



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

RECOURSE 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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ABBREVIATIONS USED IN THIS REPORT

Abbreviation	Description
2006 IRS Memorandum	Internal Revenue Service Memorandum No. AM 2007-001
AJCA	American Jobs Creation Act of 2004
B&O	business and occupation
BCI	business confidential information
Boeing	The Boeing Company
CLEEN	Continuous Lower Energy Emissions, and Noise
DSB	dispute settlement body
DSU	Understanding on Rules and Procedures Governing the Settlement of Disputes
EDBs	economic development bonds
ETI Act	FSC Repeal and Extraterritorial Income Exclusion Act of 2000
FAA	Federal Aviation Administration
FILOT	fee-in-lieu-of-taxes
FSC	foreign sales corporation
GATT 1994	General Agreement on Tariffs and Trade 1994
HSBI	highly sensitive business information
HSBI Appendix	Appendix 2 to the Panel Report (HSBI)
IR&D	independent research and development
IRBs	industrial revenue bonds
ITAR	International Traffic in Arms Regulations
KSA	<i>Kansas Statutes Annotated</i>
LCA	large civil aircraft
MCIP	multi-county industrial park
NASA	National Aeronautics and Space Administration
NPV	net present value
Original Panel Report	Panel Report, <i>United States – Measures Affecting Trade in Large Civil Aircraft (Second Complaint)</i> , WT/DS353/R
Panel Report	Panel Report, <i>United States – Measures Affecting Trade in Large Civil Aircraft (Second Complaint) – Recourse to Article 21.5 of the DSU by the European Union</i> , WT/DS353/RW
R&D	research and development
RDT&E	research, development, test, & evaluation
S&T	science and technology
SCM Agreement	Agreement on Subsidies and Countervailing Measures
Space Act	National Aeronautics and Space Act of 1958, as amended
Spirit	Spirit Aerosystems
TIPRA	Tax Increase Prevention and Reconciliation Act of 2005
TRL	technology readiness level
USDOD	United States Department of Defense
USDOD procurement contracts	pre-2007 and post-2006 RDT&E procurement contracts between USDOD and Boeing
Working Procedures	Working Procedures for Appellate Review

PANEL EXHIBITS CITED IN THIS REPORT

Exhibit No.	Short title (if applicable)	Description
EC-11	Declaration of Christian Scherer	Declaration of Christian Scherer, Airbus SAS, Commercial Aspects of the Aircraft Business from the Perspective of a Manufacturer (March 2007)
EC-167	KSA	<i>Kansas Statutes Annotated</i> , Section 12-1740 et seq. (2001)
EC-627	TIPRA	Tax Increase Prevention and Reconciliation Act of 2005, Public Law No. 109-222, 120 Stat. 345, 17 May 2006, Section 513
EC-795	Peisen Study	Peisen et al., <i>Case Studies: Time Required to Mature Aeronautic Technologies to Operational Readiness</i> (SAIC and GRA, Inc., November 1999)
EU-9		A. Shain, "S.C. traveled a long road to land Boeing", <i>Charlotte Observer</i> , Charlotte, NC, 1 November 2009
EU-23	Rumpf Report	Richard L. Rumpf and Robert J. Levinson, "United States Department of Defense Research, Development, Test & Evaluation ('RDT&E') Funding for the Boeing Company Applicable to Large Civil Aircraft: 2007-2012 Estimates", 12 March 2013
EU-24	ITR FSC/ETI Report	International Trade Resources Report, <i>Boeing FSC/ETI Tax Exemptions Post-2011</i> (13 December 2012)
EU-29	2006 CRA Report	CRA International, <i>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</i> (November 2006)
EU-100		Jeff Sloan, "PRSEUS preform for pressurized cabin walls", <i>Composites World</i> , 1 September 2011
EU-107		Alex Velicki and Dawn Jegley, <i>PRSEUS Development for the Hybrid Wing Body Aircraft</i> , NASA Report No. NF1676L-13290 (20 September 2011)
EU-108		Boeing News Release, "Boeing Flies X-48C Blended Wing Body Research Aircraft", 7 August 2012
EU-268		W. Cole, "The Value of Lessons Learned", <i>Boeing Frontiers Online</i> , December 2003-January 2004
EU-275		<i>United States Code of Federal Regulations</i> , Title 48, Section 271.002(a)
EU-276		U.S. Government Response to the EC-Commissioned Report "U.S. Government Support of the U.S. Commercial Aircraft Industry", March 1992
EU-332		D. Arkell, "Exponential Potential", <i>Boeing Frontiers Online</i> , September 2005
EU-333		D. Gates, "How B-2 data wound up in 787 program", <i>Seattle Times</i> , 22 January 2006
EU-334		W.B. Scott, "Legacy of B-2 Bomber Innovations Apparent in J-UCAS and Other Programs", <i>Aviation Week & Space Technology</i> , 26 March 2006
EU-362		United States Patent No. 5,698,316 (16 December 1997)
EU-378		United States Patent No. 8,376,337 (19 February 2013)
EU-379		United States Patent No. 8,376,338 (19 February 2013)
EU-380		United States Patent No. 8,366,050 (5 February 2013)
EU-381		United States Patent No. 8,352,486 (8 January 2013)
EU-382		United States Patent No. 8,194,239 (5 June 2012)

Exhibit No.	Short title (if applicable)	Description
EU-383		United States Patent No. 7,667,830 (23 February 2010)
EU-385		United States Patent No. 8,042,767 (25 October 2011)
EU-386		United States Patent No. 8,016,650 (13 September 2011)
EU-388		United States Patent No. 7,861,411 (4 January 2011)
EU-389		United States Patent No. 7,773,885 (10 August 2010)
EU-390		United States Patent No. 7,841,152 (30 November 2010)
EU-394		United States Patent No. 7,347,083 (25 March 2008)
EU-402		<i>United States Code</i> , Title 26 (Internal Revenue Code), Sections 245, 921-927, and 951 (2000)
EU-405	TIPRA	Tax Increase Prevention and Reconciliation Act of 2005, Public Law No. 109-222, 120 Stat. 345, 17 May 2006, Section 513
EU-406	2006 IRS Memorandum	Office of Chief Counsel, Internal Revenue Service "Qualification for FSC benefits and ETI exclusions" (Memorandum No. AM 2007-001), 22 December 2006
EU-407	Boeing 2012 10-K	Boeing, Annual Form 10-K to the United States Securities and Exchange Commission for the year ended December 31, 2012
EU-434		Substitute Senate Bill 6828, "Aerospace Tax Incentives", Washington Session Laws 365 (2008)
EU-466		Act No. 124 (H3130) (30 October 2009), <i>South Carolina Code</i>
EU-467	Project Gemini Agreement	Project Gemini Agreement between The Boeing Company and the State of South Carolina (1 January 2010)
EU-470	Boeing FILOT Agreement	Fee Agreement by and between Charleston County, South Carolina, and The Boeing Company (1 December 2010)
EU-477		State General Obligation Economic Development Bond Act, <i>South Carolina Code</i> , Title 11, Chapter 41
EU-490		Letter dated 23 July 2012 from the South Carolina State Budget and Control Board regarding a Freedom of Information Act Request
EU-491		Letter dated 31 July 2012 from the South Carolina State Budget and Control Board regarding a Freedom of Information Act Request Supplement
EU-509		South Carolina Income Tax Act, <i>South Carolina Code</i> , Title 12, Chapter 6
EU-516		Charleston County Ordinance 1626 (2 February 2010)
EU-550		Project Emerald Confidential Site Development and Incentive Agreement (2006)
EU-553		Inducement and Millage Rate Agreement between Charleston County and Project Emerald (21 December 2004)
EU-555		Charleston County Council Ordinance 1475 (5 December 2006)
EU-665		Craig Wilsey and Robert Stoker, <i>Continuous Lower Energy, Emissions and Noise (CLEEN) Technologies Development – Boeing Program Overview</i> , CLEEN Consortium Public Session (27 October 2010)
EU-987		HSBI

Exhibit No.	Short title (if applicable)	Description
EU-1014	Airbus Engineers' Response	Response by Burkhard Domke, Phil A. Brown, Jörg Kumpfert, and Ian Whitehouse to the June 2013 Statement by Boeing Engineers, 19 July 2013 (BCI/HSBI)
EU-1398		Second Supplemental Declaration of Richard A. Razgaitis, Sr., Ph.D., CLP (17 December 2014)
EU-1399		D. Lerman and R. Wall, "U.S. Defense Contractors Focus on Foreign Buyers", <i>Businessweek</i> , 14 November 2013
EU-1437		Data from US Census Bureau, Geography Area Series: County Business Patterns (2010-2012)
EU-1668		Statement of Kiran Rao, 6 October 2015 (HSBI)
USA-188		Douglas P. Woodward & Paulo Guimarães, <i>BMW in South Carolina: The Economic Impact of a Leading Sustainable Enterprise</i> (September 2008)
USA-232		Statement of J. H. Zrust, Vice President of Tax of The Boeing Company (20 July 2009)
USA-283	Boeing Engineers' Statement	Statement of Boeing Engineers Regarding the Technologies and Development of the 787, 737 MAX, and 777X (June 2013) (BCI)
USA-324		Boeing Investment in South Carolina (2010-3Q2012) (BCI)
USA-335		<i>Charleston S.C. MSA Largest Manufacturing Employers</i> , Charleston Regional Development Alliance (February 2013)
USA-338		A.G. Sulzberger, "Boeing Departure Shakes Wichita's Identity as Airplane Capital", <i>New York Times</i> , 18 January 2012
USA-359	Boeing Engineers' Reply	Reply of Boeing Engineers to EU and Airbus Statements Regarding the Technologies and Development of the 787, 737 MAX, and 777X (August 2013) (BCI)
USA-382		Updated Statement of J. H. Zrust, Vice President of Tax of The Boeing Company (3 December 2013)
USA-487		International Institute for Strategic Studies, Military Balance 2014 Press Statement (5 February 2014)
USA-554		Agreement for Development for Joint County Industrial Park between Charleston County and Colleton County (1 September 1995)
USA-555		Charleston County Council Ordinance 1475 (5 December 2006)

CASES CITED IN THIS REPORT

Short Title	Full Case Title and Citation
<i>Argentina – Import Measures</i>	Appellate Body Reports, <i>Argentina – Measures Affecting the Importation of Goods</i> , WT/DS438/AB/R / WT/DS444/AB/R / WT/DS445/AB/R, adopted 26 January 2015, DSR 2015:II, p. 579
<i>Australia – Salmon</i>	Appellate Body Report, <i>Australia – Measures Affecting Importation of Salmon</i> , WT/DS18/AB/R, adopted 6 November 1998, DSR 1998:VIII, p. 3327
<i>Brazil – Retreaded Tyres</i>	Appellate Body Report, <i>Brazil – Measures Affecting Imports of Retreaded Tyres</i> , WT/DS332/AB/R, adopted 17 December 2007, DSR 2007:IV, p. 1527
<i>Canada – Aircraft</i>	Appellate Body Report, <i>Canada – Measures Affecting the Export of Civilian Aircraft</i> , WT/DS70/AB/R, adopted 20 August 1999, DSR 1999:III, p. 1377
<i>Canada – Aircraft (Article 21.5 – Brazil)</i>	Appellate Body Report, <i>Canada – Measures Affecting the Export of Civilian Aircraft – Recourse by Brazil to Article 21.5 of the DSU</i> , WT/DS70/AB/RW, adopted 4 August 2000, DSR 2000:IX, p. 4299
<i>Canada – Autos</i>	Panel Report, <i>Canada – Certain Measures Affecting the Automotive Industry</i> , WT/DS139/R, WT/DS142/R, adopted 19 June 2000, as modified by Appellate Body Report WT/DS139/AB/R, WT/DS142/AB/R, DSR 2000:VII, p. 3043
<i>Canada – Periodicals</i>	Appellate Body Report, <i>Canada – Certain Measures Concerning Periodicals</i> , WT/DS31/AB/R, adopted 30 July 1997, DSR 1997:I, p. 449
<i>China – Auto Parts</i>	Appellate Body Reports, <i>China – Measures Affecting Imports of Automobile Parts</i> , WT/DS339/AB/R / WT/DS340/AB/R / WT/DS342/AB/R, adopted 12 January 2009, DSR 2009:I, p. 3
<i>China – GOES</i>	Appellate Body Report, <i>China – Countervailing and Anti-Dumping Duties on Grain Oriented Flat-Rolled Electrical Steel from the United States</i> , WT/DS414/AB/R, adopted 16 November 2012, DSR 2012:XII, p. 6251
<i>Colombia – Textiles</i>	Appellate Body Report, <i>Colombia – Measures Relating to the Importation of Textiles, Apparel and Footwear</i> , WT/DS461/AB/R and Add.1, adopted 22 June 2016, DSR 2016:III, p. 1131
<i>EC – Asbestos</i>	Appellate Body Report, <i>European Communities – Measures Affecting Asbestos and Asbestos-Containing Products</i> , WT/DS135/AB/R, adopted 5 April 2001, DSR 2001:VII, p. 3243
<i>EC – Bed Linen (Article 21.5 – India)</i>	Appellate Body Report, <i>European Communities – Anti-Dumping Duties on Imports of Cotton-Type Bed Linen from India – Recourse to Article 21.5 of the DSU by India</i> , WT/DS141/AB/RW, adopted 24 April 2003, DSR 2003:III, p. 965
<i>EC – Export Subsidies on Sugar</i>	Appellate Body Report, <i>European Communities – Export Subsidies on Sugar</i> , WT/DS265/AB/R, WT/DS266/AB/R, WT/DS283/AB/R, adopted 19 May 2005, DSR 2005:XIII, p. 6365
<i>EC – Fasteners (China)</i>	Appellate Body Report, <i>European Communities – Definitive Anti-Dumping Measures on Certain Iron or Steel Fasteners from China</i> , WT/DS397/AB/R, adopted 28 July 2011, DSR 2011:VII, p. 3995
<i>EC – Hormones</i>	Appellate Body Report, <i>EC Measures Concerning Meat and Meat Products (Hormones)</i> , WT/DS26/AB/R, WT/DS48/AB/R, adopted 13 February 1998, DSR 1998:I, p. 135
<i>EC – Poultry</i>	Appellate Body Report, <i>European Communities – Measures Affecting the Importation of Certain Poultry Products</i> , WT/DS69/AB/R, adopted 23 July 1998, DSR 1998:V, p. 2031
<i>EC – Seal Products</i>	Appellate Body Reports, <i>European Communities – Measures Prohibiting the Importation and Marketing of Seal Products</i> , WT/DS400/AB/R / WT/DS401/AB/R, adopted 18 June 2014, DSR 2014:I, p. 7
<i>EC and certain member States – Large Civil Aircraft</i>	Appellate Body Report, <i>European Communities and Certain Member States – Measures Affecting Trade in Large Civil Aircraft</i> , WT/DS316/AB/R, adopted 1 June 2011, DSR 2011:I, p. 7

Short Title	Full Case Title and Citation
<i>EC and certain member States – Large Civil Aircraft (Article 21.5 – US)</i>	Appellate Body Report, <i>European Communities and Certain Member States – Measures Affecting Trade in Large Civil Aircraft – Recourse to Article 21.5 of the DSU by the United States</i> , WT/DS316/AB/RW and Add.1, adopted 28 May 2018
<i>EC and certain member States – Large Civil Aircraft (Article 21.5 – US)</i>	Panel Report, <i>European Communities and Certain Member States – Measures Affecting Trade in Large Civil Aircraft – Recourse to Article 21.5 of the DSU by the United States</i> , WT/DS316/RW and Add.1, adopted 28 May 2018, as modified by Appellate Body Report WT/DS316/AB/RW
<i>Korea – Dairy</i>	Appellate Body Report, <i>Korea – Definitive Safeguard Measure on Imports of Certain Dairy Products</i> , WT/DS98/AB/R, adopted 12 January 2000, DSR 2000:I, p. 3
<i>Mexico – Corn Syrup (Article 21.5 – US)</i>	Appellate Body Report, <i>Mexico – Anti-Dumping Investigation of High Fructose Corn Syrup (HFCS) from the United States – Recourse to Article 21.5 of the DSU by the United States</i> , WT/DS132/AB/RW, adopted 21 November 2001, DSR 2001:XIII, p. 6675
<i>Russia – Commercial Vehicles</i>	Appellate Body Report, <i>Russia – Anti-Dumping Duties on Light Commercial Vehicles from Germany and Italy</i> , WT/DS479/AB/R and Add.1, adopted 9 April 2018
<i>Russia – Pigs (EU)</i>	Appellate Body Report, <i>Russian Federation – Measures on the Importation of Live Pigs, Pork and Other Pig Products from the European Union</i> , WT/DS475/AB/R and Add.1, adopted 21 March 2017
<i>US – Anti-Dumping and Countervailing Duties (China)</i>	Appellate Body Report, <i>United States – Definitive Anti-Dumping and Countervailing Duties on Certain Products from China</i> , WT/DS379/AB/R, adopted 25 March 2011, DSR 2011:V, p. 2869
<i>US – Anti-Dumping and Countervailing Duties (China)</i>	Panel Report, <i>United States – Definitive Anti-Dumping and Countervailing Duties on Certain Products from China</i> , WT/DS379/R, adopted 25 March 2011, as modified by Appellate Body Report WT/DS379/AB/R, DSR 2011:VI, p. 3143
<i>US – Anti-Dumping Methodologies (China)</i>	Appellate Body Report, <i>United States – Certain Methodologies and Their Application to Anti-Dumping Proceedings Involving China</i> , WT/DS471/AB/R and Add.1, adopted 22 May 2017
<i>US – Carbon Steel</i>	Appellate Body Report, <i>United States – Countervailing Duties on Certain Corrosion-Resistant Carbon Steel Flat Products from Germany</i> , WT/DS213/AB/R and Corr.1, adopted 19 December 2002, DSR 2002:IX, p. 3779
<i>US – Carbon Steel (India)</i>	Appellate Body Report, <i>United States – Countervailing Measures on Certain Hot-Rolled Carbon Steel Flat Products from India</i> , WT/DS436/AB/R, adopted 19 December 2014, DSR 2014:V, p. 1727
<i>US – Countervailing Measures (China)</i>	Appellate Body Report, <i>United States – Countervailing Duty Measures on Certain Products from China</i> , WT/DS437/AB/R, adopted 16 January 2015, DSR 2015:1, p. 7
<i>US – Countervailing Measures (China)</i>	Panel Report, <i>United States – Countervailing Duty Measures on Certain Products from China</i> , WT/DS437/R and Add.1, adopted 16 January 2015, as modified by Appellate Body Report WT/DS437/AB/R, DSR 2015:1, p. 183
<i>US – FSC</i>	Appellate Body Report, <i>United States – Tax Treatment for "Foreign Sales Corporations"</i> , WT/DS108/AB/R, adopted 20 March 2000, DSR 2000:III, p. 1619
<i>US – FSC</i>	Panel Report, <i>United States – Tax Treatment for "Foreign Sales Corporations"</i> , WT/DS108/R, adopted 20 March 2000, as modified by Appellate Body Report WT/DS108/AB/R, DSR 2000:IV, p. 1675
<i>US – FSC (Article 21.5 – EC II)</i>	Appellate Body Report, <i>United States – Tax Treatment for "Foreign Sales Corporations" – Second Recourse to Article 21.5 of the DSU by the European Communities</i> , WT/DS108/AB/RW2, adopted 14 March 2006, DSR 2006:XI, p. 4721
<i>US – FSC (Article 21.5 – EC II)</i>	Panel Report, <i>United States – Tax Treatment for "Foreign Sales Corporations" – Second Recourse to Article 21.5 of the DSU by the European Communities</i> , WT/DS108/RW2, adopted 14 March 2006, upheld by Appellate Body Report WT/DS108/AB/RW2, DSR 2006:XI, p. 4761

Short Title	Full Case Title and Citation
<i>US – FSC (Article 21.5 – EC)</i>	Appellate Body Report, <i>United States – Tax Treatment for "Foreign Sales Corporations" – Recourse to Article 21.5 of the DSU by the European Communities</i> , WT/DS108/AB/RW, adopted 29 January 2002, DSR 2002:I, p. 55
<i>US – Gasoline</i>	Appellate Body Report, <i>United States – Standards for Reformulated and Conventional Gasoline</i> , WT/DS2/AB/R, adopted 20 May 1996, DSR 1996:I, p. 3
<i>US – Hot-Rolled Steel</i>	Appellate Body Report, <i>United States – Anti-Dumping Measures on Certain Hot-Rolled Steel Products from Japan</i> , WT/DS184/AB/R, adopted 23 August 2001, DSR 2001:X, p. 4697
<i>US – Lamb</i>	Appellate Body Report, <i>United States – Safeguard Measures on Imports of Fresh, Chilled or Frozen Lamb Meat from New Zealand and Australia</i> , WT/DS177/AB/R, WT/DS178/AB/R, adopted 16 May 2001, DSR 2001:IX, p. 4051
<i>US – Large Civil Aircraft (2nd complaint)</i>	Appellate Body Report, <i>United States – Measures Affecting Trade in Large Civil Aircraft (Second Complaint)</i> , WT/DS353/AB/R, adopted 23 March 2012, DSR 2012:I, p. 7
<i>US – Large Civil Aircraft (2nd complaint)</i>	Panel Report, <i>United States – Measures Affecting Trade in Large Civil Aircraft (Second Complaint)</i> , WT/DS353/R, adopted 23 March 2012, as modified by Appellate Body Report WT/DS353/AB/R, DSR 2012:II, p. 649
<i>US – Large Civil Aircraft (2nd complaint) (Article 21.5 – EU)</i>	Panel Report, <i>United States – Measures Affecting Trade in Large Civil Aircraft (Second Complaint) – Recourse to Article 21.5 of the DSU by the European Union</i> , WT/DS353/RW and Add.1
<i>US – Offset Act (Byrd Amendment)</i>	Appellate Body Report, <i>United States – Continued Dumping and Subsidy Offset Act of 2000</i> , WT/DS217/AB/R, WT/DS234/AB/R, adopted 27 January 2003, DSR 2003:I, p. 375
<i>US – Oil Country Tubular Goods Sunset Reviews (Article 21.5 – Argentina)</i>	Appellate Body Report, <i>United States – Sunset Reviews of Anti-Dumping Measures on Oil Country Tubular Goods from Argentina – Recourse to Article 21.5 of the DSU by Argentina</i> , WT/DS268/AB/RW, adopted 11 May 2007, DSR 2007:IX, p. 3523
<i>US – Section 211 Appropriations Act</i>	Appellate Body Report, <i>United States – Section 211 Omnibus Appropriations Act of 1998</i> , WT/DS176/AB/R, adopted 1 February 2002, DSR 2002:II, p. 589
<i>US – Shrimp</i>	Appellate Body Report, <i>United States – Import Prohibition of Certain Shrimp and Shrimp Products</i> , WT/DS58/AB/R, adopted 6 November 1998, DSR 1998:VII, p. 2755
<i>US – Shrimp (Article 21.5 – Malaysia)</i>	Appellate Body Report, <i>United States – Import Prohibition of Certain Shrimp and Shrimp Products – Recourse to Article 21.5 of the DSU by Malaysia</i> , WT/DS58/AB/RW, adopted 21 November 2001, DSR 2001:XIII, p. 6481
<i>US – Softwood Lumber VI (Article 21.5 – Canada)</i>	Appellate Body Report, <i>United States – Investigation of the International Trade Commission in Softwood Lumber from Canada – Recourse to Article 21.5 of the DSU by Canada</i> , WT/DS277/AB/RW, adopted 9 May 2006, and Corr.1, DSR 2006:XI, p. 4865
<i>US – Steel Safeguards</i>	Appellate Body Report, <i>United States – Definitive Safeguard Measures on Imports of Certain Steel Products</i> , WT/DS248/AB/R, WT/DS249/AB/R, WT/DS251/AB/R, WT/DS252/AB/R, WT/DS253/AB/R, WT/DS254/AB/R, WT/DS258/AB/R, WT/DS259/AB/R, adopted 10 December 2003, DSR 2003:VII, p. 3117
<i>US – Tax Incentives</i>	Appellate Body Report, <i>United States – Conditional Tax Incentives for Large Civil Aircraft</i> , WT/DS487/AB/R and Add.1, adopted 22 September 2017
<i>US – Tax Incentives</i>	Panel Report, <i>United States – Conditional Tax Incentives for Large Civil Aircraft</i> , WT/DS487/R and Add.1, adopted 22 September 2017, as modified by Appellate Body Report WT/DS487/AB/R
<i>US – Tuna II (Mexico) (Article 21.5 – Mexico)</i>	Appellate Body Report, <i>United States – Measures Concerning the Importation, Marketing and Sale of Tuna and Tuna Products – Recourse to Article 21.5 of the DSU by Mexico</i> , WT/DS381/AB/RW and Add.1, adopted 3 December 2015, DSR 2015:X, p. 5133

Short Title	Full Case Title and Citation
<i>US – Upland Cotton</i>	Appellate Body Report, <i>United States – Subsidies on Upland Cotton</i> , WT/DS267/AB/R, adopted 21 March 2005, DSR 2005:I, p. 3
<i>US – Upland Cotton</i>	Panel Report, <i>United States – Subsidies on Upland Cotton</i> , WT/DS267/R, Add.1 to Add.3 and Corr.1, adopted 21 March 2005, as modified by Appellate Body Report WT/DS267/AB/R, DSR 2005:II, p. 299
<i>US – Upland Cotton (Article 21.5 – Brazil)</i>	Appellate Body Report, <i>United States – Subsidies on Upland Cotton – Recourse to Article 21.5 of the DSU by Brazil</i> , WT/DS267/AB/RW, adopted 20 June 2008, DSR 2008:III, p. 809
<i>US – Washing Machines</i>	Appellate Body Report, <i>United States – Anti-Dumping and Countervailing Measures on Large Residential Washers from Korea</i> , WT/DS464/AB/R and Add.1, adopted 26 September 2016, DSR 2016:V, p. 2275
<i>US – Washing Machines</i>	Panel Report, <i>United States – Anti-Dumping and Countervailing Measures on Large Residential Washers from Korea</i> , WT/DS464/R and Add.1, adopted 26 September 2016, as modified by Appellate Body Report WT/DS464/AB/R, DSR 2016:V, p. 2505
<i>US – Wheat Gluten</i>	Appellate Body Report, <i>United States – Definitive Safeguard Measures on Imports of Wheat Gluten from the European Communities</i> , WT/DS166/AB/R, adopted 19 January 2001, DSR 2001:II, p. 717
<i>US – Zeroing (EC) (Article 21.5 – EC)</i>	Appellate Body Report, <i>United States – Laws, Regulations and Methodology for Calculating Dumping Margins ("Zeroing")</i> , WT/DS294/AB/R, adopted 9 May 2006, and Corr.1, DSR 2006:II, p. 417

WORLD TRADE ORGANIZATION
APPELLATE BODY

***United States – Measures Affecting Trade
in Large Civil Aircraft (Second Complaint)
– Recourse to Article 21.5 of the DSU by
the European Union***

European Union, *Appellant/Appellee*
United States, *Other Appellant/Appellee*

Australia, *Third Participant*
Brazil, *Third Participant*
Canada, *Third Participant*
China, *Third Participant*
Japan, *Third Participant*
Korea, *Third Participant*
Russia, *Third Participant*

AB-2017-4

Appellate Body Division:

Van den Bossche, Presiding Member
Graham, Member
Servansing, Member

1 INTRODUCTION

1.1. The European Union¹ and the United States each appeal certain issues of law and legal interpretations developed in the Panel Report, *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 2012³ 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 Union⁴ 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 *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 2006⁶, 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 *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 market⁹;
- 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 market¹⁰; 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

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)

¹³ Appellate Body Report, *US – Large Civil Aircraft (2nd complaint)*, para. 1350(d)(iii)(A).

¹⁴ Appellate Body Report, *US – Large Civil Aircraft (2nd complaint)*, para. 1350(d)(iii)(B).

¹⁵ Appellate Body Report, *US – Large Civil Aircraft (2nd complaint)*, para. 1350(d)(iv)(B).

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.¹⁶

1.7. The Appellate Body recommended that, pursuant to Article 7.8 of the SCM Agreement, the DSB 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.¹⁷

1.8. On 23 March 2012, the DSB adopted the Appellate Body report and the original panel report, as modified by the Appellate Body report.¹⁸

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 DSB on 23 September 2012¹⁹, 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 "ha{d} fully complied with the recommendations and rulings of the Dispute Settlement Body in this dispute".²⁰

1.10. On 25 September 2012, the European Union requested consultations with the United States, explaining that "{t}he 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 DSB."²¹ The European Union and the United States held consultations on 10 October 2012, but the consultations failed to resolve the dispute.²²

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.²³ At its meeting on 23 October 2012, the DSB referred this dispute to the original panel, if possible, in accordance with Article 21.5 of the DSU.²⁴ The Panel was composed on 30 October 2012 accordingly.²⁵

1.12. Before the Panel, the European Union argued that the United States had failed to implement the recommendations and rulings of the DSB 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 period²⁶, 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&E 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

¹⁶ Appellate Body Report, *US – Large Civil Aircraft (2nd complaint)*, para. 1350(d)(iv)(C).

¹⁷ Appellate Body Report, *US – Large Civil Aircraft (2nd complaint)*, para. 1352.

¹⁸ Minutes of the DSB Meeting held on 23 March 2012, WT/DSB/M/313, para. 79.

¹⁹ WT/DS353/15.

²⁰ Panel Report, para. 1.9 (quoting Communication from the United States, WT/DS353/15 (dated 23 September 2012), para. 2).

²¹ Panel Report, para. 1.10 (quoting European Union's request for consultations, WT/DS353/16 (dated 25 September 2012), p. 2).

²² Panel Report, para. 1.11.

²³ Panel Report, para. 1.12 (referring to European Union's panel request, WT/DS353/18 (dated 11 October 2012), para. 34).

²⁴ Panel Report, para. 1.12 (referring to Minutes of the DSB Meeting held on 23 October 2012, WT/DSB/M/323, para. 81).

²⁵ Panel Report, para. 1.14 (referring to Constitution of the Panel, Note by the Secretariat, WT/DS353/21 (dated 5 November 2012), para. 3).

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".²⁷ 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 1994.²⁸

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.²⁹

1.14. The Panel circulated its Report to Members of the World Trade Organization (WTO) on 9 June 2017. The factual aspects of the Panel proceedings are summarized in detail in paragraphs 1.16 through 1.32 of the Panel Report.

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 reference³⁰, 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.³¹
- b. The following measures are within the scope of these compliance proceedings:
 - i. the Washington State B&O tax credits for preproduction/aerospace product development³²; the Washington State B&O tax credit for property taxes and leasehold excise taxes³³; 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

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.³⁴
- c. 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.³⁵
- 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 development³⁶; (iii) the Washington State B&O tax credit for property taxes³⁷; and (iv) the Washington State sales and use tax exemptions for computer software, hardware, and peripherals.³⁸
- 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 development³⁹; and (iv) the Washington State B&O tax credit for property taxes⁴⁰; as well as the FSC/ETI measures.⁴¹
- 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.⁴²

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.⁴³

- 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 Agreement⁴⁴ 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

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).

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- 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 2015.⁴⁵
- 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 *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 Agreement⁴⁶ 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.⁴⁷

⁴⁵ Panel Report, para. 11.7.b.

⁴⁶ Fee Agreement by and between Charleston County, South Carolina, and The Boeing Company (1 December 2010) (Panel Exhibit EU-470).

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, impedance of imports to the US market or impedance 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 impedance 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 impedance of imports of the A320ceo to the United States single-aisle LCA market, and a threat of impedance 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, impedance of imports of the A320neo or A320ceo to the US market, or displacement and impedance 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 Review⁵⁶ (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.⁵⁷ 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.⁵⁸ 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.⁵⁹

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 Appeal⁶⁰ 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, appellees', 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

⁵⁶ WT/AB/WP/6, 16 August 2010.

⁵⁷ Comments were also received from Canada, China, and Japan.

⁵⁸ Comments were also received from Australia and the United States.

⁵⁹ See also Appellate Body Reports, *US – Tax Incentives*, para. 1.5; *EC and certain member States – Large Civil Aircraft (Article 21.5 – US)*, para. 1.23.

⁶⁰ WT/DS353/27 (contained in Annex A-1 of the Addendum to this Report, WT/DS353/AB/RW/Add.1).

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 Ruling⁶¹ 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.

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 Ruling⁶² 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 Appeal⁶³ 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 Ruling⁶⁴ 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 participants'

⁶² The Procedural Ruling of 9 August 2017 is contained in Annex D-2 of the Addendum to this Report, WT/DS353/AB/RW/Add.1.

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.⁶⁵ 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.⁶⁶

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 Ruling⁶⁷ 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 Ruling⁶⁸ 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.

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.⁶⁹ On 7 November 2017, Brazil, Canada, China, and Japan each filed a third participant's submission.⁷⁰ On the same day, Australia notified its intention to appear at the oral hearing as a third participant.⁷¹ On 13 November 2017, Russia notified its intention to appear at the oral hearing as a third participant.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 Ruling⁷³ 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,

⁶⁹ Pursuant to Rule 24(2) of the Working Procedures.

⁷⁰ Pursuant to Rule 24(1) of the Working Procedures.

⁷¹ Pursuant to Rule 24(2) of the Working Procedures.

⁷² Pursuant to Rule 24(4) of the Working Procedures.

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.⁷⁴ 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 Body⁷⁵, which are contained in Annex C of the Addendum to this Report, WT/DS353/AB/RW/Add.1.

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);

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- 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 related to the questions of 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. 67 (referring to Panel Report, para. 11.5.a.ii).

⁸⁰ European Union's appellee's submission, para. 45.

⁸¹ Panel Report, para. 7.95 (referring to United States' request for preliminary rulings, dated 13 November 2012, paras. 8-9 and 60).

⁸² Panel Report, para. 7.96 (referring to United States' reply to European Union's response to United States' request for preliminary rulings, dated 3 December 2012, para. 27; request for preliminary rulings, dated 13 November 2012, para. 9; first written submission to the Panel, para. 306).

⁸³ Panel Report, para. 7.97 (referring to United States' reply to European Union's response to United States' request for preliminary rulings, dated 3 December 2012, para. 28; request for preliminary rulings, dated 13 November 2012, para. 8; first written submission to the Panel, para. 309).

⁸⁴ Panel Report, para. 7.103 (referring to European Union's opening statement at the Panel meeting, para. 15).

⁸⁵ Panel Report, para. 7.102.

⁸⁶ 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).

⁸⁷ Panel Report, para. 7.102.

⁸⁸ Panel Report, paras. 7.33 and 7.109 (referring to Appellate Body Report, *US – Oil Country Tubular Goods Sunset Reviews (Article 21.5 – Argentina)*, para. 150).

⁸⁹ Panel Report, paras. 7.34 and 7.109 (referring to Appellate Body Report, *US – Upland Cotton (Article 21.5 – Brazil)*, para. 210).

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.⁹⁰

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 Agreement⁹¹, 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.⁹² 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.⁹³

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.⁹⁴ 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.⁹⁵ 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.⁹⁶ 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.⁹⁷

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.⁹⁸ 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.⁹⁹ 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.¹⁰⁰ 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.¹⁰¹ 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.¹⁰² 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

⁹⁰ Panel Report, para. 7.111.

⁹¹ Panel Report, para. 7.112 (referring to European Union's Notice of Appeal, dated 4 April 2011, WT/DS353/8, para. 3).

⁹² Panel Report, para. 7.112.

⁹³ Panel Report, para. 7.114.

⁹⁴ Panel Report, para. 7.128.

⁹⁵ Panel Report, para. 7.128.

⁹⁶ Panel Report, para. 7.129.

⁹⁷ Panel Report, para. 7.130.

⁹⁸ United States' other appellant's submission, para. 11.

⁹⁹ United States' other appellant's submission, para. 11.

¹⁰⁰ United States' other appellant's submission, para. 11.

¹⁰¹ United States' other appellant's submission, para. 16.

¹⁰² United States' other appellant's submission, para. 16.

to pursue in these compliance proceedings a claim that the USDOD procurement contracts were not purchases of services that conferred a benefit.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.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."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.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.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.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.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.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.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.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.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

¹⁰³ United States' other appellant's submission, para. 16 (quoting Panel Report, para. 7.35).

¹⁰⁴ United States' other appellant's submission, para. 18.

¹⁰⁵ United States' other appellant's submission, para. 18 (quoting Panel Report, para. 7.128).

¹⁰⁶ United States' other appellant's submission, para. 19 (referring to European Union's appellant's submission in *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.")).

¹⁰⁷ United States' other appellant's submission, para. 19.

¹⁰⁸ United States' other appellant's submission, paras. 20-21 (quoting Panel Report, para. 7.129).

¹⁰⁹ European Union's appellee's submission, para. 67 (referring to Panel Report, para. 11.5.a.ii).

¹¹⁰ European Union's appellee's submission, paras. 36-38.

¹¹¹ European Union's appellee's submission, para. 42 (quoting Panel Report, para. 7.33).

¹¹² European Union's appellee's submission, paras. 48-49.

¹¹³ European Union's appellee's submission, paras. 50-51 (quoting Panel Report, para. 7.128).

Appellate Body to do so.¹¹⁴ 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.¹¹⁵

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.¹¹⁶ 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.¹¹⁷

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*).¹¹⁸ 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.¹¹⁹ 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

¹¹⁴ European Union's appellee's submission, para. 51 (quoting Appellate Body Report, *US – Large Civil Aircraft (2nd complaint)*, para. 1250 and fn 2511 thereto, in turn quoting Appellate Body Report, *US – Hot-Rolled Steel*, para. 235).

¹¹⁵ European Union's appellee's submission, paras. 55-56.

¹¹⁶ European Union's appellee's submission, para. 60.

¹¹⁷ European Union's appellee's submission, para. 61 (referring to Panel Report, para. 7.129).

¹¹⁸ Appellate Body Reports, *Argentina – Import Measures*, para. 5.13; *EC – Bed Linen (Article 21.5 – India)*, para. 78.

¹¹⁹ Appellate Body Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 5.8 (quoting Appellate Body Reports, *US – Upland Cotton (Article 21.5 – Brazil)*, para. 211; *US – Zeroing (EC) (Article 21.5 – EC)*, para. 424).

of the measure taken to comply".¹²⁰ 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".¹²¹

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".¹²² 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".¹²³ 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.¹²⁴

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.¹²⁵ 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.¹²⁶ 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.¹²⁷

5.21. In sum, compliance proceedings cannot be used to "re-open" issues that were decided on the merits in the original proceedings.¹²⁸ 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.¹²⁹

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.¹³⁰

¹²⁰ Appellate Body Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 5.8 (quoting Appellate Body Report, *US – Zeroing (EC) (Article 21.5 – EC)*, para. 432).

¹²¹ Appellate Body Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 5.8 (quoting Appellate Body Report, *US – Zeroing (EC) (Article 21.5 – EC)*, para. 434).

¹²² See Appellate Body Report, *US – Shrimp (Article 21.5 – Malaysia)*, para. 97.

¹²³ See Appellate Body Report, *US – Shrimp (Article 21.5 – Malaysia)*, para. 97.

¹²⁴ Appellate Body Reports, *US – Zeroing (EC) (Article 21.5 – EC)*, para. 427 (fn omitted); *US – Upland Cotton (Article 21.5 – Brazil)*, para. 210. The Appellate Body has found that the same applies when a complainant has failed to establish a *prima facie* case. See Appellate Body Report, *EC – Bed Linen (Article 21.5 – India)*, para. 96.

¹²⁵ Appellate Body Report, *US – Zeroing (EC) (Article 21.5 – EC)*, para. 424.

¹²⁶ Appellate Body Report, *US – Upland Cotton (Article 21.5 – Brazil)*, para. 210.

¹²⁷ Appellate Body Report, *US – Oil Country Tubular Goods Sunset Reviews (Article 21.5 – Argentina)*, para. 148.

¹²⁸ Appellate Body Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 5.8 (quoting Appellate Body Report, *US – Zeroing (EC) (Article 21.5 – EC)*, para. 427).

¹²⁹ Appellate Body Report, *US – Tuna II (Mexico) (Article 21.5 – Mexico)*, para. 5.8 (quoting Appellate Body Report, *US – Zeroing (EC) (Article 21.5 – EC)*, para. 424).

¹³⁰ Panel Report, paras. 7.41 and 7.109.

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 analysis¹³⁸, 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

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.

¹³⁷ Appellate Body Reports, *US – Zeroing (EC) (Article 21.5 – EC)*, para. 427; *US – Upland Cotton (Article 21.5 – Brazil)*, para. 210.

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

¹³⁹ Appellate Body Reports, *Canada – Periodicals*, pp. 24-32, DSR 1997:1, pp. 469-476; *Australia – Salmon*, paras. 116-135.

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.¹⁴¹ 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.¹⁴²

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 "{a}dditionally".¹⁴³ 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.¹⁴⁴ 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.¹⁴⁵

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

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 elements¹⁵² 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. 27.

¹⁵⁰ United States' appellee's submission, para. 34.

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.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".¹⁵⁶ 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.¹⁵⁷ 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".¹⁵⁸ 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.¹⁵⁹

5.41. The R&D commissioned by USDOD through the RDT&E programme falls into two general categories.¹⁶⁰ 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).¹⁶¹ 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).¹⁶²

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" technologies¹⁶³, in the sense of technologies having both military and civil applications¹⁶⁴, were specific subsidies that caused adverse effects to the interests of the European Communities.¹⁶⁵ 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.¹⁶⁶

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.¹⁶⁷ 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

¹⁵⁵ 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).

¹⁵⁶ 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). (emphasis omitted by the Panel)

¹⁵⁷ Panel Report, para. 8.298 (quoting Original Panel Report, para. 7.1149; referring to Appellate Body Report, *US – Large Civil Aircraft (2nd complaint)*, paras. 605-606).

¹⁵⁸ Panel Report, para. 8.298.c (quoting Original Panel Report, para. 7.1142, in turn referring to *United States Code of Federal Regulations*, Title 32, Section 21.670).

¹⁵⁹ 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).

¹⁶⁰ Panel Report, para. 8.300.

¹⁶¹ Panel Report, para. 8.301 (quoting United States' first written submission to the Panel, para. 316). 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.

¹⁶² 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.

¹⁶³ 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)

¹⁶⁴ Original Panel Report, paras. 7.1116-7.1117.

¹⁶⁵ Original Panel Report, paras. 7.1111, 7.1116, and 7.1596.

¹⁶⁶ Original Panel Report, paras. 7.944-7.945.

¹⁶⁷ Original Panel Report, para. 7.970.

use of the US Government (or unrelated third parties).¹⁶⁸ Ultimately, the panel found that the work that Boeing performed under the USDOD procurement contracts was principally for the benefit of 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).¹⁶⁹ 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).¹⁷⁰

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.¹⁷¹ 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}".¹⁷² 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 NASA procurement contracts and the USDOD assistance instruments.¹⁷³ 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.¹⁷⁴ 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.¹⁷⁵ 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.¹⁷⁶

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.¹⁷⁷

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.¹⁷⁸ 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.¹⁷⁹ Concerning the USDOD assistance instruments, the Appellate Body held that the transactions

¹⁶⁸ Original Panel Report, paras. 7.978 and 7.1137.

¹⁶⁹ Original Panel Report, para. 7.1171.

¹⁷⁰ Original Panel Report, paras. 7.1027 and 7.1171.

¹⁷¹ Appellate Body Report, *US – Large Civil Aircraft (2nd complaint)*, para. 585.

¹⁷² Appellate Body Report, *US – Large Civil Aircraft (2nd complaint)*, para. 586 (quoting Appellate Body Reports, *China – Auto Parts*, para. 171). (emphasis original)

¹⁷³ Appellate Body Report, *US – Large Civil Aircraft (2nd complaint)*, para. 587.

¹⁷⁴ Appellate Body Report, *US – Large Civil Aircraft (2nd complaint)*, para. 587.

¹⁷⁵ Appellate Body Report, *US – Large Civil Aircraft (2nd complaint)*, para. 588.

¹⁷⁶ Appellate Body Report, *US – Large Civil Aircraft (2nd complaint)*, para. 589.

¹⁷⁷ Appellate Body Report, *US – Large Civil Aircraft (2nd complaint)*, para. 591.

¹⁷⁸ Appellate Body Report, *US – Large Civil Aircraft (2nd complaint)*, para. 597.

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.¹⁸⁰ 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.¹⁸¹

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).¹⁸² 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."¹⁸³ 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).¹⁸⁴ 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).¹⁸⁵ 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).¹⁸⁶ 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).¹⁸⁷

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.¹⁸⁸

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".¹⁸⁹ Ultimately,

¹⁸⁰ Appellate Body Report, *US – Large Civil Aircraft (2nd complaint)*, paras. 607-609.

¹⁸¹ Appellate Body Report, *US – Large Civil Aircraft (2nd complaint)*, para. 611.

¹⁸² Appellate Body Report, *US – Large Civil Aircraft (2nd complaint)*, para. 620 (referring to Original Panel Report, paras. 7.955 and 7.969-7.970).

¹⁸³ Appellate Body Report, *US – Large Civil Aircraft (2nd complaint)*, para. 620 (quoting Original Panel Report, para. 7.970). (emphasis omitted by the Appellate Body)

¹⁸⁴ Appellate Body Report, *US – Large Civil Aircraft (2nd complaint)*, fn 1298 to para. 620.

¹⁸⁵ Appellate Body Report, *US – Large Civil Aircraft (2nd complaint)*, paras. 622-624.

¹⁸⁶ Appellate Body Report, *US – Large Civil Aircraft (2nd complaint)*, para. 624.

¹⁸⁷ Appellate Body Report, *US – Large Civil Aircraft (2nd complaint)*, para. 624.

¹⁸⁸ European Union's appellant's submission, para. 51.

¹⁸⁹ Panel Report, para. 8.359.

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 interpretative 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).

¹⁹¹ Appellate Body Report, *US – Large Civil Aircraft (2nd complaint)*, para. 586 (quoting Appellate Body Reports, *China – Auto Parts*, para. 171).

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.

¹⁹⁵ Panel Report, paras. 8.378 and 8.437.

¹⁹⁶ Emphasis added.

contribution" on terms more favourable than those available in the market.¹⁹⁷ 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.¹⁹⁸

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".

5.2.1.1 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.¹⁹⁹ 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."²⁰⁰ 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 can not be said to be 'contributing' its intellectual property to a joint venture with DOD."²⁰¹ 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"²⁰², 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."²⁰³ Thus, "the non-reimbursed portion of Boeing's DOD-related IR&D expenditures should be seen as Boeing's contribution to the joint venture."²⁰⁴

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."²⁰⁵ 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."²⁰⁶ 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".²⁰⁷

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

¹⁹⁷ Appellate Body Report, *Canada – Aircraft*, para. 157.

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).

¹⁹⁹ European Union's appellant's submission, para. 52 (quoting Panel Report, para. 8.363).

²⁰⁰ European Union's appellant's submission, para. 52 (referring to Panel Report, para. 8.363). (emphasis original)

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 (referring to United States' first written submission to the Panel, paras. 464-466).

²⁰⁴ European Union's appellant's submission, para. 53 (referring to European Union's second written submission to the Panel, paras. 446 and 455; response to Panel question No. 16, para. 113).

²⁰⁵ United States' appellee's submission, para. 36 (quoting Original Panel Report, para. 7.1332). (emphasis original)

²⁰⁶ United States' appellee's submission, para. 36 (referring to 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

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.

²¹³ Panel Report, para. 8.363.

²¹⁴ Panel Report, para. 8.363.

²¹⁵ Panel Report, para. 8.363.

²¹⁶ Appellate Body Report, *US – Large Civil Aircraft (2nd complaint)*, para. 605.

resources (facilities, equipment, and employees) to the research project.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.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."²¹⁹ As we see it, the Panel did explain its rationale when stating that "{t}hese 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."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.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.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 "recreat{ing}" that data.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".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 R&D instruments towards LCA.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

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)

²¹⁸ European Union's appellant's submission, paras. 54-55.

²¹⁹ European Union's appellant's submission, para. 55. (emphasis original)

²²⁰ Panel Report, para. 8.363.

²²¹ United States' appellee's submission, para. 38.

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).

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", *Seattle Times*, 22 January 2006 (Panel Exhibit EU-333)).

²²⁴ European Union's appellant's submission, para. 60.

²²⁵ European Union's appellant's submission, para. 61 (referring to Appellate Body Report, *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.²²⁶ 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 USDOD 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 recogniz{es} 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 under the USDOD procurement contracts are consistent with the Panel's conclusion that such use is quite restricted and limited.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 USDOD 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 USDOD 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 USDOD 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)

²³² Panel Report, para. 8.367.

²³³ Panel Report, para. 8.368.

²³⁴ Panel Report, paras. 8.367-8.368.

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 "ha{d} 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 "{a}lthough 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

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.

²⁴¹ Panel Report, para. 8.368.

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.

²⁴⁵ Panel Report, para. 8.423.

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".²⁴⁸ 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.²⁴⁹

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."²⁵⁰ 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.²⁵¹ 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.²⁵²

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."²⁵³ 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.²⁵⁴ In particular,

²⁴⁸ Panel Report, para. 8.424.

²⁴⁹ Appellate Body Report, *US – Large Civil Aircraft (2nd complaint)*, para. 593.

²⁵⁰ Panel Report, para. 8.424. In defining the concept of "dual-use", the Panel similarly observed that the "DOD assistance instruments and procurement contracts fund R&D work to produce military technologies for military purposes, with the exception of DOD assistance instruments funded under RDT&E program elements that have the explicit objective of developing dual-use technologies." (Panel Report, para. 8.341)

²⁵¹ See Panel Report, para. 8.346.

²⁵² Panel Report, para. 8.425.

²⁵³ Panel Report, para. 8.423.

²⁵⁴ See Panel Report, para. 8.425.

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.²⁵⁵ 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.²⁵⁶ 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."²⁵⁷ 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'."²⁵⁸ The European Union refers to evidence demonstrating that "{w}hile 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."²⁵⁹ The European Union further refers to a news article, stating that "{i}nternational 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."²⁶⁰

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."²⁶¹ Moreover, according to the United States

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)

²⁶¹ United States' appellee's submission, para. 46 (referring to Boeing, Annual Form 10-K to the United States Securities and Exchange Commission for the year ended December 31, 2012 (Boeing 2012 10-K) (Panel Exhibit EU-407), p. 105). (emphasis original)

the European Union's assertions "address only the source of *revenues*, and do not establish that it was *Boeing* that sold military equipment to foreign purchasers".²⁶²

5.81. The Panel's statement in paragraph 8.368 of its Report that "DOD is Boeing's only customer for {military} technologies"²⁶³ is inaccurate, insofar as the evidence indicates that Boeing does make sales of military technologies to foreign governments.²⁶⁴ 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.²⁶⁵ 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".²⁶⁶ 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"²⁶⁷, and in concluding that the nature and purpose of the interaction between USDOD

²⁶² United States' appellee's submission, para. 47. (emphasis original)

²⁶³ Panel Report, para. 8.368.

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))

²⁶⁵ See Panel Report, paras. 8.338, 8.340, 8.405, and 8.422.

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)).

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, including²⁷¹:
 - 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

²⁶⁸ European Union's appellant's submission, para. 67 (quoting Panel Report, para. 8.364).

²⁶⁹ European Union's appellant's submission, para. 67 (referring to Panel Report, paras. 8.338-8.339, 8.341, 8.367, and 8.369).

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)).

²⁷³ European Union's appellant's submission, para. 69 (referring to European Union's first written submission to the Panel, para. 290, in turn quoting W. Cole, "The Value of Lessons Learned", *Boeing Frontiers Online*, December 2003-January 2004 (Panel Exhibit EU-268); D. Arkell, "Exponential Potential", *Boeing Frontiers Online*, September 2005 (Panel Exhibit EU-332); W.B. Scott, "Legacy of B-2 Bomber Innovations Apparent in J-UCAS and Other Programs", *Aviation Week & Space Technology*, 26 March 2006 (Panel Exhibit EU-334)).

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 opinions²⁷⁵ 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')"²⁷⁶; 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".²⁷⁷ 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".²⁷⁸

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.²⁷⁹ 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

²⁷⁵ As noted by the Panel, the European Union explained that its identification and discussion of the RDT&E programme elements that it considers "contribute to Boeing's LCA division" was assisted by Mr Richard Rumpf and CRA. CRA had been engaged by the European Communities in the original proceedings to estimate the amounts of RDT&E funding received by Boeing that could be considered "dual-use" RDT&E, in the sense of R&D that was "relevant" to both military and commercial aircraft. Mr Rumpf was engaged by the European Union in these compliance proceedings to estimate the amounts of funding provided by the RDT&E programme to Boeing for the fiscal years 2007 through 2012 "which support the development of technologies or methods that could benefit Boeing's commercial airplane division". Using a similar methodology to that employed by CRA in its 2006 Report, Mr Rumpf reviewed USDOD's Future Years Defense Program (FYDP) budget estimate statements for the fiscal years 2007 through 2013 to determine which RDT&E programme elements, and which projects and activities within those programme elements, funded "general aircraft" or "science and technology" R&D "that appeared to be dual-use to LCA". (Panel Report, paras. 7.86-7.87 (referring to 2006 CRA Report (Panel Exhibit EU-29) and Richard L. Rumpf and Robert J. Levinson, "United States Department of Defense Research, Development, Test & Evaluation ('RDT&E') Funding for the Boeing Company Applicable to Large Civil Aircraft: 2007-2012 Estimates", 12 March 2013 (Rumpf Report) (Panel Exhibit EU-23)))

²⁷⁶ European Union's appellant's submission, para. 70 (referring to European Union's second written submission to the Panel, para. 389, in turn referring to Rumpf Report (Panel Exhibit EU-23) (fn omitted)).

²⁷⁷ European Union's appellant's submission, para. 71 (referring to European Union's first written submission to the Panel, paras. 326-362; second written submission to the Panel, paras. 373-377; response to Panel question No. 31, paras. 190-195). According to the European Union, "DOD-funded patents owned by Boeing ... explicitly indicate that the patented technologies are applicable to civil aircraft." (Ibid., para. 73) Specifically, the European Union referred to the following Boeing's patents discussed before the Panel: United States Patent No. 5,698,316 (16 December 1997) (Panel Exhibit EU-362); United States Patent No. 8,376,337 (19 February 2013) (Panel Exhibit EU-378); United States Patent No. 8,376,338 (19 February 2013) (Panel Exhibit EU-379); United States Patent No. 8,366,050 (5 February 2013) (Panel Exhibit EU-380); United States Patent No. 8,352,486 (8 January 2013) (Panel Exhibit EU-381); United States Patent No. 8,194,239 (5 June 2012) (Panel Exhibit EU-382); United States Patent No. 7,667,830 (23 February 2010) (Panel Exhibit EU-383); United States Patent No. 8,042,767 (25 October 2011) (Panel Exhibit EU-385); United States Patent No. 8,016,650 (13 September 2011) (Panel Exhibit EU-386); United States Patent No. 7,861,411 (4 January 2011) (Panel Exhibit EU-388); United States Patent No. 7,773,885 (10 August 2010) (Panel Exhibit EU-389); United States Patent No. 7,841,152 (30 November 2010) (Panel Exhibit EU-390); United States Patent No. 7,347,083 (25 March 2008) (Panel Exhibit EU-394). (Ibid., para. 72 (referring to European Union's first written submission to the Panel, paras. 332, 345-348, 351-352, 354-356, and 360-361))

²⁷⁸ European Union's appellant's submission, para. 74 (quoting European Union's response to Panel question No. 29, para. 173).

²⁷⁹ United States' appellee's submission, para. 54.

USDOD procurement contracts would have civil applications²⁸⁰; (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 "{a}lthough 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 RDT&E 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".²⁹¹ 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."²⁹² 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.²⁹³ 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."²⁹⁴ 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.²⁹⁵

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.²⁹⁶ 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."²⁹⁷ 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."²⁹⁸ 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".²⁹⁹ 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*

²⁹¹ Panel Report, para. 8.343. (emphasis original)

²⁹² United States' appellee's submission, para. 59 (referring to United States' first written submission to the Panel, para. 372).

²⁹³ United States' appellee's submission, para. 59. See also United States' first written submission to the Panel, paras. 370-372.

²⁹⁴ European Union's appellant's submission, para. 76 (referring to European Union's response to Panel question No. 29, para. 174).

²⁹⁵ European Union's appellant's submission, para. 78 (referring to Panel Report, paras. 8.338-8.339, 8.341, and 8.422).

²⁹⁶ Panel Report, para. 8.364.

²⁹⁷ Panel Report, para. 8.364. (emphasis added)

²⁹⁸ Panel Report, para. 8.364. (emphasis added)

²⁹⁹ Panel Report, para. 8.367.

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.

³⁰² Panel Report, para. 8.361.

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 thereto.

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 commercialised 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'".³¹⁵ 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".³¹⁶ 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 commercialised 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

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.

³¹⁴ Panel Report, paras. 8.431-8.432.

³¹⁵ Panel Report, para. 8.433 (quoting U.S. Government Response to the EC-Commissioned Report "U.S. Government Support of the U.S. Commercial Aircraft Industry", March 1992 (Panel Exhibit EU-276), p. 13).

³¹⁶ Panel Report, para. 8.433.

³¹⁷ Panel Report, para. 8.433.

³¹⁸ Appellate Body Reports, *China – Auto Parts*, para. 178 (quoting Appellate Body Report, *US – Offset Act (Byrd Amendment)*, para. 259).

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 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. 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.

5.105. 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.³¹⁹ Panels have the discretion to address only those arguments that they deem necessary to resolve a particular claim³²⁰ and are not required to accord to factual evidence of the parties the same meaning and weight as do the parties.³²¹ At the same time, panels may not make affirmative findings that lack a basis in the evidence contained on the panel record.³²² 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)(i) 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.³²³ According to the European Union, "{t}he Panel's benefit findings therefore require consequential reversal."³²⁴

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

³¹⁹ Appellate Body Report, *Colombia – Textiles*, para. 5.18 (referring to Appellate Body Report, *Brazil – Retreaded Tyres*, para. 185).

³²⁰ Appellate Body Report, *EC – Poultry*, para. 135. See also Appellate Body Report, *EC – Fasteners (China)*, para. 511.

³²¹ Appellate Body Report, *Australia – Salmon*, para. 267.

³²² Appellate Body Report, *US – Carbon Steel*, para. 142 (referring to Appellate Body Report, *US – Wheat Gluten*, paras. 161-162).

³²³ European Union's appellant's submission, para. 86.

³²⁴ European Union's appellant's submission, para. 86.

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, "the 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

³²⁵ Panel Report, paras. 8.376-8.377.

³²⁶ Panel Report, para. 8.378.

³²⁷ Panel Report, para. 8.420.

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.

³³⁵ See e.g. Appellate Body Reports, *US – Gasoline*, p. 19, DSR 1996:I, pp. 18-19; *Canada – Periodicals*, p. 24, DSR 1997:I, p. 469; *Australia – Salmon*, paras. 117-119; *US – Large Civil Aircraft (2nd complaint)*, para. 1255.

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.

³³⁸ Panel Report, para. 8.363.

³³⁹ Panel Report, para. 8.362.

³⁴⁰ Panel Report, para. 8.361.

³⁴¹ Panel Report, paras. 8.364 and 8.367.

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 opinion³⁴⁵, the expertise and methodology on which the expert opinion relied³⁴⁶, 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.³⁵¹ 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.³⁵² 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.³⁵³ 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.³⁵⁴

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.³⁵⁵ 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.³⁵⁶

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 measure³⁵⁹ 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.

³⁵⁸ Original Panel Report, paras. 7.1379-7.1385, 7.1406, and 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).

³⁶² Original Panel Report, para. 7.1380 (referring to Panel Report, *US – FSC*, para. 8.1(a); Appellate Body Report, *US – FSC*, paras. 177(a) and 178). See also Panel Report, para. 8.571.

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.

³⁶⁶ Panel Report, *US – FSC (Article 21.5 – EC II)*, para. 2.15.

³⁶⁷ Original Panel Report, para. 7.1384.

³⁶⁸ Original Panel Report, para. 7.1384.

³⁶⁹ Original Panel Report, paras. 7.1405-7.1406 and 7.1463-7.1464.

³⁷⁰ Original Panel Report, para. 7.1833; Appellate Body Report, *US – Large Civil Aircraft (2nd complaint)*, para. 1350(d)(iii)(B).

³⁷¹ Panel Report, para. 8.573 and fn 1758 thereto (referring to Tax Increase Prevention and Reconciliation Act of 2005, Public Law No. 109-222, 120 Stat. 345, 17 May 2006, Section 513 (TIPRA) (Panel Exhibit EU-405)).

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 2003.³⁷³ 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 2006.³⁷⁵ 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.³⁷⁹ 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)(ii) 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.³⁸² 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.

³⁷⁸ Panel Report, para. 8.578 (referring to European Union's first written submission to the Panel, para. 394, in turn quoting Office of Chief Counsel, Internal Revenue Service "Qualification for FSC benefits and ETI exclusions" (Memorandum No. AM 2007-001), 22 December 2006 (2006 IRS Memorandum) (Panel Exhibit EU-406), p. 6).

³⁷⁹ Panel Report, para. 8.579 (referring to European Union's first written submission to the Panel, paras. 394-395).

³⁸⁰ Panel Report, para. 8.580 (referring to European Union's first written submission to the Panel, para. 396; International Trade Resources Report, *Boeing FSC/ETI Tax Exemptions Post-2011* (13 December 2012) (ITR FSC/ETI Report) (Panel Exhibit EU-24), attachment 1).

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.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.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 2006.³⁸⁵ 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.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.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 2006.³⁸⁸ Accordingly, there was no determination by the original panel as to whether Boeing continued to use FSC/ETI tax concessions after 2006.³⁸⁹

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 2006.³⁹⁰ 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.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.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.³⁹³ In addition, the Panel found that the United States' evidence constituted a *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.³⁹⁴

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)).

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).

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).

³⁸⁶ United States' first written submission to the Panel, para. 492.

³⁸⁷ Panel Report, para. 8.588.

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

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

³⁹⁰ Panel Report, para. 8.593.

³⁹¹ Panel Report, para. 8.601.

³⁹² Panel Report, paras. 8.596-8.597 and 8.600-8.601.

³⁹³ Panel Report, para. 8.606.

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.

³⁹⁶ European Union's appellant's submission, para. 105 (referring to Panel Report, paras. 8.596-8.612).

³⁹⁷ European Union's appellant's submission, paras. 105 (referring to Panel Report, paras. 8.596-8.612).

³⁹⁸ United States' appellee's submission, para. 96.

³⁹⁹ Fn omitted.

⁴⁰⁰ Oxford English Dictionary online, definition of "revenue", <http://www.oed.com/view/Entry/164734>.

⁴⁰¹ Appellate Body Report, *US – FSC*, para. 90.

⁴⁰² Oxford English Dictionary online, definition of "collect", <http://www.oed.com/view/Entry/36263>.

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, "evidence 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, "in 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

⁴⁰⁴ Appellate Body Report, *US – Large Civil Aircraft (2nd complaint)*, para. 813 (quoting Appellate Body Report, *US – FSC*, para. 90).

⁴⁰⁵ Emphasis added.

⁴⁰⁶ See Oxford English Dictionary online, definition of "otherwise", <http://www.oed.com/view/Entry/133247>. See also Panel Report, *Canada – Autos*, para. 10.159.

⁴⁰⁷ Oxford English Dictionary online, definition of "due", <http://www.oed.com/view/Entry/58238>. See also Panel Report, *Canada – Autos*, para. 10.159.

⁴⁰⁸ Appellate Body Report, *US – FSC (Article 21.5 – EC)*, para. 88.

⁴⁰⁹ Appellate Body Report, *US – FSC (Article 21.5 – EC)*, para. 88 (referring to Appellate Body Report, *US – FSC*, para. 90).

⁴¹⁰ Appellate Body Report, *US – Large Civil Aircraft (2nd complaint)*, para. 808 (referring to Appellate Body Report, *US – FSC (Article 21.5 – EC)*, para. 89, in turn referring to Appellate Body Report, *US – FSC*, para. 90).

⁴¹¹ Appellate Body Report, *US – Large Civil Aircraft (2nd complaint)*, para. 808 (referring to Appellate Body Report, *US – FSC (Article 21.5 – EC)*, para. 89, in turn referring to Appellate Body Report, *US – FSC*, para. 90).

basis for comparing the fiscal treatment of the income subject to the contested measure and the fiscal treatment of certain other income."⁴¹²

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.⁴¹³ 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.⁴¹⁴ As a second step, a panel should identify a benchmark for comparison, that is, the tax treatment of comparable income of comparably situated taxpayers.⁴¹⁵ Identifying a benchmark involves an examination of the structure of the domestic tax regime and its organizing principles.⁴¹⁶ 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.⁴¹⁷ 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.⁴¹⁸

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.⁴¹⁹ 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.⁴²⁰ 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."⁴²¹ 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.⁴²²

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.⁴²³

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.⁴²⁴ The United States also

⁴¹² Appellate Body Report, *US – Large Civil Aircraft (2nd complaint)*, para. 809 (quoting Appellate Body Report, *US – FSC (Article 21.5 – EC)*, para. 92).

⁴¹³ Appellate Body Report, *US – Large Civil Aircraft (2nd complaint)*, para. 812.

⁴¹⁴ Appellate Body Report, *US – Large Civil Aircraft (2nd complaint)*, para. 812.

⁴¹⁵ Appellate Body Report, *US – Large Civil Aircraft (2nd complaint)*, para. 813.

⁴¹⁶ Appellate Body Report, *US – Large Civil Aircraft (2nd complaint)*, para. 813.

⁴¹⁷ Appellate Body Report, *US – Large Civil Aircraft (2nd complaint)*, para. 814.

⁴¹⁸ Appellate Body Report, *US – Large Civil Aircraft (2nd complaint)*, para. 814.

⁴¹⁹ European Union's appellant's submission, para. 128 (referring to Panel Report, paras. 8.596-8.601). See also *ibid.*, para. 141.

⁴²⁰ European Union's appellant's submission, para. 128 (referring to Appellate Body Report, *US – FSC*, para. 90; Panel Report, *US – Tax Incentives*, paras. 7.44-7.55).

⁴²¹ European Union's appellant's submission, para. 131 (quoting Appellate Body Report, *US – FSC*, para. 90).

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.

⁴²⁹ Panel Report, para. 8.601.

⁴³⁰ Panel Report, paras. 8.596-8.597, 8.599-8.600, and 8.606.

⁴³¹ Appellate Body Report, *US – Large Civil Aircraft (2nd complaint)*, para. 813 (referring to Appellate Body Report, *US – FSC*, para. 90).

⁴³² Panel Report, para. 8.601.

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.⁴³³ 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.⁴³⁴

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.⁴³⁵ 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 panel⁴³⁶ and/or facts on the Panel record, which are uncontested by the disputing parties⁴³⁷, provide a sufficient factual basis for doing so.⁴³⁸ 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.⁴³⁹

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.⁴⁴⁰ 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.⁴⁴¹ 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.⁴⁴²

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".⁴⁴³ Furthermore, the Appellate Body noted that the phrases "shall take" and "shall withdraw" indicate

⁴³³ European Union's appellant's submission, para. 141.

⁴³⁴ United States' appellee's submission, para. 107.

⁴³⁵ European Union's appellant's submission, para. 141.

⁴³⁶ See e.g. Appellate Body Reports, *US – Gasoline*, p. 19, DSR 1996:I, pp. 18-19; *Canada – Periodicals*, p. 24, DSR 1997:I, p. 469; *Australia – Salmon*, paras. 117-119; *US – Large Civil Aircraft (2nd complaint)*, para. 1255.

⁴³⁷ 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.

⁴³⁸ 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.

⁴³⁹ See Appellate Body Reports, *EC and certain member States – Large Civil Aircraft (Article 21.5 – US)*, para. 5.362; *US – Upland Cotton (Article 21.5 – Brazil)*, para. 236.

⁴⁴⁰ Appellate Body Report, *EC and certain member States – Large Civil Aircraft (Article 21.5 – US)*, para. 5.362.

⁴⁴¹ Appellate Body Report, *EC and certain member States – Large Civil Aircraft (Article 21.5 – US)*, para. 5.368.

⁴⁴² Appellate Body Report, *EC and certain member States – Large Civil Aircraft (Article 21.5 – US)*, para. 5.364.

⁴⁴³ Appellate Body Report, *US – Upland Cotton (Article 21.5 – Brazil)*, para. 237.

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".⁴⁴⁴ However, this does not suggest that an implementing Member has a compliance obligation with respect to a subsidy or subsidies that no longer exist.⁴⁴⁵ Rather, it reflects that the obligation under Article 7.8 extends to recurring annual payments "maintained" by the respondent beyond the original reference period.⁴⁴⁶ 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.⁴⁴⁷

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".⁴⁴⁸ 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."⁴⁴⁹

5.163. 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 2006.⁴⁵⁰ 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.⁴⁵¹ 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

⁴⁴⁴ Appellate Body Report, *US – Upland Cotton (Article 21.5 – Brazil)*, para. 236.

⁴⁴⁵ Appellate Body Report, *EC and certain member States – Large Civil Aircraft (Article 21.5 – US)*, para. 5.374.

⁴⁴⁶ Appellate Body Report, *EC and certain member States – Large Civil Aircraft (Article 21.5 – US)*, para. 5.374 (referring to Appellate Body Report, *US – Upland Cotton (Article 21.5 – Brazil)*, para. 237).

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)).

⁴⁵⁰ 2006 IRS Memorandum (Panel Exhibit EU-406), p. 6.

⁴⁵¹ European Union's first written submission to the Panel, paras. 394-397.

concessions.⁴⁵² The United States also confirmed in these panel proceedings that no guidance superseding the 2006 IRS Memorandum had been issued.⁴⁵³

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.⁴⁵⁴ The United States, however, asserts that the 2006 IRS Memorandum does not set out a "binding interpretation" of the TIPRA.⁴⁵⁵

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.⁴⁵⁶ 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 concession, 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, 2006.⁴⁵⁷

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

⁴⁵² 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)).

⁴⁵³ Panel Report, para. 8.603 (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. 46, para. 116).

⁴⁵⁴ European Union's appellant's submission, para. 142.

⁴⁵⁵ The United States points out that the 2006 IRS Memorandum states that it "may not be used or cited as precedent". (United States' appellee's submission, para. 107)

⁴⁵⁶ In this respect, we note that, pursuant to Article 17.6 of the DSU, appeals shall be limited to issues of law covered in the panel report and legal interpretations developed by the panel. As observed by the Appellate Body in *EC – Hormones*, the "determination of the credibility and weight properly to be ascribed to (that is, the appreciation of) a given piece of evidence is part and parcel of the fact finding process and is, in principle, left to the discretion of a panel as the trier of facts." (Appellate Body Report, *EC – Hormones*, para. 132)

⁴⁵⁷ 2006 IRS Memorandum (Panel Exhibit EU-406), p. 6. (emphasis original)

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.⁴⁵⁸

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 2006.⁴⁵⁹ 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 2006.⁴⁶⁰ 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.⁴⁶¹

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.⁴⁶² 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)).

⁴⁶² Panel Report, paras. 8.606-8.610.

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^{*} 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.^{**} 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.

{*fn original}² 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.

{fn original}**³ 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.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."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).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

⁴⁷⁰ Appellate Body Report, *US – Anti-Dumping and Countervailing Duties (China)*, para. 366.

⁴⁷¹ Appellate Body Report, *US – Large Civil Aircraft (2nd complaint)*, para. 877.

⁴⁷² Appellate Body Report, *US – Anti-Dumping and Countervailing Duties (China)*, para. 370.

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.

⁴⁷⁴ Appellate Body Report, *US – Large Civil Aircraft (2nd complaint)*, para. 878.

⁴⁷⁵ Oxford English Dictionary online, definition of "limited", <http://www.oed.com/view/Entry/108491>.

⁴⁷⁶ Appellate Body Report, *US – Carbon Steel (India)*, para. 4.377.

⁴⁷⁷ Appellate Body Report, *US – Carbon Steel (India)*, para. 4.375.

⁴⁷⁸ See European Union's appellant's submission, paras. 232 and 262.

⁴⁷⁹ Appellate Body Report, *US – Anti-Dumping and Countervailing Duties (China)*, para. 370.

⁴⁸⁰ Appellate Body Report, *US – Large Civil Aircraft (2nd complaint)*, para. 876.

⁴⁸¹ See e.g. Appellate Body Report, *US – Countervailing Measures (China)*, para. 4.146.

⁴⁸² Appellate Body Report, *US – Large Civil Aircraft (2nd complaint)*, para. 877.

⁴⁸³ Appellate Body Report, *US – Countervailing Measures (China)*, para. 4.146.

programme in the context of assessing *de facto* specificity."⁴⁸⁴ 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).⁴⁸⁵ 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).⁴⁸⁶ 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.⁴⁸⁷ The Appellate Body has observed that "enterprise" may be defined as "{a} business firm, a company".⁴⁸⁸ Furthermore, we note that the term "enterprise" may refer to "{a} commercial or industrial undertaking, *esp.* one involving risk; a firm, company, or business".⁴⁸⁹ In turn, "industry" signifies "{a} particular form or branch of productive labour; a trade, a manufacture"⁴⁹⁰; "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."⁴⁹¹ 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.⁴⁹²

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}onstituting the main ... or strongest element; prevailing".⁴⁹³ As we see it, in the context of Article 2.1(c), "predominance" may relate to the *number* of certain enterprises using the subsidy,

⁴⁸⁴ Appellate Body Report, *US – Countervailing Measures (China)*, para. 4.149. Indeed, by its very nature, the analysis under Article 2.1(c) that seeks to determine whether the subsidy at issue is *de facto* specific "normally focuses on evidence other than of the kind found in written documents or express acts or pronouncements by a granting authority". (Ibid., para. 4.146)

⁴⁸⁵ This was the case before the panel and the Appellate Body in *US – Carbon Steel (India)*. (See Appellate Body Report, *US – Carbon Steel (India)*, para. 4.384)

⁴⁸⁶ Appellate Body Report, *US – Large Civil Aircraft (2nd complaint)*, para. 877.

⁴⁸⁷ Appellate Body Report, *US – Washing Machines*, para. 5.220. The Appellate Body has noted that the *chapeau* of Article 2.1 "offers interpretative guidance" with regard to the scope and meaning of the rest of Article 2. (Appellate Body Report, *US – Anti-Dumping and Countervailing Duties (China)*, para. 366)

⁴⁸⁸ Appellate Body Report, *US – Anti-Dumping and Countervailing Duties (China)*, para. 373 (quoting *Shorter Oxford English Dictionary*, 6th edn, A. Stevenson (ed.) (Oxford University Press, 2007), Vol. 1, p. 841).

⁴⁸⁹ Oxford English Dictionary online, definition of "enterprise", <http://www.oed.com/view/Entry/62843>.

⁴⁹⁰ Appellate Body Report, *US – Anti-Dumping and Countervailing Duties (China)*, para. 373 (quoting *Shorter Oxford English Dictionary*, 6th edn, A. Stevenson (ed.) (Oxford University Press, 2007), Vol. 1, p. 1371).

⁴⁹¹ Appellate Body Report, *US – Anti-Dumping and Countervailing Duties (China)*, para. 373 (quoting Panel Report, *US – Upland Cotton*, para. 7.1142). The understanding of "industry" by reference to the producers of a particular product is also consistent with Article 16.1 of the SCM Agreement, which defines "domestic industry" as "the domestic producers as a whole of the like products". (Ibid., fn 294 to para. 373)

⁴⁹² Appellate Body Report, *US – Anti-Dumping and Countervailing Duties (China)*, para. 373 (quoting Panel Report, *US – Upland Cotton*, para. 7.1142).

⁴⁹³ Oxford English Dictionary online, definition of "predominant", <http://www.oed.com/view/Entry/149890>.

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".⁴⁹⁴ 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)".⁴⁹⁵ 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.⁴⁹⁶

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"⁴⁹⁷ (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).⁴⁹⁸ 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.⁴⁹⁹ 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.⁵⁰⁰

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).⁵⁰¹ 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-

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.

⁴⁹⁸ European Union's appellant's submission, para. 145 (quoting Panel Report, para. 8.634).

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 (referring 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.

⁵¹⁰ Panel Report, para. 8.636.

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".⁵¹³ 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 2012.⁵¹⁴

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".⁵¹⁵ 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."⁵¹⁶

5.192. As noted above, the Appellate Body has stated that "disproportionality" is a relational concept.⁵¹⁷ 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.⁵¹⁸ 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.⁵¹⁹ 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

⁵¹³ European Union's appellant's submission, paras. 173 and 181 (quoting Panel Report, para. 8.634).
(fn omitted)

⁵¹⁴ European Union's appellant's submission, para. 181 (quoting Panel Report, para. 8.634).

⁵¹⁵ United States' appellee's submission, para. 112.

⁵¹⁶ United States' appellee's submission, para. 113. (emphasis original)

⁵¹⁷ Appellate Body Report, *US – Large Civil Aircraft (2nd complaint)*, para. 879.

⁵¹⁸ Appellate Body Report, *US – Anti-Dumping and Countervailing Duties (China)*, paras. 370-371.

⁵¹⁹ Appellate Body Report, *US – Countervailing Measures (China)*, paras. 4.145-4.146.

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.⁵²⁵ 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.⁵²⁶ 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.⁵²⁷ 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".⁵²⁸ 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."⁵²⁹ 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."⁵³⁰ Furthermore, Boeing announced that it would close all of its Wichita operations by the end of 2013.⁵³¹ While the Panel did

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)

⁵²⁷ Panel Report, para. 8.365.

⁵²⁸ Panel Report, para. 8.614 (quoting United States' Compliance Communication, para. 10).

⁵²⁹ Panel Report, para. 8.639.

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.⁵³² 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."⁵³³

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*"⁵³⁴, 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)".⁵³⁵ 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.⁵³⁶ 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."⁵³⁷ 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

⁵³² Panel Report, para. 8.636.

⁵³³ Panel Report, para. 8.637.

⁵³⁴ Panel Report, para. 8.637. (emphasis added)

⁵³⁵ Appellate Body Report, *US – Large Civil Aircraft (2nd complaint)*, para. 879. (emphasis added)

⁵³⁶ Appellate Body Report, *US – Large Civil Aircraft (2nd complaint)*, para. 879.

⁵³⁷ Panel Report, para. 8.628.

Wichita economy".⁵³⁸ On this basis, the Appellate Body concluded that the actual distribution of the subsidy deviates materially from its expected distribution.⁵³⁹

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.⁵⁴⁰ 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 "the 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"⁵⁴¹ 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".⁵⁴² 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.⁵⁴³ According to the European Union, "in 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"⁵⁴⁴ that requires consideration of the "whole" subsidy programme when assessing whether disproportionately large amounts of subsidy have been granted to certain enterprises.⁵⁴⁵ 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."⁵⁴⁶

5.213. The United States considers that the European Union failed to establish that any deviation from the reasoning of the original panel occurred.⁵⁴⁷ 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

⁵³⁸ Appellate Body Report, *US – Large Civil Aircraft (2nd complaint)*, para. 884.

⁵³⁹ Appellate Body Report, *US – Large Civil Aircraft (2nd complaint)*, paras. 883-884.

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)

⁵⁴² Panel Report, para. 8.637.

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).

⁵⁴⁶ European Union's appellant's submission, para. 193 (quoting Appellate Body Report, *US – Softwood Lumber VI (Article 21.5 – Canada)*, para. 103). (emphasis omitted)

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'".⁵⁴⁸

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.⁵⁴⁹ 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.⁵⁵⁰

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.⁵⁵¹ 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."⁵⁵² 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."⁵⁵³ However, the United States had not provided evidence explaining why Boeing and Spirit had received over two thirds of the subsidy's benefits.⁵⁵⁴

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.⁵⁵⁵

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.)

⁵⁵³ Appellate Body Report, *US – Large Civil Aircraft (2nd complaint)*, para. 887.

⁵⁵⁴ Appellate Body Report, *US – Large Civil Aircraft (2nd complaint)*, paras. 886-887.

⁵⁵⁵ Appellate Body Report, *US – Large Civil Aircraft (2nd complaint)*, para. 879.

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 "even 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, *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.

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, *US – Large Civil Aircraft (2nd complaint)*, para. 883.

⁵⁵⁷ Appellate Body Report, *US – Large Civil Aircraft (2nd complaint)*, para. 884.

⁵⁵⁸ Appellate Body Report, *US – Large Civil Aircraft (2nd complaint)*, para. 883.

⁵⁵⁹ See Appellate Body Report, *US – Large Civil Aircraft (2nd 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.⁵⁶⁰ 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".⁵⁶¹ 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).⁵⁶² 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.⁵⁶³

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.⁵⁶⁴

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.⁵⁶⁵ 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;

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.

⁵⁶⁴ Panel Report, para. 8.762 (quoting European Union's panel request, para. 24).

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* (Panel 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) (Panel 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. 585; 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 Budget and Control Board regarding a Freedom of Information Act Request (Panel Exhibit EU-490), p. 1). 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 Budget and Control Board regarding a Freedom of Information Act Request (Panel Exhibit EU-490), p. 1).

⁵⁷⁶ Panel Report, para. 8.839.

subsidy programme in issue is mainly or most frequently used by 'certain enterprises'".⁵⁷⁷ 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.⁵⁷⁸ 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".⁵⁷⁹

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).⁵⁸⁰ 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.⁵⁸¹

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".⁵⁸² 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".⁵⁸³

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.⁵⁸⁴

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,

⁵⁷⁷ Panel Report, para. 8.840 (quoting Original Panel Report, paras. 7.746-7.747).

⁵⁷⁸ Panel Report, para. 8.840 (referring to European Union's first written submission to the Panel, para. 585 and fn 1377 thereto).

⁵⁷⁹ Panel Report, para. 8.840.

⁵⁸⁰ Panel Report, para. 8.841.

⁵⁸¹ Panel Report, para. 8.843.

⁵⁸² European Union's appellant's submission, para. 231.

⁵⁸³ European Union's appellant's submission, para. 226.

⁵⁸⁴ United States' appellee's submission, para. 129.

fewer than three".⁵⁸⁵ 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.⁵⁸⁶ In addition, EDBs had been issued to certain public entities, namely the City of Greenville, the City of Myrtle Beach, and Trident Technical College.⁵⁸⁷ 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".⁵⁸⁸ 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".⁵⁸⁹

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.⁵⁹⁰ In this regard, Section 11-41-40 of the South Carolina Code provides that EDBs can be used to fund financing for infrastructure.⁵⁹¹ 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.⁵⁹² 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 {US\$400 million} is invested in the project by the sponsor and at least {400} new jobs are created at the project by the sponsor".⁵⁹³

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 *de facto* 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

⁵⁸⁵ European Union's appellant's submission, para. 226.

⁵⁸⁶ 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)).

⁵⁸⁷ Panel Report, para. 8.838 (referring to 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).

⁵⁸⁸ Panel Report, para. 8.839.

⁵⁸⁹ Panel Report, para. 8.839.

⁵⁹⁰ Panel Report, para. 8.830.

⁵⁹¹ 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)

⁵⁹² 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)

⁵⁹³ 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 US\$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 Development and Incentive Agreement (2006) (Panel Exhibit EU-550), Exhibit B; Douglas P. Woodward & 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"⁵⁹⁸, the Panel has not implicitly interpreted the term "limited number" as "one" or "fewer than three".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."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".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.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.

⁵⁹⁸ Panel Report, para. 8.839.

⁵⁹⁹ European Union's appellant's submission, para. 226.

⁶⁰⁰ European Union's appellant's submission, para. 228.

⁶⁰¹ Panel Report, para. 8.842.

⁶⁰² European Union's appellant's submission, para. 228.

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.⁶⁰³ Since public entities do not qualify as "certain enterprises", they should be omitted from the specificity analysis.⁶⁰⁴ 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.⁶⁰⁵ 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.⁶⁰⁶ 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 2.1.⁶⁰⁷

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)".⁶⁰⁸ 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.⁶⁰⁹ 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"⁶¹⁰, "industry" signifies "{a} particular form or branch of productive labour; a trade, a manufacture".⁶¹¹ 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

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.

⁶¹⁰ Appellate Body Report, *US – Anti-Dumping and Countervailing Duties (China)*, para. 373 (quoting *Shorter Oxford English Dictionary*, 6th edn, A. Stevenson (ed.) (Oxford University Press, 2007), Vol. 1, p. 841).

⁶¹¹ Appellate Body Report, *US – Anti-Dumping and Countervailing Duties (China)*, para. 373 (quoting *Shorter Oxford English Dictionary*, 6th edn, A. Stevenson (ed.) (Oxford University Press, 2007), Vol. 1, p. 1371).

jurisdiction of the granting authority"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.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.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.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.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)."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 therefore 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."⁶¹⁸ 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."⁶¹⁹ 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."⁶²⁰ 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).⁶²¹

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".⁶²² The United States

⁶¹⁸ Appellate Body Report, *EC and certain member States – Large Civil Aircraft*, para. 949.

⁶¹⁹ Panel Report, para. 8.839.

⁶²⁰ Panel Report, para. 8.840.

⁶²¹ See Panel Report, para. 8.843.

⁶²² European Union's appellant's submission, paras. 240-241.

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 "d[id] 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 enterprises⁶²⁸

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.

⁶²⁶ Panel Report, para. 8.840 (quoting Original Panel Report, para. 7.746; referring to *ibid.*, para. 7.747).

⁶²⁷ Panel Report, para. 8.840.

⁶²⁸ Panel Report, para. 8.840. (fn omitted)

considering the other 'factors'."⁶²⁹ 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.⁶³⁰

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 "one 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

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.

⁶³³ Panel Report, para. 8.840.

⁶³⁴ Appellate Body Report, *US – Large Civil Aircraft (2nd complaint)*, para. 877.

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, "the 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 "data 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}

⁶³⁵ We note that the Panel appears to have failed to reflect in its conclusions in paragraphs 8.1077 and 11.7.c of the Panel Report its finding in paragraph 8.843 that the European Union had failed to establish that the subsidy provided by South Carolina through EDBs is specific within the meaning of Article 2.1. Therefore, in our finding above, we are not identifying a specific paragraph from the Panel's Conclusions and Recommendations section.

⁶³⁶ European Union's appellant's submission, para. 253.

⁶³⁷ European Union's appellant's submission, para. 253.

⁶³⁸ United States' appellee's submission, para. 133.

⁶³⁹ United States' appellee's submission, para. 134.

⁶⁴⁰ European Union's appellant's submission, para. 261.

⁶⁴¹ European Union's appellant's submission, para. 262 (referring to Panel Report, paras. 8.687, 8.765, and 8.838).

(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

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.⁶⁴⁴ 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.⁶⁴⁵

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.⁶⁴⁶ 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.⁶⁴⁷

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."⁶⁴⁸ Pursuant to this authority, Charleston County and

⁶⁴⁴ Panel Report, paras. 8.931 and 11.7.c.vii.

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)).

⁶⁴⁸ Panel Report, para. 8.913.

Colleton County jointly established the Charleston-Colleton MCIP.⁶⁴⁹ The territory of this MCIP was subsequently extended in order to include Boeing's production facilities in South Carolina.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.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.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.⁶⁵³ The Panel found that the European Union had failed to establish that the MCIP subsidy is specific within the meaning of those provisions.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 geographic{al} region within the jurisdiction of the granting authority".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 2.2.⁶⁵⁶

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.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.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 Agreement⁶⁵⁹; and (ii) an industrial park or economic development zone could constitute such a region.⁶⁶⁰ The Panel further observed that when a subsidy is provided only to enterprises located within a region that has a "fixed geographic

⁶⁴⁹ Panel Report, para. 8.913 (referring to United States' first written submission to the Panel, para. 572).

⁶⁵⁰ Panel Report, para. 8.913 (referring to Charleston County Council Ordinance 1475 (5 December 2006) (Panel Exhibit EU-555); Inducement and Millage Rate Agreement between Charleston County and Project Emerald (21 December 2004) (Panel Exhibit EU-553), p. 4; Charleston County Ordinance 1626 (2 February 2010) (Panel Exhibit EU-516), Section 2; Fee Agreement by and between Charleston County, South Carolina, and The Boeing Company (1 December 2010) (Boeing FILOT Agreement) (Panel Exhibit EU-470), Section 5.3).

⁶⁵¹ Panel Report, paras. 8.912-8.913.

⁶⁵² Panel Report, paras. 8.920-8.921.

⁶⁵³ Panel Report, paras. 8.923, 8.926, and 8.929.

⁶⁵⁴ Panel Report, paras. 8.925, 8.928, 8.931, and 8.933.

⁶⁵⁵ European Union's first written submission to the Panel, paras. 640 and 719.

⁶⁵⁶ Panel Report, para. 8.929 (referring to European Union's first written submission to the Panel, paras. 640 and 719; second written submission to the Panel, para. 682).

⁶⁵⁷ Panel Report, para. 8.930 (referring to United States' first written submission to the Panel, para. 643).

⁶⁵⁸ Panel Report, para. 8.930 (referring to United States' second written submission to the Panel, para. 612).

⁶⁵⁹ Panel Report, para. 8.931 (referring to Panel Report, *US – Anti-Dumping and Countervailing Duties (China)*, paras. 9.143-9.144).

⁶⁶⁰ Panel Report, para. 8.931 (referring to Panel Reports, *US – Anti-Dumping and Countervailing Duties (China)*, paras. 9.159 and 9.162; *US – Countervailing Measures (China)*, para. 7.352).

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.

⁶⁶² 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.

⁶⁶⁸ European Union's appellant's submission, para. 279 (quoting Panel Report, para. 8.931). See also *ibid.*, paras. 285-288.

⁶⁶⁹ European Union's appellant's submission, paras. 288-289.

⁶⁷⁰ European Union's appellant's submission, para. 286 (quoting Panel Report, para. 8.931).

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

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.

⁶⁸⁰ United States' appellee's submission, para. 142 (quoting Appellate Body Report, *US – Washing Machines*, para. 5.229).

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).

⁶⁸⁵ Appellate Body Report, *US – Washing Machines*, paras. 5.213 and 5.222.

limits, to set bounds to", "to bound, restrict".⁶⁸⁶ 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.⁶⁸⁷ 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.⁶⁸⁸

5.300. The *chapeau* of Article 2.1 offers interpretative guidance with regard to the scope and meaning of the rest of Article 2⁶⁸⁹, 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.⁶⁹⁰ 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.⁶⁹¹ 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.⁶⁹² 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"⁶⁹³, while "geographical" denotes that something

⁶⁸⁶ Oxford English Dictionary online, definition of "limit", <http://www.oed.com/view/Entry/108478>.

⁶⁸⁷ Appellate Body Report, *US – Anti-Dumping and Countervailing Duties (China)*, para. 373 (quoting Panel Report, *US – Upland Cotton*, para. 7.1142).

⁶⁸⁸ Appellate Body Report, *US – Anti-Dumping and Countervailing Duties (China)*, para. 373 (quoting Panel Report, *US – Upland Cotton*, para. 7.1142).

⁶⁸⁹ Appellate Body Report, *US – Anti-Dumping and Countervailing Duties (China)*, para. 366.

⁶⁹⁰ Appellate Body Report, *US – Washing Machines*, paras. 5.213 and 5.222.

⁶⁹¹ Appellate Body Report, *US – Washing Machines*, para. 5.222 (quoting Panel Report, *US – Washing Machines*, para. 7.270, in turn quoting *The New Shorter Oxford English Dictionary on Historical Principles*, 4th edn, L. Brown (ed.) (Clarendon Press, 1993), Vol. 1, p. 1614).

⁶⁹² Appellate Body Report, *US – Washing Machines*, para. 5.222. See also Panel Report, *US – Washing Machines*, para. 7.270.

⁶⁹³ Oxford English Dictionary online, definition of "region", <http://www.oed.com/view/Entry/161281>.

is "considered or defined in relation to a particular place, area, or region".⁶⁹⁴ 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.⁶⁹⁵

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.⁶⁹⁶ As observed by the Appellate Body in *US – Washing Machines*, certain aspects of the meaning of the verb "designate" – such as "specify" and "{c}all 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.⁶⁹⁷ 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.⁶⁹⁸

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.⁶⁹⁹

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 Agreement⁷⁰⁰; and (ii) an industrial park or economic development zone could constitute such a region.⁷⁰¹ 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.⁷⁰² 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.⁷⁰³ 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.⁷⁰⁴ Thus, there is an explicit limitation on access to the MCIP subsidy based on the location of the

⁶⁹⁴ Oxford English Dictionary online, definition of "geographical", <http://www.oed.com/view/Entry/77754>.

⁶⁹⁵ Panel Report, *US – Anti-Dumping and Countervailing Duties (China)*, paras. 9.140-9.144.

⁶⁹⁶ Appellate Body Report, *US – Washing Machines*, para. 5.229 (quoting Panel Report, *US – Washing Machines*, para. 7.280).

⁶⁹⁷ Appellate Body Report, *US – Washing Machines*, para. 5.229 (referring to Panel Report, *US – Washing Machines*, para. 7.280).

⁶⁹⁸ Appellate Body Report, *US – Washing Machines*, para. 5.229.

⁶⁹⁹ Appellate Body Report, *US – Washing Machines*, para. 5.229.

⁷⁰⁰ Panel Report, para. 8.931 (referring to Panel Report, *US – Anti-Dumping and Countervailing Duties (China)*, paras. 9.143-9.144).

⁷⁰¹ Panel Report, para. 8.931 (referring to Panel Reports, *US – Anti-Dumping and Countervailing Duties (China)*, paras. 9.159 and 9.162; *US – Countervailing Measures (China)*, para. 7.352).

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.⁷⁰⁵ 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.⁷⁰⁶ 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.⁷⁰⁷

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.⁷⁰⁸

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

⁷⁰⁵ Panel Report, para. 8.931.

⁷⁰⁶ Panel Report, para. 8.931.

⁷⁰⁷ European Union's appellant's submission, para. 293 (quoting Panel Report, para. 8.931).

⁷⁰⁸ European Union's appellant's submission, para. 299.

panel⁷⁰⁹ and/or facts on the Panel record, which are uncontested by the disputing parties⁷¹⁰, provide a sufficient factual basis for doing so.⁷¹¹ At the same time, the Appellate Body has declined to complete the legal analysis for reasons such as the absence of full exploration of the issues before the panel⁷¹², considerations pertaining to the parties' due process rights⁷¹³, and where doing so was not required to resolve the dispute.⁷¹⁴

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}ocuses 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

⁷⁰⁹ See e.g. Appellate Body Reports, *US – Gasoline*, p. 19, DSR 1996:I, pp. 18-19; *Canada – Periodicals*, p. 24, DSR 1997:I, p. 469; *Australia – Salmon*, paras. 117-119; *US – Large Civil Aircraft (2nd complaint)*, para. 1255.

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.

⁷¹⁴ Appellate Body Report, *US – Steel Safeguards*, para. 431.

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 (referring 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).

⁷¹⁷ Appellate Body Report, *US – Large Civil Aircraft (2nd complaint)*, para. 753.

⁷¹⁸ 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)).

of the areas included within MCIPs, either explicitly or implicitly.⁷¹⁹ 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.⁷²⁰

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.⁷²¹

5.317. In the present case, the Panel found that, while the MCIP subsidy is provided at the state level⁷²², 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.⁷²³ In exercising this authority, Charleston County and Colleton County entered into an agreement establishing the Charleston-Colleton MCIP.⁷²⁴ 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.⁷²⁵ 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"⁷²⁶ and that it is not required that it have a "formal administrative or economic identity".⁷²⁷ 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 MCIPs⁷²⁸, 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.⁷²⁹ We have taken note of the Panel's statement that the MCIP designation is "readily available upon request to any company".⁷³⁰

⁷¹⁹ United States' appellee's submission, para. 142.

⁷²⁰ United States' appellee's submission, para. 142.

⁷²¹ Appellate Body Report, *US – Washing Machines*, para. 5.229.

⁷²² Panel Report, para. 8.925.

⁷²³ Panel Report, para. 8.913.

⁷²⁴ Panel Report, para. 8.913.

⁷²⁵ 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-553), p. 4; Charleston County Council Ordinance 1475 (5 December 2006) (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).

⁷²⁶ Panel Report, *US – Anti-Dumping and Countervailing Duties (China)*, para. 9.144.

⁷²⁷ Panel Report, *US – Anti-Dumping and Countervailing Duties (China)*, para. 9.140.

⁷²⁸ 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.

⁷²⁹ 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).

⁷³⁰ 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 "cannot be meaningfully considered to amount to a limitation under Article 2.2" of the SCM Agreement.⁷³¹ 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 impedance 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 adverse effects consisting of significant price suppression and significant lost sales cannot continue to be 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.

5.324. Second, 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

⁷³³ European Union's appellant's submission, para. 329 (quoting Panel Report, para. 9.312).

⁷³⁴ European Union's appellant's submission, para. 329 (quoting Panel Report, para. 9.314).
(emphasis added by the European Union omitted)

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".⁷⁴¹ 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."⁷⁴² The Appellate Body has added that Article 7.8 sets out an obligation "of a continuous nature, extending beyond subsidies granted in the past"⁷⁴³; "{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."⁷⁴⁴ 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".⁷⁴⁵ 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)

⁷⁴¹ Emphasis added.

⁷⁴² Appellate Body Report, *EC and certain member States – Large Civil Aircraft (Article 21.5 – US)*, para. 5.364.

⁷⁴³ Appellate Body Report, *EC and certain member States – Large Civil Aircraft (Article 21.5 – US)*, para. 5.364 (quoting Appellate Body Report, *US – Upland Cotton (Article 21.5 – Brazil)*, para. 237).

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}o the 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.

⁷⁴⁵ Appellate Body Report, *US – Upland Cotton*, paras. 423-424 (quoting Panel Report, *US – Upland Cotton*, para. 7.1277).

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

⁷⁴⁶ Appellate Body Report, *US – Upland Cotton (Article 21.5 – Brazil)*, para. 351.

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.

⁷⁵¹ Appellate Body Report, *US – Upland Cotton*, paras. 426-427 (referring to Panel Report, *US – Upland Cotton*, para. 7.1326) and 490.

⁷⁵² Original Panel Report, para. 7.1685.

potentially be relevant to demonstrating the existence of significant price suppression and significant lost sales."⁷⁵³ We note that these findings were not appealed in the original proceedings, and that neither participant has taken issue with these general propositions set out by the original panel.⁷⁵⁴

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.⁷⁵⁵ Although the terms and conditions of each purchase contract are set at the time the order is made (including different elements, such as aircraft specification, net price, discounts, non-price concessions, and financing arrangements), "{c}omplete payment does not occur until delivery of the aircraft."⁷⁵⁶ Moreover, the original panel and Appellate Body noted that these contracts also have escalation clauses that provide for increases to the basic airframe price to account for the time that elapses between negotiation of price at the time of order and delivery of the aircraft, and that these facts can significantly increase the LCA purchase price.⁷⁵⁷ Thus, although the extent to which prices are suppressed or sales are lost is certainly first manifest at the time LCA are ordered, the consequences of these phenomena may continue to be affected by factors occurring from the time of order through delivery, which indicates that the phenomena of price suppression and lost sales could be found to continue through to the moment of LCA delivery.

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"⁷⁵⁸, 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".⁷⁵⁹ For instance, in the LCA industry, although price escalation clauses may continue to reflect evidence of ongoing price suppression, the terms have already been set at the time of the original order. As the original panel noted, "there is, in principle, no re-negotiation of the terms and conditions of the purchase contract, and assessment of the profitability of a certain contract prior to delivery, as well as the profit margins actually generated, is based on the terms and conditions established at the time of order."⁷⁶⁰ Similarly, although there may be circumstances in which the consequences of a lost sale may persist where a lost sale for which delivery remains outstanding continues to exert harmful consequences on a competitor, there can be little doubt that the sale was "lost" at the time of order when the supplier of the subsidized Member obtained that sale at the expense of that competitor. We therefore do not see that there can be any generalized guidance about the circumstances in which original findings of price suppression or lost sales may be said to persist beyond the moment of order.

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 delivery⁷⁶¹, 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

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)

⁷⁵⁵ Original Panel Report, para. 7.1685; Appellate Body Report, *US – Large Civil Aircraft (2nd complaint)*, para. 904.

⁷⁵⁶ Original Panel Report, para. 7.1685 (referring to Declaration of Christian Scherer, Airbus SAS, Commercial Aspects of the Aircraft Business from the Perspective of a Manufacturer (March 2007) (Declaration of Christian Scherer) (Original Panel Exhibit EC-11) (BCI), para. 49); Appellate Body Report, *US – Large Civil Aircraft (2nd complaint)*, para. 904.

⁷⁵⁷ Original Panel Report, para. 7.1685 (referring to Declaration of Christian Scherer (Original Panel Exhibit EC-11) (BCI), para. 26); Appellate Body Report, *US – Large Civil Aircraft (2nd complaint)*, para. 904.

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.

⁷⁶¹ Panel Report, para. 9.307 (referring to Original Panel Report, paras. 7.1685-7.1686).

sales, it did not explicitly recall this general proposition, but instead relied exclusively on order data.⁷⁶² 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."⁷⁶³

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."⁷⁶⁴ 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".⁷⁶⁵ 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"⁷⁶⁶ 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 "reconciled" with the prospective interpretation of Article 7.8⁷⁶⁷ 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".⁷⁶⁸

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

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"⁷⁶⁹, 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.⁷⁷⁰ 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 *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".⁷⁷¹

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."⁷⁷² Having examined above the role of orders and deliveries

⁷⁶⁹ Panel Report, para. 9.312.

⁷⁷⁰ Panel Report, para. 9.314.

⁷⁷¹ Panel Report, para. 9.332. (emphasis omitted)

⁷⁷² European Union's appellant's submission, paras. 357, 361-362, 366, and 368 (quoting Original Panel Report, para. 7.1686).

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.⁷⁷³ 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.⁷⁷⁴ 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.⁷⁷⁵ 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".⁷⁷⁶ 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-800.⁷⁷⁷ 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.⁷⁷⁸ 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.⁷⁷⁹

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"⁷⁸⁰ from the findings in the original proceedings. The European Union adds that, instead of following those findings, the Panel focused on the "entirely irrelevant"⁷⁸¹ fact that the A330, Original A350, and the A350XWB are "different aircraft".⁷⁸² 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.⁷⁸³ 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.⁷⁸⁴ 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-800.⁷⁸⁵

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.⁷⁸⁶ 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."⁷⁸⁷ 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."⁷⁸⁸ 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."⁷⁸⁹ 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.⁷⁹⁰ 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 2006.⁷⁹¹

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

⁷⁸⁰ European Union's appellant's submission, paras. 954, 957, and 965.

⁷⁸¹ European Union's appellant's submission, para. 954.

⁷⁸² European Union's appellant's submission, para. 954 (quoting Panel Report, paras. 9.322-9.324 and 9.331).

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".⁷⁹²

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".⁷⁹³ 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."⁷⁹⁴ 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.⁷⁹⁵

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

⁷⁹² Original Panel Report, para. 7.1794.

⁷⁹³ Panel Report, para. 9.322 (referring to Original Panel Report, para. 7.1782).

⁷⁹⁴ Panel Report, para. 9.325.

⁷⁹⁵ Panel Report, para. 9.331.

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".⁸⁰³ 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."⁸⁰⁴ 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.⁸⁰⁵ 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.⁸⁰⁶ 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."⁸⁰⁷

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

⁸⁰³ Panel Report, para. 9.319.

⁸⁰⁴ Panel Report, fn 3182 to para. 9.321.

⁸⁰⁵ Panel Report, para. 9.176.

⁸⁰⁶ First, the Panel noted the incomplete pricing data supplied by the European Union. As the Panel explained, the pricing data that the European Union presented in connection with its claim of significant price suppression of the A330 "only covers the period up to 2012 and was not updated to cover the post-implementation period". (Panel Report, para. 9.318 (fn omitted)) Second, the Panel pointed to data presented by the United States demonstrating that there is no correlation in price movements between the A330 and the 787. (Ibid., para. 9.320 (referring to United States' comments on the European Union's response to Panel question Nos. 169-170, para. 203)) Third, the Panel explained that a number of the empirical problems it identified with the European Union's price trend data in connection with its claims of significant price suppression of the A320neo and A320ceo "apply equally to the European Union's price trend data for the A330". (Ibid., fn 3182 to para. 9.321) For instance, the Panel considered that the European Union could not rely on sales campaigns that Boeing won to substantiate its claims that Airbus LCA prices were suppressed, and that the European Union appeared to repudiate its own price trend data on the basis of certain methodological flaws.

⁸⁰⁷ See also Panel Report, para. 9.315.

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 delivery⁸¹¹; (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 analysis⁸¹²; (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 process⁸¹³; 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

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 reasoning⁸¹⁵ and incoherent or inadequate reasoning⁸¹⁶; (ii) deviating from findings in the original proceedings⁸¹⁷; (iii) imposing an "impossible" burden of proof⁸¹⁸; and (iv) failing to base its findings on a sufficient evidentiary basis.⁸¹⁹

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 ways⁸²⁰:

- 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.⁸²¹

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

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 "sleepier 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.⁸²² Second, the Panel addressed the technology effects of the aeronautics R&D subsidies in the single-aisle LCA market.⁸²³

5.372. 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.⁸²⁴

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.⁸²⁵ 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 787.⁸²⁶ 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.⁸²⁷ 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."⁸²⁸

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 its decades of experience participating in the US Government-supported R&D programmes'".⁸²⁹ 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.⁸³⁰

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.⁸³¹

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. 9.127.

⁸²⁸ 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.)

⁸²⁹ Panel Report, para. 9.130 (quoting European Union's second written submission to the Panel, para. 975).

⁸³⁰ Panel Report, para. 9.130 (referring to United States' first written submission to the Panel, para. 709).

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."⁸³² 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.⁸³³

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.⁸³⁴ 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).⁸³⁵

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.⁸³⁶ In addition, the Panel considered the European Union's criticism of the Boeing engineers' methodology to be "highly-generalized in nature, and ultimately unpersuasive".⁸³⁷

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.⁸³⁸ 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."⁸³⁹ 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.⁸⁴⁰

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

⁸³² Panel Report, para. 9.152.

⁸³³ Panel Report, para. 9.153.

⁸³⁴ Panel Report, para. 9.157.

⁸³⁵ Panel Report, para. 9.159 (referring to Boeing Engineers' Statement (Panel Exhibit USA-283) (BCI)).

⁸³⁶ Panel Report, para. 9.161.

⁸³⁷ Panel Report, para. 9.162.

⁸³⁸ Panel Report, para. 9.164.

⁸³⁹ Panel Report, para. 9.165.

⁸⁴⁰ Panel Report, para. 9.165.

the 787.⁸⁴¹ The Panel indicated that its comparison would focus on the time required to conclude the pre-launch development of the two aircraft.⁸⁴² The Panel observed that "the time from the start of intensive pre-launch R&D on the 787 ([BCI]) until formal launch (April 2004) was approximately [BCI]."⁸⁴³ 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 ([BCI]) until a counterfactual-adjusted, non-subsidized launch of the 787 (April 2006), would be approximately [BCI]."⁸⁴⁴ 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."⁸⁴⁵ 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]."⁸⁴⁶ In the Panel's view, despite the differences in the design and technical solutions of the 787 and the A350XWB⁸⁴⁷, the time that Airbus spent developing the A350XWB provides "a general sense of what range of estimates is reasonable".⁸⁴⁸

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."⁸⁴⁹ 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."⁸⁵⁰ 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.⁸⁵¹

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.⁸⁵² 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.⁸⁵³ 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

⁸⁴¹ Panel Report, para. 9.167.

⁸⁴² Panel Report, para. 9.170. The Panel considered that this approach would be "consistent with the findings in the original proceeding, and avoids attributing to the subsidies aspects of the development that were not accelerated by Boeing's participation in the relevant NASA and DOD aeronautics R&D programmes". (Ibid.)

⁸⁴³ Panel Report, para. 9.171.

⁸⁴⁴ Panel Report, para. 9.171.

⁸⁴⁵ Panel Report, para. 9.172.

⁸⁴⁶ Panel Report, para. 9.175.

⁸⁴⁷ The Panel noted that the European Union rejected the use of the A350XWB as a proxy to assess the United States' estimate regarding the 787 due to the differences between these aircraft. (Panel Report, para. 9.174)

⁸⁴⁸ Panel Report, para. 9.175.

⁸⁴⁹ Panel Report, para. 9.176.

⁸⁵⁰ Panel Report, para. 9.176.

⁸⁵¹ Panel Report, para. 9.177. The Panel added that the European Union had therefore failed to demonstrate the existence of "original subsidy technology effects of the pre-2007 aeronautics R&D subsidies" in the post-implementation period. (Ibid.)

⁸⁵² Panel Report, para. 9.178.

⁸⁵³ Panel Report, para. 9.182.

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).⁸⁵⁴

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.⁸⁵⁵ 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.⁸⁵⁶

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.⁸⁵⁷ 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 2012.⁸⁵⁸ 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 2011.⁸⁵⁹ 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.⁸⁶⁰

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.⁸⁶¹ 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.⁸⁶²

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.

⁸⁵⁴ 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).

⁸⁵⁵ 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)

⁸⁵⁶ 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)

⁸⁵⁷ Panel Report, para. 9.352.

⁸⁵⁸ Panel Report, para. 9.353.

⁸⁵⁹ Panel Report, para. 9.354.

⁸⁶⁰ 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)

⁸⁶¹ 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 "sleepers 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.*)

⁸⁶² Panel Report, paras. 9.220 and 9.486.

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

⁸⁶³ The European Union maintains that the Panel acted inconsistently with Article 11 of the DSU because: (i) the Panel's focus on the timing of the launch of the 787 is internally inconsistent with other findings in its Report; and (ii) the Panel inappropriately deviated from the findings of the panel and the Appellate Body in the original proceedings. (European Union's appellant's submission, para. 698)

⁸⁶⁴ 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 994 to para. 693) 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.

⁸⁶⁵ European Union's appellant's submission, para. 707 (quoting Panel Report, para. 9.128).

⁸⁶⁶ European Union's appellant's submission, para. 710.

⁸⁶⁷ European Union's appellant's submission, para. 723. The European Union specifies that the original panel found that the relevant counterfactual analysis must address "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". (Ibid., para. 724 (quoting Original Panel Report, para. 7.1774 (emphasis added by the European Union))) The European Union adds that the Appellate Body similarly stressed the importance of considering how the pre-2007 aeronautics R&D subsidies affected the timing of both Boeing's launch and delivery of the 787. (Ibid., para. 725 (referring to Appellate Body Report, *US – Large Civil Aircraft* (2nd complaint), para. 1023))

⁸⁶⁸ United States' appellee's submission, para. 373 (referring to European Union's appellant's submission, para. 722).

⁸⁶⁹ United States' appellee's submission, para. 373.

⁸⁷⁰ United States' appellee's submission, para. 374.

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

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 exhibit⁸⁸², 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 "{i}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

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)))

⁸⁸³ Appellate Body Report, *US – Large Civil Aircraft (2nd complaint)*, para. 972.

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)

⁸⁸⁶ Appellate Body Report, *US – Large Civil Aircraft (2nd complaint)*, para. 987 (quoting Original Panel Report, para. 7.1758).

⁸⁸⁷ Appellate Body Report, *US – Large Civil Aircraft (2nd complaint)*, para. 987 (referring to Original Panel Report, para. 7.1758).

⁸⁸⁸ Appellate Body Report, *US – Large Civil Aircraft (2nd complaint)*, para. 1036 (quoting Original Panel Report, para. 7.1775).

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.⁸⁹¹ 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."⁸⁹² 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".⁸⁹³ 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."⁸⁹⁴ 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."⁸⁹⁵

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.⁸⁹⁶ 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.⁸⁹⁷ 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."⁸⁹⁸ 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

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.

⁸⁹³ Appellate Body Report, *US – Upland Cotton (Article 21.5 – Brazil)*, para. 237.

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.

⁸⁹⁸ Appellate Body Report, *US – Large Civil Aircraft (2nd complaint)*, para. 980.

its technologies to market."⁸⁹⁹ 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 787.⁹⁰⁰ In contrast, the United States argues that "the Panel properly focused on the counterfactual launch date while duly considering deliveries."⁹⁰¹ 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.⁹⁰² 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."⁹⁰³

5.401. 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.

5.402. 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.⁹⁰⁴ 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*."⁹⁰⁵ 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.⁹⁰⁶

5.403. 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

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)

⁹⁰⁶ Panel Report, para. 9.161.

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 "{u}pon 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}epending 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, *US – Large Civil Aircraft (2nd complaint)*, para. 902.

⁹¹⁵ Appellate Body Report, *US – Large Civil Aircraft (2nd complaint)*, para. 904.

⁹¹⁶ Appellate Body Report, *US – Large Civil Aircraft (2nd complaint)*, para. 904 (referring to Original Panel Report, para. 7.1685).

⁹¹⁷ Appellate Body Report, *US – Large Civil Aircraft (2nd complaint)*, para. 904. (fn omitted)

⁹¹⁸ Appellate Body Report, *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

⁹¹⁹ Panel Report, para. 9.247 (referring to Panel Report, HSB1 Appendix, paras. 10, 22, 29, 39, 48, 60, 76-79, 89, and 111).

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 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. (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."⁹²⁶ In our view, the Panel was not bound by the way in which the original panel framed its inquiry given that the nature of the counterfactual question in these compliance proceedings was different. Indeed, in the original proceedings, the analysis concerned the issue of whether, not by how long, the pre-2007 aeronautics R&D subsidies accelerated the 787's technology development process. By contrast, in these compliance proceedings, the Panel's inquiry focused on the issue of whether the acceleration effects 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.

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.⁹²⁷ 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.⁹²⁸ 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."⁹²⁹ 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.⁹³⁰

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".⁹³¹ 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 [BCI]. 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."⁹³² 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

⁹²⁶ Panel Report, para. 9.161.

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".⁹³³ As noted in the Boeing Engineers' Statement, although Boeing officially launched the 787 in April 2004, [BCI].⁹³⁴

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."⁹³⁵ 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.⁹³⁶ 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.⁹³⁷ 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.⁹³⁸

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.

⁹³⁸ Panel Report, paras. 9.178 and 9.344.

further stated that "the 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.

⁹³⁹ Panel Report, para. 9.184.

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.⁹⁴⁵ 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) spill-over technology effects with respect to the 787-9/10, 777X, and 737 MAX in the post-implementation period.⁹⁴⁶

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.⁹⁴⁷ 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.⁹⁴⁸ 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 2012.⁹⁴⁹

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."⁹⁵⁰ 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 2011.⁹⁵¹ 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.⁹⁵²

5.427. The European Union maintains that, "{u}ndisputed 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."⁹⁵³ Statements by Boeing, made outside the context of litigation, indicate that "it takes '{u}p to 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)."⁹⁵⁴ The European Union considers that, in determining the minimum

⁹⁴⁵ See para. 5.368 above.

⁹⁴⁶ European Union's appellant's submission, para. 863.

⁹⁴⁷ European Union's appellant's submission, para. 865. The European Union considers that the Panel properly identified the counterfactual question to be "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". (Ibid. (quoting Panel Report, para. 9.128))

⁹⁴⁸ The European Union refers to the launch and delivery of the 787-8, 787-9/10, 737MAX, and 777X. (European Union's appellant's submission, paras. 866-867)

⁹⁴⁹ European Union's appellant's submission, paras. 866-867.

⁹⁵⁰ European Union's appellant's submission, para. 878.

⁹⁵¹ European Union's appellant's submission, para. 878.

⁹⁵² European Union's appellant's submission, para. 880.

⁹⁵³ European Union's appellant's submission, para. 882.

⁹⁵⁴ European Union's appellant's submission, para. 882 (quoting European Union's second written submission to the Panel, paras. 1004-1005, in turn quoting Craig Wilsey and Robert Stoker, *Continuous Lower*

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).⁹⁵⁵ 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 2019.⁹⁵⁶ 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."⁹⁵⁷

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.⁹⁵⁸ 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.⁹⁵⁹ 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].⁹⁶⁰

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.⁹⁶¹ 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.⁹⁶²

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."⁹⁶³ 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

Energy, Emissions and Noise (CLEEN) Technologies Development – Boeing Program Overview, CLEEN Consortium Public Session (27 October 2010) (Panel Exhibit EU-665), p. 4).

⁹⁵⁵ European Union's appellant's submission, para. 884.

⁹⁵⁶ 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))

⁹⁵⁷ European Union's appellant's submission, para. 886.

⁹⁵⁸ European Union's appellant's submission, para. 891 (referring to Airbus Engineers' Response (Panel Exhibit EU-1014) (BCI/HSBI), paras. 40 and 43).

⁹⁵⁹ 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))

⁹⁶⁰ European Union's appellant's submission, para. 893.

⁹⁶¹ 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))

⁹⁶² European Union's appellant's submission, para. 899.

⁹⁶³ 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' Statement⁹⁸⁴ 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 787.⁹⁹¹ 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."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".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".⁹⁹⁴ As noted, the United States contests the time estimates based on the Peisen Study, as well as those presented by the Airbus engineers.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.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'".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."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".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

⁹⁹¹ Original Panel Report, para. 7.1748.

⁹⁹² Appellate Body Report, *US – Large Civil Aircraft (2nd complaint)*, para. 980. (emphasis omitted)

⁹⁹³ Panel Report, para. 9.166.

⁹⁹⁴ Panel Report, fn 2932 to para. 9.166 (quoting European Union's response to Panel question No. 46, para. 362).

⁹⁹⁵ See United States' appellee's submission, paras. 493-494 and 496-497.

⁹⁹⁶ United States' appellee's submission, para. 493 (referring to European Union's appellant's submission, paras. 882-884).

⁹⁹⁷ United States' appellee's submission, para. 493 (quoting Panel Report, para. 9.166).

⁹⁹⁸ Panel Report, para. 9.176.

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".¹⁰⁰⁰ 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

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.¹⁰⁰⁵ 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.¹⁰⁰⁶

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.¹⁰⁰⁷ 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.¹⁰⁰⁸ 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.¹⁰⁰⁹

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".¹⁰¹⁰ 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".¹⁰¹¹ 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.¹⁰¹²

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,

¹⁰⁰⁵ European Union's appellant's submission, para. 579. (emphasis added by the European Union omitted)

¹⁰⁰⁶ European Union's appellant's submission, para. 581. 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 interpretation of Articles 5 and 6.3." (European Union's appellant's submission, fn 814 to para. 548) As we see it, the European Union's claims of error under Article 7.8 are consequential to those under Articles 5 and 6.3, and we therefore focus our assessment on the alleged errors under Articles 5 and 6.3.

¹⁰⁰⁷ United States' appellee's submission, para. 268.

¹⁰⁰⁸ United States' appellee's submission, paras. 273-274.

¹⁰⁰⁹ United States' appellee's submission, para. 275.

¹⁰¹⁰ Panel Report, para. 9.61 (referring to Appellate Body Report, *US – Large Civil Aircraft* (2nd complaint), para. 914).

¹⁰¹¹ Panel Report, para. 9.61 (referring to Appellate Body Report, *US – Large Civil Aircraft* (2nd complaint), para. 914).

¹⁰¹² Panel Report, para. 9.61 (referring to Appellate Body Report, *US – Large Civil Aircraft* (2nd complaint), para. 915).

there must be "no non-price factors that explain Boeing's success in obtaining the sale".¹⁰¹³ 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.¹⁰¹⁴ 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."¹⁰¹⁵ 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.¹⁰¹⁶ 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.¹⁰¹⁷ 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".¹⁰¹⁸

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".¹⁰¹⁹ 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."¹⁰²⁰ 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

¹⁰¹³ European Union's appellant's submission, para. 549 (quoting Panel Report, paras. 9.242-9.243, 9.379-9.380, 9.383, 9.426, and 9.446). (emphasis added by the European Union omitted)

¹⁰¹⁴ Panel Report, para. 9.240 (referring to Appellate Body Report, *US – Large Civil Aircraft* (2nd complaint), para. 1260).

¹⁰¹⁵ Appellate Body Report, *US – Large Civil Aircraft* (2nd complaint), para. 1260.

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.

¹⁰¹⁸ Appellate Body Report, *US – Large Civil Aircraft* (2nd complaint), para. 1260.

¹⁰¹⁹ Appellate Body Report, *US – Large Civil Aircraft* (2nd complaint), para. 1260.

¹⁰²⁰ Appellate Body Report, *US – Large Civil Aircraft* (2nd complaint), para. 1260.

dynamic it had described occurred in particular LCA sales campaigns.¹⁰²¹ 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".¹⁰²²

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.¹⁰²³ 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.¹⁰²⁴ 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.¹⁰²⁵

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."¹⁰²⁶ 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

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)

¹⁰²² Appellate Body Report, *US – Large Civil Aircraft (2nd complaint)*, para. 1261.

¹⁰²³ Appellate Body Report, *US – Large Civil Aircraft (2nd complaint)*, paras. 1262-1263.

¹⁰²⁴ Appellate Body Report, *US – Large Civil Aircraft (2nd complaint)*, para. 1264.

¹⁰²⁵ Appellate Body Report, *US – Large Civil Aircraft (2nd complaint)*, para. 1264.

¹⁰²⁶ European Union's appellant's submission, para. 579.

campaigns were or were not particularly price-sensitive".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."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".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.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".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.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 factors¹⁰³³, 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.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.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."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

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.)

¹⁰²⁸ Panel Report, para. 9.247.

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)

¹⁰³⁰ Panel Report, para. 9.245 (referring to Panel Report, HSBI Appendix).

¹⁰³¹ Panel Report, para. 9.383.

¹⁰³² Panel Report, para. 9.383.

¹⁰³³ Panel Report, HSBI Appendix, paras. 163-164.

¹⁰³⁴ Panel Report, HSBI Appendix, paras. 270-271.

¹⁰³⁵ Panel Report, HSBI Appendix, paras. 170, 249, and 263.

¹⁰³⁶ Panel Report, para. 9.383. See also *ibid.*, paras. 172, 251, and 265.

role of price.¹⁰³⁷ 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.¹⁰³⁸ 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 2015.¹⁰³⁹

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.¹⁰⁴⁰ 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".¹⁰⁴¹ 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.¹⁰⁴² 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.¹⁰⁴³ The Panel, however, recalled the Appellate Body's finding that, while the tied tax subsidies provided Boeing with the ability and

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.

¹⁰⁴¹ Panel Report, para. 9.238 (quoting United States' comments on the European Union's response to Panel question No. 169, para. 27).

¹⁰⁴² Panel Report, para. 9.238 (referring to United States' first written submission to the Panel, para. 728).

¹⁰⁴³ Panel Report, para. 9.239 (referring to Original Panel Report, paras. 7.1806-7.1807; Appellate Body Report, *US – Large Civil Aircraft (2nd complaint)*, paras. 1252-1260).

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 reduction¹⁰⁴⁵, 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

¹⁰⁴⁴ Panel Report, para. 9.240 (referring to Appellate Body Report, *US – Large Civil Aircraft (2nd complaint)*, para. 1260).

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%. (Panel Report, para. 8.662)

¹⁰⁴⁶ Panel Report, para. 9.379 (referring to *ibid.*, paras. 9.239-9.241, in turn referring to Appellate Body Report, *US – Large Civil Aircraft (2nd complaint)*, para. 1260).

¹⁰⁴⁷ Panel Report, paras. 9.381-9.383; Panel Report, HSBI Appendix.

¹⁰⁴⁸ Panel Report, para. 9.384.

¹⁰⁴⁹ Panel Report, fn 3276 to para. 9.383.

¹⁰⁵⁰ Panel Report, para. 9.385.

¹⁰⁵¹ Panel Report, para. 9.391 (referring to Appellate Body Report, *US – Large Civil Aircraft (2nd complaint)*, para. 1193).

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 Marketing¹⁰⁶¹, 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

¹⁰⁵⁴ Panel Report, para. 9.394 (quoting Appellate Body Report, *US – Large Civil Aircraft (2nd complaint)*, para. 1254).

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.¹⁰⁶⁶

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".¹⁰⁶⁷ 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.¹⁰⁶⁸

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.¹⁰⁶⁹ 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.¹⁰⁷⁰ 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 period¹⁰⁷¹, 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.¹⁰⁷²

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.¹⁰⁷³ 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.¹⁰⁷⁴ 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.¹⁰⁷⁵ 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.¹⁰⁷⁶ 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.¹⁰⁷⁷

¹⁰⁶⁶ Panel Report, para. 9.404 and fn 3329 thereto.

¹⁰⁶⁷ Panel Report, para. 9.406. (emphasis omitted)

¹⁰⁶⁸ Panel Report, para. 9.407.

¹⁰⁶⁹ Panel Report, fn 3329 to para. 9.404.

¹⁰⁷⁰ See Panel Report, para. 9.427.

¹⁰⁷¹ Panel Report, para. 9.438.

¹⁰⁷² Panel Report, para. 9.443.

¹⁰⁷³ United States' other appellant's submission, paras. 24 and 69.

¹⁰⁷⁴ United States' other appellant's submission, paras. 24 and 68.

¹⁰⁷⁵ United States' other appellant's submission, paras. 68, 79, and 86.

¹⁰⁷⁶ United States' other appellant's submission, para. 45 (referring to Appellate Body Report, *US – Large Civil Aircraft (2nd complaint)*, para. 1252).

¹⁰⁷⁷ United States' other appellant's submission, para. 65. This figure is calculated by multiplying an approximate purchase price of US\$50 million by the tax reduction rate of 0.1936%. (Ibid., para. 65 and fn 76 thereto)

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.¹⁰⁷⁸ 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.¹⁰⁷⁹

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).¹⁰⁸⁰ 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.¹⁰⁸¹

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 "no 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".¹⁰⁸² 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.¹⁰⁸³

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.¹⁰⁸⁴ 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

¹⁰⁷⁸ European Union's appellee's submission, para. 99.

¹⁰⁷⁹ European Union's appellee's submission, paras. 73-75.

¹⁰⁸⁰ Panel Report, fn 3321 to para. 9.402.

¹⁰⁸¹ United States' other appellant's submission, para. 45.

¹⁰⁸² Appellate Body Report, *US – Large Civil Aircraft (2nd complaint)*, para. 915.

¹⁰⁸³ Appellate Body Report, *US – Large Civil Aircraft (2nd complaint)*, para. 915.

¹⁰⁸⁴ Appellate Body Report, *US – Large Civil Aircraft (2nd complaint)*, para. 1252 (referring to Original Panel Report, para. 7.1807).

marginal cost of producing individual LCA.¹⁰⁸⁵ However, while the fact that the subsidies are tied to individual sales certainly speaks to the recipient's *ability* to reduce the price of each individual sale while nevertheless achieving the same profit margin for that sale, it does not mean that the recipient *will always* do so in the specific circumstances of each case. Indeed, the Appellate Body expressly cautioned that, while the nature of the tied tax subsidies is relevant to assessing the effects of such subsidies, the outcome of any given sale "will still be dictated by the prevailing competitive conditions".¹⁰⁸⁶

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".¹⁰⁸⁷ 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".¹⁰⁸⁸ 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.¹⁰⁸⁹

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.¹⁰⁹⁰

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 programme that exists over a considerable period of time: it was enacted in 2003 and will be in place until 2040.¹⁰⁹¹ 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.¹⁰⁹² Airbus

¹⁰⁸⁵ Panel Report, para. 9.238.

¹⁰⁸⁶ Appellate Body Report, *US – Large Civil Aircraft (2nd complaint)*, para. 1260.

¹⁰⁸⁷ Appellate Body Report, *US – Large Civil Aircraft (2nd complaint)*, para. 1254.

¹⁰⁸⁸ Appellate Body Report, *US – Large Civil Aircraft (2nd complaint)*, para. 1260.

¹⁰⁸⁹ United States' other appellant's submission, para. 97. See also *ibid.*, paras. 24, 29, 68, and 93.

¹⁰⁹⁰ European Union's appellee's submission, paras. 121-123.

¹⁰⁹¹ Panel Report, paras. 7.325 and 7.467. The original expiration date for the Washington State B&O tax rate reduction under HB 2294 was 1 July 2024, but it was extended to 1 July 2040 by SSB 5952 in 2013. (*Ibid.*, para. 7.467)

¹⁰⁹² Panel Report, para. 9.17 (referring to Original Panel Report, para. 7.1688; Appellate Body Report, *US – Large Civil Aircraft (2nd complaint)*, para. 903).

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.¹⁰⁹³ 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.¹⁰⁹⁴ 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.¹⁰⁹⁵

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.¹⁰⁹⁶ 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.¹⁰⁹⁷ 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.¹⁰⁹⁸ 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 above¹⁰⁹⁹, 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.¹¹⁰⁰ 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.¹¹⁰¹

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 LCA¹¹⁰² 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.¹¹⁰³

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

¹⁰⁹³ Panel Report, para. 9.52 (referring to European Union's comments on the United States' response to Panel question No. 158, para. 109).

¹⁰⁹⁴ Panel Report, para. 9.20 (referring to Original Panel Report, para. 7.1694).

¹⁰⁹⁵ Panel Report, para. 9.52 (quoting European Union's comments on the United States' response to Panel question No. 158, para. 122).

¹⁰⁹⁶ Panel Report, para. 9.247.

¹⁰⁹⁷ Panel Report, para. 9.247.

¹⁰⁹⁸ Panel Report, para. 9.248.

¹⁰⁹⁹ See para. 5.467 above.

¹¹⁰⁰ Panel Report, para. 9.383.

¹¹⁰¹ Panel Report, para. 9.383 (referring to *ibid.*, HSBI Appendix, paras. 179, 187, 194, 200, 210, 216, 222, 237, 243, and 257).

¹¹⁰² Panel Report, para. 9.248.

¹¹⁰³ Panel Report, para. 9.247.

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".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.¹¹⁰⁵

5.492. We note that the Washington State B&O tax rate reduction applies, *inter alia*, to the production and sale of all LCA manufactured in the State of Washington, including both twin-aisle and single-aisle LCA.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 *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.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.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

¹¹⁰⁴ United States' other appellant's submission, para. 67.

¹¹⁰⁵ See Panel Report, para. 9.33; United States' appellee's submission, section VII.

¹¹⁰⁶ See Original Panel Report, para. 7.1803.

¹¹⁰⁷ See Appellate Body Report, *US – Upland Cotton*, para. 461.

¹¹⁰⁸ Appellate Body Reports, *US – Upland Cotton*, para. 438; *US – Upland Cotton (Article 21.5 – Brazil)*, para. 374; *EC and certain member States – Large Civil Aircraft*, para. 1232; *US – Large Civil Aircraft (2nd complaint)*, para. 913; *EC and certain member States – Large Civil Aircraft (Article 21.5 – US)*, para. 5.581.

it to carry out a quantitative analysis.¹¹⁰⁹ 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 million¹¹¹⁰ during the reference period from 2004 to 2006)¹¹¹¹, 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.¹¹¹² 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.¹¹¹³ 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 campaigns¹¹¹⁴ – 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.¹¹¹⁵

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.¹¹¹⁶

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

¹¹⁰⁹ Appellate Body Report, *US – Large Civil Aircraft (2nd complaint)*, para. 1254.

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 – Large Civil Aircraft (2nd complaint)*, para. 1254.)

¹¹¹¹ Appellate Body Report, *US – 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.)

¹¹¹² Appellate Body Report, *US – Large Civil Aircraft (2nd complaint)*, paras. 1254-1255 (referring to Panel Report, para. 7.1818).

¹¹¹³ Appellate Body Report, *US – Large Civil Aircraft (2nd complaint)*, para. 1254.

¹¹¹⁴ Appellate Body Report, *US – Large Civil Aircraft (2nd complaint)*, para. 1251.

¹¹¹⁵ Appellate Body Report, *US – Large Civil Aircraft (2nd complaint)*, para. 1271. See also *ibid.*, para. 1260.

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.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".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."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.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.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.

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)

¹¹¹⁸ Appellate Body Report, *EC and certain member States – Large Civil Aircraft*, para. 872. (emphasis original)

¹¹¹⁹ Appellate Body Report, *US – Large Civil Aircraft (2nd complaint)*, para. 958.

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.

¹¹²¹ Appellate Body Report, *China – GOES*, para. 183 (quoting Appellate Body Report, *EC – Hormones*, para. 132).

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

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.

¹¹²⁸ Appellate Body Report, *US – Large Civil Aircraft (2nd complaint)*, para. 914.

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.

in question and, on the other hand, the degree of price difference that could have changed the outcome of that sale. A lost sales finding may be reached when the price would have been sufficiently higher in the absence of the subsidy such that the sales actually won by the subsidized firm of the responding Member would instead have been won by the competing firm of the complaining Member.¹¹³²

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.¹¹³³ This may be the case where a necessary cause is too remote and other intervening causes substantially account for the market phenomenon.¹¹³⁴ By contrast, a "but for" test could be "too rigorous" if it required that the subsidy be the only cause.¹¹³⁵

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.¹¹³⁶ 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.¹¹³⁷ 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.¹¹³⁸ As already noted above¹¹³⁹, the Panel observed that its US\$1.99 million magnitude figure exceeds the magnitude of NPV difference mentioned by Mr Rao.¹¹⁴⁰

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

¹¹³² See Appellate Body Report, *EC and certain member States – Large Civil Aircraft*, para. 1216.

¹¹³³ Appellate Body Report, *US – Upland Cotton (Article 21.5 – Brazil)*, para. 374.

¹¹³⁴ Appellate Body Report, *EC and certain member States – Large Civil Aircraft*, para. 1233.

¹¹³⁵ Appellate Body Report, *US – Upland Cotton (Article 21.5 – Brazil)*, para. 374.

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 view¹¹⁴¹, although the Panel suggested that the United States had not contradicted this evidence during the Panel proceedings.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.¹¹⁴³ According to the United States, this constitutes an erroneous interpretation and application of Articles 5(c) and 6.3 of the SCM Agreement.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".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.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 *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

¹¹⁴¹ United States' other appellant's submission, para. 128 (referring to Panel Report, para. 9.403).

¹¹⁴² Panel Report, para. 9.403.

¹¹⁴³ United States' other appellant's submission, paras. 148 and 151 (quoting Panel Report, para. 9.403). (emphasis added by the United States omitted)

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.

¹¹⁴⁵ Panel Report, para. 9.403.

¹¹⁴⁶ Panel Report, para. 9.403.

was a result of a certain non-price factor.¹¹⁴⁷ 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.¹¹⁴⁸

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.¹¹⁴⁹ 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 factor¹¹⁵⁰, as well as the participants' arguments with respect to this sales campaign¹¹⁵¹, 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.¹¹⁵² 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.¹¹⁵³ 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.¹¹⁵⁴

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 value¹¹⁵⁵ (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".¹¹⁵⁶ The United States challenges this particular statement by the Panel, arguing that it lacks support in the evidence.¹¹⁵⁷

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.¹¹⁵⁸ 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

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 reduction¹¹⁶⁵, 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

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.

¹¹⁶⁷ Panel Report, paras. 9.402-9.403.

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.¹¹⁶⁸ 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.¹¹⁶⁹ 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.¹¹⁷⁰

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.¹¹⁷¹ 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".¹¹⁷²

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.¹¹⁷³ 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

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).

¹¹⁷³ Panel Report, para. 9.270; Appellate Body Report, *US – Large Civil Aircraft (2nd complaint)*, para. 1297; Original Panel Report, paras. 7.1825 and 7.1827.

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".¹¹⁷⁴ 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.¹¹⁷⁵ 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.¹¹⁷⁶

5.531. 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.¹¹⁷⁷ 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 its 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.¹¹⁷⁸ 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.¹¹⁷⁹ 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".¹¹⁸⁰

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".¹¹⁸¹ 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."¹¹⁸² 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."¹¹⁸³

¹¹⁷⁴ Appellate Body Report, *US – Large Civil Aircraft (2nd complaint)*, para. 1328.

¹¹⁷⁵ Appellate Body Report, *US – Large Civil Aircraft (2nd complaint)*, para. 1328.

¹¹⁷⁶ Appellate Body Report, *US – Large Civil Aircraft (2nd complaint)*, para. 1329.

¹¹⁷⁷ Appellate Body Report, *US – Large Civil Aircraft (2nd complaint)*, para. 1336.

¹¹⁷⁸ Appellate Body Report, *US – Large Civil Aircraft (2nd complaint)*, para. 1336 (referring to Original Panel Report, paras. 7.1694 and 7.1820; Appendix VII.F.2, para. 68 and fn 4250 thereto).

¹¹⁷⁹ Appellate Body Report, *US – Large Civil Aircraft (2nd complaint)*, para. 1336 (referring to *ibid.*, para. 1271).

¹¹⁸⁰ Appellate Body Report, *US – Large Civil Aircraft (2nd complaint)*, para. 1337.

¹¹⁸¹ Appellate Body Report, *US – Large Civil Aircraft (2nd complaint)*, para. 1339 (quoting Original Panel Report, para. 7.1827). As the Appellate Body noted, the Panel further referred to the European Communities' acknowledgement that the subsidies were not "explicitly targeted at lowering Boeing's costs of production of specific LCA models". (*Ibid.*, fn 2689 to para. 1339, quoting European Communities' first written submission to the original panel, para. 1303)

¹¹⁸² Appellate Body Report, *US – Large Civil Aircraft (2nd complaint)*, para. 1339. (emphasis original)

¹¹⁸³ Appellate Body Report, *US – Large Civil Aircraft (2nd complaint)*, para. 1339.

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.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".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."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".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.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."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".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".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:

¹¹⁸⁴ Appellate Body Report, *US – Large Civil Aircraft (2nd complaint)*, para. 1340.

¹¹⁸⁵ Appellate Body Report, *US – Large Civil Aircraft (2nd complaint)*, para. 1347.

¹¹⁸⁶ Appellate Body Report, *US – Large Civil Aircraft (2nd complaint)*, para. 1348.

¹¹⁸⁷ Panel Report, para. 9.270.

¹¹⁸⁸ Original Panel Report, para. 7.1827; Appellate Body Report, *US – Large Civil Aircraft (2nd complaint)*, para. 1297.

¹¹⁸⁹ Panel Report, para. 9.271.

¹¹⁹⁰ Appellate Body Report, *US – Large Civil Aircraft (2nd complaint)*, para. 1336 (quoting Original Panel Report, para. 7.1828).

¹¹⁹¹ Panel Report, para. 9.270.

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.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".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"¹¹⁹⁴ and amount to "causation through association".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.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.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 "in 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."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."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".¹²⁰⁰ From these statements, it would appear that the Panel did not accept that

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

¹²⁰¹ Panel Report, para. 9.275.

¹²⁰² Appellate Body Report, *US – Large Civil Aircraft (2nd complaint)*, para. 1339.

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.

¹²⁰⁵ Appellate Body Report, *US – Large Civil Aircraft (2nd complaint)*, para. 1348.

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.¹²⁰⁸ 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.¹²⁰⁹ 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.¹²¹⁰

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".¹²¹¹ In the original proceedings, the Appellate Body adopted a cumulation approach in its causation analysis with respect to the untied subsidies.¹²¹² 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.¹²¹³ Various factors such as price, seating capacity, and direct operating costs affect the outcomes of LCA sales campaigns, and the significance of these factors

¹²⁰⁸ Appellate Body Report, *US – Large Civil Aircraft (2nd complaint)*, para. 1285.

¹²⁰⁹ Appellate Body Reports, *EC and certain member States – Large Civil Aircraft*, paras. 1378-1379; *US – Large Civil Aircraft (2nd complaint)*, para. 1335.

¹²¹⁰ Appellate Body Report, *US – Large Civil Aircraft (2nd complaint)*, para. 1335.

¹²¹¹ European Union's appellant's submission, para. 689.

¹²¹² Appellate Body Report, *US – Large Civil Aircraft (2nd complaint)*, para. 1334.

¹²¹³ Panel Report, para. 9.17; Appellate Body Report, *US – Large Civil Aircraft (2nd complaint)*, para. 1336.

varies across different campaigns.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.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.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.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 products¹²¹⁸ or benefited aircraft *other than* the 737NG¹²¹⁹, 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.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.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

¹²¹⁴ Panel Report, para. 9.20; Appellate Body Report, *US – Large Civil Aircraft (2nd complaint)*, para. 1336.

¹²¹⁵ Panel Report, para. 9.249; Appellate Body Report, *US – Large Civil Aircraft (2nd complaint)*, para. 1336.

¹²¹⁶ Panel Report, paras. 9.239-9.241 and 9.379; Appellate Body Report, *US – Large Civil Aircraft (2nd complaint)*, paras. 1260 and 1336.

¹²¹⁷ Appellate Body Report, *US – Large Civil Aircraft (2nd complaint)*, para. 1347.

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, *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.)

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, *US – Large Civil Aircraft (2nd complaint)*, para. 1341)

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, *US – Large Civil Aircraft (2nd complaint)*, paras. 1341 and 1344-1345)

¹²²¹ Appellate Body Report, *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.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.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.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.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.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.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.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).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

¹²²² Appellate Body Report, *US – Large Civil Aircraft (2nd complaint)*, para. 1337.

¹²²³ European Union's appellant's submission, para. 678.

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.

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)

¹²²⁶ European Union's appellant's submission, section X.H.3.

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)

¹²²⁸ Panel Report, para. 9.76. See also Appellate Body Report, *US – Large Civil Aircraft (2nd complaint)*, para. 1344.

¹²²⁹ Panel Report, para. 7.9 (referring to SSB 6828, "Aerospace Tax Incentives", Washington Session Laws 365 (2008) (Panel Exhibit EU-434)) and fn 767 to para. 7.462.

that are in preproduction, meaning the 737 MAX, 787-10, and 777X¹²³⁰, and stated that these B&O tax credits "may currently be generated" in connection with these aircraft.¹²³¹ The total amount of the B&O tax credits Boeing received during the 2013-2015 period is [BCI].¹²³²

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".¹²³³ 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".¹²³⁴ 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."¹²³⁵ 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 MAX¹²³⁶ 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. 8.678.b.

¹²³³ Appellate Body Report, *US – Large Civil Aircraft (2nd complaint)*, para. 1344.

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.¹²³⁷ 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.¹²³⁸ 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*.¹²³⁹ 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 Center¹²⁴⁰, which, according to the European Union, is used for Boeing's production of the 787.¹²⁴¹ 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].¹²⁴²

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.¹²⁴³ However, the European Union did not identify the specific sites in which such investments were made, or when such investments occurred.¹²⁴⁴ 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.¹²⁴⁵ 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.¹²⁴⁶ 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 787.¹²⁴⁷ 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.¹²⁴⁸ 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".¹²⁴⁹ 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

¹²³⁷ Panel Report, para. 9.76.

¹²³⁸ 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).

¹²³⁹ Panel Report, para. 7.9.

¹²⁴⁰ 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).

¹²⁴¹ European Union's first written submission to the Panel, para. 1160.

¹²⁴² Panel Report, para. 8.678.

¹²⁴³ 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).

¹²⁴⁴ European Union's first written submission to the Panel, para. 1160; second written submission to the Panel, para. 1066.

¹²⁴⁵ United States' first written submission to the Panel, paras. 825, 998, and 1068.

¹²⁴⁶ Appellate Body Report, *US – Large Civil Aircraft (2nd complaint)*, para. 1341.

¹²⁴⁷ 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).

¹²⁴⁸ United States' first written submission to the Panel, para. 510.

¹²⁴⁹ Panel Report, para. 9.253.a.

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 subsidies¹²⁵⁶ 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

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).

¹²⁵⁵ Appellate Body Report, *US – Large Civil Aircraft (2nd complaint)*, para. 1345.

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.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.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".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.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.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)" for considering that Boeing's LCA pricing behaviour would have been any different absent the subsidies.¹²⁶³ 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.¹²⁶⁴ The Panel added that, at most, those subsidies could relate to the development technologies for potential application of *future generations* of Boeing LCA.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.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.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.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,

¹²⁵⁸ Panel Report, paras. 9.278 and 9.473.

¹²⁵⁹ Panel Report, para. 9.279.

¹²⁶⁰ Panel Report, para. 9.279 (quoting European Union's response to Panel question No. 43, para. 280).

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)

¹²⁶² Panel Report, para. 9.287.

¹²⁶³ Panel Report, para. 9.288.

¹²⁶⁴ Panel Report, para. 9.289 and fn 3149 thereto.

¹²⁶⁵ Panel Report, para. 9.289.

¹²⁶⁶ Panel Report, para. 9.91.

¹²⁶⁷ Panel Report, para. 9.282.

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 subsidies¹²⁶⁹, the Panel found that these subsidies relate only to *future generations* of Boeing LCA.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".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.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.

¹²⁶⁹ Panel Report, para. 9.91.

¹²⁷⁰ Panel Report, para. 9.289.

¹²⁷¹ European Union's appellant's submission, para. 673.

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

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".¹²⁷⁷ 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."¹²⁷⁸ 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.¹²⁷⁹ 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.

¹²⁷⁷ European Union's appellant's submission, paras. 479-480.

¹²⁷⁸ Appellate Body Report, *US – Large Civil Aircraft (2nd complaint)*, para. 1290.

¹²⁷⁹ See paras. 5.119, 5.366, 5.551, and 5.567.

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
