the original panel concluded 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.” (Appellate Body Report, US – Large Civil Aircraft (2nd complaint), para. 1036 (quoting Original Panel Report, para. 7.1775))
928 Panel Report, paras. 9.133 and 9.171.
929 Panel Report, para. 9.152.
930 Panel Report, para. 9.171.
931 Panel Report, para. 9.137 (quoting Boeing Engineers’ Statement (Panel Exhibit USA-283) (BCI), para. 7). (emphasis added)
932 Panel Report, para. 9.139.
and production concepts". As noted in the Boeing Engineers' Statement, although Boeing officially launched the 787 in April 2004, [BCI].

5.414. We further recall that the Panel's main reason for rejecting the European Union's time estimate was that "the original panel did not consider that Boeing's technology development in relation to the 787 was solely the result of Boeing's subsidized participation in NASA and DOD aeronautics R&D programmes. Nor did it consider that the acceleration effect of the aeronautics R&D subsidies encompassed phases in the development of the 787 beyond its launch." It is not clear to us whether the Panel believed that the original panel had affirmatively found that there were no post-launch acceleration effects, or whether it believed that the original panel simply had not considered them. In either event, the Panel appeared to assume that it was required to evaluate the legal issues in these Article 21.5 proceedings in the same way in which those issues were evaluated in the original proceedings. As noted, the nature of the counterfactual question in the original proceedings was different from the one at issue in these compliance proceedings. The original panel was not required to examine whether the acceleration effects caused by the pre-2007 aeronautics R&D subsidies continued to exist as of a particular point in time. Thus, in these circumstances, we do not see why, in addressing the European Union's technology effects claims in these compliance proceedings, the Panel would have been bound by the approach adopted by the original panel, which was used to address a different counterfactual question.

5.415. For the foregoing reasons, we consider that the Panel was required to assess whether the acceleration effects of the pre-2007 aeronautics R&D subsidies had an impact, not only on the timing of the launch of the 787, but also on the timing of its first delivery. We are not persuaded that it was sufficient for the Panel to base its conclusion regarding the European Union's technology effects claims solely on its understanding of the original panel's findings. Given that the counterfactual inquiry in these compliance proceedings was different from the one at issue in the original proceedings, we would have expected an analysis from the Panel as to why a focus on post-launch acceleration effects was not warranted. By failing to assess in its counterfactual analysis whether the acceleration effects of the pre-2007 aeronautics R&D subsidies had an impact, not just on the launch of the 787, but also on the timing of first delivery of the 787, the Panel did not properly assess the counterfactual question as to whether there remain acceleration effects of the pre-2007 aeronautics R&D subsidies in the post-implementation period.

5.416. Accordingly, we find that the Panel erred in the application of Articles 5 and 6.3 and, as a consequence, Article 7.8 of the SCM Agreement. For the foregoing reasons, we reverse the Panel's findings, in paragraph 9.177 of the Panel Report, that the European Union failed to demonstrate that the acceleration effects of the pre-2007 aeronautics R&D subsidies in relation to Boeing's technology development for the 787 have continued into the post-implementation period, and that the European Union therefore failed to demonstrate the existence of original subsidy technology effects of the pre-2007 aeronautics R&D subsidies in the post-implementation period.

5.417. The European Union also requests us to reverse the Panel's analysis with respect to the spill-over technology effects of the pre-2007 aeronautics R&D subsidies on the 787-9/10, the 777X, and the 737 MAX. We recall that the European Union argued before the Panel that the pre-2007 aeronautics R&D subsidies, through their effects on Boeing's development of certain 787 technologies that have subsequently been adapted and applied to the more recently launched 787-9/10, 777X, and 737 MAX, give rise to spill-over technology effects with respect to those aircraft in the post-implementation period.

5.418. In the context of assessing the spill-over technology effects of the pre-2007 aeronautics R&D subsidies on the twin-aisle Boeing LCA (i.e. the 787-9/10 and 777X), the Panel recalled its earlier conclusion that the European Union had failed to establish that, absent these subsidies, Boeing would have launched the 787 after the end of the implementation period in September 2012. The Panel

933 Panel Report, para. 9.139 (referring to Boeing Engineers' Statement (Panel Exhibit USA-283) (BCI), para. 23).
934 Boeing Engineers' Statement (Panel Exhibit USA-283) (BCI), para. 23.
935 Panel Report, para. 9.152.
936 We note that the Panel did not provide a specific citation to the original panel's analysis to support its understanding of the findings in the original proceedings.
937 See para. 5.401 above.
further stated that "(t)he end of the implementation period is more than eight years after Boeing actually launched the 787 in 2004, and is ten or more years after Boeing began pre-launch R&D for the development of the 787, following its decision to develop a replacement for the 767." 939 In the Panel's view, regardless of whether Boeing would have launched the 787 before the end of 2006 or somewhat later, an unsubsidized launch of the 787 would have nevertheless occurred multiple years in advance of the launch of the 787-10 (in June 2013) or the 777X (in November 2013). 940 The Panel added that, while the onus to demonstrate this was on the European Union, it had not "provided credible evidence that the 787 technologies ... could not have been adapted and developed into spill-over technologies for the 787-9/10 or 777X in sufficient time to enable their respective launches in 2013." 941 On this basis, the Panel concluded that "the European Union has failed to demonstrate the existence of so-called spill-over technology effects of the pre-2007 aeronautics R&D subsidies in respect of the 787-9/10 or 777X in the post-implementation period." 942

5.419. The Panel made a similar set of findings in assessing the spill-over technology effects on the single-aisle Boeing LCA (i.e. the 737 MAX). Indeed, the Panel recalled its earlier conclusion that the European Union had failed to demonstrate that, absent the pre-2007 aeronautics R&D subsidies, Boeing would have launched the 787 after the end of the implementation period in September 2012. The Panel reiterated that, while it could not confidently predict exactly when Boeing would have been able to launch the 787 absent the pre-2007 aeronautics R&D subsidies, Boeing would have done so at least several years before the end of the implementation period. The Panel therefore considered that it was not unrealistic to believe that Boeing would have been in a position to have launched the 737 MAX before the end of the implementation period. The Panel also pointed out that the European Union had not provided credible evidence that the 787 technologies that Boeing would have developed without the subsidies could not have been adapted to the 737 MAX in sufficient time to enable its launch in August 2011. 943 On this basis, the Panel concluded that the European Union had "failed to demonstrate the existence of so-called spill-over technology effects of the pre-2007 aeronautics R&D subsidies in respect of the 737 MAX in the post-implementation period." 944

5.420. We consider that the Panel's conclusions regarding the European Union's claims with respect to the spill-over technology effects of the pre-2007 aeronautics R&D subsidies on the 787-9/10, the 777X, and the 737 MAX were largely dependent on its earlier findings regarding the original subsidy technology effects of the pre-2007 aeronautics R&D subsidies on the 787. We have reversed the Panel's analysis regarding the original subsidy technology effects. As a consequence of this reversal, we also reverse the Panel's findings, in paragraphs 9.186 and 9.355 of the Panel Report, that the European Union failed to demonstrate the existence of spill-over technology effects of the pre-2007 aeronautics R&D subsidies with respect to the 787-9/10, 777X, and 737 MAX in the post-implementation period.

5.421. We have reversed the Panel's findings in paragraphs 9.177, 9.186, and 9.355 regarding the existence of original subsidy technology effects of the pre-2007 aeronautics R&D subsidies in the post-implementation period, and the existence of spill-over technology effects of the pre-2007 aeronautics R&D subsidies with respect to the 787-9/10, 777X, or 737 MAX in the post-implementation period. As a consequence, and to that extent, we also reverse the Panel's findings, in paragraphs 9.219-9.220, 9.372-9.373, 11.8.a, and 11.8.e of the Panel Report, with respect to the European Union's failure to establish that the pre-2007 aeronautics R&D subsidies are a genuine and substantial cause of any of the forms of serious prejudice alleged with respect to the A350XWB and the A320neo in the post-implementation period, through a technology causal mechanism.

940 We recall that, in this part of its analysis, the Panel did not refer to the launch of the 787-9. (See Panel Report, para. 5.98)
941 Panel Report, para. 9.185.
942 Panel Report, para. 9.186. The Panel added that, in light of this conclusion, it need not address the question of whether any of the alleged technologies identified by the European Union in relation to the 787-10 and 777X are in some way related or linked to those on the 787. (Ibid., fn 2956 to para. 9.186)
943 Panel Report, para. 9.354.
944 Panel Report, para. 9.355. The Panel added that, in light of this conclusion, it need not address the second question, which is whether any of the alleged technologies identified by the European Union in relation to the 737 MAX are in some way related or linked to those on the 787. (Ibid., fn 3251 to para. 9.355)
5.422. We recall that, in addition to the above claim of error in the application of Articles 5, 6.3, and 7.8 of the SCM Agreement, the European Union brought multiple claims challenging the Panel's findings that the European Union failed to establish that the technology effects of the pre-2007 aeronautics R&D subsidies continue into the post-implementation period. Because we have reversed the Panel's ultimate findings regarding the acceleration effects of the pre-2007 aeronautics R&D subsidies, we need not consider the additional claims and arguments by the European Union.

5.423. Having reversed the Panel's findings, we turn to assess the European Union's request for completion of the legal analysis.

5.7.3 Completion of the legal analysis

5.424. The European Union requests us to complete the legal analysis and find that the pre-2007 aeronautics R&D subsidies cause: (i) original subsidy technology effects with respect to the 787 in the post-implementation period; and (ii) spillover technology effects with respect to the 787-9/10, 777X, and 737 MAX in the post-implementation period.

5.425. The European Union submits that a counterfactual analysis, based on factual findings by the Panel and undisputed facts on the record, demonstrates that, absent the pre-2007 aeronautics R&D subsidies, Boeing would have been able to launch and deliver the 787 much later than what the Panel found. The European Union highlights that, in completing the legal analysis, it is not necessary for us to identify the precise time at which the launch, and subsequent delivery, of the relevant aircraft models would have occurred. Rather, in the European Union's view, we would merely need to confirm, based on factual findings by the Panel and undisputed facts on the record, that launch and delivery of these aircraft, absent the non-withdrawn subsidies, would have been delayed until, at least, after the end of the implementation period in September 2012.

5.426. The European Union submits that, "in any event, the Appellate Body should assess the minimum amount of time it would have taken Boeing, absent the non-withdrawn US aeronautics R&D subsidies, to: (i) conduct certain fundamental R&D (i.e. to develop knowledge); and to (ii) turn that knowledge into technologies that are mature enough for commercial application on the 787-8." The European Union specifies that we should take into account the time it took Boeing to develop the 787-8, from launch in April 2004 to promised first deliveries in 2008, and also the time by which the actual first delivery of the 787-8 was delayed. According to the European Union, this is because the time of actual first delivery more accurately reflects the time it actually took Boeing to develop and mature the 787-8 technologies to a degree that the 787-8 was ready to be delivered to its first customer in 2011. The European Union argues that, having concluded a determination regarding the 787-8, the same counterfactual R&D timeframe for the development of Boeing's 787-9/10, 737 MAX, and 777X should be applied.

5.427. The European Union maintains that, "undisputed evidence shows that, after an LCA manufacturer conducts fundamental R&D for the development of certain aircraft technologies, additional R&D is necessary to further develop – and mature – these technologies prior to the launch of the aircraft." Statements by Boeing, made outside the context of litigation, indicate that "it takes 10 years for major technologies' alone to reach a TRL6 (up to prototype demonstration), and an additional '3 to 6 years' for an LCA to be developed, produced, and delivered to its first customer (TRL9)." The European Union considers that, in determining the minimum
counterfactual R&D timeframe for the 787-8, the mentioned "up to 10 years" indication should be used. The European Union submits that, when applied to the same counterfactual start date for pre-launch R&D used by the United States ([BCI]), this leads to a potential launch at a date leading "up to" 2012 (up to eight years later than the 787's actual launch) and possible promised first delivery up to 2016 (up to eight years later than the 787's promised first delivery). Moreover, taking into account the delay for actual delivery of the 787 results in a counterfactual first delivery of the 787-8 as late as 2019. The European Union adds that, "(e)ven putting aside the broad 'up to ten years' timeframe for pre-launch R&D, and accounting only for the actual 787 delivery delays and the undisputed '3 to 6 years' to mature technologies from TRL6 to first delivery, would require a finding that the counterfactual first delivery of the 787-8 would have taken place substantially after 2012."

5.428. The European Union then refers to "more specific estimates" provided by the Airbus engineers with respect to how long Boeing would have likely taken to "develop, mature, produce and certify" a number of technologies. According to the European Union, applying these figures in context results in [BCI] timeframes as the generalized timeframes provided by Boeing engineers. In particular, the European Union put forward a comparable time period, which is HSBI, on the basis of argumentation from the Airbus engineers regarding the time required for a 360-degree composite fuselage barrel section. Applying these estimates to the same counterfactual start date when Boeing began pre-launch R&D ([BCI]), and assuming 4 years from launch to promised first delivery, leads to a date for promised first delivery, absent the pre-2007 aeronautics R&D subsidies, of [BCI]. The European Union submits that, taking into account the actual delay in delivering the 787-8, the counterfactual actual first delivery date is postponed to [BCI].

5.429. Turning to the 787-9/10, 777X, and 737 MAX, the European Union contends that the launch and subsequent delivery of these aircraft would have been affected by the delayed launch and first delivery of the 787, given Boeing's need for time to adapt the fully developed 787-8 technologies to these newer aircraft. For the purpose of determining the relevant dates for the counterfactual analysis applicable to these aircraft, the European Union takes their launch and promised delivery dates and adds a period of up to 8 years, which is equivalent to the purported delay of the 787-8 launch in the counterfactual analysis.

5.430. In response, the United States submits that "the {European Union} is asking the Appellate Body to discard the Panel's careful analysis of a complex factual record and undertake its own de novo analysis based on {the European Union's} argumentation rather than undisputed facts or Panel findings." The United States adds that "the {European Union's} proposed path to each requested finding would require the Appellate Body to make multiple factual findings without


5.456. European Union's appellant's submission, para. 884.

5.456. European Union's appellant's submission, para. 885. The European Union refers to "the undisputed fact of the (actual) delay of 3 years and five months that Boeing encountered in delivering the 787 to its first customer". (Ibid. (referring to Panel Report, para. 9.153; European Union's response to Panel question No. 45(c), paras. 331-347))

5.456. European Union's appellant's submission, para. 886.

5.458. European Union's appellant's submission, para. 891 (referring to Airbus Engineers' Response (Panel Exhibit EU-1014) (BCI/HSBI), paras. 40 and 43).

5.459. European Union's appellant's submission, para. 891 (quoting European Union's second written submission to the Panel, paras. 1031-1041, in turn quoting Airbus Engineers' Response (Panel Exhibit EU-1014) (BCI/HSBI), paras. 40 and 43). The Airbus engineers further estimated that the development of a composite wing up to the point of first delivery would have taken nine years. (Ibid. (referring to Airbus Engineers' Response (Panel Exhibit EU-1014) (BCI/HSBI), para. 56))

5.460. European Union's appellant's submission, para. 893.

5.461. European Union's appellant's submission, para. 896. The European Union maintains that "(n)either the Panel nor the United States addressed the question of how much time Boeing would have taken, following the development of the 787-8, to leverage its knowledge and experience, and adapt and develop its technologies into spill-over technologies to proceed with the launches of the 787-9/10, 737 MAX, and 777X models." (European Union's appellant's submission, para. 897 (referring to Panel Report, para. 9.185; United States' first written submission to the Panel, para. 709))

5.462. European Union's appellant's submission, para. 899.

5.463. United States' appellee's submission, para. 487.
sufficient basis, including because such findings would be contrary to the original findings, contrary to the Panel's findings, and/or would assume a fact that the Parties dispute."964

5.431. The United States maintains that the European Union's arguments are "flawed" in several respects. To begin with, "(t)here is no support whatsoever for the notion that R&D subsidies would cause current serious prejudice through a technology effects causal pathway merely because, absent those subsidies, the first delivery of the 787 would have occurred after the end of the implementation period (e.g., in late 2012 or early 2013)."965 The United States adds that this counterfactual scenario (i.e. one in which the counterfactual first delivery of the 787 would have occurred in late 2012 or early 2013) "is consistent with a 787 launch date seven years earlier, in 2006 – i.e., the same duration as the period between actual 787 launch in 2004 and actual first delivery in 2011".966 The United States maintains that, "(i)n such a scenario, the 787 would be present in the market throughout the entire post-implementation period, and the Appellate Body would have no basis for finding that the alleged indicia of serious prejudice identified by the \{European Union\}, such as lost sales campaigns, would have different outcomes as compared to what actually occurred."967

5.432. Moreover, the United States disagrees with the European Union's reliance on "generic timeframes" to progress from one TRL to another as a proxy for estimating the 787 launch delay.968 For the United States, relying on this information "would be contrary to the Panel's unappealed finding that 'statements made by Boeing engineers that the European Union has cited regarding the time that is required to develop and mature technologies are also highly generalized and do not speak to the contribution of the challenged aeronautics R&D subsidies in respect of Boeing's overall development of the 787'."969 Indeed, according to the United States, the European Union "selectively quotes the Boeing engineers' statement on this issue", given that "the full quotation makes clear that no basis exists for the Appellate Body to adopt an 'up to 10 years' time-frame for the period between the start of pre-launch R&D and launch."970 Finally, the United States asserts that the European Union's reliance on "generic TRL timeframes" would be at odds with its position before the Panel. The United States points out that, before the Panel, the European Union agreed that "the precise timeframes" in the Peisen Study (a NASA study of the average time taken to move between TRL levels) are of "lesser relevance" to the compliance Panel's assessment.971

5.433. In response to the European Union's use of estimates provided by Airbus engineers, the United States submits that "(t)his is nothing more than an invitation for the Appellate Body to weigh the evidence provided by the Boeing engineers against the critiques of the \{European Union\} and Airbus engineers after the Panel already did so and found the latter to be 'highly-generalized in nature, and ultimately unpersuasive.'"972 In addition, the United States maintains that the Airbus engineers' information is "conceptually flawed" as it concerns "the full spectrum of aircraft development activities through first delivery, as opposed to the specific roles played by the pre-2007 aeronautics R&D subsidies".973 Furthermore, the United States disagrees that it "does not dispute" the Airbus engineers' counterfactual time estimates for the 787, including a counterfactual launch of the 787 as late as 2015.974 On the contrary, the United States submits that these facts are disputed because, through the Reply of Boeing Engineers to EU and Airbus Statements Regarding the Technologies and Development of the 787, 737 MAX, and 777X (Boeing Engineers' Reply), it rejected the counterfactual estimates presented by the European Union.975 Moreover, the United States argues that the European Union's counterfactual timing estimates are "in direct

964 United States' appellee's submission, para. 488.
965 United States' appellee's submission, para. 491.
966 United States' appellee's submission, para. 491. (emphasis omitted)
967 United States' appellee's submission, para. 491.
968 United States' appellee's submission, para. 493 (referring to European Union's appellant's submission, paras. 882-884).
969 United States' appellee's submission, para. 493 (quoting Panel Report, para. 9.166).
970 United States' appellee's submission, para. 493 (referring to European Union's appellant's submission, para. 883).
971 United States' appellee's submission, para. 494 (referring to Panel Report, fn 2932 to para. 9.166).
972 United States' appellee's submission, para. 495 (quoting Panel Report, para. 9.162).
973 United States' appellee's submission, para. 495 (referring to European Union's appellant's submission, para. 891).
974 United States' appellee's submission, para. 496.
975 United States' appellee's submission, para. 496 (referring to Reply of Boeing Engineers to EU and Airbus Statements Regarding the Technologies and Development of the 787, 737 MAX, and 777X (August 2013) (Boeing Engineers' Reply) (Panel Exhibit USA-359) (BCI), paras. 13-26).
conflict" with the Panel's unappealed findings regarding the development timing of the Airbus A350XWB as consisting of "a period of roughly ([BCI])."\(^{976}\) According to the United States, a comparison of the Panel's analysis regarding the A350XWB and the European Union's counterfactual timing estimates for the 787 (including a launch up to 11 years later than the actual launch in 2004) reveals that the latter is "patently unreasonable".\(^{977}\)

5.434. The United States adds that, given the barriers to completion of the analysis for the 787-8, the Appellate Body also cannot complete the spill-over technology effects analysis regarding the 787-9/10, 737 MAX, and 777X. Indeed, "[w]ithout any basis to find in the {European Union's} favour with respect to the counterfactual timing of the 787-8, the Appellate Body ... would lack a sufficient basis to find delays with respect to the other aircraft models."\(^{978}\) According to the United States, the European Union's request would require the Appellate Body to re-weigh impermissibly the evidence and make wholly new findings about facts not in the evidence.\(^{979}\) Additionally, the United States disagrees with the European Union's contention that there are "time gaps" between the counterfactual launch of the 787-8 and the launches of other models that "reflect resource and engineering constraints Boeing faced when launching several LCA models in close succession".\(^{980}\) In the United States' view, these are "bare assertions" made by the European Union attempting to fill an "evidentiary hole".\(^{981}\) Moreover, the United States contends that a Panel finding, which was not appealed, indicates that "{(c)ommercial} priorities differ between different aircraft programmes and these differing priorities can influence the point in time at which an aircraft manufacturer decides to launch an aircraft programme."\(^{982}\)

5.435. We note that, before the Panel, the United States contended that "Boeing could have conducted all the necessary research to launch the 787 before the end of April 2006 (with promised deliveries in 2010) absent the pre-2007 aeronautics R&D subsidies"\(^{983}\). These time estimates were based on the Boeing Engineers' Statement\(^{984}\) and the Boeing Engineers' Reply.\(^{985}\) In turn, the European Union presented time estimates that were somewhat general in nature. Indeed, according to the European Union, "it would have taken Boeing 'at least 10 years to develop only a number of select LCA technologies and design tools necessary for the 787'" and in addition to the ten years, Boeing would further "require considerable time to develop the knowledge it has acquired through its decades of experience participating in the US Government-supported R&D programmes".\(^{986}\) On appeal, the European Union puts forward more specific time estimates for the 787's counterfactual launch and first delivery. In particular, the European Union considers that the counterfactual launch would take place at a date leading up to 2012, promised first delivery at a date leading up to 2016, and actual first delivery at a date leading up to 2019.\(^{987}\)

5.436. As we see it, the European Union's counterfactual estimates depend on establishing that the counterfactual launch date of the 787 would have been as late as 2012. The European Union therefore argues that pre-launch R&D activities for the 787 would have taken "up to ten years".\(^{988}\) This estimate is based on the timeframes set out in the Peisen Study.\(^{989}\) The European Union also relies on the "more specific estimates" provided by the Airbus engineers.\(^{990}\)

5.437. We note that the relevance of the Peisen Study for the purpose of estimating timeframes for the 787's counterfactual analysis was questioned by the panel and the Appellate Body in the original

\(^{976}\) United States' appellee's submission, para. 497 (quoting Panel Report, para. 9.175).
\(^{977}\) United States' appellee's submission, para. 497.
\(^{978}\) United States' appellee's submission, para. 498.
\(^{979}\) United States' appellee's submission, para. 499.
\(^{980}\) United States' appellee's submission, para. 499 (quoting European Union's appellant's submission, para. 900).
\(^{981}\) United States' appellee's submission, para. 499 (referring to European Union's appellant's submission, para. 900).
\(^{982}\) United States' appellee's submission, para. 499 (quoting Panel Report, fn 2947 to para. 9.175).
\(^{983}\) Panel Report, para. 9.171. (emphasis added)
\(^{984}\) Boeing Engineers' Statement (Panel Exhibit USA-283) (BCI).
\(^{985}\) Boeing Engineers' Reply (Panel Exhibit USA-359) (BCI).
\(^{986}\) Panel Report, para. 9.130 (quoting European Union's second written submission to the Panel, para. 975).
\(^{987}\) European Union's appellant's submission, para. 890.
\(^{988}\) European Union's appellant's submission, para. 884.
\(^{989}\) European Union's appellant's submission, paras. 882-884.
\(^{990}\) European Union's appellant's submission, para. 891.
proceedings, as well as by the Panel in these compliance proceedings. The original panel was not persuaded that the estimates in the Peisen Study were determinative for calculating the time estimates for the development of the 787.\textsuperscript{991} Similarly, the Appellate Body indicated that “the estimates in the Peisen Study were based only on average timeframes, and do not necessarily reflect the precise time that was required to develop and launch the technologies used on the 787.”\textsuperscript{992} In these compliance proceedings, the Panel considered that the statements from the Peisen Study that are cited by the European Union “are also highly generalized and do not speak to the contribution of the challenged aeronautics R&D subsidies in respect of Boeing’s overall development of the 787.”\textsuperscript{993} Before the Panel, the European Union noted that the parties had agreed that the timeframes in the Peisen Study are “of lesser relevance to the compliance Panel’s assessment, because, as the original panel and the Appellate Body have themselves found, the study was based on a variety of different aircraft technologies with widely varying maturation times”.\textsuperscript{994} As noted, the United States contests the time estimates based on the Peisen Study, as well as those presented by the Airbus engineers.\textsuperscript{995}

5.438. Therefore, as we see it, the relevant time estimates for conducting the 787’s counterfactual analysis were highly contested by the participants in these proceedings. For example, the United States disagrees with the European Union’s reliance on the “generic timeframes” to progress from one TRL to another set out in the Peisen Study as a proxy for estimating the 787 launch delay.\textsuperscript{996} For the United States, relying on this information “would be contrary to the Panel’s unappealed finding that ‘statements made by Boeing engineers that the European Union has cited regarding the time that is required to develop and mature technologies are also highly generalized and do not speak to the contribution of the challenged aeronautics R&D subsidies in respect of Boeing’s overall development of the 787’”.\textsuperscript{997} Moreover, the United States also questions the European Union’s use of estimates provided by the Airbus engineers. Consequently, in our view, there are no undisputed facts regarding the relevant time estimates with respect to the counterfactual launch of the 787.

5.439. Moreover, the Panel's findings regarding the time estimate for the counterfactual launch of the 787 did not specify a precise date by which, absent the pre-2007 aeronautics R&D subsidies, Boeing would have launched the 787. Rather, the Panel limited itself to a more general conclusion regarding a counterfactual launch date, noting that it was "difficult ... to confidently predict exactly when Boeing would have been able to launch the 787 absent the pre-2007 aeronautics R&D subsidies", but that "it would be well before (i.e. at least several years before) the end of the implementation period."\textsuperscript{998} Our understanding of the Panel's finding is that the counterfactual launch date of the 787 therefore falls somewhere between 2006, the date proposed by the United States but which the Panel did not explicitly accept, and 2010, which would seem to be the latest point at which the date could still be considered to be "several years" before 2012.

5.440. For the purpose of its request for completion of the legal analysis, the European Union appears to have adopted a counterfactual time lag of four years between the launch of the 787 and its promised first delivery, and a time lag of three years between the 787’s promised first delivery and its actual first delivery. The European Union indicates that it proposes these time lags to take into account “the four years it actually took Boeing from launch to promised first deliveries” and “the actual delays in the post-launch development of the 787”.\textsuperscript{999} We consider it important to point out that, since the Panel failed to assess whether the acceleration effects of the pre-2007 aeronautics R&D subsidies had an impact, not just on the launch of the 787, but also on the timing of the 787’s first delivery, it also did not make any findings regarding possible time estimates for the counterfactual promised first delivery and actual first delivery of the 787. Because the Panel did not examine this matter, we would be able to proceed only on the basis of the assumptions that the

\textsuperscript{991} Original Panel Report, para. 7.1748.
\textsuperscript{992} Appellate Body Report, \textit{US – Large Civil Aircraft (2nd complaint)}, para. 980. (emphasis omitted)
\textsuperscript{993} Panel Report, para. 9.166.
\textsuperscript{994} Panel Report, fn 2932 to para. 9.166 (quoting European Union’s response to Panel question No. 46, para. 362).
\textsuperscript{995} See United States’ appellee’s submission, paras. 493-494 and 496-497.
\textsuperscript{996} United States’ appellee’s submission, para. 493 (referring to European Union’s appellant’s submission, paras. 882-884).
\textsuperscript{997} United States’ appellee’s submission, para. 493 (quoting Panel Report, para. 9.166).
\textsuperscript{998} Panel Report, para. 9.176.
\textsuperscript{999} European Union’s appellant’s submission, para. 890.
date of promised first delivery of the 787 in a counterfactual scenario would be four years following its launch, and that the date of actual first delivery of the 787 would be three years after the occurrence of its promised first delivery. Similarly, we also have to assume that the acceleration effects of the pre-2007 aeronautics R&D subsidies on the timing of first delivery of the 787 would therefore be limited to those effects flowing as a consequence from the acceleration of the launch date. Such an assumption provides us little, if any, basis on which to assess the impact of the acceleration effects of these subsidies on the timing of first delivery of the 787. The Panel did not consider the question, leaving great uncertainty regarding the significance of any such acceleration effects for the counterfactual timing of first delivery. Therefore, without prejudice to the substantive assessment of whether there are any acceleration effects on post-launch R&D that might have had an impact on the counterfactual timing of first delivery of the 787, we proceed to consider how a completion exercise could be conducted on the basis of the European Union’s proposed four-year counterfactual time lag between the 787’s launch and its promised first delivery, and the three-year time lag between the 787’s promised first delivery and its actual first delivery.

5.441. The European Union urges that we "would merely need to confirm ... that the first delivery of the 787, absent the non-withdrawn subsidies, would have been delayed until after 2012, i.e., after the end of the implementation period". However, we consider that the completion exercise would not be as straightforward as the European Union describes it. Indeed, in these proceedings, the participants contest the relevant time estimates for conducting the 787’s counterfactual analysis. As a result, there are no uncontested facts with respect to the time that Boeing would have required for the 787’s launch, its promised first delivery, or its actual first delivery, absent the pre-2007 aeronautics R&D subsidies. Moreover, there are no findings by the Panel specifying a precise date by which, absent the pre-2007 aeronautics R&D subsidies, Boeing would have launched the 787. From the findings by the Panel, it is therefore unclear whether the counterfactual launch date of the 787 would have been around 2006, 2010, or some time between those dates. In addition, because the Panel did not examine the impact of acceleration effects on the timing of first delivery of the 787, it naturally did not specify when the 787’s first delivery would have occurred in the absence of these subsidies. Nor are there any findings by the Panel regarding the substantive assessment of whether there are any acceleration effects on post-launch R&D that might have had an impact on the timing of the counterfactual first delivery of the 787.

5.442. Based on the foregoing understanding, we simply have no basis to assess whether the promised first delivery of the 787 would have occurred before or after the end of the implementation period. In a situation where the counterfactual launch would have taken place in 2006 or 2007, promised first delivery would have been in 2010 or 2011, that is, before the end of the implementation period. Conversely, if the 787’s counterfactual launch would have been in 2010, promised first delivery of this aircraft would have been scheduled for 2014. Similarly, because of the indeterminate nature of the timing of the 787’s counterfactual launch, there are various uncertainties regarding the timing of actual first delivery of the 787. Indeed, in a situation where the counterfactual launch would have occurred in 2006, and on the basis of the assumption that there is a 7-year time lag between the 787’s launch and its actual first delivery, the 787’s actual first delivery could possibly have been in 2013, which would be shortly after the end of the implementation period in September 2012. Alternatively, in a situation where the counterfactual launch would have taken place at a moment closer to 2010, the 787’s actual first delivery could have occurred, under these assumptions, at a date leading up to 2017. Given these very different outcomes based on different counterfactual launch dates, there is considerable uncertainty regarding which transactions would have become the subject of the serious prejudice analysis. Indeed, the transactions that would be evaluated in a serious prejudice analysis would depend on which time period is used as a basis for the counterfactual analysis. However, as noted, the Panel did not evaluate all of these variables and did not indicate in a more specific manner the counterfactual time estimates for launch and, consequently, first delivery of the 787.

5.443. As a result of the lack of factual findings by the Panel or uncontested facts on the record regarding the timing of certain crucial moments in the counterfactual analysis and the corresponding uncertainty regarding the scope of the transactions that would be examined in determining the existence of serious prejudice, there is no basis for us to determine whether the acceleration effects of the pre-2007 aeronautics R&D subsidies also had an impact on the timing of first delivery of the 787 such that those effects cause serious prejudice constituting significant lost sales in the

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1000 European Union’s appellant’s submission, para. 866.
post-implementation period. Consequently, given the lack of sufficient factual findings by the Panel or uncontested facts on the Panel record, we find that we are unable to complete the legal analysis with regard to whether there remain acceleration effects of the pre-2007 aeronautics R&D subsidies in the post-implementation period.

5.8 Price effects

5.444. The European Union and the United States appeal different aspects of the Panel’s analysis as to whether certain subsidies cause adverse effects through a price causal mechanism. Our analysis of the participants’ claims is divided into three parts.

5.445. First, the European Union claims that the Panel erred in its interpretation of Articles 5, 6.3, and 7.8 of the SCM Agreement by identifying an incorrect legal standard when it assessed whether the tied tax subsidies caused significant lost sales. According to the European Union, the Panel erred in its analysis of whether these subsidies led to the lowering of Boeing prices in both twin-aisle and single-aisle LCA sales campaigns because the Panel required that, in order to find significant lost sales, there had to be no non-price factors that potentially contributed to Boeing’s success in obtaining such sales. The European Union requests us to reverse the Panel's articulation of the causation standard, and to declare moot and of no legal effect the entirety of the Panel's application of that standard with respect to all sales campaigns for which the Panel did not make a finding of significant lost sales.1001 This claim is addressed in section 5.8.1.

5.446. Second, the United States claims that the Panel erred under Articles 5(c) and 6.3 of the SCM Agreement, and Article 11 of the DSU, in its assessment of the relative significance of the amount of the tied tax subsidies in determining whether the subsidies contributed in a genuine and substantial way to the alleged market phenomena.1002 The United States maintains that the Panel erroneously calculated the per-aircraft subsidy amount by assuming that Boeing would have pooled tax savings from all sales campaigns and deployed them in particularly price-sensitive sales campaigns. The United States further argues that the subsidies cannot be considered a genuine and substantial cause of Boeing winning these sales campaigns because the subsidy amounts are not large enough to cover the difference between Airbus and Boeing LCA prices. Accordingly, the United States requests the reversal of the Panel's findings that the Washington State B&O tax rate reduction causes adverse effects in the form of significant lost sales and a threat of impedance.1003 This claim is addressed in section 5.8.2.

5.447. Third, the European Union claims that the Panel erred under Articles 5 and 6.3 of the SCM Agreement, and under Article 11 of the DSU, by requiring that the European Union demonstrate that the untied subsidies led to actual price reductions of Boeing LCA sales in order to establish that those subsidies cause adverse effects through the lowering of Boeing LCA prices. The European Union maintains that the Panel required the European Union to identify how Boeing used or allocated subsidy dollars, and that such a showing is inconsistent with the applicable legal standard and deviates from the approach adopted by the Appellate Body in the original proceedings. The European Union requests us to reverse the Panel findings that the European Union failed to establish that the untied subsidies are a genuine and substantial cause of adverse effects in the post-implementation period.1004 This claim is addressed in section 5.8.3.

5.8.1 European Union’s claim relating to the Panel’s causation standard

5.8.1.1 Whether the Panel erred under Articles 5, 6.3, and 7.8 of the SCM Agreement in allegedly stating that, to find significant lost sales through a price causal mechanism, there must be no non-price factors that potentially contributed to Boeing having won those sales

5.448. The European Union appeals the Panel’s alleged finding that, in order for the tied tax subsidies to be found to cause significant lost sales through a price causal mechanism, there must be no non-price factors that potentially contributed to Boeing’s success in obtaining such sales. The

1001 European Union’s appellant’s submission, paras. 582-583.
1002 United States’ other appellant’s submission, paras. 24-25.
1003 United States’ other appellant’s submission, para. 32.
1004 European Union’s appellant’s submission, para. 642.
European Union considers that, in stating that there must be "no non-price factors that explain Boeing's success in obtaining the sale", the Panel improperly elevated the Appellate Body's approach to completion of the legal analysis in the original proceedings into the applicable legal standard for assessing causation. According to the European Union, such an understanding is contrary to Articles 5 and 6.3 of the SCM Agreement because the assessment as to whether there is a genuine and substantial relationship of cause and effect does not require a determination that the subsidy is the sole cause of that effect.

5.449. The United States considers that the European Union misunderstands both the findings of the Appellate Body and how the Panel used those findings in its analysis. The United States maintains that there is a critical difference between the legal standard regarding the role that other factors play in explaining the outcome and the Appellate Body's approach when completing the analysis to exclude from consideration campaigns where the role of the other factors was asserted, yet disputed. The United States does not consider that the Panel applied a completion of the legal analysis standard instead of the proper causation standard; rather, the Panel's approach involved the weighing of evidence, with respect to both the appearance of pricing pressure and other factors, to make a finding as to whether each campaign was particularly price-sensitive.

5.450. We note that there is no disagreement between the participants regarding the applicable causation standard as it relates to the consideration of non-attribution factors. As the Panel stated, and as the participants both agree, a challenged subsidy must be a genuine and substantial cause of adverse effects, and need not be the sole cause, or even the only substantial cause, of those adverse effects. Indeed, the Panel explicitly acknowledged that, when assessing causation, panels "may often be confronted with multiple factors that may have contributed, to varying degrees, to the relevant market phenomena". Referring to the Appellate Body's guidance in the original proceedings, the Panel noted that it was incumbent on it to "seek to understand the interactions between the subsidies at issue and the various other factors, and make an assessment of their connections to bringing about the relevant effects". As the Panel explained, a subsidy may be found to be a genuine and substantial cause notwithstanding the existence of other factors that contribute to producing the relevant market phenomena, as long as the contribution of the subsidy, in light of a proper consideration of all other contributing factors and their effects, is genuine and substantial. The Panel further stated that such an analysis entails a fact-intensive exercise, and that potentially there will be considerable differences in the ways complaining parties choose to demonstrate the links between the subsidies at issue and their effects, and in the nature of supporting evidence.

5.451. Thus, the question on appeal as it is framed by the European Union is whether, notwithstanding the Panel's correct articulation of the legal standard as set out above, the Panel nevertheless went on to apply an incorrect legal standard by demanding that, to establish causation, the European Union must demonstrate that there were no other potential causes of the adverse effects. In support of its argument, the European Union points to the repeated statement by the Panel that, in order for the sales campaigns at issue to be found to be particularly price-sensitive,
there must be "no non-price factors that explain Boeing's success in obtaining the sale". The European Union reads this statement to indicate that the Panel was requiring the complete absence of non-attribution factors such that, in order to establish causation, the subsidy must represent the only cause of the adverse effects.

5.452. If that were the correct reading of the Panel's statement, it would indeed reflect an erroneous legal standard. We note that the statement that was relied on by the Panel, and to which the European Union refers, originated from the Appellate Body's analysis in the original proceedings. There, the Appellate Body stated that a sales campaign would be considered particularly price-sensitive when "Boeing was under particular pressure to reduce its prices in order to secure LCA sales in particular sales campaigns, and there are no other non-price factors that explain Boeing's success in obtaining the sale or suppressing Airbus' pricing." We further note, in particular, that the Appellate Body stated that there be no non-price factors that explain Boeing's success in winning the sale, which could also be understood to indicate the outcome of a process of weighing the subsidy and any non-attribution factors to arrive at a conclusion that, notwithstanding the presence of certain non-price factors, their impact was such that they did not attenuate the effect of the subsidy as being a genuine and substantial cause of Boeing obtaining the sale.

5.453. The European Union maintains that the Panel was wrong to have relied on the Appellate Body's statement because, in attempting to complete the legal analysis in the original proceedings, the Appellate Body was unable to do so with respect to sales campaigns where the panel record showed that there had been non-price factors capable of explaining the outcome. Thus, the European Union contends that, by relying on this statement, the Panel inappropriately transformed into the applicable legal standard of causation the practical case-specific constraints that the Appellate Body faced in completing the analysis with respect to lost sales in the original proceedings. We therefore examine the Appellate Body's reasoning in the original proceedings so as to understand the context for the Appellate Body statement that there must be "no other non-price factors that explain Boeing's success in obtaining the sale".

5.454. In the original proceedings, the Appellate Body considered that the tied tax subsidies "enhance the firm's ability to lower its prices in order to obtain a sale, notwithstanding that the outcome of any given sale, and the importance of price to that outcome, will still be dictated by the prevailing competitive conditions, including the market power and the pricing strategies of the participants, in a particular market". The Appellate Body then stated that, given the nature of the tied tax subsidies, their operation over time, their magnitude, and the competitive conditions in the LCA market, Boeing had both the ability and incentive to use the tied tax subsidies to lower prices, and that there was a substantial likelihood that this occurred in sales campaigns that were particularly competitive and sensitive in terms of price. The Appellate Body thus explained that, "where it can be established that Boeing was under particular pressure to reduce its prices in order to secure LCA sales in particular sales campaigns, and there are no other non-price factors that explain Boeing's success in obtaining the sale or suppressing Airbus' pricing, we can conclude that the subsidies contributed in a genuine and substantial way to the lowering of Boeing's prices." The Appellate Body then went on to explain that it did not consider that the factual findings and uncontested facts on the panel record relating to the nature and magnitude of the subsidies, and the conditions of competition in the relevant markets, themselves suffice to establish the requisite causal connection between the tied tax subsidies and the effects on Airbus' LCA sales and prices. Accordingly, the Appellate Body considered that it could only reach a finding of serious prejudice if it could also identify uncontested facts on the original panel record establishing that the pricing

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1016 European Union's appellant's submission, para. 573 (referring to Appellate Body Report, US – Large Civil Aircraft (2nd complaint), para. 1264).
1017 European Union's appellant's submission, para. 568.
dynamic it had described occurred in particular LCA sales campaigns. On that basis, the Appellate Body indicated that it would "continue its examination of the relevant factual findings and uncontested facts and scrutinize, in particular, the Panel record as it relates to particular LCA sales campaigns during the reference period in the 100-200 seat and 300-400 seat LCA markets".

5.455. Subsequently, the Appellate Body evaluated the sales campaign evidence and noted that there was a competitive pricing dynamic in each of these sales campaigns that was uncontested, but that the parties disagreed over the extent to which the tied tax subsidies contributed to the market effects experienced by Airbus. In particular, the Appellate Body noted that the United States had identified a number of "other factors" that, in its view, undermined a causal link between the tied tax subsidies and the market effects on Airbus' LCA sales and prices, but that the original panel had failed to discuss if and how these factors may have contributed to the effects on Airbus' LCA sales and prices. Thus, the Appellate Body explained that, where the United States advanced other factors that were capable of explaining the effects on Airbus' LCA sales and prices in particular sales campaigns, it would treat the matter as being in dispute, and, accordingly, would not be able to complete the analysis with respect to these campaigns.

5.456. Therefore, when the Appellate Body explained that causation could be established only when "there are no other non-price factors that explain Boeing's success" in a particularly price-sensitive sales campaign, it was referring to the role of those non-price factors as weighed and balanced against factors relating to price. This is reflective of a proper approach for assessing causation whereby the effects of the subsidy must be considered together with any contribution of non-attribution factors, in this case, the non-price factors.

5.457. However, at a subsequent stage of its analysis, the Appellate Body then recognized that, if any non-price factors had been advanced, this would have necessitated a non-attribution analysis of those factors as well as a weighing of price and non-price factors in its causation analysis, which would have entailed new factual findings. This is not something the Appellate Body can do when completing the legal analysis. In other words, by using this language, the Appellate Body was not requiring that there be a complete absence of any non-price factors such that, in order to establish causation, the subsidy must represent the only cause of the adverse effects. Rather, the Appellate Body was emphasizing the absence of non-price factors that would explain Boeing's success in obtaining the sale or suppressing Airbus' pricing. Therefore, although the European Union is correct that the Appellate Body ultimately was able to complete the analysis only in instances where the United States had not advanced any non-price factors, this was due to the fact that the role and relevance of those non-price factors was contested, and thus no uncontested facts or alternative panel findings were available. However, this featured at a later stage, in the context of its completion analysis, and not at the earlier point in its reasoning where the Appellate Body was identifying the legal standard. Thus, we do not accept the European Union's contention that "the Panel erred in elevating the Appellate Body's approach to completing the legal analysis in the original proceedings into the applicable legal standard." In our view, the Panel was relying on reasoning by the Appellate Body that was reflective of the proper legal standard.

5.458. In addition, we find that the Panel's reasoning regarding the specific sales campaigns further confirms that the Panel did not, as the European Union claims, adopt a legal standard that differed from the proper legal standard. In our review of the Panel's reasoning in both the non-confidential summary of the sales campaign evidence contained in the body of the Panel Report, as well as the more detailed explanations set out in the HSBI Appendix to the Panel Report, we do not find support for the proposition that the Panel adopted an approach to causation whereby it declined to consider whether subsidies cause adverse effects in instances where any non-price factor or factors were advanced. Rather, the Panel's reasoning reflects a weighing and balancing of both price and non-price factors in determining, with respect to each sales campaign, "the extent to which the sales

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1021 Appellate Body Report, US – Large Civil Aircraft (2nd complaint), para. 1261. The Appellate Body noted that its approach was analogous to the approach adopted by the Appellate Body in EC and certain member States – Large Civil Aircraft. (Ibid., fn 2549 to para. 1262)
1026 European Union's appellant's submission, para. 579.
campaigns were or were not particularly price-sensitive.\textsuperscript{1027} This suggests that, rather than declining to evaluate any sales campaign once a non-price factor was identified, the Panel in fact assessed whether non-price factors were such that they attenuated the role of price factors in explaining Boeing's success in obtaining the sale.

5.459. With respect to the twin-aisle LCA market, the Panel stated that "while pricing was discussed in certain of the sales campaigns, other factors featured more prominently in the airline customers' evaluations of the suitability of the competing offers as well as in the evidence on record explaining the reasons why the airline customer chose to order Boeing aircraft over the competing Airbus offering."\textsuperscript{1028} The Panel then went on to catalogue the various non-price factors that mitigated the role of price in individual sales campaigns, including customers' preferences for delivery availability, choice of engine manufacturer, performance evaluations, performance guarantees, programme maturity, aircraft size, and incumbency concerns regarding fleet commonality or diversity. The Panel therefore concluded, with respect to each individual sales campaign, that there were "factors other than price that explain why Airbus either did not win the sale, or in the case of the sales campaigns that involved 'split orders' ... why there is no basis to conclude that Boeing's pricing resulted in the customer awarding a greater portion of the order to Boeing ... than would otherwise have been the case."\textsuperscript{1029} Moreover, our review of the Panel's reasoning and appreciation of the evidence in the HSBI Appendix to its Report underscores that the Panel sought to weigh and balance the causal significance of price and non-price factors, in large part by relying on internal Airbus communications that described Airbus' sales strategies and evaluated competing Airbus and Boeing offers.\textsuperscript{1030}

5.460. The Panel followed the same approach in evaluating whether individual sales campaigns in the single-aisle LCA market were particularly price-sensitive. The Panel found that, for most of these sales campaigns, while pricing may have been "discussed" in some instances, Boeing did not "appear to have been under particular pressure to reduce its prices in order to secure these sales".\textsuperscript{1031} The Panel further explained that, for these sales campaigns, there were a number of non-price factors that ultimately explained Boeing's success in obtaining particular sales, most prominent of which was Boeing's status as an incumbent aircraft supplier, but which also included factors such as delivery availability, fleet replacement needs, and the technical performance of competing aircraft.\textsuperscript{1032}

5.461. Perhaps most instructive for our assessment of the Panel's approach to causation is our review of the Panel's reasoning and appreciation of the evidence regarding the five single-aisle LCA sales campaigns that the Panel found to be particularly price-sensitive. In reviewing the HSBI Appendix, it appears that two of them were found not to be subject to any non-price factors. Indeed, for the Fly Dubai 2008 sales campaign, the United States did not advance any non-price factors\textsuperscript{1033}, and for the Fly Dubai 2014 sales campaign, the Panel considered that the factor advanced by the United States (which is HSBI) was too closely related to price to be considered a non-price factor.\textsuperscript{1034} However, for the three remaining campaigns – Delta Airlines 2011, Icelandair 2013, and Air Canada 2013 – the United States advanced particular factors other than price (which are HSBI) that were alleged to attenuate the effect of the subsidy in explaining why Boeing obtained the sale.\textsuperscript{1035} The Panel nevertheless found for these sales campaigns that "Boeing appeared to be under particular pressure to reduce its prices in order to secure the sale, and there were no non-price factors that explain Boeing's success in obtaining the sale."\textsuperscript{1036} In particular, we note that the non-price factor that was identified by the Panel with respect to the Icelandair 2013 sales campaign – which was found not to attenuate price as a causal factor – was the same non-price factor that was identified with respect to other sales campaigns for which the Panel found that non-price factors mitigated the

\textsuperscript{1027} Panel Report, paras. 9.245 and 9.382. Specifically, the Panel stated that the evidence allowed it "to assess with a high degree of confidence the extent to which the sales campaigns were or were not particularly price-sensitive". (Ibid.)

\textsuperscript{1028} Panel Report, para. 9.247.

\textsuperscript{1029} Panel Report, para. 9.247. The Panel also noted that its evaluation was also consistent with evidence indicating that the outcomes of sales campaigns involving twin-aisle LCA will depend to a greater extent on non-price factors. (Ibid., para. 9.248)

\textsuperscript{1030} Panel Report, para. 9.245 (referring to Panel Report, HSBI Appendix).

\textsuperscript{1031} Panel Report, para. 9.383.

\textsuperscript{1032} Panel Report, para. 9.383.

\textsuperscript{1033} Panel Report, HSBI Appendix, paras. 163-164.

\textsuperscript{1034} Panel Report, HSBI Appendix, paras. 270-271.

\textsuperscript{1035} Panel Report, HSBI Appendix, paras. 170, 249, and 263.

\textsuperscript{1036} Panel Report, para. 9.383. See also ibid., paras. 172, 251, and 265.
role of price. This demonstrates to us that the Panel did not embrace a legal standard requiring that there must be no other non-attribution factors and that the subsidy must represent the only cause of the adverse effects. Had the Panel endorsed such a legal standard, it would have been precluded from reaching the findings of adverse effects that it did with respect to the Delta Airlines 2011, Icelandair 2013, and Air Canada 2013 sales campaigns.

5.462. In sum, we do not agree with the European Union that the Panel considered that, in order to find significant lost sales through a price causal mechanism, there must be no non-price factors that potentially contributed to Boeing having won those sales. Rather, we consider that the Panel's understanding of the legal standard properly reflected a weighing and balancing of price and non-price factors to reach a conclusion as to whether a sales campaign was particularly price-sensitive, such that the tied tax subsidies could be found to be a genuine and substantial cause of serious prejudice. Accordingly, we find that the Panel did not err in the interpretation of Articles 5 and 6.3, and, as a consequence, Article 7.8, of the SCM Agreement, when identifying the applicable causation standard.

5.8.2 United States' claims relating to the Panel's analysis of the tied tax subsidies

5.463. The United States requests us to reverse the Panel's finding that the effects of the Washington State B&O tax rate reduction in the single-aisle LCA market are significant lost sales within the meaning of Article 6.3(c) of the SCM Agreement, and a threat of impedance within the meaning of Article 6.3(a)-(b) of that Agreement. The United States claims that the Panel erred under Articles 5(c) and 6.3 of the SCM Agreement, and acted inconsistently with Article 11 of the DSU, in assessing the relative significance of the amount of the subsidy for purposes of determining whether the subsidy contributed in a genuine and substantial way to Airbus' loss of sales in five sales campaigns between 2007 and 2015.

5.464. We first provide a summary of the Panel's findings, before turning to the United States' claims.

5.8.2.1 The Panel's findings

5.465. According to the Panel, the parties accepted that the tied tax subsidies at issue in these proceedings, by their nature as per-unit subsidies, are capable of affecting Boeing's pricing behaviour. The Panel further noted that the United States had described the tied tax subsidies as subsidies that "affect Boeing's marginal cost of producing current LCA alleged to be subsidized". The Panel noted that the United States distinguished between the effects on pricing of tied tax subsidies and the effects on pricing of untied, non-recurring subsidies, on the basis that tied tax subsidies correspond directly with sales, such that fluctuations in total sales volumes do not affect the calculus regarding the profitability of a particular sale. The Panel explained that these observations regarding the nature of the tied tax subsidies are also consistent with the findings of the panel and Appellate Body in the original proceedings that the FSC/ETI subsidies and the Washington State and City of Everett B&O tax rate reductions, by lowering the taxes incurred in connection with sales of LCA, have a more direct and immediate relationship to aircraft prices and sales than other subsidies at issue in the dispute. The Panel, however, recalled the Appellate Body's finding that, while the tied tax subsidies provided Boeing with the ability and

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1037 Panel Report, para. 9.383. See also United States' appellee's submission, paras. 277-279, where the United States notes how this particular non-price factor was considered and found in the case of the Icelandair 2013 sales campaign not to attenuate the role of price, whereas it was found to have done so in the case of the Lion Air 2012 sales campaign. As the United States argues, "{t}he difference in the Panel's findings regarding price-sensitivity in these two campaigns despite the {United States'} allegation that the same other factor explained both outcomes demonstrates that the Panel weighed the evidence and reached a determination that was consistent with its discretion as the trier of fact." (Ibid., para. 279)

1038 Panel Report, para. 11.8.c-d.

1039 United States' other appellant's submission, paras. 24-25.

1040 Panel Report, para. 9.238.


1042 Panel Report, para. 9.238 (quoting United States' first written submission to the Panel, para. 728).

incentive to lower its LCA prices, the competitive dynamics of the LCA markets are such that it would not actually do so in each and every sales campaign. Instead, according to the Appellate Body, there was a substantial likelihood that Boeing lowered its prices in sales campaigns that were particularly competitive and sensitive in terms of price.\(^{1044}\)

5.466. For purposes of assessing the effects of the tied tax subsidy at issue in these compliance proceedings with respect to the single-aisle LCA market, namely the Washington State B&O tax rate reduction\(^{1045}\), the Panel stated that, following the Appellate Body's approach in the original proceedings, it would examine whether each of the sales campaigns involving single-aisle LCA was particularly price-sensitive. More specifically, the Panel stated that, where a sales campaign was found to be particularly price-sensitive in the sense that Boeing appeared to be under particular pressure to reduce its prices in order to secure the sale, and there were no non-price factors that explained Boeing's success in obtaining the sale, the Panel would conclude that the tied tax subsidy contributed in a genuine and substantial way to the lowering of Boeing's LCA prices.\(^{1046}\)

5.467. The Panel evaluated sales campaign evidence submitted by the European Union and concluded that five out of the 20 allegedly competitive sales campaigns between 2007 and 2015 in the single-aisle LCA market were particularly price-sensitive.\(^{1047}\) The Panel thus found, based on the reasoning of the Appellate Body when analysing the effects of the tied tax subsidies at issue in the original proceedings, that the Washington State B&O tax rate reduction contributed in a genuine and substantial way to the lowering of the prices of Boeing's single-aisle LCA in these five sales campaigns.\(^{1048}\) These sales campaigns included three sales campaigns that occurred in the post-implementation period, namely the Fly Dubai 2014, Icelandair 2013, and Air Canada 2013 sales campaigns, and two sales campaigns that occurred prior to the end of the implementation period, namely the Fly Dubai 2008 and Delta Airlines 2011 sales campaigns.\(^{1049}\)

5.468. The Panel then noted the United States' argument that the amount of the tied tax subsidy is too small to cause adverse effects, and thus examined whether the relative magnitude of the subsidy allowed it to conclude that the subsidy is a genuine and substantial cause of lost sales of Airbus LCA.\(^{1050}\)

5.469. The Panel recalled the Appellate Body's consideration in the original proceedings that, depending on the circumstances of each case, an assessment of whether subsidy amounts are significant should not necessarily be limited to an inquiry into what those amounts are, either in absolute or per-unit terms, but may also entail viewing these amounts against considerations such as the size of the market as a whole, the size of the subsidy recipient, the per-unit price of the subsidized product, the price elasticity of demand, and, depending on the market structure, the extent to which a subsidy recipient is able to set its own prices in the market, and the extent to which rivals are able or prompted to react to each other's pricing within that market structure.\(^{1051}\)

5.470. The Panel noted that the total amount of the Washington State B&O tax rate reduction over the three-year period from 2013 to 2015 was approximately US$325 million.\(^{1052}\) The Panel suggested that this amount is relatively small compared to Boeing's revenue from its single-aisle LCA sales, which represented approximately US$61.9 billion, US$63.4 billion, and US$18 billion for the years 2013 to 2015, respectively.\(^{1053}\) However, the Panel considered that this alone is not indicative of the significance of the subsidy amounts because "even relatively small subsidies may have significant effects, depending on the nature of the subsidies, and the circumstances in which those subsidies

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\(^{1045}\) The Washington State B&O tax rate reduction applies to the production and sale of LCA manufactured in Washington. (Original Panel Report, para. 7.1803) The reduction rate is 0.1936%.


\(^{1048}\) Panel Report, para. 9.384.

\(^{1049}\) Panel Report, fn 3276 to para. 9.383.

\(^{1050}\) Panel Report, para. 9.385.


\(^{1052}\) Panel Report, para. 9.394. See also ibid., paras. 8.670 and 9.388.

\(^{1053}\) Panel Report, para. 9.392.
are received, including the relevant market structure and conditions of competition in that market."\(^{1054}\)

5.471. On that basis, the Panel sought to determine whether a price reduction enabled by a relatively small subsidy could nevertheless have determined the outcome of price-sensitive sales campaigns.\(^{1055}\) For this purpose, the Panel engaged in a quantitative analysis whereby it estimated the per-aircraft amount of the subsidy and compared this amount to the magnitude of pricing differentials that could change the outcome of the price-sensitive sales campaigns it had identified.\(^{1056}\)

5.472. The Panel calculated the per-aircraft amount of subsidization with reference to the three-year period from 2013 to 2015. The Panel divided an annual average of the amount of the Washington State B&O tax rate reduction of US$108.3 million for that period (calculated from the total amount of the subsidy for the 2013-2015 period of US$325 million, divided by three) by an annual average of 54.3 single-aisle LCA ordered in the three sales campaigns in that period that the Panel found to be particularly price-sensitive (calculated from the total of 152 737 MAX and 11 737NGs ordered in the Fly Dubai 2014, Icelandair 2013, and Air Canada 2013 sales campaigns, divided by three).\(^{1057}\) The Panel arrived at a per-aircraft rate of subsidization of approximately US$1.99 million per 737 MAX and 737NG.\(^{1058}\)

5.473. With respect to whether this per-aircraft subsidy amount is large enough compared to the magnitude of price difference that could change the outcome of the sales campaigns in question, the Panel first noted the European Union’s argument that, when making a choice between Airbus’ and Boeing’s respective offers, customers account for the differentials in the net present value (NPV) for those offers, which takes into account not only net prices but also non-price factors such as the size and range of the offered aircraft, their per-trip and per-seat operating costs, and the timing of their availability.\(^{1059}\) The Panel accepted, in general terms, that customers’ NPV analyses of competing offers, while being subject to certain limits, could at least provide "some indication" of the potential for a comparatively small price reduction to determine the outcome of a sales campaign.\(^{1060}\) In this regard, the Panel noted that the European Union had submitted an HSBI statement of Mr Kiran Rao, Airbus’ Executive Vice President Strategy and Marketing\(^{1061}\), which refers to a specific amount of NPV difference that "can easily switch" the decision of an airline or leasing company from favouring one manufacturer’s offer to favouring the offer of another manufacturer.\(^{1062}\) Mr Rao also explained that this amount is particularly relevant for single-aisle LCA sales, which tend to be sensitive to relatively small changes in prices offered.\(^{1063}\) The Panel observed that its US$1.99 million figure exceeds the magnitude of NPV difference mentioned by Mr Rao.\(^{1064}\)

5.474. Second, the Panel considered the magnitude of differentials in Airbus’ and Boeing’s respective net prices offered in the particularly price-sensitive sales campaigns, which the Panel deduced from certain sales campaign evidence. The Panel compared its US$1.99 million figure to the net price differential in each of the individual sales campaigns, and found either that the former exceeds the latter, or that the former covers “at least a portion of” Boeing’s pricing advantage, contributing “in substantial part” to its winning the sales campaign.\(^{1065}\)

5.475. On the basis of the foregoing, the Panel found that the Washington State B&O tax rate reduction, through its effects on Boeing’s pricing, contributed in a genuine and substantial way to

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\(^{1055}\) Panel Report, para. 9.395.

\(^{1056}\) Panel Report, para. 9.379.

\(^{1057}\) Panel Report, fn 3321 to para. 9.402.

\(^{1058}\) Panel Report, para. 9.402 and fn 3321 thereto.

\(^{1059}\) Panel Report, para. 9.398 (referring to European Union’s response to Panel question No. 164, para. 108).

\(^{1060}\) Panel Report, para. 9.400.

\(^{1061}\) Panel Report, para. 9.399 (referring to Statement of Kiran Rao, 6 October 2015 (Panel Exhibit EU-1668) (HSBI)).

\(^{1062}\) Statement of Kiran Rao, 6 October 2015 (Panel Exhibit EU-1668) (HSBI).

\(^{1063}\) Statement of Kiran Rao, 6 October 2015 (Panel Exhibit EU-1668) (HSBI).

\(^{1064}\) Panel Report, para. 9.402.

\(^{1065}\) Panel Report, para. 9.403.
Boeing winning, and Airbus losing, the five sales campaigns that it identified to be particularly price-sensitive.\footnote{Panel Report, para. 9.404 and fn 3329 thereto.}

5.476. The Panel further examined whether, in light of its lost sales findings with respect to the five sales campaigns, the Washington State B&O tax rate reduction can be considered a genuine and substantial cause of serious prejudice, within the meaning of Articles 5(c) and 6.3 of the SCM Agreement, in the post-implementation period. With respect to the three sales campaigns that occurred in the post-implementation period – namely the Fly Dubai 2014, Icelandair 2013, and Air Canada 2013 sales campaigns – the Panel found that the loss of sales suffered by Airbus was “significant”.\footnote{Panel Report, para. 9.406. (emphasis omitted)} Accordingly, the Panel found that the Washington State B&O tax rate reduction is a genuine and substantial cause of significant lost sales, within the meaning of Article 6.3(c), of A320neo and A320ceo LCA in the post-implementation period, with respect to these three sales campaigns.\footnote{Panel Report, para. 9.407.}

5.477. With respect to the two remaining sales campaigns that occurred before the end of the implementation period – namely the Fly Dubai 2008 and Delta Airlines 2011 sales campaigns – the Panel found that they were “not necessary” for its findings concerning the existence of significant lost sales, within the meaning of Article 6.3(c), in the post-implementation period.\footnote{Panel Report, fn 3329 to para. 9.404.} However, the Panel did take into account Airbus’ loss of these sales campaigns, as well as other evidence such as market share data for the single-aisle LCA markets in the United States and the United Arab Emirates, in the context of addressing the European Union’s claim of impedance and a threat thereof.\footnote{See Panel Report, para. 9.427.} Having done so, the Panel reached the conclusion that the effect of the Washington State B&O tax rate reduction is a threat of impedance, within the meaning of Article 6.3(a), of imports of Airbus single-aisle LCA into the United States market in the post-implementation period,\footnote{Panel Report, para. 9.438.} as well as a threat of impedance, within the meaning of Article 6.3(b), of exports of Airbus single-aisle LCA to the United Arab Emirates market in the post-implementation period.\footnote{Panel Report, para. 9.443.}  

5.8.2.2 Whether the Panel erred under Articles 5 and 6.3 of the SCM Agreement, or acted inconsistently with Article 11 of the DSU, in its calculation of the per-aircraft amount of subsidization

5.478. In its appeal, the United States claims that the Panel erred under Articles 5(c) and 6.3 of the SCM Agreement and, in the alternative, under Article 11 of the DSU, in its calculation of the per-aircraft amount of subsidization.\footnote{United States’ other appellant’s submission, paras. 24 and 69.} According to the United States, the Panel’s calculation assumes that Boeing would have pooled the benefits of the tied tax subsidies received in connection with all of its sales of LCA, including both twin-aisle and single-aisle LCA, over the 2013-2015 period and deployed them exclusively to lower its LCA prices in the three single-aisle sales campaigns that the Panel had found to be particularly price-sensitive.\footnote{Panel Report, para. 9.407.} To the United States, such an assumption contradicts the nature and operation of the tied tax subsidies discussed by the Appellate Body in the original proceedings and by the compliance Panel itself.\footnote{Panel Report, fn 3329 to para. 9.404.} The United States argues that, because tied tax subsidies are directly tied to sales of individual LCA, they can affect only the sales to which they are tied, and there is no basis to assume that Boeing would deploy savings from one sales campaign to lower its price in another, unrelated sales campaign.\footnote{See Panel Report, para. 9.427.} The United States submits that the correct per-aircraft value of the subsidy is less than US$100,000 instead of the Panel’s figure of US$1.99 million.\footnote{United States’ other appellant’s submission, paras. 24 and 68.}
5.479. The European Union responds that there is nothing in Article 5 or Article 6.3 of the SCM Agreement that excludes a panel from finding that a tied tax subsidy, while granted for all sales of a product, was nonetheless used by the recipient to reduce prices in a subset of those sales.\footnote{European Union’s appellee’s submission, para. 99.} The European Union explains that, while the Appellate Body in the original proceedings and the Panel in these proceedings recognized that a subsidy is tied when it is triggered by a sale of an aircraft, neither of them limited the use of such a subsidy to a price reduction in that particular sale.\footnote{European Union’s appellee’s submission, paras. 73-75.}

5.480. We recall that, for the purpose of estimating the per-aircraft amount of the Washington State B&O tax rate reduction, the Panel divided an annual average of the amount of this subsidy for the three-year period from 2013 to 2015 (i.e. US$325 million, divided by three) by an annual average of the number of aircraft ordered in the three particularly price-sensitive sales campaigns in that three-year period (i.e. 163 aircraft, divided by three).\footnote{Panel Report, fn 3321 to para. 9.402.} Notably, the numerator of the Panel’s calculation encompasses subsidies arising from all Boeing LCA sales during the 2013-2015 reference period, including both twin-aisle and single-aisle sales, whereas the denominator includes only the number of aircraft ordered in the three single-aisle sales campaigns during that period that the Panel had found to be particularly price-sensitive. This effectively means that the Panel allocated the entire amount of subsidies arising from all Boeing LCA sales between 2013 and 2015, including both twin-aisle and single-aisle sales, to the three single-aisle sales campaigns in that period. Thus, the United States is correct that the Panel’s calculation of the per-aircraft amount of the subsidy assumes that Boeing would have been able to pool the entire amount of the tied tax subsidy received over the 2013-2015 period and deployed this amount to lower the prices of the 737 MAX and 737NG in the three particularly price-sensitive sales campaigns in that period.

5.481. As noted, the United States argues that, because tied tax subsidies are directly tied to sales of individual LCA, they can affect only the sales to which they are tied, and there is no basis to assume that Boeing would deploy subsidy benefits arising from one sales campaign to lower its price in another.\footnote{United States’ other appellant’s submission, para. 45.}

5.482. We note that Articles 5 and 6.3 of the SCM Agreement do not explicitly refer to tied tax subsidy measures. Rather, Article 5 provides generally that "(n) o Member should cause, through the use of any subsidy referred to in paragraphs 1 and 2 of Article 1, adverse effects to the interests of other Members", including serious prejudice to the interests of another Member within the meaning of Article 5(c) or a threat thereof. Article 6.3, in turn, provides that serious prejudice within the meaning of Article 5(c) may arise where "the effect of the subsidy" is one or several market phenomena enumerated in subparagraphs (a) through (d). Thus, Articles 5 and 6.3 do not prescribe the manner in which a panel must assess how a subsidizing Member "causes" adverse effects "through the use of" tied tax subsidies or whether "the effect of" such subsidies are alleged market phenomena enumerated in Article 6.3. Rather, as the Appellate Body has emphasized, a demonstration that a subsidy is a genuine and substantial cause of the alleged serious prejudice is "a fact-intensive exercise, and one that inevitably involves extensive, case-specific evidence".\footnote{Appellate Body Report, \textit{US – Large Civil Aircraft (2nd complaint)}, para. 915.} The Appellate Body has added that the manner in which a complainant may seek to demonstrate the existence of the effects and the links between the subsidies at issue and those effects, and the type of supporting evidence that may be adduced, are likely to vary considerably.\footnote{Appellate Body Report, \textit{US – Large Civil Aircraft (2nd complaint)}, para. 1252 (referring to Original Panel Report, para. 7.1807.).}

5.483. We further note that, contrary to what the United States asserts, the nature of tied tax subsidies discussed by the Appellate Body in the original proceedings and by the Panel in these compliance proceedings is not, in and of itself, dispositive of whether their benefits can be used only to lower the prices of the particular sales to which they are tied. As noted, the Appellate Body found that the tied tax subsidies had a "more direct and immediate relationship" to aircraft prices than untied subsidies in that they lower the taxes incurred in connection with sales of LCA, thereby increasing Boeing’s per-unit after-tax revenue and profitability.\footnote{Appellate Body Report, \textit{US – Large Civil Aircraft (2nd complaint)}, para. 915.} Similarly, the Panel in these proceedings observed that the Washington State B&O tax rate reduction, due to its nature as a per-unit subsidy measure, is capable of affecting Boeing’s pricing behaviour by reducing Boeing’s...
5.484. In addition, the Appellate Body explained that considerations that appeared to bear on the assessment of the significance of the amounts of the tied tax subsidies in the original proceedings include "whether the benefits of the tied tax subsidies received by Boeing were applied to its prices across the board in all sales, or whether they were disproportionately applied to lower prices only in respect of certain sales". In this respect, the Appellate Body observed that, while there was a substantial likelihood that Boeing had used the tied tax subsidies to lower prices in "sales campaigns that were particularly competitive and sensitive in terms of price", Boeing would not have done so "in each and every sales campaign". In other words, the Appellate Body considered that Boeing would have used the benefits of the tied tax subsidies to lower the prices only in certain particularly price-sensitive sales campaigns. Although the Appellate Body did not explicitly determine how Boeing would have dealt with the subsidy benefits arising from less price-sensitive sales campaigns, it did not exclude the possibility that such benefits may have been used to offer additional price reductions in particularly price-sensitive sales campaigns. In short, there is nothing in the nature of tied tax subsidies discussed by the Appellate Body that would preclude a panel assessing the relative significance of the subsidy amounts from considering, as appropriate in the specific case, that the recipient may deploy the benefit of the tied tax subsidy arising from one sale to lower the price in another sale.

5.485. Accordingly, we do not agree with the United States that the Panel erred under Articles 5(c) and 6.3 of the SCM Agreement simply because it performed a calculation that assumed that the benefits of the tied tax subsidies could be used to lower the prices in sales campaigns other than the ones to which they are tied.

5.486. The United States also argues that, in the specific circumstances of this case, there was no basis for the Panel to consider that Boeing would have deployed the entire amount of the tied tax subsidy granted with respect to all of Boeing's LCA sales during the period from 2013 to 2015, including both twin-aisle and single-aisle sales, exclusively for the purpose of lowering the prices of the single-aisle LCA ordered in the three particularly price-sensitive sales campaigns in that period.

5.487. The European Union responds that unappealed factual findings regarding the competitive conditions of the LCA markets support the Panel's finding that Boeing had the ability and incentive to use the tied tax subsidies to lower prices in particularly price-sensitive sales campaigns.

5.488. We consider that the Panel addressed several matters pertinent to the issue of whether, in the circumstances of this case, Boeing would have deployed benefits of the tied tax subsidies received in connection with less price-sensitive sales campaigns to reduce its LCA prices in particularly price-sensitive sales campaigns. We first note that the Washington State B&O tax rate reduction is a subsidy program that exists over a considerable period of time: it was enacted in 2003 and will be in place until 2040. In addition, the Panel pointed to the characteristics of the LCA industry, as described by the European Union, which is effectively a competitive duopoly. Airbus and Boeing each hold significant market share and possess a degree of market power.
and Boeing do not compete for specific orders with the sole objective of maximizing their short-run profits, but instead they compete and set their prices with a view to maximizing their overall profits across their long-term sales activity. The Panel further explained that, while price, seating capacity, and direct operating costs generally are the most important factors in determining the outcome of LCA sales campaigns, the significance of these factors varies across different sales campaigns, depending on the customer's fleet, business plans, and strategic goals. The Panel also noted the European Union's assertion that, due to the nature of the LCA industry, Boeing may "price extremely aggressively" in some sales campaigns, whereas in other campaigns, Boeing may not face the need to offer such low prices in order to win the sale.

5.489. Furthermore, the Panel carried out a detailed evaluation of the varying significance of price and non-price factors for particular sales campaigns that the European Union had alleged to be highly competitive. With respect to the 21 sales campaigns involving twin-aisle LCA that took place between 2007 and 2015, the Panel observed that, while pricing was discussed in some of these campaigns, other factors featured more prominently in the evidence pertaining to the reasons why airline customers chose to order Boeing LCA over the competing Airbus offering. The Panel pointed to factors such as the airline customers' preference for the delivery availability of the Boeing LCA over the competing Airbus LCA, the choice of engine manufacturer, performance evaluations of the various aircraft, the size of the aircraft, and incumbency. The Panel stated that, in each of the 21 sales campaigns involving twin-aisle LCA, there were factors other than price that explained Boeing's success. The Panel also noted that the competing models of Airbus and Boeing twin-aisle LCA are less substitutable and, therefore, the outcome of sales campaigns involving these aircraft will depend to a greater extent on non-price factors. With respect to the 20 sales campaigns involving single-aisle LCA that occurred in the period from 2007 to 2015, the Panel found, as noted above, that five of these campaigns were particularly price-sensitive in the sense that Boeing was under particular pressure to reduce its LCA prices in order to secure the sales, and there were no non-price factors that explained Boeing's success in obtaining the sale. By contrast, for the remaining 15 sales campaigns, the Panel observed that the significance of price was rather limited, because certain non-price factors, such as Boeing's incumbency, airline customers' preference for the delivery availability of the Boeing LCA over the competing Airbus LCA, the size and timing of airline customers' fleet replacement needs, and technical performance of competing aircraft, played a "critical", "decisive", or "vital" role in determining the outcome of the sale.

5.490. All of the above considerations mentioned by the Panel, taken together, support the proposition that Boeing would be highly incentivized to deploy the benefits of the tied tax subsidies arising from multiple LCA sales over the duration of the subsidy programme to target certain highly competitive and strategically important sales campaigns, including the five sales campaigns involving single-aisle LCA that the Panel identified to be particularly price-sensitive. This encompasses the possibility that Boeing would use the tied tax subsidy benefits from LCA sales in the twin-aisle LCA market that are less price-competitive and use those benefits in particularly price-sensitive campaigns in the single-aisle LCA market. Such possibility seems greater given the Panel's findings that sales campaigns involving twin-aisle LCA are generally less price-sensitive than those involving single-aisle LCA and that, in fact, for each of the 21 sales campaigns involving twin-aisle LCA between 2007 and 2015, there were one or more non-price factors that more prominently explained the outcome of the campaign.

5.491. In this connection, we are aware of the United States' contention that, even had the Panel been allowed to consider that Boeing would have deployed the subsidy benefits arising from less

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1093 Panel Report, para. 9.52 (referring to European Union's comments on the United States' response to Panel question No. 158, para. 109).
1099 See para. 5.467 above.
1102 Panel Report, para. 9.248.
price-sensitive sales to lower the prices in particularly price-sensitive sales campaigns, it was still inappropriate for the Panel to take into account the amount of subsidy benefits arising from sales campaigns involving twin-aisle LCA for the purpose of assessing the relative significance of the amounts of the tied tax subsidy in the single-aisle LCA market. This is because such a calculation "effectively implies that subsidies to products in other markets are causing adverse effects to complaining Member products with which they do not compete".\textsuperscript{1104} While the precise legal basis for the United States' allegation is not entirely clear, we understand the United States to argue that such an approach is at odds with the proposition, also expressed by the Panel, that a "subsidized product", within the meaning of Article 6.3, can cause serious prejudice to another product only if the two products in question compete in the same market.\textsuperscript{1105}

5.492. We note that the Washington State B&O tax rate reduction applies, \textit{inter alia}, to the production and sale of all LCA manufactured in the State of Washington, including both twin-aisle and single-aisle LCA.\textsuperscript{1106} Thus, the product being subsidized under this subsidy measure (subsidized product) could be considered to encompass LCA generally, rather than the particular LCA model to which each individual transaction generating subsidy benefits is related. In addition, we recall that the \textit{chapeau} of Article 5 of the SCM Agreement provides that no Member should cause, "through the use of any subsidy", adverse effects to the interests of other Members. Further, the analyses of serious prejudice under the subparagraphs of Article 6.3 all concern "the effect of the subsidy". Thus, these provisions do not explicitly preclude the possibility that the benefits of the subsidy that may be granted in connection with one product of the responding Member (e.g. Boeing's twin-aisle LCA) are in fact used to lower the price of another product of that Member (e.g. Boeing's single-aisle LCA), which in turn causes commercial harm on a product of the complaining Member (e.g. Airbus' single-aisle LCA) that competes only with the product with respect to which the subsidy is used. To this extent, we do not consider that the term "subsidized product" in Article 6.3 must necessarily mean the product with respect to which the subsidy is granted, rather than the product with respect to which it is used.

5.493. Therefore, we disagree with the United States that, when estimating the per-aircraft magnitude of subsidization, the Panel was, on the basis of the term "subsidized product" in Article 6.3, precluded from taking into account the subsidy amounts granted for both twin-aisle and single-aisle LCA. Instead, allowing consideration of whether tied tax subsidy benefits arising from particular sales may be pooled and used to lower prices for other sales would permit consideration of whether tied tax subsidies granted with respect to twin-aisle LCA were used to lower prices of single-aisle LCA.

5.494. With regard to whether the Panel correctly assumed that the entire amount of the tied tax subsidy granted with respect to all of Boeing's LCA sales during the reference period from 2013 to 2015 would have been deployed exclusively to the three particularly price-sensitive sales campaigns in that period, we recall that Articles 5(c) and 6.3 do not explicitly require that a panel addressing a serious prejudice claim quantify the amount of the challenged subsidy either in absolute or relative terms.\textsuperscript{1107} Moreover, these provisions do not require a panel to determine precisely how the benefits of the subsidy are used by the recipient. Rather, what a panel is required to do under these provisions is to examine whether the subsidy contributes in a genuine and substantial way to the alleged market phenomena.\textsuperscript{1108} Thus, as long as a panel ensures that the subsidy is a genuine and substantial cause of the alleged market phenomena, a panel retains a degree of discretion to determine whether it is appropriate to carry out a quantitative analysis and, if it chooses to do so, what specific calculation method it uses for such quantification.

5.495. We further recall that, when assessing the relative significance of the amounts of the tied tax subsidies in the context of completing the legal analysis in the original proceedings, the Appellate Body did not rely on a quantification of the per-aircraft impact of the subsidies. Instead, the Appellate Body noted that there was little on the original panel record that would have enabled

\textsuperscript{1104} United States’ other appellant’s submission, para. 67.
\textsuperscript{1105} See Panel Report, para. 9.33; United States’ appellee’s submission, section VII.
\textsuperscript{1106} See Original Panel Report, para. 7.1803.
\textsuperscript{1108} Appellate Body Reports, \textit{US – Upland Cotton}, para. 438; \textit{US – Upland Cotton (Article 21.5 – Brazil)}, para. 374; \textit{EC and certain member States – Large Civil Aircraft}, para. 1232; \textit{US – Large Civil Aircraft (2nd complaint)}, para. 913; \textit{EC and certain member States – Large Civil Aircraft (Article 21.5 – US)}, para. 5.581.
it to carry out a quantitative analysis. Under these circumstances, the Appellate Body took into account the absolute amounts of the tied tax subsidies at issue (i.e. US$2.2 billion during the period from 1989 to 2006, and US$451 million during the reference period from 2004 to 2006), as well as certain evidence suggesting that the FSC/ETI subsidies were an important aspect of Boeing’s ability to compete with Airbus and that the tied tax subsidies enabled Boeing to lower its prices beyond the level that would otherwise have been economically justifiable. On that basis, the Appellate Body found that the original panel record provided some support for the proposition that the amounts of the tied tax subsidies had relative significance in that, “when deployed strategically”, the benefits were of a sufficient magnitude to contribute to Boeing’s ability to win sales from, or suppress prices of, Airbus in particular campaigns. This, together with other considerations – in particular the nature of the tied tax subsidies, the conditions of competition in the LCA industry, and the circumstances of individual sales campaigns – formed the basis for the Appellate Body’s ultimate conclusion that, for two particularly price-sensitive campaigns in the 100-200 seat LCA market (namely, the 2005 JAL and SALE sales campaigns), the tied tax subsidies at issue were a genuine and substantial cause of significant lost sales within the meaning of Articles 5(c) and 6.3(c) of the SCM Agreement.

5.496. Similar to the Appellate Body’s analysis in the original proceedings, we do not consider that the Panel in these proceedings was required under Articles 5(c) and 6.3 to determine the precise degree to which the subsidy actually affected Boeing’s prices in particular sales campaigns. Rather, to the extent that the Panel properly examined whether the subsidy can be considered a genuine and substantial cause of the alleged market phenomena, it had discretion in its use of qualitative and/or quantitative analyses. Thus, where the Panel chose to undertake a quantitative analysis, it would have sufficed for the Panel to offer a general assessment of the magnitude of the per-aircraft impact, instead of determining the precise per-aircraft subsidy amounts for each individual sales campaign in question.

5.497. We believe that the Panel’s magnitude calculation would be overstated if it necessarily conveyed that the entire amount of the tied tax subsidies that Boeing received in the reference period from 2013 to 2015 was used exclusively to lower the prices in the three particularly price-sensitive sales campaigns in that period. For example, while Boeing may have allocated benefits of the tied tax subsidies in favour of these sales campaigns, it is unlikely that all of the benefits were necessarily allocated to these particularly price-sensitive sales campaigns to the exclusion of any other business purpose. Moreover, even accepting that those particularly price-sensitive sales campaigns are the only instances in which the benefits of the subsidy were used to lower prices of Boeing’s LCA, Boeing may not have needed to reduce its prices to the maximum extent possible with the use of the subsidy benefits for the purpose of winning the sale.

5.498. In any event, we consider that the Panel’s US$1.99 million figure calculated with reference to the 2013-2015 period provides a useful estimate of the maximum extent to which Boeing would have been able to lower its prices with the use of the tied tax subsidy in the three particularly price-sensitive sales campaigns during that period, as well as the two particularly price-sensitive

\[\text{\footnotesize{\textsuperscript{1109} Appellate Body Report, US \textendash{} Large Civil Aircraft (2nd complaint), para. 1254.}}\]
\[\text{\footnotesize{\textsuperscript{1110} More specifically, Boeing received US$435 million from the FSC/ETI subsidies, US$13.8 million from the Washington State B&O tax rate reduction, and US$2.2 million from the City of Everett B&O tax rate reduction. (Appellate Body Report, US \textendash{} Large Civil Aircraft (2nd complaint), para. 1254)}}\]
\[\text{\footnotesize{\textsuperscript{1111} Appellate Body Report, US \textendash{} Large Civil Aircraft (2nd complaint), para. 1254 (referring to Original Panel Report, para. 7.1811). The Appellate Body noted that by far the majority of this amount was accounted for by the FSC/ETI subsidies, because Boeing began to receive the B&O tax rate reductions only during the 2004-2006 reference period in the original proceedings. (Ibid.)}}\]
\[\text{\footnotesize{\textsuperscript{1112} Appellate Body Report, US \textendash{} Large Civil Aircraft (2nd complaint), paras. 1254-1255 (referring to Panel Report, para. 7.1818).}}\]
\[\text{\footnotesize{\textsuperscript{1113} Appellate Body Report, US \textendash{} Large Civil Aircraft (2nd complaint), para. 1254.}}\]
\[\text{\footnotesize{\textsuperscript{1114} Appellate Body Report, US \textendash{} Large Civil Aircraft (2nd complaint), para. 1251.}}\]
\[\text{\footnotesize{\textsuperscript{1115} Appellate Body Report, US \textendash{} Large Civil Aircraft (2nd complaint), para. 1271. See also ibid., para. 1260.}}\]
\[\text{\footnotesize{\textsuperscript{1116} We note in this regard that, before the Panel, the parties agreed that Airbus and Boeing have no incentive to reduce their prices beyond what is necessary to win the deal. (European Union’s response to Panel question 164, para. 111; United States’ comments on the European Union’s response to Panel question No. 164, para. 135) We further note that, in its other appellant’s submission, the United States suggests that offering a price concession in one sale can have certain repercussions on prices in other sales, for example, due to the so-called “most-favoured customer” clause for certain, top-tier Boeing customers. (United States’ other appellant’s submission, para. 97 (referring to Panel Report, fn 2724 to para. 9.50))}}\]
sales campaigns prior to that period.\textsuperscript{1117} Such an estimate can, in turn, be reasonably relied on in determining whether the price reduction made available with the subsidy benefits contributed to a significant degree to Boeing winning these sales campaigns. Therefore, even if such an estimate does not represent the precise degree to which Boeing lowered its LCA prices with the use of the subsidy benefits in particular sales campaigns, it still can form a reasonable basis, when combined with other factors – such as the nature of the tied tax subsidies, the conditions of competition in the LCA industry, and the circumstances of individual sales campaigns – for concluding that the tied tax subsidy at issue was a genuine and substantial cause of Boeing’s success in the particularly price-sensitive sales campaigns.

5.499. For the foregoing reasons, we find that the Panel did not err under Articles 5(c) and 6.3 of the SCM Agreement when it provided an estimate of the per-aircraft amount of the subsidy at issue.

5.500. Finally, we note that the United States has also brought an alternative claim under Article 11 of the DSU with respect to the Panel’s calculation of the per-aircraft subsidy magnitude.

5.501. The Appellate Body has observed that, while an appellant may advance both a claim that the Panel erred in its application of a legal provision and a claim that the Panel failed to make an objective assessment of the facts under Article 11 of the DSU, in most cases, an issue “will either be one of application of the law to the facts or an issue of the objective assessment of facts, and not both”.\textsuperscript{1118} Similarly, in the original proceedings, the Appellate Body indicated that, “(w)here there is ambiguity, it will fall on the Appellate Body to determine whether a finding – and a related challenge to it on appeal – is properly characterized as legal or factual, in the circumstances of a specific case.”\textsuperscript{1119} In this regard, the Appellate Body has explained that allegations implicating a panel’s appreciation of facts and evidence fall under Article 11 of the DSU.\textsuperscript{1120} By contrast, “(t)he consistency or inconsistency of a given fact or set of facts with the requirements of a given treaty provision is ... a legal characterization issue" and is therefore a legal question.\textsuperscript{1121}

5.502. As we understand it, the United States’ key contention in its appeal is that, for purposes of its analysis of adverse effects under Articles 5(c) and 6.3 of the SCM Agreement, the Panel relied on an erroneous assumption that Boeing would have deployed the benefit of the tied tax subsidy arising from less competitive sales to lower its prices in particularly price-sensitive sales campaigns. As we have noted, a panel assessing the relative significance of the amount of the challenged subsidy is not necessarily required to quantify the per-unit amount of the subsidy or make a factual determination of precisely how the benefits of the subsidy were used. Rather, a panel may rely on different types of approaches depending on the specific circumstances of each case, including both qualitative and quantitative analyses. As such, the Panel’s attempt in this dispute to quantify the per-aircraft subsidy magnitude was only one permissible way of evaluating the relative significance of the subsidy amount while taking into account the specific factual setting of this dispute, which includes the nature and absolute magnitude of the subsidy at issue, the conditions of competition in the relevant LCA markets, and the particular circumstances of individual sales campaigns. We consider that such an assessment relates more properly to the application of the legal standard for establishing causation under Articles 5(c) and 6.3 of the SCM Agreement than to the objectivity of the Panel’s assessment of the facts within the meaning of Article 11 of the DSU. Accordingly, we do not further consider the United States’ claim under Article 11 of the DSU.

\textsuperscript{1117} The Panel did not carry out a separate calculation of the per-aircraft subsidy magnitude for the Fly Dubai 2008 and Delta Airlines 2011 sales campaigns, which occurred prior to the 2013-2015 reference period. We note the Panel finding that the tied tax subsidy received in the six-year period from 2007 to 2012 was of an amount slightly smaller than, yet comparable to, the US$325 million amount for the 2013-2015 period. (Panel Report, para. 8.659) We also note the Panel finding that the total number of Boeing’s LCA ordered in the Fly Dubai 2008 and Delta Airlines 2011 sales campaigns was 150, which is comparable to the 163 aircraft ordered in the three particularly price-sensitive sales campaigns during the 2013-2015 period. (Panel Report, Table 12 at para. 9.381)

\textsuperscript{1118} Appellate Body Report, EC and certain member States – Large Civil Aircraft, para. 872.

\textsuperscript{1119} Appellate Body Report, US – Large Civil Aircraft (2nd complaint), para. 958.

\textsuperscript{1120} Appellate Body Reports, US – Upland Cotton, para. 399; US – Upland Cotton (Article 21.5 – Brazil), para. 385; EC and certain member States – Large Civil Aircraft, para. 1005; China – GOES, para. 183.

5.8.2.3 Whether the Panel erred under Articles 5 and 6.3 of the SCM Agreement, or acted inconsistently with Article 11 of the DSU, by failing to ensure that the per-aircraft amount of subsidization covers the entirety of the price differentials

5.503. The United States also claims that, even assuming arguendo that the Panel's per-aircraft magnitude figure of US$1.99 million were correct, there was no basis for the Panel to conclude that the subsidy contributed in a genuine and substantial way to Airbus' loss of sales in the five particularly price-sensitive sales campaigns, because the Panel failed to show that the per-aircraft subsidy amount covers the entirety of the price gap between Airbus' and Boeing's respective offers. According to the United States, the proper counterfactual analysis under Articles 5(c) and 6.3 asks not only whether Boeing's prices would have been higher in the absence of the subsidy, but also whether Boeing's prices would have been sufficiently higher such that Airbus would have won additional sales in the absence of the subsidy.1122 The United States therefore considers that the Panel was required to determine whether the magnitude of the tied tax subsidy is enough to "cover the margin of victory between the final net prices of Boeing and Airbus".1123 In addition, the United States advances campaign-specific arguments and submits that, with respect to each of the five sales campaigns, the Panel's analysis constitutes an error under Articles 5(c) and 6.3 of the SCM Agreement and/or is inconsistent with Article 11 of the DSU.1124

5.504. The European Union observes that the United States' claims, including its campaign-specific arguments, are based on the proposition that a subsidy can be found to constitute a genuine and substantial cause of lost sales only if the per-aircraft amount of subsidization exceeds the difference that the Panel found between Boeing's winning and Airbus' losing prices for that sale.1125 According to the European Union, the United States' assertion is without merit because it amounts to an erroneous proposition that the subsidy must be the sole cause of adverse effects. The European Union adds that the United States is also wrong in that it focuses solely on a strict comparison between the subsidy magnitude and the difference in the net prices, without taking into account, inter alia, the difference in the NPVs.1126 In addition, the European Union responds to each of the more detailed arguments of the United States regarding the five sales campaigns.1127

5.505. The Appellate Body has stated that, for purposes of establishing a "genuine and substantial relationship of cause and effect" between a subsidy and an alleged adverse effect, a panel need not determine that the subsidy is the sole cause of that effect, or even the only substantial cause of that effect.1128 Instead, a finding of the requisite causal link can be made even in the presence of other contributing factors, provided that, having given proper consideration to all of these factors and their effects, the panel is satisfied that the contribution of the subsidy has been demonstrated to be genuine and substantial.1129

5.506. As noted by the United States, one approach to assessing the existence of a requisite causal link between the subsidy and alleged serious prejudice is by recourse to a counterfactual analysis.1130

With particular respect to an analysis of lost sales, the Appellate Body has explained that such a counterfactual analysis would involve a comparison of the sales actually made by the competing firm of the complaining Member with the sales that this firm would have won in a counterfactual scenario where the firm of the subsidizing Member had not received the challenged subsidy.1131 As such, where a complainant is seeking to demonstrate lost sales through a subsidy's effects on the prices of the subsidized firm, a proper counterfactual test may entail a comparison between, on the one hand, the degree of price reduction made available with the use of the subsidy in the particular sale...

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1122 United States' other appellant's submission, para. 122 and fn 123 thereto.
1123 United States' other appellant's submission, para. 147 (quoting Panel Report, para. 9.379, in turn quoting Appellate Body Report, US – Large Civil Aircraft (2nd complaint), para. 1263, which summarized the European Communities' argument before the original panel).
1124 United States' other appellant's submission, para. 144.
1125 European Union's appellee's submission, para. 145.
1126 European Union's appellee's submission, paras. 151 and 160.
1127 European Union's appellee's submission, paras. 168-208.
1129 Appellate Body Reports, US – Large Civil Aircraft (2nd complaint), para. 914; EC and certain member States – Large Civil Aircraft (Article 21.5 – US), para. 5.582.
1130 United States' other appellant's submission, paras. 119-120. See also Appellate Body Reports, US – Upland Cotton (Article 21.5 – Brazil), paras. 374-375; EC and certain member States – Large Civil Aircraft, paras. 1110 and 1233.
1131 Appellate Body Report, EC and certain member States – Large Civil Aircraft, para. 1216.
5.507. However, the Appellate Body has voiced reservations about using a "but for" test for determining the existence of a "genuine and substantial" causal link. The Appellate Body noted that a "but for" test may be "too undemanding" if the subsidy is "necessary, but not sufficient, to bring about" a market phenomenon. This may be the case where a necessary cause is too remote and other intervening causes substantially account for the market phenomenon. By contrast, a "but for" test could be "too rigorous" if it required that the subsidy be the only cause.

5.508. In light of these considerations, we do not believe that, when a panel chooses to make a comparison between the degree of price reduction made available with the use of the subsidy in a particular sale, on the one hand, and the degree of price difference that could change the outcome of that sale for purposes of assessing causation, on the other hand, the panel is required to establish that the former exceeds the latter in order to conclude that the subsidy contributed in a genuine and substantial way to the subsidized firm winning the sale. For example, in a situation where price is effectively the only consideration for the customer's decision to purchase the product of the subsidized firm instead of the product of the competing firm – as with the particularly price-sensitive campaigns that the Panel identified – it may not be necessary for the subsidy to account for the entire pricing advantage enjoyed by the subsidized firm. Indeed, requiring the subsidy to explain the entirety of the price advantage in such a case may equate to a requirement that the subsidy constitute the sole cause of the subsidized firm winning the sale.

5.509. In addition, with particular respect to the LCA markets in question, we note that the Panel found that customers making a choice between offers by Airbus and Boeing consider not only the net prices of their respective offers but also various non-price factors to arrive at an evaluation of the respective NPVs for the competing aircraft. Moreover, even if the aircraft models offered by Airbus and Boeing in a particular sales campaign are competing with each other in the same market, they are still differentiated from each other in various respects, such as seating capacity and flight range, and, thus, some elements of the net price differential might be attributable to those factors. As such, we do not consider that a strict comparison of net prices of Airbus' and Boeing's competing aircraft models is the exclusive indicator as to whether the subsidy at issue contributed in a genuine and substantial way to the outcome of particular sales campaigns.

5.510. Further in this regard, we recall that the Panel based its finding of lost sales not only on a comparison between the per-aircraft subsidy amount and the net price differentials in the five individual sales campaigns, but also on evidence pertaining to NPV difference. Specifically, the Panel cited the statement by Mr Rao that refers to a specific level of NPV difference that can change a customer's choice between Airbus and Boeing in highly competitive sales campaigns involving single-aisle LCA. As already noted above, the Panel observed that its US$1.99 million magnitude figure exceeds the magnitude of NPV difference mentioned by Mr Rao.

5.511. We note that the Panel did not explain how much weight it attached to the NPV difference mentioned by Mr Rao, as compared to the weight it attached to the net price differentials. We further note that Mr Rao's statement is made on a generalized basis, without specifically referring to any of the five individual sales campaigns in question. As such, one could consider that the probative value

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1132 See Appellate Body Report, EC and certain member States – Large Civil Aircraft, para. 1216.
1134 Appellate Body Report, EC and certain member States – Large Civil Aircraft, para. 1233.
1136 Panel Report, paras. 9.21 and 9.398, and fn 3316 to para. 9.398. See also Original Panel Report, para. 7.1694.
1137 Such dynamics seem to manifest themselves, for example, in the different list prices (and, consequently, actual prices) for different aircraft models found by the Panel. (See Panel Report, Table 4 at para. 9.25 and Table 13 at para. 9.389)
1138 Statement of Kiran Rao, 6 October 2015 (Panel Exhibit EU-1668) (HSBI).
1139 See para. 5.473 above.
1140 Panel Report, para. 9.402.
of this statement is limited such that it cannot be assumed that the differentials in the NPVs of Airbus’ and Boeing’s respective offers in these sales campaigns were indeed at the range of the figure mentioned by Mr Rao. The United States appears to take such a view\textsuperscript{1141}, although the Panel suggested that the United States had not contradicted this evidence during the Panel proceedings.\textsuperscript{1142} In any event, we consider that, regardless of the generalized nature of Mr Rao’s statement, it nevertheless provides some indication of the magnitude of NPV difference that could change the outcome of the five sales campaigns in question, in particular given that they are clearly among the more competitive of the sales campaigns. In this respect, the Panel’s assessment of the NPV difference could be understood to complement its assessment of the net price differentials, thereby corroborating its overall findings of lost sales with respect to the five individual sales campaigns.

5.512. Accordingly, we disagree with the United States that the Panel erred merely because its conclusion was not based on a finding that the per-aircraft magnitude of the subsidy exceeds the differential in the net prices offered by Airbus and Boeing in each of the five sales campaigns.

5.513. Turning to the United States’ arguments regarding specific sales campaigns, the United States contends that the Panel erred in reaching its lost sales findings with respect to the Fly Dubai 2008 and Delta Airlines 2011 sales campaigns on the basis of its observation that the magnitudes of the subsidy were only capable of enabling “at least a portion” of Boeing’s pricing advantage.\textsuperscript{1143} According to the United States, this constitutes an erroneous interpretation and application of Articles 5(c) and 6.3 of the SCM Agreement.\textsuperscript{1144}

5.514. We recall that the Panel found that the subsidy contributed in a genuine and substantial way to Airbus’ loss of the Fly Dubai 2008 and Delta Airlines 2011 sales campaigns, explaining that the magnitudes of the subsidy were “capable of enabling at least a portion of Boeing’s pricing advantage, contributing in substantial part to its winning those campaigns”.\textsuperscript{1145} Thus, the Panel explicitly acknowledged that its US$1.99 million magnitude figure does not bridge the net price differentials in Airbus’ and Boeing’s respective offers. However, as we have explained, a strict mathematical comparison between the net prices of Airbus’ and Boeing’s respective LCA is not dispositive of whether the Panel could reach a finding that the subsidy is a genuine and substantial cause of Boeing winning the sale.

5.515. In addition, we have observed that, while the Panel’s US$1.99 million figure may not reflect the precise degree to which the tied tax subsidy at issue reduced Boeing’s LCA prices in the particularly price-sensitive sales campaigns in question, this amount could nevertheless be relied on as an estimate of the maximum extent to which Boeing was able to lower its prices through the use of the subsidy benefits in those campaigns. In this light, and having reviewed the specific net price differential figures identified by the Panel for the Fly Dubai 2008 and Delta Airlines 2011 sales campaigns (which are HSBI), we agree with the Panel that the subsidy could account for a considerable portion of the net price differentials, arguably contributing “in substantial part” to Boeing’s pricing advantage.\textsuperscript{1146} Furthermore, as we have explained, the Panel based its overall findings of lost sales not only on its analysis of net price differentials, but also on its assessment of the evidence pertaining to the NPV difference. Under these circumstances, we disagree with the United States that the Panel erred under Articles 5(c) and 6.3 of the SCM Agreement in reaching the lost sales findings with respect to the Fly Dubai 2008 and Delta Airlines 2011 sales campaigns where the magnitudes of the subsidy were only capable of enabling “at least a portion” of Boeing’s pricing advantage.

5.516. With respect to the Fly Dubai 2014 sales campaign, the United States argues that, even assuming \textit{arguendo} that the Panel’s US$1.99 million magnitude figure were correct, this would not justify the Panel’s lost sales finding because the Panel found that the outcome of this sales campaign

\textsuperscript{1141} United States’ other appellant’s submission, para. 128 (referring to Panel Report, para. 9.403).
\textsuperscript{1142} Panel Report, para. 9.403.
\textsuperscript{1143} United States’ other appellant’s submission, paras. 148 and 151 (quoting Panel Report, para. 9.403). (emphasis added by the United States omitted)
\textsuperscript{1144} United States’ other appellant’s submission, paras. 144 and 151. We note that the United States also refers to Article 11 of the DSU in the alternative in paragraph 151 of its other appellant’s submission. However, the United States did not cite this provision in its Notice of Other Appeal.
\textsuperscript{1145} Panel Report, para. 9.403.
\textsuperscript{1146} Panel Report, para. 9.403.
was a result of a certain non-price factor. The United States thus claims that the Panel erred under Articles 5(c) and 6.3 of the SCM Agreement and acted inconsistently with Article 11 of the DSU.

5.517. We note that the Panel found, and the participants agree, that the most prominent factor that affected the outcome of the Fly Dubai 2014 sales campaign was a certain specific factor, which is HSBI. To this extent, we agree with the United States that the comparison between the Panel's US$1.99 million and the net price differential identified by the Panel for this sales campaign was of limited significance in determining whether the subsidy can be considered a genuine and substantial cause of Airbus' loss of this sales campaign. Yet, we understand from the nature of this particular non-price factor, as well as the participants' arguments with respect to this sales campaign, that the outcome of the challenge concerning this sales campaign turns on the same question as that raised in connection with the Fly Dubai 2008 and Delta Airlines 2011 sales campaigns. Therefore, having rejected the United States' arguments with respect to the Fly Dubai 2008 and Delta Airlines 2011 sales campaigns, we disagree that the Panel erred under Articles 5(c) and 6.3 of the SCM Agreement, or under Article 11 of the DSU, in reaching a finding of lost sales with respect to the Fly Dubai 2014 sales campaign.

5.518. Finally, with respect to the Icelandair 2013 and Air Canada 2013 sales campaigns, the United States takes issue with certain statements by the Panel which "arguably intimated" that the US$1.99 million figure exceeds the net price differentials in these campaigns. According to the United States, such statements find no support in the evidence, resulting in a failure to make an objective assessment of the matter within the meaning of Article 11 of the DSU. On this basis, the United States appears to further claim that, because the Panel failed to ensure that the per-aircraft subsidy amount covers the entirety of the price differentials, it also erred under Articles 5(c) and 6.3 of the SCM Agreement.

5.519. As regards the Icelandair 2013 sales campaign, the United States notes that, although the Panel found that evidence reflected a price differential of a specific value (which is HSBI), it suggested that this evidence "is somewhat contradicted" by other evidence that Airbus' final offer for both the A320neo and A320ceo was made at a certain price level (which is HSBI), which suggests that, at the final stage, Airbus had "closed the gap". The United States challenges this particular statement by the Panel, arguing that it lacks support in the evidence.

5.520. We observe that, regardless of whether Airbus had "closed the gap" between Airbus' and Boeing's offered prices at the final stage such that the final net price differential in this sales campaign was smaller than the specific HSBI figure mentioned by the Panel, the subsidy amount available for this sales campaign – which can be as large as US$1.99 million per aircraft – could cover a significant portion of that HSBI figure. Moreover, the Panel explained that the fact that Airbus' final offer was made at a certain price level suggests that Boeing would have been under considerable pressure to lower its prices in order to secure the order. One implication of that finding might be that the Icelandair 2013 sales campaign was so closely fought that Boeing could not have offered substantially better pricing than Airbus without relying on an additional source of funds from the subsidy at issue. In any event, given the specific net price differential figure identified

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1147 United States' other appellant's submission, paras. 169-171.
1148 United States' Notice of Other Appeal, para. 5.
1149 Panel Report, HSBI Appendix, para. 271; United States' other appellant's submission, para. 170; European Union's appellee's submission, paras. 205-206.
1150 We note that the Panel explained that this factor cannot reasonably be considered a "non-price" factor because it relates too closely to certain price factors. The Panel thus considered the Fly Dubai 2014 sales campaign to be particularly price-sensitive. (Panel Report, HSBI Appendix, para. 271)
1151 United States' other appellant's submission, paras. 169-171; European Union's appellee's submission, paras. 205-206.
1152 United States' other appellant's submission, para. 144.
1153 United States' other appellant's submission, paras. 31, 144, and 173.
1154 United States' Notice of Other Appeal, para. 5.
1155 Panel Report, HSBI Appendix, para. 247 (referring to European Union's first written submission to the Panel, para. 1792; Panel Exhibit EU-987 (HSBI)).
1156 United States' other appellant's submission, paras. 155-156. (fn omitted) See also Panel Report, para. 9.403; Panel Report, HSBI Appendix, paras. 249-250.
1157 United States' other appellant's submission, para. 156.
1158 Panel Report, HSBI Appendix, para. 250.
by the Panel for the Icelandair 2013 sales campaign, as well as the Panel's assessment of the evidence regarding the NPV difference, we do not consider that the Panel erred in reaching a finding of lost sales with respect to this sales campaign.

5.521. Turning to the Air Canada 2013 campaign, the United States observes that, while the Panel did not identify a specific price differential for this campaign, it "insinuate(d)" that the pricing differential was somewhat lower than the pricing differential in the Icelandair 2013 campaign.\(^{1159}\) The United States further notes that the Panel observed that Airbus had offered incremental price reductions by a certain specific amount, and then by a smaller amount, in the concluding stage of the campaign.\(^{1160}\) The Panel considered this fact to suggest that Airbus thought it was close enough to Boeing on price that relatively small improvements on price could affect the outcome of the campaign.\(^{1161}\) In the United States' view, however, the fact mentioned by the Panel cannot be a basis for its observation that the differential in this sales campaign was somewhat lower than the differential in the Icelandair 2013 campaign.\(^{1162}\)

5.522. We recall that the Panel found that the Air Canada 2013 sales campaign was particularly price-sensitive in the sense that Boeing was under particular pressure to reduce its price in order to secure the sale.\(^{1163}\) This suggests that Airbus was also under strong pressure to reduce its price during this campaign. Our review of the Panel's evaluation of the evidence pertaining to this sales campaign, contained in the HSBI Appendix to its Report, confirms this proposition.\(^{1164}\) Under these circumstances, we agree with the Panel that the magnitudes of price reductions offered by Airbus at the concluding stage of the campaign offer some indication of the magnitude of the price differential that Airbus considered could change the outcome of the campaign. In this regard, our review of the incremental price reductions offered by Airbus, especially the second price reduction\(^{1165}\), supports the view that the price differential in the Air Canada 2013 sales campaign might indeed have been smaller than the amount identified by the Panel for the Icelandair 2013 sales campaign.

5.523. We note that the United States suggests that it is not appropriate to take into account the magnitude of the second price reduction, because it cannot be considered a concession in price given the specific reason for this reduction (which is HSBI).\(^{1166}\) However, regardless of the alleged reason for Airbus' second price reduction, the fact that Airbus did not make a large price reduction at the concluding stage of the campaign – despite the strong pressure it had felt to reduce its price during the campaign – might arguably suggest that Airbus thought it was close enough to Boeing on price. In any event, even assuming that the price differential in the Air Canada 2013 sales campaign was in the range of Airbus' first price reduction instead of the second price reduction, the subsidy amount available for this sales campaign – which can be as large as US$1.99 million per aircraft – could still be considered sufficiently large vis-à-vis such price differential for purposes of reaching a conclusion that the subsidy contributed in a genuine and substantial way to Boeing winning the sale. We recall in this regard that, when reaching this conclusion, the Panel also observed that its US$1.99 million figure exceeds the magnitude of NPV difference that Mr Rao stated can change the outcome of highly competitive sales campaigns involving single-aisle LCA.\(^{1167}\)

5.524. Accordingly, we disagree with the United States that the Panel acted inconsistently with Article 11 of the DSU, or erred under Article 5(c) and 6.3 of the SCM Agreement, in reaching its lost sales findings with respect to the Icelandair 2013 and Air Canada 2013 sales campaigns.

5.8.2.4 Conclusion

5.525. With respect to the Panel's calculation of the per-aircraft amount of subsidization, we consider that there was a basis for the Panel to assume that Boeing had been able to use the benefits

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\(^{1159}\) United States' other appellant's submission, para. 161 (referring to Panel Report, para. 9.403 (stating that the pricing differential in the Icelandair 2013 campaign is "somewhat larger" than, inter alia, in the Air Canada 2013 campaign)).

\(^{1160}\) United States' other appellant's submission, para. 161 (referring to Panel Report, para. 9.403).

\(^{1161}\) Panel Report, para. 9.403.

\(^{1162}\) United States' other appellant's submission, para. 162.

\(^{1163}\) Panel Report, para. 9.383 and fn 3276 thereto.

\(^{1164}\) Panel Report, HSBI Appendix, para. 261.

\(^{1165}\) Panel Report, HSBI Appendix, para. 264.

\(^{1166}\) United States' other appellant's submission, paras. 164-167.

of the subsidies arising from all its LCA sales to lower the prices in particularly price-sensitive sales campaigns in the single-aisle LCA market. We thus find that the Panel did not err under Articles 5(c) and 6.3 of the SCM Agreement in its calculation of the per-aircraft amount of subsidization. Further, we decline to consider the United States' alternative claim under Article 11 of the DSU because its challenge to the Panel's calculation relates more properly to the application of the legal standard for establishing causation under Articles 5(c) and 6.3 of the SCM Agreement.

5.526. In addition, we do not consider that the Panel was required under Articles 5 and 6.3 of the SCM Agreement to establish that the per-aircraft amount of the subsidies available for the particularly price-sensitive sales campaigns exceeds the differentials in the net prices of Airbus' and Boeing's competing aircraft for purposes of concluding that the subsidies are a genuine and substantial cause of Airbus' loss of these sales. Nor do we consider that the Panel failed to make an objective assessment of the matter when comparing the per-aircraft subsidy amount to the net price differentials in those sales campaigns. We thus find that the Panel did not err under Articles 5 and 6.3 of the SCM Agreement, or acted inconsistently with Article 11 of the DSU, in reaching its lost sales finding with respect to the five particularly price-sensitive sales campaigns.

5.8.3 European Union's claims relating to the Panel's analysis of the untied subsidies

5.8.3.1 Whether the Panel erred under Articles 5 and 6.3 of the SCM Agreement, or acted inconsistently with Article 11 of the DSU, by requiring that the European Union demonstrate that the untied subsidies actually altered Boeing's pricing behaviour

5.527. The European Union requests us to reverse the Panel's findings that the European Union had failed to establish that the "untied subsidies" – consisting of various state and local cash flow subsidies and the post-2006 aeronautics R&D subsidies – are a genuine and substantial cause of adverse effects in the post-implementation period through a price causal mechanism. According to the European Union, the Panel erred in the interpretation and application of Articles 5 and 6.3 by requiring that, in order to demonstrate that the untied subsidies cause adverse effects, the European Union must trace the dollars from the untied subsidies to actual price reductions of LCA sales. The European Union further alleges that the Panel failed to make an objective assessment of the matter under Article 11 of the DSU by deviating from the Appellate Body's findings in the original proceedings.

5.528. According to the United States, the Panel did not impose a requirement to trace subsidy dollars to price reductions, but rather found that the European Union never provided a credible explanation as to how untied subsidies affect Boeing's LCA prices. Because the European Union was unable to demonstrate that any of the untied subsidies altered Boeing's profitability calculus, the United States maintains that the Panel correctly treated the untied subsidies as the equivalent of additional cash that did not alter Boeing's pricing behaviour. Regarding the European Union's claim under Article 11 of the DSU, the United States considers that the Panel was correct to dismiss the European Union's efforts to establish that any untied subsidy necessarily affects Boeing's prices as the equivalent of "causation through association".

5.529. In this claim on appeal, the European Union challenges the manner in which the Panel addressed the role of the untied subsidies in its causation analysis. It is well accepted in this dispute that, unlike the tied tax subsidies, the untied subsidies are not contingent on the production or sale of LCA on a per-unit basis, but instead increase Boeing's non-operating cash flow. The question, therefore, is under what circumstances subsidies to Boeing in the form of additional cash can be found to cause adverse effects through a price causal mechanism.

5.530. In the original proceedings, the Appellate Body faulted the original panel for failing to consider whether the untied subsidies also affected Boeing's prices in a manner similar to the tied

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1168 European Union's appellant's submission, para. 642.
1169 European Union's appellant's submission, para. 587.
1170 European Union's appellant's submission, para. 588.
1171 United States' appellee's submission, paras. 309-320.
1172 United States' appellee's submission, para. 321 (quoting Panel Report, fn 3122 to para. 9.274, in turn quoting Appellate Body Report, EC and certain member States – Large Civil Aircraft, para. 1404).
tax subsidies. According to the Appellate Body, the original panel should not have limited its analysis to the question of whether these subsidies constitute a genuine and substantial cause of serious prejudice on their own. Rather, the original 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. The Appellate Body maintained that, by doing so, the remaining subsidies could be said to complement and supplement the effects, and therefore the serious prejudice, caused by the tied tax subsidies. The Appellate Body therefore reversed the Panel's finding that the untied subsidies had not been shown to have affected Boeing's prices in a manner giving rise to serious prejudice, and turned to consider whether it could complete the legal analysis.

In completing the legal analysis, the Appellate Body then sought to establish whether any of the untied subsidies had a genuine causal relationship with the effects of the tied tax subsidies. The Appellate Body recalled various findings it had made regarding price competition in the single-aisle LCA market. The Appellate Body noted its acceptance that the 100-200 seat LCA market operates as a duopoly, in which Airbus and Boeing each possess the ability, through their supply and pricing decisions, to influence the pricing of the other. The Appellate Body further observed that price appears to have been a particularly important consideration in the 100-200 seat LCA market due to the relatively high degree of substitutability between the A320 and the 737NG, and the fact that many customers within this product market are low-cost carriers, which tend to be more price-sensitive. The Appellate Body also took note of the original panel's findings that, in late 2004 or early 2005, Boeing altered its overall pricing strategy and became more aggressive on price, and that certain LCA sales campaigns are more competitive and more price-sensitive than others. Finally, the Appellate Body noted its finding that Boeing was under particular pressure to reduce its prices in order to secure 737NG sales in two sales campaigns - namely, the 2005 JAL and SALE sales campaigns - and that Boeing used the tied tax subsidies consisting of the FSC/ETI subsidies and the Washington State B&O tax rate reduction to do so. On that basis, the Appellate Body considered that the necessary causal link between the untied subsidies and Boeing's lower pricing of the 737NG in these two sales campaigns could be demonstrated "if there are uncontested facts or factual findings by the Panel linking the remaining subsidies, or any of them, to the 737NG".

5.532. The Appellate Body took note of the original panel's observation that the amount of the remaining subsidies was "comparatively small, being approximately $550 million" and that none of the remaining subsidies were "directly related to Boeing's production or sale of LCA". While the Appellate Body agreed with these statements to some extent, it considered that they are "overbroad", noting that the size of each subsidy varied considerably, from US$0.5 million to US$475.8 million, and that the magnitude of the subsidies was "of somewhat less consequence" when seeking to cumulate the effects of such a subsidy with another group of subsidies, rather than seeking to establish that "the subsidy itself caused the serious prejudice." The Appellate Body further considered that, while untied subsidies are not contingent on the production or sale of a particular product on a per-unit basis, they are intended to cover some portion of the fixed costs that Boeing incurs and thus "some of these subsidies are more directly related to Boeing's production of LCA and in particular to its production of the 737NG, than others."
5.533. The Appellate Body noted that, in fact, the European Communities had argued that certain untied subsidies were more closely linked to LCA production than others.\textsuperscript{1184} The Appellate Body examined each of the untied subsidies and found that, for seven of the eight subsidies, it was not persuaded that they were sufficiently linked to production of the 737NG such that they could be said to meaningfully contribute to the lowering of Boeing prices of that LCA. With respect to the City of Wichita IRB tax abatements, however, the Appellate Body considered that there was “a close connection between the IRBs and Boeing’s production of the 737NG”.\textsuperscript{1185} On that basis, the Appellate Body was able to complete the legal analysis and find that the City of Wichita IRB tax abatements “enhanced the pricing flexibility” that Boeing enjoyed by reason of the tied tax subsidies, and therefore 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.”\textsuperscript{1186}

5.534. Having considered the Appellate Body’s analysis of the untied subsidies in the original proceedings, we now turn to examine how the Panel in these compliance proceedings addressed the question of when subsidies in the form of additional cash to Boeing could be found to cause adverse effects through a price causal mechanism. The Panel highlighted that, unlike the tied tax subsidies, “Boeing’s receipt of the state and local cash flow subsidies is not contingent on the production or sale of LCA on a per-unit basis” and therefore “represent the functional equivalent of additional cash to Boeing”.\textsuperscript{1187} As we noted, this is consistent with the view that subsidies that are not tied to production may still be understood to increase Boeing’s non-operating cash flow.\textsuperscript{1188} Moreover, the Panel acknowledged that, “in certain specific contexts, subsidies that reduce the fixed costs of a producer may be shown to impact prices.”\textsuperscript{1189} This too is consonant with the proposition accepted by both the original panel and the Appellate Body that the receipt of untied subsidies “may still affect the behaviour of the recipient of the subsidy in a manner that causes serious prejudice, depending upon the context in which it is used”.\textsuperscript{1190}

5.535. Other statements by the Panel, however, indicate that it did not endorse a critical aspect of the legal standard adopted by the Appellate Body in the original proceedings. The Appellate Body had considered that the legal standard for causation could be established on the basis of its assessment of several factors consisting of the conditions of competition, the magnitude of the subsidy, and whether there was a genuine link with relevant LCA production. On that basis, the Appellate Body was able to conclude that the City of Wichita IRB tax abatements caused significant lost sales because they enhanced the pricing flexibility that Boeing enjoyed by reason of the tied tax subsidies. The Panel, however, did not accept that such an approach was sufficient to establish that the subsidy was a genuine cause of adverse effects. Instead, under the standard it adopted, the Panel also required an explanation of, or evidence concerning, the manner in which subsidies providing additional cash to Boeing would have altered its pricing strategy for a particular LCA programme. As it explained, the Panel considered that the European Union had not demonstrated “that any particular subsidy affects the programme costs for any specific Boeing LCA programme, in the sense that the subsidies in question affect Boeing’s production cost forecasts for an LCA programme, and thereby alter the profitability calculus of sales of those LCA at particular prices”.\textsuperscript{1191} In making these statements, the Panel appears to have adopted a legal standard requiring that, in order for a causation finding to be sustained, it would be necessary to demonstrate that the subsidies at issue in fact altered Boeing’s pricing behaviour with respect to a particular LCA programme.

5.536. Then, when the Panel addressed the European Union’s reliance on the Appellate Body’s analysis regarding the City of Wichita IRB tax abatements, it stated:

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\textsuperscript{1184} Appellate Body Report, US – Large Civil Aircraft (2nd complaint), para. 1340. \\
\textsuperscript{1185} Appellate Body Report, US – Large Civil Aircraft (2nd complaint), para. 1347. \\
\textsuperscript{1186} Appellate Body Report, US – Large Civil Aircraft (2nd complaint), para. 1348. \\
\textsuperscript{1187} Panel Report, para. 9.270. \\
\textsuperscript{1188} Original Panel Report, para. 7.1827; Appellate Body Report, US – Large Civil Aircraft (2nd complaint), para. 1297. \\
\textsuperscript{1189} Panel Report, para. 9.271. \\
\textsuperscript{1190} Appellate Body Report, US – Large Civil Aircraft (2nd complaint), para. 1336 (quoting Original Panel Report, para. 7.1828). \\
\textsuperscript{1191} Panel Report, para. 9.270.
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The state and local cash flow subsidies may be related in a *factual sense* to the production of certain (or all) LCA by Boeing. The subsidies generally arise from Boeing’s location of its LCA manufacturing in particular places. However, the fact that the production of certain (or all) Boeing LCA in a particular location gives rise to certain subsidies, does not of itself, say anything meaningful in an *economic sense* about how Boeing would apply the notional additional cash represented by those subsidies, and more specifically, whether it would use such additional cash to lower the prices of its LCA, or how it would allocate that additional cash to lower pricing of different LCA models where the subsidies in question are “linked” in a factual sense to production of a number of LCA models.\(^\text{1192}\)

5.537. The Panel therefore seemed to reject the notion that the legal standard for causation with respect to untied subsidies consisted of an assessment of the conditions of competition, the magnitude of the subsidy, and whether there was a genuine link to the production of relevant LCA. Rather, in the Panel’s view, it was also necessary to have some explanation or specific evidence establishing how any additional cash represented by the untied subsidies would have been allocated or used to lower LCA prices. As the Panel goes on to explain, it was “unable to identify any economic rationale or other explanation as to why untied subsidies that may be considered factually associated with production of Boeing aircraft, whether individual aircraft models, certain models, or all models, would contribute to Boeing’s ability to lower the prices of those aircraft.”\(^\text{1193}\) This led the Panel to express its concern that, if it were to follow the Appellate Body’s analysis in the context of assessing the City of Wichita IRB tax abatements, it would be “overstretching the application of that finding”\(^\text{1194}\) and amount to “causation through association”.\(^\text{1195}\)

5.538. We do not consider that the legal standard adopted by the Appellate Body in the original proceedings supports the Panel’s view that, in order to establish that untied subsidies caused adverse effects through a price causal mechanism, it was required to find that the subsidies actually altered Boeing’s LCA pricing behaviour for particular LCA programmes. In our view, this amounts to a requirement that the untied subsidies be the sole cause, or only substantial cause, of the lowering of LCA prices, a causation standard that has previously been found to be too demanding.\(^\text{1196}\) Instead, the Appellate Body found – on the basis of its assessment of the conditions of competition, the magnitude of the subsidy, and the link with relevant LCA production – that certain untied subsidies caused significant lost sales because they “enhanced the pricing flexibility” that Boeing enjoyed by reason of the tied tax subsidies.\(^\text{1197}\) We do not consider that the legal standard of causation requires a showing that the untied subsidies actually altered Boeing’s pricing of its LCA.

5.539. In addition, various statements by the Panel confirm that it failed to adopt the Appellate Body’s standard for assessing whether untied subsidies have a genuine link to LCA production. For example, the Panel noted that “\{i\}n the original proceeding, the Appellate Body reasoned (in relation to its analysis of the tied tax subsidies) that it is rational to expect that, where a subsidy is provided on a *per-unit basis* in respect of LCA produced or sold, the manufacturer would be inclined, in the appropriate market context, to pass on all or part of that subsidy to the purchaser because it is possible to do so without sacrificing profit margins.”\(^\text{1198}\) The Panel then questioned, however, that “the calculus of the extent to which untied subsidies, which relate in a less direct way to production or sales than per-unit subsidies, potentially affect the profitability of an LCA sale in light of the competitive dynamics of the LCA markets, is far less clear.”\(^\text{1199}\) The Panel then stated that it was “unable to identify any economic rationale or other explanation as to why untied subsidies that may be considered factually associated with production of Boeing aircraft, whether individual aircraft models, certain models, or all models, would contribute to Boeing’s ability to lower the prices of those aircraft.”\(^\text{1200}\) From these statements, it would appear that the Panel did not accept that

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\(^{1192}\) Panel Report, para. 9.273. (emphasis original)  
\(^{1193}\) Panel Report, para. 9.274.  
\(^{1194}\) Panel Report, para. 9.273.  
\(^{1195}\) Panel Report, fn 3122 to para. 9.274.  
\(^{1196}\) Appellate Body Report, *US – Large Civil Aircraft (2nd complaint)*, para. 914.  
\(^{1197}\) Appellate Body Report, *US – Large Civil Aircraft (2nd complaint)*, para. 1348.  
\(^{1198}\) Panel Report, para. 9.274 (referring to Appellate Body Report, *US – Large Civil Aircraft (2nd complaint)*, para. 1261).  
\(^{1199}\) Panel Report, para. 9.274.  
\(^{1200}\) Panel Report, para. 9.274.
untied subsidies could affect Boeing’s pricing flexibility in LCA sales. This is not consistent with the legal standard adopted by the Appellate Body in the original proceedings.

5.540. This is also borne out by the Panel’s statement that "(t)he European Union does not advance an economic theory to support its argument that subsidies that reduce Boeing's fixed costs in a general sense impact its LCA prices generally or more specifically, over the short-term or over the long-term."\(^{1201}\) By contrast, the Appellate Body noted in the original proceedings that a genuine link may exist even though untied subsidies are not contingent on the production or sale of a particular product on a per-unit basis, because they are intended to cover some portion of the fixed costs that Boeing incurs and therefore "some of these subsidies are more directly related to Boeing's production of LCA and in particular to its production of the 737NG."\(^ {1202}\) The Panel also rejected the European Union’s claim because it did not "attempt to demonstrate that Boeing's LCA pricing would not be economically feasible absent the receipt of the state and local cash flow subsidies".\(^ {1203}\) As noted, no such showing is required under the legal standard set out by the Appellate Body.

5.541. We take note of the United States’ contention that Boeing establishes a reserve price for the sale of its LCA and that no amount of additional cash will cause it to reduce its prices further.\(^ {1204}\) However, this does not mean that certain untied subsidies – depending on whether there is a genuine link to LCA production, and given their magnitude and the competitive conditions in the LCA markets – will not, as the Appellate Body explained in the original proceedings, enhance "the pricing flexibility" afforded by the tied tax subsidies in particularly price-sensitive sales campaigns.\(^ {1205}\) Even if it cannot be definitively demonstrated that the untied subsidies altered Boeing’s pricing behaviour, we consider that a showing based on the above factors can nevertheless indicate that the effects of particular types of untied subsidies may contribute in a genuine way to the effects of the tied tax subsidies in lowering Boeing’s LCA prices.

5.542. We note, moreover, that, because the Panel rejected the European Union’s reliance on the Appellate Body’s approach to demonstrating a genuine link between an untied subsidy and Boeing’s pricing behaviour, it did not examine whether the purported links advanced by the European Union between the untied subsidies and certain relevant LCA programmes existed. Accordingly, while the Panel acknowledged that "subsidies that reduce the fixed costs of a producer may be shown to impact prices"\(^ {1206}\), the Panel never examined the European Union’s arguments and evidence in order to assess whether these purported links met the standard set out by the Appellate Body when it examined the City of Wichita IRB tax abatements. Therefore, even if, as the Panel states, one should not "interpret what the Appellate Body said in that particular context as setting forth an economic theory or legal ruling regarding the basis on which untied subsidies, through their impact on the recipient’s pricing behaviour, should be considered to be a genuine cause of serious prejudice"\(^ {1207}\), the Panel did not consider how the situation in these compliance proceedings mandated a result different from that found in the original proceedings.

5.543. In sum, by rejecting that untied subsidies may be found to have a genuine link to the production of relevant LCA as was accepted by the Appellate Body in the original proceedings, the Panel failed to apply the correct legal standard for assessing whether the untied subsidies are a genuine cause of adverse effects under Articles 5 and 6.3 of the SCM Agreement. In particular, we do not consider that the legal standard of causation requires a showing that the untied subsidies actually altered Boeing’s pricing of its LCA. Accordingly, we find that the Panel erred under Articles 5 and 6.3 of the SCM Agreement by requiring that the European Union demonstrate that the untied subsidies actually led to price reductions of Boeing LCA sales in order to establish that the subsidies caused adverse effects through the lowering of Boeing LCA prices. We therefore reverse the Panel’s findings, in paragraphs 9.277, 9.291, 9.472, and 9.476 of the Panel Report, and as a consequence to the extent that this is reflected in paragraphs 11.8.a and 11.8.e of the Panel Report, that the European Union had failed to establish that the untied subsidies cause serious prejudice, within the

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1203 Panel Report, para. 9.275.
1204 United States’ appellee’s submission, para. 314. The United States explains that, holding strategic considerations attendant to a particular sale and other non-price terms constant, a producer’s "reserve price" will be the lowest price it is willing to accept that will still contribute to long-term profitability.
1206 Panel Report, para. 9.271.
1207 Panel Report, para. 9.273. (emphasis original)
meaning of Articles 5(c) and 6.3 of the SCM Agreement, in the post-implementation period through a price causal mechanism. Having reversed this finding, we do not address whether, in addition, the Panel acted inconsistently with Article 11 of the DSU.

5.8.3.2 Completion of the legal analysis

5.544. We now assess whether there is a basis for us to complete the legal analysis regarding the untied subsidies.

5.545. We recall that the Appellate Body has previously considered different methods for the collective assessment of subsidies. One such method – known as "aggregation" – entails grouping subsidy measures that are sufficiently similar in their design, structure, and operation in order to ascertain their aggregated effects in an integrated causation analysis. The Appellate Body has also endorsed what is known as a "cumulation" approach, whereby the effects of one group of subsidies may be found to complement and supplement the effects of a second group of subsidies when that first group of subsidies is shown to have a genuine causal connection with the relevant effects and market phenomena caused by the second group of subsidies. This is because the fact that the first group of subsidies is not, in itself, a substantial cause of adverse effects does not exclude that it had effects similar to those of another group of subsidies that was both a genuine and a substantial cause of those effects. The Appellate Body has stated, however, that cumulation of this sort does require an affirmative showing that there is a genuine causal link between the first group of subsidies and the effects and market phenomena to which they are alleged to be contributing.

5.546. The European Union submits that there are sufficient factual findings by the Panel and undisputed facts to conclude that the untied subsidies contribute to adverse effects through a price causal pathway "in the same way that the Wichita IRBs were found to contribute to adverse effects in the original proceedings". In the original proceedings, the Appellate Body adopted a cumulation approach in its causation analysis with respect to the untied subsidies. We therefore turn to consider whether there are sufficient factual findings by the Panel or undisputed facts on the record to find that the effects of the untied subsidies complement and supplement the effects of the tied tax subsidies and thereby cause adverse effects within the meaning of Articles 5 and 6.3 of the SCM Agreement.

5.547. Regarding the tied tax subsidies at issue in these compliance proceedings, we recall that we have upheld the Panel's findings that the Washington State B&O tax rate reduction is a genuine and substantial cause of serious prejudice in the form of significant lost sales with respect to the Fly Dubai 2014, Icelandair 2013, and Air Canada 2013 sales campaigns, and a threat of impedance of imports into the United States, and exports to the United Arab Emirates, arising in part from lost sales with respect to the Delta Airlines 2011 and Fly Dubai 2008 and 2014 sales campaigns, respectively. These findings are premised on Boeing's ability to lower prices of its 737 MAX and 737NG aircraft.

5.548. We also recall that, in the circumstances of this case, the legal standard for causation concerning the untied subsidies entails an assessment of the conditions of competition, the magnitude of the subsidy, and whether there was a sufficient link with relevant LCA production, in order to determine whether they cause the alleged serious prejudice. In this connection, we recall a number of key factors including the conditions of competition in the LCA market that were also relevant to the Appellate Body's completion of the legal analysis in the original proceedings. For example, the LCA market operates as a duopoly, in which Airbus and Boeing each possess the ability to influence the pricing of the other. Various factors such as price, seating capacity, and direct operating costs affect the outcomes of LCA sales campaigns, and the significance of these factors

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1209 Appellate Body Reports, EC and certain member States – Large Civil Aircraft, paras. 1378-1379; US – Large Civil Aircraft (2nd complaint), para. 1335.
1211 European Union's appellant's submission, para. 689.
varies across different campaigns.\textsuperscript{1214} Sales campaigns involving single-aisle LCA tend to be more sensitive to price due to the relatively high degree of substitutability between Airbus' and Boeing's competing LCA, and the fact that many customers within this product market are low-cost carriers.\textsuperscript{1215} Moreover, with respect to certain particularly price-sensitive sales campaigns in the single-aisle market, the Panel, like the Appellate Body in the original proceedings, concluded that Boeing would have used the tied tax subsidies to reduce its prices.\textsuperscript{1216}

5.549. We further recall that, of the eight untied subsidies examined in the original proceedings, the Appellate Body was able to complete the legal analysis only with respect to the City of Wichita IRB tax abatements. The Appellate Body found a "close connection between the IRBs and Boeing's production of the 737NG" because it found that: (i) the IRB scheme was designed to assist in raising revenue to fund the purchase, construction, or improvement of industrial property used for manufacturing purposes, including real property as well as commercial and industrial machinery and equipment; (ii) the IRBs issued to Boeing were specifically aimed at, and were used for the purpose of, enhancing Boeing's manufacturing facilities in Wichita; and (iii) those manufacturing facilities were involved, in part, in production and assembly operations for the 737NG.\textsuperscript{1217} By contrast, with respect to the seven remaining untied subsidies, the Appellate Body could not complete the legal analysis either because the panel record indicated that these subsidies were related to Boeing's general costs rather than directed at particular products\textsuperscript{1218} or benefited aircraft other than the 737NG\textsuperscript{1219}, or because there were no Panel findings or undisputed facts indicating that these subsidies had been received or expected to be received in connection with expenditures related to the 737NG.\textsuperscript{1220}

5.550. We consider that the above findings by the Panel in these proceedings and the Appellate Body in the original proceedings are relevant to our analysis of whether the untied subsidies have a genuine causal link to Boeing's pricing of its 737 MAX and 737NG in the five particularly price-sensitive sales campaigns in question because they establish Boeing's strong incentives to employ available means to lower its prices and secure those sales.\textsuperscript{1221} Similar to the Appellate Body's assessment in the original proceedings, we also consider that, in the circumstances of these sales campaigns, and in the context of the conditions of competition in the LCA industry, the necessary causal link could be established where the subsidies are of a sufficient magnitude and there are factual findings by the Panel or undisputed facts linking particular untied subsidies to the production of the LCA at issue in sales campaigns for which adverse effects have already been found. As the Appellate Body explained in the original proceedings, this would suffice to establish that the

\textsuperscript{1214} Panel Report, para. 9.20; Appellate Body Report, \textit{US – Large Civil Aircraft (2nd complaint)}, para. 1336.

\textsuperscript{1215} Panel Report, para. 9.249; Appellate Body Report, \textit{US – Large Civil Aircraft (2nd complaint)}, para. 1336.


\textsuperscript{1217} Appellate Body Report, \textit{US – Large Civil Aircraft (2nd complaint)}, para. 1347.

\textsuperscript{1218} With respect to four subsidies that were granted in connection with Boeing's relocation of its corporate headquarters to Illinois, the Appellate Body noted the European Communities' argument that subsidies of this nature were "not directed at a particular product, but rather at the entire company or business unit at issue", but they "may reasonably be deemed to benefit all of the company or business unit's products". (Appellate Body Report, \textit{US – Large Civil Aircraft (2nd complaint)}, para. 1342 (quoting European Communities' response to Panel question No. 374, para. 298)) The Appellate Body disagreed that these arguments sufficed to link clearly these four measures with Boeing's production of the 737NG and concluded that it could not cumulate the effects of these subsidies with those of the tied tax subsidies in the 100-200 seat LCA market. (Ibid.)

\textsuperscript{1219} With respect to the Washington State workforce development programme and Employment Resource Center, the Appellate Body stated that the European Communities' own submissions revealed that this B&O tax credit had benefited only the 787. (Appellate Body Report, \textit{US – Large Civil Aircraft (2nd complaint)}, para. 1341)

\textsuperscript{1220} With respect to the Washington State B&O tax credits for certain preproduction development expenditures and the Washington State sales and use tax exemptions, the Appellate Body stated that it saw no indication on the record that the subsidies had been received (or expected to be received) in connection with expenditures related to the 737NG, and that the limited information on the record suggested that, if anything, these subsidies had been granted in connection with expenditures related to Boeing aircraft families other than the 737NG. (Appellate Body Report, \textit{US – Large Civil Aircraft (2nd complaint)}, paras. 1341 and 1344-1345)

\textsuperscript{1221} Appellate Body Report, \textit{US – Large Civil Aircraft (2nd complaint)}, para. 1337.
benefits of the untied subsidies are among the means available to Boeing to lower prices in those particular sales campaigns.\textsuperscript{1222}

5.551. On the basis of the foregoing, we now examine whether we can complete the legal analysis with respect to the untied subsidy measures that were found to constitute specific subsidies and that were alleged by the European Union to have a link with production of the 737 MAX and 737NG.\textsuperscript{1223} Accordingly, we do not examine below the South Carolina untied subsidies, which pertain only to the 787, or the City of Wichita IRB tax abatements, for which we were unable to complete the legal analysis and find the existence of specific subsidies. Moreover, since we have no basis to examine whether the South Carolina untied subsidies cause adverse effects in the post-implementation period, we need not address the United States' conditional claim that the Panel erred under Article 11 of the DSU in assessing whether certain such South Carolina measures conferred a benefit to Boeing.\textsuperscript{1224}

5.8.3.2.1 Washington State untied subsidies

5.552. The Washington State untied subsidies that are alleged to have a link to production of the 737 MAX and 737NG comprise: (i) the Washington State B&O tax credits for preproduction/aerospace product development; (ii) the Washington State B&O tax credits for property taxes and leasehold excise taxes; and (iii) the Washington State sales and use tax exemptions for computer software, hardware, and peripherals.\textsuperscript{1225} The European Union maintains that the Appellate Body can complete the legal analysis by finding that factual findings by the Panel or undisputed facts on the record establish the required link between the untied subsidies and Boeing's research, development, production, and sale of relevant Boeing LCA.\textsuperscript{1226}

5.553. Starting with the first untied subsidy measure – the Washington State B&O tax credits for preproduction/aerospace product development – the Panel found that Boeing had obtained the B&O tax credits for certain preproduction development expenditures on aeronautics-related research, design, and engineering activities, as well as for certain expenditures on design and preproduction development, computer software and hardware for the digital design, and development of commercial airplanes.\textsuperscript{1227} Those B&O tax credits are applied to Boeing's liability for B&O taxes, which accrues in connection with the manufacture and sale of all Boeing LCA produced in the State of Washington.\textsuperscript{1228} According to the Panel, the B&O tax credits for preproduction/aerospace product development had been modified by Section 7 of Washington State SSB 6828 to expand: (i) the application of the tax credits to all aerospace product development, rather than just preproduction development (effective 30 June 2008); and (ii) the eligible entities/persons that may claim the credit (so as to permit non-manufacturing entities to claim the credit for expenditures after 30 June 2008).\textsuperscript{1229} The Panel noted the European Union's argument that the Washington State B&O tax credits for preproduction/aerospace product development are "linked most closely" to Boeing aircraft

\textsuperscript{1222} Appellate Body Report, \textit{US – Large Civil Aircraft (2nd complaint)}, para. 1337.
\textsuperscript{1223} European Union’s appellant’s submission, para. 678.
\textsuperscript{1224} United States’ Notice of Other Appeal, para. 9; other appellant’s submission, section IV. This conditional claim consists of a challenge under Article 11 of the DSU that the Panel erred in finding that certain South Carolina payments conferred a benefit to Boeing. The United States request indicates that we need to address this claim if we were to modify or reverse the Panel’s findings that the subsidies conferred through these measures did not cause adverse effects. At the oral hearing, the United States clarified that the condition for such a claim would not be triggered in the event that we were to reverse the Panel’s adverse effects findings, but were unable to complete the legal analysis, with respect to the relevant subsidies.
\textsuperscript{1225} European Union’s appellant’s submission, para. 678. The Panel found that, although the European Union had presented the Washington State B&O tax credit for leasehold excise taxes as a separate measure from the Washington State B&O tax credit for property taxes, HB 2466 in fact modified the scope of application of the B&O tax credit previously available with respect to property taxes, to additionally be available with respect to leasehold excise taxes. (Panel Report, para. 7.9)
\textsuperscript{1226} European Union’s appellant’s submission, section X.H.3.
\textsuperscript{1227} Panel Report, para. 9.76. See also Original Panel Report, para. 7.51. “Preproduction development” means “research, design and engineering activities performed in the development of a product”. (Original Panel Report, para. 7.51)
\textsuperscript{1228} Panel Report, para. 9.76. See also Appellate Body Report, \textit{US – Large Civil Aircraft (2nd complaint)}, para. 1344.
that are in preproduction, meaning the 737 MAX, 787-10, and 777X, and stated that these B&O tax credits "may currently be generated" in connection with these aircraft. The total amount of the B&O tax credits Boeing received during the 2013-2015 period is [BCI].

5.554. We note that the absolute amount of the Washington State B&O tax credit for preproduction/aerospace product development can be considered substantial. Further, the Panel findings appear to indicate that Boeing was eligible to obtain B&O tax credits for its expenditures on development of all its LCA, including the 737 MAX and 737NG. Such B&O tax credits, in turn, are applied to Boeing's B&O tax liability that accrues in connection with the manufacture and sale of Boeing's LCA. Thus, to the extent that it can be demonstrated that Boeing made qualified expenditures on development of particular aircraft, we could find that the B&O tax credits were generated in connection with those aircraft, thereby reducing the costs of their development, manufacture, and/or sale.

5.555. We recall that the Washington State B&O tax credit for preproduction development (before the amendment under Washington State SSB 6828) was also at issue in the original proceedings, and the Appellate Body was unable to find a genuine link between this subsidy and the 737NG. This was because, although the Appellate Body agreed that the B&O tax credits had been applied to Boeing's liability for B&O taxes that had accrued in connection with the manufacture and sale of Boeing LCA, it saw "no indication on the record" that these tax credits had been "received in connection with expenditures related to the 737NG". Similarly in these compliance proceedings, we see no specific Panel findings or undisputed facts on the record – and the European Union has pointed to none – that the B&O tax credits were generated in connection with expenditures related to the 737 MAX or 737NG. Indeed, the only Panel finding that the European Union identifies as allegedly establishing the requisite link between the subsidy and the 737 MAX and 737NG is the Panel's statement that the B&O tax credits for preproduction/aerospace product development "may currently be generated in respect of Boeing aircraft that are in pre-production, such as the 737 MAX, 787-10, and 777X". We note that the Panel qualified this statement by adding that, "given the nature of this subsidy as untied, we do not consider that this necessarily provides a basis for concluding, in a manner analogous to the Appellate Body's analysis of the per-unit tied tax subsidies in the original proceeding, that Boeing would have the ability and incentive to use that subsidy to lower its LCA prices in relation to those aircraft models." As we have observed above, the Panel erred in requiring a showing that the untied subsidy actually affected prices of the relevant aircraft and in applying too rigid a legal standard for finding a link with particular LCA. While the Panel's qualification may have been informed by its erroneous understanding of the legal standard, it could also be read as suggesting that mere eligibility is not sufficient for a finding of B&O tax credits enhancing pricing flexibility. In any event, because of its erroneous understanding of the legal standard, the Panel appeared to consider it unnecessary to engage further with the European Union's factual allegation regarding the link between the B&O tax credit and the particular LCA.

5.556. Under these circumstances, we consider that the Panel's statement that the B&O tax credits "may currently be generated" with respect to Boeing aircraft "such as" the 737 MAX speaks only to the possibility that the B&O tax credits may be generated in connection with development of this aircraft. This is especially so given that the Panel, having dismissed the European Union's claims regarding the untied subsidies on the basis of its overly stringent legal standard for establishing causation, did not engage with the European Union's factual argument. Accordingly, we do not consider that there are Panel findings or undisputed facts on the record that would enable us to complete the legal analysis with respect to the Washington State B&O tax credits for preproduction/aerospace product development.

1230 Panel Report, fn 2775 to para. 9.76 (referring to European Union's first written submission to the Panel, para. 1160; second written submission to the Panel, para. 1066).
1231 Panel Report, fn 3120 to para. 9.273.
1232 Panel Report, para. 8.676.b.
1234 European Union's appellant's submission, para. 668 (quoting Panel Report, fn 3120 to para. 9.273). (emphasis added)
1235 Panel Report, fn 3120 to para. 9.273. (emphasis original)
1236 Panel Report, fn 3120 to para. 9.273.
5.557. With respect to the second untied subsidy measure, the Panel found that Boeing had received B&O tax credits for property taxes to new construction.\footnote{Panel Report, para. 9.76.} The Panel noted the European Union's argument that sites related to the production of the 737NG, 737 MAX, and 787 are those for which Boeing has most recently made the largest investments in land and facilities and, thus, the B&O tax credits related to these investments are "most closely linked" to those aircraft.\footnote{Panel Report, fn 2776 to para. 9.76 (referring to European Union's first written submission to the Panel, para. 1160; second written submission to the Panel, para. 1066).} In addition, the Panel observed that the scope of the B&O tax credit was expanded by HB 2466 additionally to cover leasehold excise taxes.\footnote{Panel Report, para. 7.9.} In this regard, the Panel took note of the European Union's argument that the B&O tax credit for leasehold excise taxes related to the Dreamlifter Operations Center, which, according to the European Union, is used for Boeing's production of the 787.\footnote{Panel Report, fn 2776 to para. 9.76 (referring to European Union's first written submission to the Panel, para. 1160; second written submission to the Panel, para. 1066).} The Panel found that the total amount of the Washington State B&O tax credit for property taxes and leasehold excise taxes between 2013 and 2015 was [BCI].\footnote{Panel Report, para. 9.253.a.}

5.558. As explained, the Panel noted the European Union's argument that Boeing had recently made the largest investments in land and facilities related to the production of the 737NG, 737 MAX, and 787, allegedly generating B&O tax credits for property taxes.\footnote{Panel Report, fn 2776 to para. 9.76 (referring to European Union's first written submission to the Panel, para. 1160; second written submission to the Panel, para. 1066).} However, the European Union did not identify the specific sites in which such investments were made, or when such investments occurred.\footnote{European Union's first written submission to the Panel, para. 1160.} Further, although the United States did not specifically comment on the European Union's factual argument that Boeing had recently made qualified investments in land and facilities related to the production of, inter alia, the 737 MAX and 737NG, it refuted generally the existence of the requisite link between this subsidy and the particular aircraft.\footnote{United States' first written submission to the Panel, paras. 825, 998, and 1068.} Under these circumstances, we do not consider it undisputed that the B&O tax credits for property taxes were generated in connection with production of the 737 MAX and 737NG. We further recall that, in the original proceedings, the Appellate Body noted that the European Communities had asserted that the Washington State B&O tax credit for property taxes benefited only the 787 and, therefore, considered that it could not inquire whether its effects can be cumulated with those of the tied tax subsidies in the 100-200 seat LCA market.\footnote{Appellate Body Report, US – Large Civil Aircraft (2nd complaint), para. 1341.} Moreover, even assuming that the B&O tax credits were generated in connection with production of the 737 MAX and 737NG, it is still unclear whether this occurred before – or was expected to occur at the time of – the five particularly price-sensitive sales campaigns in question. Thus, we are unable to determine whether it was possible in the first place for Boeing to factor in the benefits of this subsidy when making pricing decisions in these sales campaigns.

5.559. Turning to the B&O tax credit for leasehold excise taxes, we note the Panel's reference to the European Union's argument that this subsidy related to the facilities used for production of the 787.\footnote{Panel Report, fn 2776 to para. 9.76 (referring to European Union's first written submission to the Panel, para. 1160; second written submission to the Panel, para. 1066).} Further, the United States argued that the value to Boeing's LCA division of the Washington State B&O tax credit for leasehold excise taxes is zero, and Boeing does not claim credits for leasehold excise taxes.\footnote{United States' first written submission to the Panel, para. 510.} As such, we fail to see undisputed facts on the Panel record that the B&O tax credits for leasehold excise taxes were generated in connection with production of the 737 MAX and 737NG. We are aware that, in its appellant's submission, the European Union submits that there are Panel findings, in paragraph 9.253 of the Panel Report, that the Washington State B&O tax credit for property taxes and leasehold excise taxes is available "in connection with property where the 787 and 777X (as well as 737 families) are produced".\footnote{Panel Report, para. 9.253.a.} However, this paragraph contains only a description of the challenged untied subsidy measures based on the European Union's allegation, rather than amounts to the Panel's own factual finding that the B&O tax credits were generated in
connection with the 737 MAX or 737NG, or otherwise they enhanced Boeing's pricing flexibility for these aircraft.

5.560. Accordingly, and taking into account the relatively small magnitude of the subsidy, we do not consider that Panel findings or undisputed facts on the record demonstrate a genuine link between the B&O tax credits for property taxes and leasehold excise taxes, on the one hand, and Boeing's pricing of the 737 MAX or 737NG, on the other hand.

5.561. With respect to the third untied subsidy measure – the sales and use tax exemptions for computer software, hardware, and peripherals when these items are purchased for or used in the development of commercial airplanes or their components – the Panel noted the European Union's argument that Boeing had recently made the largest investments in computer equipment to facilities related to the production of the 737NG, 737 MAX, and 787, and, thus, the tax exemptions related to these investments are "most closely linked" to those aircraft.1250 According to the Panel, the total amount of the Washington State sales and use tax exemptions for computer software, hardware, and peripherals between 2013 and 2015 was [BCI].1251

5.562. We note that, while the European Union argued before the Panel that Boeing had "recently" made the largest investments in computer equipment to facilities related to the production of, inter alia, the 737 MAX and 737NG, it did not identify the specific sites in which such investments were made, or when such investments occurred.1252 Further, although the United States did not specifically comment on the European Union's factual argument that Boeing had recently made qualified investments in computer equipment to facilities related to, inter alia, the 737 MAX and 737NG, it generally refuted the existence of the requisite link between this subsidy and the particular aircraft.1253 Moreover, in its appellant's submission, the European Union itself points to the Panel's statement that the sales and use tax exemptions for computer equipment are "related to 787 production"1254, rather than 737 MAX or 737NG production. We recall that, also in the original proceedings, the Appellate Body found that there was no indication on the record that the sales and use tax exemptions had been received or expected to be received in connection with expenditures related to the 737NG and that, if anything, the sales and use tax exemptions had been granted in connection with expenditures related to Boeing aircraft families other than the 737NG.1255 Under these circumstances, we fail to see any Panel findings or undisputed facts on the record that the sales and use tax exemptions were generated in connection with items purchased for or used in the development of the 737 MAX and 737NG, or they otherwise enhanced Boeing's pricing flexibility for these aircraft.

5.563. Accordingly, and taking into account the relatively small magnitude of the subsidy, we consider that neither Panel findings nor undisputed facts demonstrate a genuine link between the sales and use tax exemptions for computer software, hardware, and peripherals, on the one hand, and Boeing's pricing of the 737 MAX or 737NG, on the other hand.

5.8.3.2.2 Post-2006 aeronautics R&D untied subsidies

5.564. Before the Panel, the European Union argued that the post-2006 aeronautics R&D subsidies operate in a manner that is "identical to the remaining state and local subsidies".1257 According to the European Union, those subsidies operate to lower Boeing's pricing of current LCA, including the 737 MAX and 737NG, because they provide Boeing with access to and use of research results and inputs that enable it to continue maturing technologies for application to future

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1250 Panel Report, para. 9.76 and fn 2778 thereto (referring to European Union's first written submission to the Panel, para. 1160; second written submission to the Panel, para. 1066).
1251 Panel Report, para. 8.678.d.
1252 European Union's first written submission to the Panel, para. 1160; second written submission to the Panel, para. 1066.
1253 United States' first written submission to the Panel, paras. 825, 998, and 1068.
1254 European Union's appellant's submission, para. 668 (referring to Panel Report, para. 9.253.c).
1256 These subsidies consist of the post-2006 NASA and USDOD aeronautics R&D subsidies and the non-flight test funding portion of the FAA aeronautics R&D subsidy. (Panel Report, para. 9.87. See also ibid., para. 9.85 and fn 3126 to para. 9.278)
1257 Panel Report, paras. 9.278 and 9.474 (referring to European Union's first written submission to the Panel, paras. 1180 and 1187).
generations of LCA without having to pay the US Government for such access and use.\textsuperscript{1258} The European Union explained that the post-2006 aeronautics R&D subsidies relieve Boeing from paying to licence the use of IP in its technology development activities.\textsuperscript{1259} Those subsidies therefore lower Boeing's costs of licensing IP rights to LCA technology, and of developing that technology, in order to continue improving its products and to maintain the competitiveness of products, "enabling it to act on its incentive to pass such cost savings on to its customers in the form of lower prices for Boeing LCA".\textsuperscript{1260}

5.565. With respect to the amounts of the post-2006 aeronautics R&D subsidies, the Panel considered the parties' estimates of the subsidy amounts, which suggested that the total amount of these subsidies between 2007 and 2012 can potentially be as large as around [BCI], to be credible estimates.\textsuperscript{1261} The Panel explained that the European Union's claim with respect to these subsidies raises two issues. The first is whether the post-2006 aeronautics R&D subsidies relieve Boeing from paying to licence IP in its technology development activities and thus can be considered to lower Boeing's costs. The second is whether, if the Panel accepts that characterization of the operation of the subsidies, these subsidies have been demonstrated to affect Boeing's LCA pricing behaviour.\textsuperscript{1262}

With respect to this second issue, the Panel found that, as with the state and local cash flow subsidies, the European Union had failed to demonstrate that the post-2006 aeronautics R&D subsidies have a genuine causal link to Boeing's LCA pricing because it had not provided "any theoretical or other basis (such as cash flow constraints)"\textsuperscript{1263} for considering that Boeing's LCA pricing behaviour would have been any different absent the subsidies. On that basis, the Panel considered it "unnecessary" to address the first issue. Nevertheless, the Panel went on to observe that "the vast majority" of the post-2006 aeronautics R&D subsidies did not appear to be related "in any sense" to the production of the particular LCA that are allegedly being offered to customers at lower prices.\textsuperscript{1264} The Panel added that, at most, those subsidies could relate to the development technologies for potential application of future generations of Boeing LCA.\textsuperscript{1265} In addition, in the context of examining whether the post-2006 aeronautics R&D subsidies should be aggregated with the post-2006 state and local cash flow subsidies, the Panel explained that the former subsidies are connected in an "even more indirect and speculative manner" to production of any existing LCA than the latter subsidies.\textsuperscript{1266}

5.566. With respect to the first issue referred to by the Panel, we note the United States' contention that the European Union never established that, absent the post-2006 aeronautics R&D subsidies, Boeing would have had to incur additional costs in licensing IP from the US Government.\textsuperscript{1267} We further note that the Panel did not make any finding with respect to this issue because it applied an overly rigid legal standard for establishing causation and required the European Union to demonstrate that Boeing's LCA pricing behaviour would have been different absent the subsidies.\textsuperscript{1268} As a result, we see no Panel findings or undisputed facts on which to find that Boeing enjoyed additional cash flow by virtue of the post-2006 aeronautics R&D subsidies that, in turn, could potentially be directed to reduce the prices of its LCA. In addition, with respect to the second issue referred to by the Panel, i.e. whether the alleged additional cash affected Boeing's pricing, the Panel not only dismissed the European Union's claim because it was based on an erroneous legal standard,

\textsuperscript{1258} Panel Report, paras. 9.278 and 9.473.
\textsuperscript{1259} Panel Report, para. 9.279.
\textsuperscript{1260} Panel Report, para. 9.279 (quoting European Union's response to Panel question No. 43, para. 280).
\textsuperscript{1261} As regards the NASA and USDOD aeronautics R&D subsidies, the Panel stated that it was unable to estimate the amounts of the subsidies on the basis of the evidence on the record, but considered the United States' estimates of the amounts of the financial contribution at [BCI] and [BCI], respectively, between 2007 and 2012 to be credible estimates. (Panel Report, para. 11.7.b.i-ii) With respect to the FAA aeronautics R&D subsidy, the Panel stated that it was unable to estimate the amount of the subsidy on the basis of the evidence on the record, but considered the European Union's estimate of the amount of the financial contribution at US$27.99 million between 2010 and 2014 to be a credible estimate. (Ibid., para. 11.7.b.iii) As the Panel noted, the European Union had argued that only the non-flight-test funding portion of the FAA aeronautics R&D subsidy operates through a price causal mechanism. (Ibid., para. 9.85 and fn 3126 to para. 9.278)
\textsuperscript{1262} Panel Report, para. 9.287.
\textsuperscript{1263} Panel Report, para. 9.288.
\textsuperscript{1264} Panel Report, para. 9.289 and fn 3149 thereto.
\textsuperscript{1265} Panel Report, para. 9.289.
\textsuperscript{1266} Panel Report, para. 9.91.
\textsuperscript{1267} Panel Report, para. 9.282.
\textsuperscript{1268} Panel Report, para. 9.288.
but also denied, as a factual matter, the existence of any link between the post-2006 aeronautics R&D subsidies and the production of the particular LCA, including the 737 MAX and 737NG. Indeed, in addition to characterizing such a link as even more "indirect" and "speculative" than that relating to the other untied subsidies\textsuperscript{1269}, the Panel found that these subsidies relate only to future generations of Boeing LCA.\textsuperscript{1270} We note that, in its appellant's submission, the European Union maintains that the nexus to future LCA reveals a nexus with Boeing's research, development, production, and sale of present LCA "because the research and development for future generations of LCA is an investment expense that Boeing must finance through the cash flows it generates under each of Boeing's current families of LCA".\textsuperscript{1271} However, we disagree that the Panel's statement that the subsidies relate to future generations of LCA is sufficient for finding the requisite link between the subsidies and production of the 737 MAX and 737NG. For these reasons, we find that neither Panel findings nor undisputed facts demonstrate that the post-2006 aeronautics R&D subsidies complemented and supplemented the effects of the tied tax subsidies on the prices of the 737 MAX and 737NG.

5.567. Having found no basis to conclude that the post-2006 aeronautics R&D subsidies cause adverse effects in the post-implementation period, we need not address the United States' conditional claim that the Panel erred in finding that these subsidies confer a benefit within the meaning of Article 1.1(b) of the SCM Agreement.\textsuperscript{1272}

5.8.4 Overall conclusion regarding price effects

5.568. The Panel did not consider that, in order to find significant lost sales through a price causal mechanism, there must be no non-price factors that potentially contributed to Boeing having won those sales. Rather, the Panel's understanding of the legal standard properly reflected a weighing and balancing of price and non-price factors to reach a conclusion as to whether a sales campaign was particularly price-sensitive, such that the tied tax subsidies could be found to be a genuine and substantial cause of serious prejudice. Accordingly, we find that the Panel did not err in the interpretation of Articles 5, 6.3, and, as a consequence, Article 7.8 of the SCM Agreement, when identifying the applicable causation standard.

5.569. As regards the Panel's assessment of the relative significance of the amount of the tied tax subsidies, we consider that there was a basis for the Panel to assume that Boeing had been able to use the benefits of the subsidies arising from all its LCA sales to lower the prices in particularly price-sensitive sales campaigns in the single-aisle LCA market. In addition, the Panel was not required to establish that the per-aircraft amount of the subsidies available for these sales campaigns exceeds the differentials in the net prices of Airbus' and Boeing's competing aircraft for purposes of finding that the subsidies are a genuine and substantial cause of Airbus' loss of these sales, and, consequently, serious prejudice. We thus find that the Panel did not err under Articles 5 and 6.3 of the SCM Agreement, or acted inconsistently with Article 11 of the DSU, in its assessment of the relative significance of the amount of the tied tax subsidies.

a. We therefore uphold the Panel's finding, in paragraph 9.252 of the Panel Report, and as a consequence to the extent that this is reflected in paragraph 11.8.a, that the European Union had failed to establish that the tied tax subsidies cause serious prejudice, within the meaning of Articles 5(c) and 6.3 of the SCM Agreement, in the twin-aisle LCA market in the post-implementation period.

\textsuperscript{1269} Panel Report, para. 9.91.
\textsuperscript{1270} Panel Report, para. 9.289.
\textsuperscript{1271} European Union's appellant's submission, para. 673.
\textsuperscript{1272} United States' Notice of Other Appeal, para. 7; other appellant's submission, section III.A. This conditional claim consists of a challenge, under Article 1.1(b) of the SCM Agreement and Article 11 of the DSU, that the Panel erred in conducting its benefit analysis with regard to the post-2006 NASA procurement contracts and cooperative agreements, the post-2006 USDOD assistance instruments, and the FAA-Boeing CLEEN Agreement. The United States requests us to address this claim if we were to modify or reverse the Panel's findings that the post-2006 aeronautics R&D subsidies did not cause adverse effects. At the oral hearing, the United States clarified that the condition for such a claim would not be triggered in the event that we were to reverse the Panel's adverse effects findings, but were unable to complete the legal analysis, with respect to these subsidies.
b. We also uphold the Panel's findings, in paragraphs 9.407, 9.444, and 11.8.c-d of the Panel Report, that the European Union had established that the tied tax subsidies cause significant lost sales, within the meaning of Articles 5(c) and 6.3(c) of the SCM Agreement, in the single-aisle LCA market, with respect to the Fly Dubai 2014, Icelandair 2013, and Air Canada 2013 sales campaigns, in the post-implementation period, as well as a threat of impedance of imports of Airbus single-aisle LCA to the United States and exports of Airbus single-aisle LCA to the United Arab Emirates, within the meaning of Articles 5(c) and 6.3(a) and (b) of the SCM Agreement, in the post-implementation period.

5.570. By rejecting that untied subsidies may be found to have a genuine link to the production of relevant LCA as was accepted by the Appellate Body in the original proceedings, the Panel failed to apply the correct legal standard for assessing whether untied subsidies are a genuine cause of adverse effects under Articles 5 and 6.3 of the SCM Agreement. In particular, we do not consider that the legal standard for causation requires a showing that the untied subsidies actually altered Boeing's pricing of its LCA. Accordingly, we find that the Panel erred under Articles 5 and 6.3 of the SCM Agreement by requiring that the European Union demonstrate that the untied subsidies actually led to price reductions of Boeing LCA sales in order to establish that the subsidies caused adverse effects through the lowering of Boeing LCA prices.

a. We therefore reverse the Panel's findings, in paragraphs 9.277, 9.291, 9.472, and 9.476 of the Panel Report, and, as a consequence, to the extent that this is reflected in paragraphs 11.8.a and 11.8.e, that the European Union had failed to establish that the untied subsidies cause serious prejudice, within the meaning of Articles 5(c) and 6.3 of the SCM Agreement, in the post-implementation period through a price causal mechanism. Having reversed this finding, we do not address whether, in addition, the Panel acted inconsistently with Article 11 of the DSU.

b. We further find that we are unable to complete the legal analysis with regard to whether the untied subsidies cause adverse effects within the meaning of Articles 5 and 6.3 of the SCM Agreement.

5.9 Additional claims on appeal

5.571. We note that there are certain additional claims by the European Union, and conditional claims by the United States, that we do not address because we do not consider their disposition necessary for the resolution of this dispute.

5.572. First, the European Union claims that the Panel erred in the interpretation of Articles 5, 6.3, and 7.8 of the SCM Agreement in finding that "a subsidized product can only cause serious prejudice to another product if the two products in question compete in the same market"1273, as it relates to the serious prejudice phenomena of significant price suppression, price depression, and lost sales. The European Union maintains that we should instead "interpret Article 6.3(c) to permit a finding of adverse effects in the form of 'significant price suppression, price depression or lost sales' where the subsidised product and the like product do not compete in the same market".1274 The European Union states that, in requesting reversal of this Panel finding, it seeks to enable us, in completing the legal analysis, to find "significant lost sales in instances where the 787-8/9 and the A350XWB-900 competed for the sale, even though the Panel placed these competing products into two separate product markets".1275

5.573. We note that, although the Panel considered that Airbus and Boeing LCA tend to be offered in competition with each other in two product markets consisting of medium-sized and larger-sized twin-aisle aircraft, the Panel nevertheless noted that there is no bright-line distinction between these markets and that, depending on the circumstances, certain larger medium-sized aircraft could be found to exercise meaningful competitive constraints on smaller larger-sized aircraft.1276 In any

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1273 European Union's appellant's submission, para. 470 (quoting Panel Report, para. 9.33, in turn referring to Appellate Body Report, EC and certain member States – Large Civil Aircraft, para. 1119).
1274 European Union's appellant's submission, para. 470.
1275 European Union's appellant's submission, para. 471.
1276 Panel Report, paras. 9.43-9.44.
event, in light of our disposition of other claims on appeal, and, in particular, the fact that we are not called upon to consider the European Union's request for completion of the legal analysis regarding the twin-aisle LCA market, we need not consider any potential competitive relationship between the 787-8/9 and the A350XWB-900 LCA and, therefore, do not address the European Union's claim of error.

5.574. The European Union also claims that the Panel erred in the interpretation of Articles 5, 6.3, and 7.8 of the SCM Agreement in purportedly finding that aggregation and cumulation of subsidies are the only two approaches to the collective assessment of the adverse effects of multiple subsidies. The European Union adds that, although the occasion did not arise for the Panel to apply its interpretative finding in this case, the European Union nevertheless seeks reversal of the Panel's interpretation since it would be, in the European Union's view, "critical for the purposes of the Appellate Body's completion of the legal analysis". For instance, the European Union submits that it should be possible to follow a different approach to assessing collectively the effects of multiple subsidies by determining first that various subsidies are each a genuine cause of adverse effects, and then concluding that they are together a substantial cause of adverse effects.

5.575. The Appellate Body has previously found that "at least two approaches to a collective assessment of the effects of multiple subsidy measures may be used, namely, aggregation and cumulation." As this language suggests, the Appellate Body has not excluded the existence of other methods for the collective assessment of the effects of multiple subsidies. In any event, as we explained in section 5.8.3.2 above, we followed a cumulation approach in assessing whether the effects of the untied subsidies complement and supplement the price effects of the tied tax subsidies. We further note that we were unable to conclude that the untied subsidies were a genuine cause of adverse effects and such a showing would also have been required under the European Union's proposed approaches to the collective assessment of multiple subsidies. Therefore, in light of our disposition of other claims on appeal, we are not called upon to consider any such additional methods for the collective assessment of subsidies and, therefore, do not address the European Union's claim of error.

5.576. Finally, we note that the United States has presented four conditional claims challenging various findings of the Panel. Above we have explained that, in light of our disposition of other claims on appeal, the conditions for each of these claims have not been triggered. We therefore do not address the United States' conditional claims of error.

6 FINDINGS AND CONCLUSIONS

6.1. For the reasons set out in this Report, the Appellate Body makes the following findings and conclusions.

6.1 Terms of reference

6.2. The question of whether a claim falls within the scope of Article 21.5 proceedings is to be decided based on whether the claim has been resolved on the merits in the original proceedings and was thus covered by the recommendations and rulings of the DSB. A party's "fault" for the non-resolution of a claim, or the lack of such fault, is not determinative of whether a claim can be reasserted in compliance proceedings. Accordingly, we find that the Panel did not err in admitting the European Union's claims relating to the pre-2007 USDOD procurement contracts in these compliance proceedings.

   a. We therefore uphold the Panel's finding, in paragraphs 7.131 and 11.5.a.ii of the Panel Report, that the European Union's claims relating to the pre-2007 USDOD procurement contracts were within its terms of reference.
6.2 USDOD procurement contracts

6.3. We find that the Panel acted inconsistently with Article 11 of the DSU in its financial contribution analysis under Article 1.1(a)(1) of the SCM Agreement by not engaging sufficiently with the European Union's evidence and arguments, and by failing to provide reasoned and adequate explanations for its findings. Furthermore, we find that the Panel's benefit analysis suffers from the same shortcomings.

a. We therefore reverse the Panel's finding, in paragraphs 8.437.b and 11.7.c.i of the Panel Report, that, assuming arguendo the payments and access to USDOD facilities, equipment, and employees provided to Boeing through the pre-2007 and post-2006 USDOD procurement contracts were to involve financial contributions, the European Union has not established that they confer a benefit on Boeing within the meaning of Article 1.1(b) of the SCM Agreement. We also find that there are insufficient factual findings by the Panel or undisputed facts on the Panel record for us to complete the legal analysis in this respect.

6.3 FSC/ETI tax concessions

6.4. For revenue to be considered "foregone" under Article 1.1(a)(1)(ii) of the SCM Agreement, a government must relinquish an entitlement to raise revenue. Accordingly, establishing that such a financial contribution exists requires a determination that a government has relinquished an entitlement to raise revenue. This determination must focus on the conduct of a government, rather than on the use of tax concessions by the eligible taxpayers. We find that the Panel erred by focusing instead on whether Boeing used FSC/ETI tax concessions.

a. We therefore reverse the Panel's finding, in paragraphs 8.612 and 11.7.c.ii of the Panel Report, that the European Union had not established that, after the expiry of the implementation period, the United States grants or maintains subsidies to Boeing in the form of FSC/ETI tax concessions because the European Union had failed to demonstrate that those tax concessions involved a financial contribution within the meaning of Article 1.1(a)(1)(ii) of the SCM Agreement.

b. Furthermore, we have completed the legal analysis and find that, to the extent that Boeing remains entitled to FSC/ETI tax concessions in the post-implementation period, the United States has not ceased to provide a financial contribution and thus has not withdrawn FSC/ETI subsidies with respect to Boeing within the meaning of Article 7.8 of the SCM Agreement.

6.4 City of Wichita industrial revenue bonds

6.5. The length of time during which the subsidy programme has been in operation must be taken into account by panels in their assessment of specificity under Article 2.1(c) of the SCM Agreement. However, it does not follow from this that the entire period during which the programme has been in operation has necessarily to be chosen as the relevant time period in determining whether, under the second sentence of this provision, disproportionately large amounts of subsidy have been granted to certain enterprises. Accordingly, we find that the Panel did not err in its interpretation of Article 2.1(c) of the SCM Agreement in concluding that, in the specific circumstances of this case, the relevant time period over which to consider disproportionality was as from the end of the implementation period. With respect to the Panel's application of Article 2.1(c) of the SCM Agreement, we find that the Panel erred in finding that no disparity existed between the expected and actual distribution of the subsidy.

a. We therefore reverse the Panel's finding, in paragraphs 8.640 and 11.7.c.iii of the Panel Report, that the European Union has failed to establish that the tax abatements provided through IRBs issued by the City of Wichita involve specific subsidies within the meaning of Articles 1 and 2 of the SCM Agreement. We also find that there are insufficient factual findings by the Panel or undisputed facts on the Panel record for us to complete the legal analysis in this respect. Having reversed the Panel's finding, we do not consider it necessary to address whether, in addition, the Panel acted inconsistently with Article 11 of the DSU.
6.5 South Carolina economic development bonds

6.6. With regard to the European Union’s claim that the Panel erred in its interpretation of the term "limited number" in the second sentence of Article 2.1(c) of the SCM Agreement, we observed that what constitutes a quantitatively limited group of enterprises must be determined on a case-by-case basis, taking into account the particular characteristics of the subsidy programme and the circumstances of the case. We disagree with the European Union that the Panel implicitly interpreted the term "limited number" as "one" or "fewer than three". Rather, the Panel considered that the European Union had not met its burden of proof as to whether the EDB subsidy has been used by only a "limited number" of certain enterprises. Accordingly, we find that the Panel did not err in its interpretation of the term "limited number" of certain enterprises in Article 2.1(c) of the SCM Agreement.

6.7. With regard to the European Union’s claim that the Panel erred in its interpretation and application of the term "certain enterprises" in the second sentence of Article 2.1(c), we observed that the determination of whether a number of enterprises or industries constitute "certain enterprises" should be made in light of all relevant characteristics of the entities, including the nature and purpose of their activities in the markets in question and the context in which these activities are exercised. The Panel erred by taking into account three specific entities in its analysis under Article 2.1(c) without having established that they constitute "certain enterprises". However, the Panel's rejection of the European Union's claims does not hinge on its statement relating to the relevance of the three specific entities in its analysis of de facto specificity.

6.8. With regard to the European Union’s claim that the Panel erred in its interpretation of the term "predominant use" in the second sentence of Article 2.1(c), we observed that this term refers primarily to the incidence or frequency with which the subsidy is used by certain enterprises. Furthermore, we found that evidence demonstrating the existence of "predominant use by certain enterprises" may also be pertinent for demonstrating the granting of "disproportionately large amounts of subsidy to certain enterprises". Accordingly, we find that, by excluding a category of evidence potentially relevant to the assessment of the existence of "predominant use by certain enterprises" and ultimately for determining de facto specificity, on the basis that this evidence was more relevant to the assessment of another factor under Article 2.1(c), second sentence, the Panel erred in its interpretation of these factors in Article 2.1(c).

a. We therefore reverse the Panel’s finding, in paragraph 8.843 of the Panel Report, that the European Union has failed to establish that the subsidy provided by South Carolina through EDB proceeds is specific within the meaning of Article 2.1 of the SCM Agreement. We also find that there are insufficient factual findings by the Panel or undisputed facts on the Panel record for us to complete the legal analysis in this respect. Having reversed the Panel’s finding, we do not consider it necessary to address whether, in addition, the Panel acted inconsistently with Article 11 of the DSU.

6.6 South Carolina MCIP job tax credits

6.9. A subsidy is specific under Article 2.2 of the SCM Agreement when access to it is either explicitly or implicitly limited to entities engaged in economic activities in the market that have their headquarters, branch offices, or manufacturing facilities in a "designated geographical region" within the jurisdiction of the granting authority, or that are otherwise established within such a region. In the present case, such limitation contained in Section 12-6-3360 of the South Carolina Income Tax Act is not made void by the fact that enterprises not currently located in an MCIP may become part of an MCIP in the future and then qualify for the subsidy. We find that the Panel erred in the application of Article 2.2 of the SCM Agreement in stating that the availability of the MCIP subsidy only to enterprises located within an MCIP "cannot be meaningfully considered to amount to a limitation under Article 2.2" of the SCM Agreement.

a. We therefore reverse the Panel’s finding, in paragraphs 8.931 and 11.7.c.vii of the Panel Report, that the European Union has failed to establish that the subsidy provided through the additional corporate income tax credits is specific within the meaning of Article 2.2 of the SCM Agreement.
b. Furthermore, we complete the legal analysis and find that the subsidy provided to Boeing through the additional corporate income tax credits, pursuant to Section 12-6-3360 of the South Carolina Income Tax Act, is specific within the meaning of Article 2.2 of the SCM Agreement.

### 6.7 Continuing adverse effects

6.10. In assessing whether appropriate steps have been taken to remove the adverse effects of a subsidy within the meaning of Article 7.8 of the SCM Agreement, the time period for assessing the removal of adverse effects may include developments subsequent to the time of order, including through the point of delivery. Accordingly, we find that the Panel erred in its interpretation of Article 7.8 by excluding *ab initio*, from an inquiry into whether the United States had failed to take appropriate steps to remove the adverse effects of the subsidies, evidence relating to transactions for which the orders arose in the original reference period but for which deliveries remain outstanding in the post-implementation period.

a. We therefore *reverse* the Panel's interpretation of Article 7.8 of the SCM Agreement, in paragraphs 9.311 to 9.314 of the Panel Report, and its statement in paragraph 9.332 of the Panel Report, that reliance on the role of deliveries of aircraft in the post-implementation period as evidence of a continuation of serious prejudice would be inconsistent with Article 7.8. Having reversed this finding, we do not address whether, in addition, the Panel erred in the application of Article 7.8, or acted inconsistently with Article 11 of the DSU. However, because it is not clear whether the Panel's decision to exclude two additional sales campaigns as significant lost sales resulted from the above error, and because the European Union's request is based on a premise that we rejected, we *decline to reverse* the Panel's finding, in paragraph 9.407 of the Panel Report, insofar as it excludes the Fly Dubai 2008 and Delta Airlines 2011 sales campaigns.

b. We further find that the Panel did not err under Articles 5 and 6.3 of the SCM Agreement, or act inconsistently with Article 11 of the DSU, in separately finding that the European Union's arguments are unsupported by the evidence and/or in contradiction with the findings made in the original proceedings. We therefore *uphold* the Panel's finding, in paragraphs 9.332 and 11.8.b of the Panel Report, that the European Union had failed to establish that the original adverse effects of the pre-2007 aeronautics R&D subsidies continue into the post-implementation period as present serious prejudice in relation to the A330 and A350XWB, within the meaning of Articles 5(c) and 6.3 of the SCM Agreement.

### 6.8 Technology effects

6.11. We consider that the Panel was required to assess whether the acceleration effects of the pre-2007 aeronautics R&D subsidies had an impact, not only on the timing of the launch of the 787, but also on the timing of its first delivery. We are not persuaded that it was sufficient for the Panel to base its conclusion regarding the European Union's technology effects claims solely on its understanding of the original panel's findings. Given that the counterfactual inquiry in these compliance proceedings was different from the one at issue in the original proceedings, we would have expected an analysis from the Panel as to why a focus on post-launch acceleration effects was not warranted. By failing to assess in its counterfactual analysis whether the acceleration effects of the pre-2007 aeronautics R&D subsidies had an impact, not just on the launch of the 787, but also on the timing of first delivery of the 787, the Panel did not properly assess the counterfactual question as to whether there remain acceleration effects of the pre-2007 aeronautics R&D subsidies in the post-implementation period. Accordingly, we *find* that the Panel erred in the application of Articles 5 and 6.3 and, as a consequence, Article 7.8 of the SCM Agreement.

a. We therefore *reverse* the Panel's findings, in paragraphs 9.177, 9.186, and 9.355 of the Panel Report, that the European Union failed to demonstrate: (i) that the acceleration effects of the pre-2007 aeronautics R&D subsidies in relation to Boeing's technology development for the 787 have continued into the post-implementation period; (ii) the existence of original subsidy technology effects of the pre-2007 aeronautics R&D subsidies in relation to Boeing's technology development for the 787 in the post-implementation period; and (iii) the existence of spill-over technology effects of the pre-2007 aeronautics
R&D subsidies on the 787-9/10, the 777X, and the 737 MAX in the post-implementation period.

b. As a consequence, and to that extent, we also reverse the Panel's findings, in paragraphs 9.219-9.220, 9.372-9.373, 11.8.a, and 11.8.e of the Panel Report, with respect to the European Union's failure to establish that the pre-2007 aeronautics R&D subsidies are a genuine and substantial cause of any of the forms of serious prejudice alleged with respect to the A350XWB and the A320neo in the post-implementation period, through a technology causal mechanism. Having reversed these findings, we do not address the European Union's additional claims as to whether the Panel erred in the application of Articles 5, 6.3, and 7.8 of the SCM Agreement or acted inconsistently with Article 11 of the DSU.

c. We further find that we are unable to complete the legal analysis with regard to whether there remain acceleration effects of the pre-2007 aeronautics R&D subsidies in the post-implementation period.

6.9 Price effects

6.12. The Panel did not consider that, in order to find significant lost sales through a price causal mechanism, there must be no non-price factors that potentially contributed to Boeing having won those sales. Rather, the Panel's understanding of the legal standard properly reflected a weighing and balancing of price and non-price factors to reach a conclusion as to whether a sales campaign was particularly price-sensitive, such that the tied tax subsidies could be found to be a genuine and substantial cause of serious prejudice. Accordingly, we find that the Panel did not err in the interpretation of Articles 5, 6.3, and, as a consequence, Article 7.8 of the SCM Agreement, when identifying the applicable causation standard.

6.13. As regards the Panel's assessment of the relative significance of the amount of the tied tax subsidies, we consider that there was a basis for the Panel to assume that Boeing had been able to use the benefits of the subsidies arising from all its LCA sales to lower the prices in particularly price-sensitive sales campaigns in the single-aisle LCA market. In addition, the Panel was not required to establish that the per-aircraft amount of the subsidies available for these sales campaigns exceeds the differentials in the net prices of Airbus' and Boeing's competing aircraft for purposes of finding that the subsidies are a genuine and substantial cause of Airbus' loss of these sales, and, consequently, serious prejudice. We thus find that the Panel did not err under Articles 5 and 6.3 of the SCM Agreement, or acted inconsistently with Article 11 of the DSU, in its assessment of the relative significance of the amount of the tied tax subsidies.

a. We therefore uphold the Panel's finding, in paragraph 9.252 of the Panel Report, and as a consequence to the extent that this is reflected in paragraph 11.8.a, that the European Union had failed to establish that the tied tax subsidies cause serious prejudice, within the meaning of Articles 5(c) and 6.3 of the SCM Agreement, in the twin-aisle LCA market in the post-implementation period.

b. We also uphold the Panel's findings, in paragraphs 9.407, 9.444, and 11.8.c-d of the Panel Report, that the European Union had established that the tied tax subsidies cause significant lost sales, within the meaning of Articles 5(c) and 6.3(c) of the SCM Agreement, in the single-aisle LCA market, with respect to the Fly Dubai 2014, Icelandair 2013, and Air Canada 2013 sales campaigns, in the post-implementation period, as well as a threat of impedance of imports of Airbus single-aisle LCA to the United States and exports of Airbus single-aisle LCA to the United Arab Emirates, within the meaning of Articles 5(c) and 6.3(a)-(b) of the SCM Agreement, in the post-implementation period.

6.14. By rejecting that untied subsidies may be found to have a genuine link to the production of relevant LCA as was accepted by the Appellate Body in the original proceedings, the Panel failed to apply the correct legal standard for assessing whether the untied subsidies are a genuine cause of adverse effects under Articles 5 and 6.3 of the SCM Agreement. In particular, we do not consider that the legal standard for causation requires a showing that the untied subsidies actually altered Boeing's pricing of its LCA. Accordingly, we find that the Panel erred under Articles 5 and 6.3 of the SCM Agreement by requiring that the European Union demonstrate that the untied subsidies actually
led to price reductions of Boeing LCA sales in order to establish that the subsidies caused adverse effects through the lowering of Boeing LCA prices.

a. We therefore reverse the Panel's findings, in paragraphs 9.277, 9.291, 9.472, and 9.476 of the Panel Report, and as a consequence to the extent that this is reflected in paragraphs 11.8.a and 11.8.e of the Panel Report, that the European Union had failed to establish that the untied subsidies cause serious prejudice, within the meaning of Articles 5(c) and 6.3 of the SCM Agreement, in the post-implementation period through a price causal mechanism. Having reversed this finding, we do not address whether, in addition, the Panel acted inconsistently with Article 11 of the DSU.

b. We further find that we are unable to complete the legal analysis with regard to whether the untied subsidies cause adverse effects within the meaning of Articles 5 and 6.3 of the SCM Agreement.

### 6.10 Additional claims on appeal

6.15. The European Union claims that the Panel erred in the interpretation of Articles 5, 6.3, and 7.8 of the SCM Agreement in finding that a subsidized product can only cause serious prejudice to another product if the two products in question compete in the same market, insofar as that interpretation relates to serious prejudice in the form of significant price suppression, significant price depression, and significant lost sales. The European Union states that, in requesting reversal of this finding, it seeks to enable us, in completing the legal analysis, to find significant lost sales in instances where the 787-8/9 and the A350XWB-900 competed for the sale. In light of our disposition of other claims on appeal, and, in particular, the fact that we are not called upon to consider the European Union's request for completion of the legal analysis regarding the twin-aisle LCA market, we need not consider any potential competitive relationship between the 787-8/9 and the A350XWB-900 LCA and, therefore, do not address the European Union's claim of error.

6.16. The European Union also claims that the Panel erred in the interpretation of Articles 5, 6.3, and 7.8 of the SCM Agreement in purportedly finding that aggregation and cumulation of subsidies are the only two approaches to the collective assessment of the adverse effects of multiple subsidies. The European Union states that it seeks reversal of the Panel's interpretation since it would be critical for the Appellate Body's completion of the legal analysis. In these proceedings, we were unable to conclude that the untied subsidies were a genuine cause of adverse effects, and such a showing would also have been required under the European Union's proposed approaches to the collective assessment of multiple subsidies. Therefore, in light of our disposition of other claims on appeal, we are not called upon to consider any such additional methods for the collective assessment of subsidies and, therefore, do not address the European Union's claim of error.

6.17. Finally, we note that the United States has presented four conditional claims challenging various findings of the Panel. In light of our disposition of other claims on appeal, the conditions for these claims have not been triggered. We therefore do not address the United States' conditional claims of error.

### 6.11 Recommendation

6.18. The Appellate Body recommends that the DSB request the United States 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.
Signed in the original in Geneva this 15th day of March 2019 by:

_________________________  
Peter Van den Bossche  
Presiding Member

_________________________  
Thomas Graham  
Member

_________________________  
Shree Baboo Chekitan Servansing  
Member