EUROPEAN COMMUNITIES AND CERTAIN MEMBER STATES – MEASURES AFFECTING TRADE IN LARGE CIVIL AIRCRAFT

(WT/DS316)

ANSWERS OF THE UNITED STATES OF AMERICA TO THE PANEL’S ADDITIONAL QUESTIONS

January 22, 2008
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I. QUESTIONS TO THE UNITED STATES

A. LAUNCH AID / MEMBER STATE FINANCING

226. Does the United States agree with the EC that the amounts of EC Member State government funding provided for under the challenged LA/MSF measures listed below was:

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<th>LA/MSF Measure</th>
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Response

1. Each of the Launch Aid contracts cited in the Panel’s question states the amount of Launch Aid provided in the relevant national currency, not in euros. For most of these contracts, the United States agrees that the amount provided for – stated in national currency – is as indicated in the Panel’s question. That is the case with respect to French Launch Aid for the A320 and A330/A340; German Launch Aid for the A330/A340; Spanish Launch Aid for the A320 and A330/A340; and UK Launch Aid for the A320, A330/A340, and A380. The United States will address the Launch Aid amounts provided for in the other contracts at issue and then will address the issue of conversion from national currencies to euros.

2. With respect to French Launch Aid for the A330-200, the EC refers only to an amount in euros, not French francs. However, according to the French Launch Aid contract for this model,
the amount of government funding provided for is [ ].\(^1\) That amount is confirmed by other, publicly available evidence.\(^2\)

3. With respect to French Launch Aid for the A340-500/600, the EC again refers only to an amount in euros, not French francs. However, according to the French Launch Aid contract for this model, the amount of government funding provided for is [ ].\(^3\) That amount is confirmed by other, publicly available evidence.\(^4\)

4. Likewise, the EC states the amount of Spanish Launch Aid provided for the A340-500/600 in euros only, not Spanish pesetas. However, according to the Spanish Launch Aid contract for this model, the amount of government funding provided for is [ ].\(^5\) That amount is confirmed by other, publicly available evidence.\(^6\)

5. Regarding German Launch Aid for the A320, the EC’s contention (as summarized in the Panel’s question) is that the amount provided for, stated in national currency, is [ ]. However, the United States presented evidence showing that the amount provided for was as high as DM 1,500 million. Specifically, in response to a question from a member of the German Bundestag in 1991, the Deputy Secretary of Parliament stated that project costs for the A320 for the period from 1983 through 1990 were estimated at the beginning of the project to be

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\(^1\) *Convention entre l'Etat et Airbus France concernant le développement de l'Airbus A330-200* (“A330-200 Convention”), Art. 4.2, DS316-EC-BCI-0000316, -0000318 (Exhibit US-78 (BCI)).

\(^2\) See U.S. First Written Submission (“FWS”), para. 234, n.250 (citing evidence).

\(^3\) *Convention entre l'Etat et Aerospatiale concernant le développement des Airbus A340-500 et A340-600*, Art. 4.2 (“A340-500/600 Convention”), DS316-EC-BCI-0000289 (Exhibit US-36 (BCI)).

\(^4\) See U.S. FWS, para. 244, n.263.


\(^6\) See U.S. FWS, para. 253, n.276.
DM 1,679 million. The response also noted an “assistance rate” of 90 percent associated with the project.\(^7\) Ninety percent of DM 1,679 billion is just over DM 1,500 million.

6. Other evidence cited by the United States refers to a “commitment” of DM 1.3 billion in “development cost subsidies from the German federal government for Airbus” for the A320.\(^8\) Given the range referred to in the evidence, it would be accurate to state that the amount of Launch Aid provided for by the German government for the A320 is at least DM 1,300 million.

7. As the Panel’s question notes, the EC has stated some Launch Aid amounts in terms of both national currency and euros and other amounts in terms of euros only.\(^9\) However, each of the contracts at issue refers to Launch Aid amounts in national currency only, not in euros. This stands to reason, because, with the exception of the UK contract for the A380, each contract predates introduction of the euro. Given these facts, any conversion of a Launch Aid amount from national currency into euros is likely to yield an approximation of the amount at issue. How reliable the approximation is will depend on the conversion methodology used. As the EC has not explained its conversion methodology or methodologies, the United States is not able to confirm the accuracy of the EC’s restatement of Launch Aid amounts in euros. As the Panel’s Question 258 asks the EC to explain its conversion methodology or methodologies, the United States expects to have more to say on this issue after reviewing the EC’s response to that question.

227. In its FWS (para. 170) the United States asserts that the Spanish government's participation in the A300 programme was "institutionalized in an additional intergovernmental agreement". However, the Agreement cited in footnote 161 is only the French-German government agreement relating to the A300. Please identify and, if possible, submit the relevant agreement concerning Spanish participation in this programme.

Response

8. During the Annex V process, the Facilitator expressly requested the EC to provide the intergovernmental agreement pertaining to Spain’s participation in the A300. However, the EC

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\(^7\) See BT-Drs. 12/1080, at 46 (Exhibit US-26) (cited at U.S. FWS, para. 191, n.194).


\(^9\) See, e.g., EC FWS, paras. 369-378 (stating Launch Aid amounts for A320 and A330/A340 in national currencies) and paras. 328-339 (stating Launch Aid amounts for these and other models in euros).
refused to provide that document. Therefore, the United States is unable to submit the relevant agreement.

9. Nevertheless, the identity of the agreement can be discerned from the record in this proceeding. In particular, the agreement concerning the Spanish government’s participation in the A300 program is referred to in the German government Monopolkommission Report, which is cited in footnote 162 of the U.S. first written submission. As discussed there:

{A} government agreement in 1969 between the Federal Republic of Germany and France concerning the Airbus A300B and other agreements about the participation of the Netherlands and Spain have been signed. There is a 1981 government agreement among the Federal Republic of Germany, France, Great Britain, and Spain concerning the A300 and A310 Airbus program.\(^1\)

10. The intergovernmental agreement including Spain also is referred to in the original Spanish Launch Aid contract for the A300.

B. **Adverse Effects**

228. The EC has argued that the credit rating information relied upon by the United States does not demonstrate the effects of LA/MSF, but rather reflects consideration of government equity positions and statements about general support. (ECSWS, paras. 1040-1044). In its second public oral statement, the US argued that the EC misrepresented the US position. Could the United States please comment on the difference between the EC’s view of the relevance of EADS status as a GRI in its credit rating by Moody’s, and the US position?

Response:

11. The EC’s argument in paragraphs 1040 through 1044 of its second written submission entirely misses the point of the U.S. demonstration of the effect of Launch Aid on the credit rating of EADS. The EC focuses on an element of the Moody’s credit rating methodology that does not relate to the U.S. demonstration of adverse effects, while ignoring those elements of Moody’s methodology that support the U.S. case.

\(^{10}\) See Replies to Questions by the Facilitator under Annex V of the SCM Agreement by the European Communities at 21 (Nov. 18, 2005) (response to Question 18(c) and (d)) (Exhibit US-5 (BCI)); see also id. at 20 (response to Question 16).

12. As the United States has shown, Launch Aid shifts much of the commercial risk of LCA development from Airbus to the Airbus governments, which fundamentally alters the economics of LCA launch decisions. As Dr. Gary Dorman concludes:

Launch aid offered at a subsidized interest rate effectively lowers the program’s non-recurring costs from the perspective of the manufacturer. This results from the early infusion of funds and the extended period over which the loan can be repaid. The time value of money associated with this early funding lowers the cost and the risk of the initial investment. A payment structure with contingent repayment will further decrease the program’s risk to the manufacturer without necessarily requiring a corresponding sharing of upside benefits. (Note that this does not actually reduce the overall risk of the program, but merely shifts some of it to the government entity – and its taxpayers.) Consequently, launch aid may cause an otherwise unprofitable program to be undertaken, since it both increases the expected profitability of a program and lowers its risk from the perspective of the manufacturer.

Professor Kaivanto confirms this analysis when he observes that “Launch Aid commits European governments to absorbing much of any possible losses, so even if Airbus is risk averse, it has little incentive not to adopt a risky, aggressive strategy.”

13. The primary effect of Launch Aid is this direct impact on the launch decisions of Airbus – and thus the product availability and supply of LCA in the market. There are also a number of indirect effects as well. One such indirect effect is that the credit ratings of Airbus and its parent company EADS are improved by the transfer of much of the commercial risk of LCA development away from Airbus to the Airbus governments. These higher credit ratings, in turn, lower the companies’ marginal cost of capital. To the extent that Launch Aid lowers Airbus’s marginal cost of capital, it further distorts the economics of launch decisions by reducing the costs to risk-sharing suppliers and the cost of any additional financing sought from capital

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16 U.S. Comments on EC Answers to Second Panel Questions, paras. 43-52 and HSBI Appendix thereto (comments on EC answer to Question 215); U.S. SWS, paras. 113-119 and evidence cited therein.
markets. In addition, a lower marginal cost of capital will reduce Airbus’s marginal cost of production, which in turn could be expected to lower Airbus pricing.\footnote{\textsuperscript{17}}

14. The evidence establishes that the impact of Launch Aid on the creditworthiness of Airbus – and thus on its marginal cost of capital – has been substantial. As the EC recognizes, the launch of the A320, A330, and A340, even with Launch Aid, left Airbus in a position in which “\{i\}nternally generated cash flow was not sufficient” to fund its investments, given that “a prudent debt/equity ratio placed limits on the amount of new debt that could be borne.”\footnote{\textsuperscript{18}} Indeed, [\textsuperscript{19}] Funding even just a portion of its LCA launches without subsidies left Airbus in a position that was, by its own admission, “repellent” to private investors.\footnote{\textsuperscript{20}} If Airbus had funded all of its LCA launches by obtaining Launch Aid at market rates rather than the subsidized rates provided by the Airbus governments, the resulting impact on its balance sheet would have been far greater than anything Airbus could have sustained.\footnote{\textsuperscript{21}} Indeed, the EC itself states that this cumulative impact is several times greater than the entire market capitalization of EADS.\footnote{\textsuperscript{22}} This evidence alone is sufficient to establish that the impact of Launch Aid on the creditworthiness, and thus on the marginal cost of capital, of Airbus has been significant.

15. However, the United States has gone further and provided evidence that Launch Aid has affected, and continues to affect, the judgments of private credit rating agencies and investment banks as to the risk level associated with Airbus and its parent company, EADS. For example, a

\footnote{\textsuperscript{17}} A company’s marginal cost of capital is ordinarily the appropriate discount rate to be used in determining the net present value of its future revenues and costs. The present value of expected revenues (whether at the time of launch or at the time of order) is greater when the discount rate is lower – i.e., when the company’s cost of capital is lower. Because of the length of time between launch and sale, as well as between order and delivery, the difference in the total program revenue from the decision to launch, as well as in the marginal revenue anticipated at the time of future delivery, resulting from a better credit rating can be significant.

\footnote{\textsuperscript{18}} EC FWS, para. 1135.

\footnote{\textsuperscript{19}} Aérospatiale report to Credit Lyonnais (1994), DS316-EC-BCI-0000756, at 1 (\textsuperscript{I}Exhibit US-296) (BCI).

\footnote{\textsuperscript{20}} EC to Review France’s Aérospatiale Capital Injection, Aerospace Daily (Feb. 9, 1994) (Exhibit US-275).

\footnote{\textsuperscript{21}} NERA Economic Consulting, Quantification of Benefit of Launch Aid (May 24, 2007) (Exhibit US-606); U.S. SWS, paras. 610-612.

\footnote{\textsuperscript{22}} EC SWS, para. 960.
Deutsche Bank report concluded that, assuming that no Launch Aid is provided for the A350, the impact on EADS private investors would be significant:

As the A350XWB has evolved, it has moved from being a low cost derivative of the A330 to become a material new aircraft programme in its own right. ... This will make the A350XWB almost as large a programme in financial terms as the original projected Euro 12bn costs for the A380. Not only does the scale of such an investment create clear risk, but also changes in sources of project financing create some new risks for Airbus compared to past projects. Specifically, Airbus’ inability to use government launch finance for A350XWB will materially increase the risk of project financing to EADS equity holders. In the past, government launch finance has covered around 30% of Airbus new programme R&D. Such a source of finance was risk free to equity investors since its repayment is entirely success based (if the aircraft fails commercially, the loan is not repaid).  

In other words, Deutsche Bank believes that, if Airbus were unable to use Launch Aid for the A350 – due to changes in the Launch Aid Program and previous commitments of Launch Aid from the Airbus governments resulting from compliance measures that Deutsche Bank expects to result from this dispute – “far more” of the exposure of EADS “equity and debt holders” will be “risk” rather than “risk free” than has been the case with prior Airbus LCA launches. Conversely, had Launch Aid not been provided for those launches, including that of the A380, “far more” of the exposure of EADS equity and debt holders would have carried risk – and EADS would have had to pay for the consequences of assuming that risk.

16. In addition, the United States has presented evidence that at least one private credit rating agency – Moody’s – has stated publicly that its debt rating for EADS “considers the expectation for continuing government support, which is primarily in the form of refundable advances for up to 1/3 of the development cost of each new aircraft program on the Airbus level.” Specifically, Moody’s stated that it is “comforted,” notwithstanding the large $12 billion investment in the A380 program, by, *inter alia*, “continuing government support in the form of refundable advances of up to 1/3 of the required development expenses for Airbus’ commercial aircraft.” This evidence confirms that EADS’s credit rating would be lower – and its cost of capital higher – than would otherwise be the case, but for Launch Aid. Nothing in paragraphs 1040 through

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1044, or any other paragraph, of the EC second written submission so much as acknowledges, let alone rebuts, this evidence.

17. At the first meeting of the Panel with the parties in March 2007, the United States also pointed to an announcement by Moody’s, just days before, that it would maintain its high credit rating of EADS, notwithstanding losses related to the delay of A380 deliveries and other pressures. The announcement noted that government support to Airbus provides a “helping hand in times of financial difficulties” and “reflects an entrenched inclination for state protection and a low appetite for exposing private bond holders to losses.” These statements simply confirm what has already been amply demonstrated – that Launch Aid and other government subsidies have significantly enhanced the ability of Airbus and its corporate owners to obtain private capital at lower rates.

18. The EC argument in its second written submission focuses on the fact that Moody’s changed two distinct elements of its analysis of the creditworthiness of EADS in March 2007. First, Moody’s reduced its “Baseline Credit Assessment” for EADS to reflect “a deterioration in the intrinsic credit strength of the company,” due to A380 delays and other factors. This action, however, did not result in an immediate lowering of the overall assessment of EADS, because Moody’s simultaneously recognized an “increased likelihood of state support for the company in the event of serious difficulties.” According to Moody’s explanation of its methodology for assessing “Government Related Issuers” (“GRIs”), as provided by the EC, the credit rating for a GRI takes into account both the baseline credit risk of the company and the “degree of government support for a GRI,” which Moody’s defines as “the likelihood that the government will step in and bail out a GRI if it were to experience a catastrophic loss.” What the EC stresses is that the change in Moody’s evaluation of the impact of subsidies in March 2007 was only with respect to “government support” (that is, the likelihood of an EC or Airbus government bailout of EADS in the event of catastrophe); Moody’s evaluation of the continuing impact of Launch Aid was not changed.

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26 E.g., U.S. FNCOS, para. 24.


19. The EC’s point is irrelevant to the U.S. argument. The United States does not in this dispute assert the existence of present adverse effects from a future bailout of EADS, and does not assert serious prejudice on the grounds that EADS enjoys a better credit rating because the markets anticipate such a future bailout. \[31\] Rather, the United States has demonstrated the existence of present adverse effects from the subsidies that have been challenged in this dispute. Among the effects of these subsidies has been an improvement in EADS’s debt rating and a lower marginal cost of capital, and these indirect effects of the subsidy form part of the U.S. case in this dispute. EADS may also enjoy an improved credit rating and lower marginal cost of capital – about [\(\Box\)] \(\) according to the EC \[32\] – because the markets also anticipate the GRI-related effects of a possible future bailout of EADS, but this is distinct from the effects that the United States has identified in this dispute.

20. Indeed, the explanation of Moody’s methodology provided by the EC makes clear that the “government support” prong of its GRI analysis takes into account only extraordinary subsidies in the event of catastrophic failure. All other “aspects of the entity’s existing (or anticipated) business model, including benefits (such as regular subsidies or credit extension)” are included within the “baseline risk assessment,” as they would be for any other company. \[33\] Thus, the ongoing impact of Launch Aid (including anticipated future disbursements under the Launch Aid Program) are included in the baseline assessment of EADS, not the GRI-specific support factor on which the EC focuses the entirety of its argument. And, as the earlier discussion of Moody’s 2003 statement shows, that baseline assessment is most certainly affected by Launch Aid. \[34\]

21. Thus, the entirety of the EC’s response to the evidence showing that Launch Aid affects Moody’s debt rating for EADS is to say that nothing changed in March 2007 with respect to Moody’s assessment of the impact of Launch Aid on the creditworthiness of EADS. The United States agrees. That impact has been real and significant – as Moody’s stated expressly in 2003 – and continues to be so. Moreover, the evidence that Moody’s pointed to in March 2007 when it concluded that there was an increased likelihood of a future government bailout of EADS included the demonstrated willingness of the EC and the Airbus governments to provide support for Launch Aid.

\[31\] The United States does assert, however, continuing adverse effects from past bailouts of Airbus, such as the challenged equity infusions and debt forgiveness.

\[32\] EC SW S, para. 1043.


in the past – a “helping hand in times of financial difficulties” and “an entrenched inclination for state protection and a low appetite for exposing private bond holders to losses.”

22. Therefore, the elements of Moody’s assessment that changed in March 2007 are not directly relevant to this dispute, and the EC’s discussions of these elements are therefore entirely beside the point. The point is that Moody’s has consistently concluded, and other evidence before the Panel fully demonstrates, that Launch Aid has a positive effect on the creditworthiness of Airbus and therefore on its cost of capital.

229. At paragraph 173 of the US SOS (and elsewhere) the United States, on the basis of a Deutsche Bank Report (Exhibit US-459), refers to LA/MSF disbursements as accounting for a significant share of EADS cash flows. The United States asserts that this is evidence of Airbus pricing flexibility resulting from LA/MSF. Is the United States' position in respect to this evidence merely that absent LA/MSF Airbus would need to obtain equivalent funds at a higher cost? If yes, how exactly does the United States consider that this would affect pricing flexibility?

Response:

23. The probative value of this particular piece of evidence – the cash flow analysis in the Deutsche Bank report – must be placed in the context of the U.S. causation arguments with respect to the price effects of the subsidy. As the United States explained in response to Question 228, the primary effect of Launch Aid is to distort, and therefore to change, Airbus’s launch decisions. However, Launch Aid has a number of additional effects.

24. Among these additional effects is the cumulative impact of Launch Aid on the ability of Airbus to pursue multiple investment opportunities simultaneously. Assume, arguendo, that Airbus could have launched each of several aircraft programs without subsidies by obtaining funds at market rates, when each program is considered in isolation. It does not follow that Airbus could have obtained such funds for all of those programs at the same time, or in quick succession after each other. At some point, the cumulative risk of the projects and the cumulative exposure of Airbus to high levels of debt at full market rates would make it impossible to obtain additional investment funds. Thus, in addition to evidence of the direct impact of Launch Aid on individual Airbus launch decisions, one must consider evidence of the cumulative impact of Launch Aid on the financial structure of Airbus.

25. The evidence before the Panel demonstrates that, without Launch Aid, the financial health of Airbus would be significantly worse than it has actually been. Some of this evidence

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has already been discussed in response to Question 228. The United States has also previously pointed to a French government report on Launch Aid for the A380.

In the case of the {A380}, since the development cost of the future jumbo jet is estimated to be 50 billion francs, the expenses Aérospatiale must bear would be about 18.8 billion francs. . . . It seems doubtful that the enterprise would be in a position to find outside financing to meet its needs. . . . Above all, however, such external financing would apparently add excessively to the financial expenses incurred by the firms, and would throw their balance sheets out of equilibrium because of the low level of their equity capital.\footnote{1997 French Senate Report at 72 (Exhibit US-18).}

For the French government, the issue was not just finding the outside financing – which should theoretically be available in the capital markets to fund any truly commercially viable project – but “above all” the financial impact of such financing, even assuming it could be found, on the balance sheet of Airbus.

26. Thus, the evidence demonstrates that the overall financial health of Airbus was not so robust that, but for the subsidy, it could have raised the necessary funding for the A380 launch (and all the other launches) at market rates without severely constraining its ability to fund other potential investments. In other words, without Launch Aid Airbus would not only have to be more conservative in its approach to launch decisions, but it would also have to be more conservative in its other investment decisions – including Airbus’s decisions to build long-term market share through price concessions.

27. As the United States previously explained to the Panel in its comments on the EC’s opening statement in the non-confidential session of the Panel’s second meeting with the parties:

Mr. Scherer told the Panel that when the market turned down in 2001, even though Airbus and Boeing faced the same market incentives, Airbus succeeded in maintaining production and gaining sales and market share at Boeing’s expense largely through a greater willingness to be flexible with customers, particularly on price. Recall that it was in this period that Airbus was completing the launch of and delivering the first A340-500/600s, beginning the enormously expensive and risky launch of the A380, and preparing for the coming launch of the A350, and in this same period that Airbus took sales and market share from Boeing through more flexible pricing. And, as we explained yesterday, the evidence shows that, especially during this period, Airbus would have faced significantly greater financial constraints if not for Launch Aid. How is it that Airbus was the producer that was launching all the new aircraft, winning all the new
customers, gaining all the new market share, winning more competitions on price, in a period when it faced real financial constraints?  

The answer to this question is clear: Because Launch Aid and the other subsidies had a real and discernible impact on the financial constraints that Airbus faced precisely during this period.

28. The Deutsche Bank analysis of EADS’ free cash flow during this period is relevant to this analysis because it confirms that Launch Aid had a material impact on the financial constraints facing Airbus. This analysis, released in January 2007, points out the significant negative impact of the A380 delays on the financial structure of EADS, particularly in terms of cash flow.  

It then goes on to point out that the financial risks posed by the A380 delays are greater than they might otherwise appear, because “although EADS has delivered excellent FCF {free cash flow} pre customer financing since 2001,” this is largely illusory because it mostly reflects new Launch Aid disbursements (particularly in 2001-2002) and pre-delivery payments on the large number of new orders (particularly in 2004-2005), rather than the sustainable long-term generation of profits. Without further Launch Aid, the report concludes, when the current temporary order boom passes, EADS must “materially improve its underlying free cash generative performance in the future,” or else it will probably be unable to “avoid future refinancing of the group through either additional debt, equity or hybrid bond issues.

29. In sum, therefore, the relevance of the Deutsche Bank study is twofold. First, it corroborates all of the other evidence showing that Launch Aid has, in fact, had a material impact on the financial structure of EADS. Second, it shows that during 2001-2002, at precisely the moment when Airbus became significantly more aggressive in building market share through price concessions, Launch Aid was decisive in giving Airbus positive free cash flow, and therefore provided Airbus with the ability to make the very pricing decisions at the heart of the serious prejudice about which the United States complains in this dispute.

230. The United States argues that one of the effects of the alleged subsidies to Airbus is that the additional cash flow from the alleged subsidies enables Airbus to price aggressively, i.e., price down, its LCA in competitive sales campaigns. Does the United States consider that, for purposes of Articles 5(c) and 6.3, this is sufficient to demonstrate the required causal link between the subsidy and the particular form of serious prejudice in question?

37 U.S. Comments on EC Second Non-Confidential Opening Statement (“SNCOS”), para. 46.


Response:

30. The mere fact that subsidies provide a recipient with additional cash is not sufficient, in and of itself, to demonstrate a causal link between the subsidy and any particular form of serious prejudice. Rather, the causal link must be demonstrated through an analysis of the nature and magnitude of the subsidy that links the subsidy to the actual behavior of the recipient in the market. This analysis must show that (1) the subsidy has affected the product development, production, or pricing decisions of the recipient and (2) these decisions have, in turn, caused one or more forms of serious prejudice. Such an approach is fully consistent with the text of Articles 5(c) and 6.3, as well as the approach taken by prior panels applying these provisions.

31. **Direct impact on LCA supply.** In this dispute, the United States has demonstrated that Launch Aid has directly impacted the product development decisions of Airbus. Airbus has publicly acknowledged, and the EC has not disputed, that it could not have launched the A300, A310, A320, A330, or A340 – that is, every LCA that Airbus delivered before October 2007 – when it did without Launch Aid.\(^1\) Although the EC contends that it would have launched the A330-200 and A340-500/600 derivatives, as well as the A380, without Launch Aid, these contentions are contradicted by the evidence with respect to both the A340-500/600 and the A380.\(^2\) The impact of Launch Aid on the product development decisions of Airbus is clear and undeniable, and in fact the EC largely does not deny it.

32. The statement of two well regarded economists, Professors Joseph E. Stiglitz and Bruce C. Greenwald of Columbia University, provided as Exhibit US-676, discusses differences in the effects of different types of subsidies to LCA producers. Their conclusion is that subsidies, like Launch Aid, that directly influence the development, production, or sale of specific aircraft are the subsidies that are most likely to affect competition generally and market pricing in particular.\(^3\) Their statement confirms that Launch Aid, because it has a direct impact on the supply of LCA that Airbus can produce and sell, has a causal relationship with the market behavior of Airbus and its impact on its competitor.

33. **Direct impact on marginal production costs and revenues.** Even assuming the existence of all Airbus aircraft models, however, the nature of Launch Aid is also to affect the marginal production costs and marginal revenue that Airbus receives from each LCA sold and delivered.

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\(^2\) U.S. SW S, paras. 577-583.

This occurs in at least two ways. First, as explained in response to Question 228, Launch Aid improves Airbus’s overall credit rating and therefore lowers its marginal cost of capital. Given the long lead times between investment at the time of launch and order and customer payment mostly at delivery, lowering Airbus’s cost of borrowing has a direct impact on its marginal cost of production. Second, as explained during the second meeting of the Panel, if Airbus had obtained a loan with all of the same terms as Launch Aid, except a commercial interest rate, each individual per-aircraft repayment would have to be substantially increased. The EC even calls this increased per-aircraft repayment the “benefit per aircraft.” In order to repay Launch Aid on all Airbus deliveries to date (except for the A380, for which deliveries only began in October 2007) at market rates, the per-aircraft repayment rate would have to be more than doubled in every case – in some cases much more than doubled. The lower per-aircraft repayment due to subsidized Launch Aid directly results in greater marginal revenue (or lower marginal costs) for each sale, and does so at the time of delivery for as long as the loan is outstanding.

34. In another dispute, the EC has taken the position that a subsidy that reduces a manufacturer’s marginal cost of producing an aircraft (or increases its marginal revenue) has a “dollar for dollar” effect on that manufacturer’s pricing: “Each of these subsidy dollars has the effect of reducing the price of a Boeing LCA by exactly $1.” The EC’s extreme position is not supported by evidence, either in that dispute or in this one. Nevertheless, as shown above, Launch Aid does have a direct impact on marginal LCA cost and revenue. Therefore, Launch Aid can be expected to have price effects, even if not the “dollar for dollar” price effects that the EC’s statements would suggest.

35. **Indirect effect on ability to invest in aggressive pricing.** The nature and magnitude of the cumulative provision of Launch Aid to Airbus LCA has also had a significant impact on the financial structure of Airbus as a whole, as explained in the response to Question 229. The evidence shows that, in the absence of subsidies, Airbus would be forced to be more conservative in its approach to investments, including price concessions aimed at building market share over the long run.

36. **Demonstrable effect on Airbus behavior in the market.** That Airbus has in fact taken advantage of Launch Aid and other subsidies to launch and market a large number of LCA models in a short period of time and to undercut Boeing prices in order to gain market share at
Boeing’s expense in recent years, is demonstrated by all of the evidence relating to Airbus’s substantially increased market share since 2001, the significant price suppression and price depression experienced by Boeing since 2001, and numerous significant Boeing lost sales, including many with direct evidence of significant price undercutting by Airbus, during the same period.

37. In sum, the United States does not ask the Panel to accept on faith that, because Airbus has received large subsidies over the years, those subsidies must have had some market effects. Rather, the United States has demonstrated through evidence how the subsidies, given their nature and magnitude, have shaped the way Airbus participates in the LCA market, and the resulting Airbus market decisions have resulted in serious prejudice to the U.S. LCA industry.

231. At paragraph 579 of the US SWS the United States asserts "If Airbus launched some of its or all of its aircraft without Launch Aid, the company would have faced significant pressures to fund its ambitious LCA development program from its own resources...". Is the Panel correct in understanding that the reference to "own resources" is not intended to imply that Airbus would seek to finance the launch of new aircraft solely of the basis of current revenues, but would require additional financing? Assuming, arguendo, that equivalent financing to that received in the form of LA/MSFat market rates would be priced higher, how exactly would (a) the use of own resources, and (b) the need for additional financing from the markets, affect pricing of aircraft? Are the United States' arguments in this respect dependent on the Panel finding that Airbus, in fact, sacrificed profit in exchange for market share?

Response:

38. By the term “own resources” the United States means resources available to Airbus other than subsidies from the EC and the Airbus governments – resources available to Airbus, as a commercial entity, on commercial terms and at market rates. These resources could include current and retained earnings, as well as debt, equity, or hybrid financing available from capital markets. In the absence of subsidies or some type of non-market restraint, it is reasonable to assume that any of these types of financing are equivalent, and that the discount rate applicable to financing from current or retained earnings would equal the marginal cost of external financing from the market.

39. Thus, the question arises: If in the counterfactual situation Airbus simply obtains financing for all of its projects from the capital markets at market rates, why does this necessarily have price effects in the LCA market? How does this financial benefit of Launch Aid translate into production or pricing of LCA? Why would Airbus not have produced and priced its LCA exactly as it did, but simply paid more for its capital – and returned lower profits to its shareholders, without causing any adverse effects to other LCA producers?
40. The response relates directly to the nature of Launch Aid as an instrument that transfers enough of the commercial risk of an LCA launch decision to materially affect the outcome of that decision. It may be the case that, if financing for an LCA program is obtained at market rates rather than subsidized rates, the investment in the program is no longer justified. Even if the program would still be profitable if the expected sales, revenue, and cost targets are met, Launch Aid transfers to the Airbus governments much of the risk of loss should these targets not be met, affecting not only the outcome of the launch decision but also the exposure of Airbus to such losses and thus its credit rating and access to capital more generally.

41. The evidence set forth in response to Questions 228, 229, and 230 demonstrates that, without Launch Aid, Airbus would not have been able to proceed with most or all of its launch decisions in the absence of Launch Aid. In other words, if Airbus had obtained financing on commercial terms and at market rates, the level of risk assumed by Airbus would have been so large that, for all practical purposes, it could not have obtained financing from the market at all.

42. For example, Airbus freely admits that the original Airbus A300 project could not have been launched using solely commercial financing in the absence of subsidies:

   Let us go back to 1970 for one minute. Imagine if I had gone then to a bank and said, “I have just started a management team from various European countries. I intend to make large aircraft to compete with Boeing. Will you lend me $1 billion? You may lose all of it. Or you may start to make some money twenty years from now.” I leave to your imagination the welcome I would have had. No financial institution would have taken on such a risk, or if it had the interest rates would have been simply prohibitive. It was therefore up to the governments of each of the countries participating in Airbus Industrie to substitute themselves for the bankers and assume such risks.\footnote{Speech of Jan Pierson, Managing Director, Airbus Industrie, at Cranfield Management School, Apr. 1991, quoted in Matthew Lynn, \textit{Birds of Prey}, at 150 (1995) (Exhibit US-42).}

As noted above, the EC recognized in its submissions to this Panel that the launch of the A320, A330, and A340, even with Launch Aid, left Airbus in a position in which “\{i\}nternally generated cash flow was not sufficient”\footnote{EC FWS, para. 1135.} to fund its investments, and that “a prudent debt/equity ratio placed limits on the amount of new debt that could be borne.” With respect to the launch of the A340-500/600, the European Commission reported that:

   Aérospatiale could not finance the costs connected with the development of the Airbus A340-500/600 itself or with the help of bank loans. Accordingly, if it were to finance the development costs of the A340-500/600 solely from its own capital (or through bank
loans), it would seriously weaken the financial structure of the company. ... Consequently, the reimbursable advance from the French authorities is helping to promote the A340-500/600 program, which could not be implemented without this government support.\(^{50}\)

And the French government likewise concluded that commercial financing for the A380 would either not be available at all or would, if obtained, “throw {Airbus’s} balance sheets out of equilibrium.”\(^{51}\)

43. This evidence is corroborated by NERA’s analysis of the cumulative financial impact, as of the end of 2006, of Airbus’s obtaining all of its Launch Aid at market rates.\(^{52}\) On any reasonable methodology, the impact is several times EADS’s current market value. The 1995 Neven and Seabright study, on behalf of one of the Airbus governments, found that the subsidized entry of Airbus into the LCA market had reduced Boeing’s profits by more than $100 billion and McDonnell Douglas’s profits by two-thirds.\(^{53}\) As Airbus has not generated anything close to that figure in profits over its entire history, the conclusion drawn by Neven and Seabright – that “Airbus has had a large negative impact on world welfare but a comfortably positive impact on European welfare”\(^{54}\) – is readily confirmed.

44. From this, one must conclude that the proper counterfactual in this dispute is not that, but for Launch Aid, Airbus would have done everything that it did, but at higher cost. Rather, Airbus would not have done these things at all. The cost was simply too large for private financing to justify many, if not all, of the investment decisions that Airbus has made. Commercial financing would not simply have been available at a higher rate; it would not have been available, in practical terms, at all.

45. With respect to the final part of the Panel’s question – whether the U.S. argument depends on a finding that Airbus has “sacrificed profit in exchange for market share” – the response follows from the points just outlined. The sales-specific evidence in particular


\(^{51}\) U.S. Comments on EC SNCOS, para. 46.

\(^{52}\) NERA Economic Consulting, *Quantification of Benefit of Launch Aid* (May 24, 2007) (Exhibit US-606); U.S. SWS, paras. 610-612.


demonstrates beyond question that, since 2001, Airbus sacrificed some short-term profitability (by accepting lower prices) in order to win sales and improve its market share over the long term. However, the United States does not assert that Airbus, by “investing” its short-term profitability in the hopes of increasing its long-term profitability, necessarily acted in a way that would have been irrational in the absence of subsidies. That may or may not be the case.55

46. Rather, the United States has focused on the ability of Airbus to act as it did without subsidies. As demonstrated immediately above, Airbus could not have made all of the investments that it has if it had been limited to funding at market rates. As explained in response to Question 229, Airbus would have been constrained in its ability to “invest” in risky pricing strategies, just as it would have been constrained in its ability to invest in risky product launches. Even if some of these “investments” may have made economic sense in isolation, when taken together they amount to an overall strategy that could not have been pursued without massive subsidization.

232. At paragraph 175 of its SOS the United States, in the context of its pricing arguments, states that "it has focused on the structural way that Launch Aid fundamentally distorts the conditions" of competition. Is it the United States' position that such distortions are not captured by the benefit of the subsidy? If that is the United States' position, would the United States please elaborate on its views in this respect and why it considers that the Panel may consider effects not captured by benefit in undertaking its adverse effects analysis, and how it considers the Panel should do this? With respect to this question, the Panel recalls the United States' argument that LA/MSF provides pricing flexibility in respect of initial sales, due to the fact that repayments are not required until some future date. Why is this effect not captured by the alleged benefit ascribed to LA/MSF? Why is it appropriate for the Panel to consider this alleged structural impact of LA/MSF, rather than focus on what the market would require in order to provide for similarly structured financing and the impact that this might have on Airbus activity?

Response:

47. The United States agrees that the Panel’s analysis must begin with an appreciation of “what the market would require in order to provide for similarly structured financing and the

55 The French finance minister, Christine Lagarde, recently issued a threat to reduce financial assistance to Airbus if it moves production outside of France, stating that she would ask EADS executives about their plans to “optimise the sales and market share of the French aerospace industry” – not its profitability. Ben Hall, EADS warned about moving production, Financial Times (Dec. 6, 2007) (emphasis added) (Exhibit US-677). As the United States has previously explained, Launch Aid and other subsidies are often expressly tied to implicit and explicit requirements to locate specific Airbus production in the territory of particular Airbus governments. E.g., U.S. Second Confidential Oral Statement (“SCOS”), para. 52. Such ties could well lead Airbus to value increased “sales and market share” more than profits.
impact that this might have on Airbus activity.” Indeed, this is the starting point of the U.S. demonstration of causation. However, in order to determine the “impact” of the subsidy on “Airbus activity” – and the corresponding effects on Airbus’s competitors in the United States – the nature of the subsidy, and not simply the benefit of the subsidy, must be taken into account.

48. It is well established that “the ‘effect’ of a subsidy cannot be equated with the ‘benefit’ of a subsidy.” Indeed, the Appellate Body has stressed “the importance of examining the particular characteristics of a given subsidy in evaluating its impact,” including characteristics other than a simple identification of the amount of the benefit conferred. That Launch Aid confers a “benefit” is evident from the terms on which Launch Aid is provided, which are clearly more favorable than those that would have been available to Airbus in the marketplace. However, the identification of a “benefit” is only the beginning, not the end, of the inquiry into the effect of the subsidy. In particular, as the panel in US – Cotton Subsidies recognized, it is “common economic sense” that “the effects of a subsidy may vary depending upon the nature of the subsidy.”

49. As explained above in response to the questions posed by the Panel, when the nature of Launch Aid – and not simply the benefit – is taken into account, the impact of Launch Aid on “Airbus activity” has been profound and far-reaching. If Airbus had to finance all of its activities based “on what the market would require in order to provide for similarly structured financing,” then Airbus would not have engaged in a significant proportion of those activities. And it is these activities – at least some of which would not have occurred but for subsidies – that are responsible for the serious prejudice experienced by Boeing.

50. Thus, the effect of the subsidy demonstrated by the United States is not simply, as the Panel’s question suggests, to provide Airbus “pricing flexibility in respect of initial sales, due to the fact that repayments are not required until some future date.” Assuming that Airbus had obtained financing on the same terms and conditions as Launch Aid – including a backloaded repayment schedule – at commercial rates, it is true that Airbus would still enjoy the ability to make reduced or no repayments on initial sales. However, the more backloaded the repayment

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56 US – Cotton Subsidies (AB), para. 480. In that dispute, the EC, participating as a third party, emphasized that “benefit” and “adverse effects” are distinct concepts. US – Cotton Subsidies (AB), para. 231.

57 US – Cotton Subsidies (AB), para. 479.

58 U.S. FWS, paras. 110-163.

59 US – Cotton Subsidies (Panel), para. 7.1208.
terms, the more of the overall project risk is assumed by the lender— and in a market Airbus would have had to pay for that transfer of risk through higher interest rates. The evidence discussed above shows that, in fact, Airbus could not have found a lender to assume such a risk at an interest rate that would not have been prohibitive, given the expected return on the program. This impact of Launch Aid on the ability of Airbus to pursue the strategy that it has is part of the “nature” of the subsidy that must be taken into account in determining its effects.

51. Put another way, in order to assess the effects of the Airbus subsidies, it is not enough simply to measure the benefit that is conferred by the provision of Launch Aid at a subsidized interest rate rather than a market interest rate. In order to determine, as the Panel’s question sets forth, the “impact” of the subsidy “on Airbus activity,” one must also consider the significance of the subsidy to Airbus’s ability to undertake its activities. Here, the impact of the subsidy is to allow Airbus to create LCA supply that would not otherwise have been created when and as it was. As Professors Stiglitz and Greenwald explain, the effects of such a subsidy are likely to be far greater than the effects of subsidies, even of a similar magnitude, that are not tied to the development, production, or sale of a particular LCA model.61

52. This is precisely the point that the United States was making in the portion of its oral statement quoted in the Panel’s question. Contrary to the position of the EC, the “Airbus activity” to be examined is not limited to a comparison of the subsidy benefit (regardless of its nature) to Airbus pricing behavior in any single transaction. Rather, the United States was arguing that because the “Airbus activity” at issue distorts competition in the LCA market as a whole to the detriment of Boeing, this is also an “effect of the subsidy” that adversely affects U.S. interests and must be taken into account.

233. Would the United States please indicate what is the principal evidence supporting the conclusion the United States urges upon the Panel, that "Airbus would be too heavily exposed to commercial lenders if it had to fund project development using commercial funds" (SWS at para. 596). What precisely does the United States mean by "too heavily exposed"?

Response:

53. In order to determine what would have occurred “but for” the subsidies at issue in this dispute, the Panel must inquire as to what would have occurred had Airbus had access only to

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60 Dr. Gary J. Dorman, The Effect of Launch Aid on the Economics of Commercial Airplane Programs at 6 (Nov. 6, 2006) (Exhibit US-70).

market-based financing for each of its LCA launches. The evidence set forth in the responses to the preceding questions demonstrates that, if Airbus had to pay commercial rates for all of its development projects, and thereby assume their full commercial risk, those projects would not be commercially viable. This is the sense in which Airbus would be “too heavily exposed” to commercial lenders – the amount of debt that Airbus would have to carry in order to use commercial financing would be unsustainable, if in fact such financing would be available at all.

54. In paragraph 596 of its second written submission, the United States was not urging upon the Panel the conclusion that Airbus would be “too heavily exposed” to commercial lenders if it had to rely on commercial funding for product development. Rather, the United States was characterizing one of the rationales provided by the EC and the Airbus governments for providing Airbus with Launch Aid – that obtaining Launch Aid on commercial terms “would seriously weaken the financial structure of the company” or would “throw {Airbus’s} balance sheets out of equilibrium.”

55. Even if Airbus could have obtained commercial financing for one major LCA development project, and been able to meet its repayment obligations at market rates, this does not mean it could have also obtained financing for a second major project immediately thereafter. The conclusion that the United States did urge the Panel to draw in that paragraph of its submission – that the subsidy is “a necessary condition for Airbus to pursue multiple costly and risky strategies at the same time” – is a conclusion supported by all of the evidence set forth in response to the questions posed above.

234. Is it the United States' position that each sales campaign since 2001 which resulted in orders for Airbus LCA has present adverse effects for the United States? To the extent that the United States' position is that there are present adverse effects, even in circumstances where deliveries have already been made, would the United States please specify the nature of its arguments by reference to specific sales campaigns? Would the United States please respond with respect to both a determination of present adverse effects (a) as of mid-2005, and (b) as of end-2006.

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63 U.S. Comments on EC SNCOS, para. 46.

64 U.S. SWS, para. 596.
Response:

56. The United States is experiencing present serious prejudice in the form of lost sales. To support its claim of lost sales, the United States has not simply identified every sale for which Boeing and Airbus competed, and Airbus won. Rather, the United States has specifically identified those lost sales for which publicly available evidence demonstrates not only that Airbus won a contested sale from Boeing, but also that Airbus price undercutting, product availability, or both played an important role in determining the sale. Taken in the aggregate, these lost sales demonstrate a pattern of Airbus capture of multiple, significant sales as an effect of the subsidy.

57. Therefore, the United States does not consider that the “present” serious prejudice from each individual lost sale necessarily lasts only until the order is filled. Rather, it is the cumulation of the multiple lost sales due to the subsidy over a period of time that, in the aggregate, amounts to “significant” lost sales and present serious prejudice.

58. Nonetheless, the majority of the lost sales identified by the United States remained unfilled at the time of panel establishment in July 2005, and even at the end of 2006. Table 1 summarizes the available data.
Table 1. U.S. Alleged Lost Sales and Deliveries Resulting Therefrom

<table>
<thead>
<tr>
<th></th>
<th>Order</th>
<th>Deliveries to 7/2005</th>
<th>Deliveries to 12/2006</th>
</tr>
</thead>
<tbody>
<tr>
<td>easyJet</td>
<td>120 A319</td>
<td>52</td>
<td>91</td>
</tr>
<tr>
<td>Air Berlin</td>
<td>45 A320</td>
<td>0</td>
<td>11</td>
</tr>
<tr>
<td>AirAsia</td>
<td>60 A320</td>
<td>0</td>
<td>15</td>
</tr>
<tr>
<td>Iberia</td>
<td>8 A340</td>
<td>4</td>
<td>8</td>
</tr>
<tr>
<td>South African Airways</td>
<td>11 A319,</td>
<td>11</td>
<td>11</td>
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<tr>
<td></td>
<td>15 A320,</td>
<td>0</td>
<td>0</td>
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<tr>
<td></td>
<td>12 A340</td>
<td>12</td>
<td>12</td>
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<td>Thai Airways Int’l</td>
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<tr>
<td>Singapore Airlines</td>
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<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Emirates Airlines</td>
<td>22 A380</td>
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<td>0</td>
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<td>Qantas</td>
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<td>0</td>
<td>0</td>
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<tr>
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<tr>
<td></td>
<td>6 A320</td>
<td>0</td>
<td>3</td>
</tr>
</tbody>
</table>

59. In addition, having established a presence at each of these airlines as a result of these orders, Airbus has been able to win further follow-on orders from some of these airlines, as well as options to purchase additional Airbus aircraft at a fixed price. These include:

- **easyJet.** In addition to the firm order for 120 A319s placed in 2002, easyJet has placed a further firm order for 107 additional A319s and, as of June 2007, held a further 40 A319 purchase rights.\(^{66}\)

- **AirAsia.** Since reaching a preliminary agreement with Airbus for 45 A320s in late 2004, AirAsia has ordered an additional 105 A320s and holds options for 50 more.\(^{67}\)

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\(^{65}\) Airclaims database.


\(^{67}\) Airbus press release, *100 more A320s for AirAsia* (Jan. 8, 2007) (Exhibit US-609).
• **Thai Airways International.** In addition to the eight A340s ordered in 2003, Thai Airways later increased its A340 order to ten aircraft and ordered six A380s. Delivery of the A380s is not scheduled to begin until 2010.

• **Singapore Airlines.** In 2006, Singapore Airlines added nine A380 firm orders, plus six more A380 options, to its initial order of ten A380s. At the same time, the airline also leased 19 new A330s.

• **Emirates.** In addition to Emirates’ original order of 22 A380s, the airline has subsequently ordered 36 more A380s. When it placed its most recent follow-on A380 order in November 2007, it simultaneously placed a massive order for 70 new A350s, with provisions for options for 50 additional A350s.

• **Qantas.** Qantas ordered an additional eight A380s in 2006, and simultaneously ordered four A330s.

The continued effects of the sales lost in 2001-2005 further demonstrate the “present” nature of the serious prejudice arising from these lost sales.

235. With respect to the United States' price undercutting arguments, would the United States please indicate whether it considers that the Panel must make appropriate adjustments to account for differences in the Boeing and Airbus LCA before reaching any conclusions as to price undercutting? If such a comparison is required, how does the United States propose that the Panel undertake such an exercise? If such a comparison is not required, please clarify why not, with reference to the statements of the Panel in Indonesia – Autos, paras 14.246-14.247?

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Response:

60. Article 6.5 of the SCM Agreement provides that price undercutting, for purposes of Article 6.3(c), includes cases in which undercutting is demonstrated through a comparison of prices for the subsidized product with prices for the like product supplied to the same market, “made at the same level of trade and at comparable times, due account being taken of any other factor affecting price comparability.” Thus, in order to demonstrate the existence of significant price undercutting, the complaining party cannot simply show that the prices of the subsidized product are significantly lower than the prices of the like product in the same market. Rather, it must also show that any differences in the level of trade, the time of the sale, the quality or other physical characteristics of the products, and other similar factors are not responsible for the apparent price difference.

61. As the United States explains in response to question 281, it would be impracticable, if not virtually impossible, for the Panel to try to undertake the vast number of adjustments that would be necessary to perform an accurate, apples-to-apples price comparison between Airbus and Boeing LCA prices in a given market. Within any given sales campaign, it would be necessary to evaluate not only the list prices and nominal discounts offered by each producer, but also the value of additional concessions (parts and service, value and performance guarantees, price escalation caps, etc.) as well as differences in the particular LCA models being offered. When comparing prices across different sales campaigns in the same markets, even more factors would need to be considered. In addition, much of the necessary information is extraordinarily sensitive to both LCA producers and their customers and would be difficult to obtain, especially in a way that could give the Panel confidence that it had all the information needed to perform a true apples-to-apples comparison.

62. As the United States has explained, in any given sale the customer is the only party that has access to all of the data necessary to compare the prices offered by Boeing and Airbus. As Airbus has stated:

Airlines are sophisticated buyers who compete in a highly cost competitive environment. Their aircraft fleet planning decision can significantly affect the viability of the airline over the entire life of the aircraft selected. As a result, airlines tend to be analytical and exhaustive in their review of the available competing products. Their evaluation is always conducted by analyzing the performance and economics of the competing aircraft and how those factors impact costs and revenue generating over an aircraft’s economic life of approximately 30 years.

73 U.S. FWS, paras. 799-800.

Thus, the customers in each transaction will perform the analysis required by Article 6.5 – a comparison of the prices of the subsidized product and the like product, in the same market, at the same level of trade, at comparable times, taking “due account” of all relevant factors affecting comparability. The ordinary meaning of “due” includes what “ought to be or to be done; fitting, proper, rightful, appropriate.” Thus, nothing in Article 6.5 prescribes how such factors are to be taken into account; rather, the manner of taking them into account must be “fitting” or “appropriate” in the particular circumstances. Here, when the evidence demonstrates that a customer, after making an “analytical and exhaustive review” of all these factors, found a difference in price that was significant enough to have a major impact on the outcome of the sale, the evidence demonstrates the existence of price undercutting within the meaning of Articles 6.3(c) and 6.5.

63. In the Indonesia – Autos dispute, the EC presented detailed evidence of prices for the subsidized product and the relevant like product of the EC “at the same level of trade and at comparable times,” but did not provide similarly detailed information with respect to the value of the significant physical differences between the products. In other words, the EC provided some, but not all, of the evidence necessary for that panel to perform the complete analysis described in Article 6.5. Even still, the panel concluded that the differences in physical characteristics between the subsidized and like product, while not precisely quantified as well as they could have been, were in any case not large enough to explain the large price differential established by the evidence that was available in that dispute.

64. Here, in contrast with the situation in Indonesia – Autos, the evidence does not fail to take into account any differences in the physical attributes of the Boeing and Airbus aircraft in any particular sale, or indeed any differences relevant to the Article 6.5 analysis. The customers have taken all of these factors into account in evaluating the Boeing and Airbus offers made in the course of the sales campaigns. For example, in the case Czech Airlines (CSA) – one of the smaller lost sales alleged by the United States, involving only six A319s and six A320s chosen over the 737 – the airline hired the consulting group McKinsey & Co. to perform a comprehensive analysis of the net present value of the two offers. The conclusion was that the


76 Indonesia – Autos, paras. 14.244-14.248.

77 Indonesia – Autos, para. 14.251. In other words, the panel in that dispute concluded that the evidence, even if not sufficient to enable the panel to perform a price undercutting analysis at the level of detail that it preferred, was in fact sufficient in that case to conclude that significant price undercutting within the meaning of Article 6.5 had in fact occurred.

Airbus bid was $4 million better than the Boeing bid. Further, according to Jan Vana, strategic director for CSA, the lower price offered by Airbus was central to CSA’s decision to replace its Boeing 737 fleet with Airbus LCA: “Both offers met all of our technical specifications without exception. But Airbus offered the better price.” It is neither feasible nor necessary for the Panel to try to replicate CSA’s detailed, comprehensive analysis in order to conclude from the evidence that there was price undercutting by Airbus in this campaign, and that the price undercutting was significant enough to have a major impact on the result. Nothing in the *Indonesia – Autos* panel report would suggest that this evidence is somehow inadequate or insufficient to support a *prima facie* case of price undercutting in this instance.

236. *With reference to the evidence which it has presented in respect of various sales campaigns, on the basis of which particular evidence does the United States that the Panel should conclude that price undercutting has been significant?*

**Response:**

65. There is at least some public evidence, and in some cases substantial public evidence, of Airbus price undercutting with respect to almost all of the particular sales campaigns identified by the United States. To the extent that this evidence shows that the price undercutting was so substantial that it materially affected the outcome of the sale, the undercutting is “significant.” For example:

66. **easyJet.** The founder of easyJet, Stelios Haji-Ioannou, stated that “the price difference between the bids left the company with no choice: ‘The difference was so substantial we would have been in breach of our fiduciary duty; it would have been an offence to buy Boeing.’” The public notice to easyJet shareholders of the Airbus purchase stated that “the offer received from Airbus . . . was significantly better value than the offer received from Boeing.” Industry analysts, recognizing the advantage Boeing would have had as the incumbent supplier to easyJet, concluded that the offer made by Airbus had to be sufficiently attractive to prise easyJet away from Boeing. A near equal bid between Airbus and Boeing would have inevitably resulted in

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82 *Id.* at 3.
a decision favoring the latter. Clear water between the two manufacturers was necessary to tempt easyJet away from the traditional source of equipment for low-cost carriers.83

67. **Air Berlin.** Press accounts of the final 2004 deal, citing informed sources, stated: "According to people familiar with the deals, Airbus trumped Boeing by offering steep discounts and other financial guarantees that {Boeing} was unwilling to match."84

68. **Air Asia.** Once again, press accounts cited knowledgeable persons during the campaign as saying that “the offer from Airbus is priced well below Boeing’s.”85

69. **Iberia Airlines.** An unusually detailed published description of the sales campaign concluded that “Airbus nosed ahead thanks to its planes’ lower prices and common design with the rest of Iberia’s fleet. By offering guarantees on the planes’ future value and maintenance costs, plus attractive financing terms, Airbus edged out Boeing’s aggressive package.”86

70. **South African Airways.** The airline publicly described the LCA it bought from Airbus as "aggressively priced."87

71. **Early A380 Campaigns.** Press reports indicated that the initial price for the A380 was “approximately 60% of the A380's $230 million list price and less than the average cost Boeing charges for its 747,” despite the A380's much larger size.88

72. **Czech Airlines.** According to the airline’s strategic director, Jan Vana: “Both offers met all of our technical specifications without exception. But Airbus offered the better price.”89 The president of Czech Airlines, Jaroslav Tvrdik, explained at a press conference that Boeing’s offer was, in his view, “truly super and lucrative {and} hard to refuse,” but the Airbus bid, evaluated

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for the net present value of the various cash flows involved, was more than 100 million Czech crowns ($4 million) less than Boeing’s offer.\textsuperscript{90}

73. Additional HSBI evidence relevant to price undercutting in most of these sales has been discussed in prior U.S. submissions.\textsuperscript{91} The United States also refers the Panel to the HSBI documents cited in those submissions.

237. With respect to the United States' price suppression arguments, is it the United States' position that a failure of prices for a particular model of aircraft to track increases in the Aircraft Manufacturers Producer Price Index is \textit{prima facie} evidence of price suppression? Does the United States consider that demand conditions and competition conditions which might also exist in the counterfactual are reflected in the failure of prices to track the Aircraft Manufacturers PPI? If so, does the United States consider that the Panel will need to control for such effects? If so, how would the United States propose that the Panel do so?

Response:

74. It is well established that the analysis of significant price suppression under Article 6.3(c) must focus on whether the effect of the subsidy is to prevent price increases, which would otherwise have occurred, to a significant degree.\textsuperscript{92} To perform this analysis, the Panel must examine relevant evidence of the price increase, if any, that would have occurred but for the subsidies. The type of evidence that will be relevant to this counterfactual will depend on the industry in question and the facts presented in a particular dispute.

75. As a general matter, one would expect that in any manufacturing industry, all else being equal, prices would be expected to increase with production costs. Producers cannot absorb increased production costs indefinitely if they cannot pass those costs on to their customers; eventually they must reduce their costs or become unprofitable. The failure of prices to rise with general industry costs, if not explained by other factors – such as increased competition from


\textsuperscript{92} \textit{US – Cotton Subsidies (AB)}, para. 423.
alternative goods, improved productivity of competing producers, or the like – can therefore be evidence of price suppression, depending on the facts in a particular case.

76. Moreover, the evidence in this dispute demonstrates that the U.S. producer price index for airplane manufacturing is a particularly strong indicator of the LCA price increase that could be expected to occur in the absence of subsidies. As the United States explained in its comments on the EC’s response to a prior question from the Panel, LCA sales contracts typically include a “price escalation clause, to reflect the long period, typically years in length, between the negotiation of the sales price and the actual delivery of the aircraft when payment is actually due. As the EC’s expert explains:

LCA prices are often negotiated several years prior to delivery. Manufacturers make allowance for this with a price adjustment according to date of delivery. The price to be paid at delivery depends on annual increases, or “escalation,” of the list price of the LCA, to which all additions and subtractions are applied. Airbus and Boeing have different escalation formulae. The formula are derived from changes in aerospace industry costs of material and labor.\footnote{Rod P. Muddle, \textit{The Dynamics of the Large Civil Aircraft Industry}, para. 55 (emphasis added) (Exhibit EC-19).}

In fact, an article submitted by the EC confirms that the Airbus escalation formula is based on increases in U.S. aerospace material and labor costs.\footnote{\textit{Escalation: The Great Industry Scam}, Aircraft Economics (May/June 2005), at 34, 37 (Exhibit EC-926).} Thus, the U.S. producer price index for aerospace manufacturing – which, as the EC admits, measures changes in U.S. material and labor costs to airplane producers\footnote{EC Answers to Second Panel Questions, para. 510.} – is actually used in the industry to translate prices negotiated in terms of U.S. dollars in one year into prices paid in U.S. dollars in a subsequent year.

77. Further, as the United States has already explained, if LCA order prices fail to move together with the producer price index, customers receiving deliveries at any given time can pay widely varying prices, depending on when their order was placed.\footnote{U.S. Comments on EC Answers to Second Panel Questions, para. 303.} For example, if prices for orders placed in 2002 are significantly lower than prices for orders placed in 1999, an airline that receives a delivery in 2005 will pay significantly more for the aircraft if it placed its order in 1999 (escalated to 2005 dollars) than if it placed its order in 2002 (escalated to 2005 dollars). According to a senior finance manager of a major airline quoted in the article submitted by the
EC on this subject, customers who placed the earlier orders “are stuck with aircraft that have been inflated and are costing us far more than they are worth.” 98 Indeed, the United States has demonstrated that Boeing was forced to reduce already negotiated prices for certain customers for precisely this reason. 99

78. This evidence confirms that, for the LCA industry, the producer price index is a particularly useful indicator of how prices can be expected to change over time, all else being equal. 100 Thus, on the facts of this dispute, a significant decrease in LCA prices, compared to the producer price index, is at least *prima facie* evidence that significant price suppression has occurred. And, as the United States has shown, such significant declines occurred between 2001 and 2005  [ 101 ]

79. The Panel also asks whether “demand conditions and competition conditions which also might exist in the counterfactual” affect the relationship between the producer price index and the price increase that could be expected in the counterfactual. The evidence demonstrates that the cause of these significant price declines, relative to the producer price index, was the deliberate strategy of Airbus to gain market share through price undercutting, rather than “demand conditions and competition conditions which also might exist in the counterfactual.” If weaker overall demand caused prices to decline (relative to the expected trend) in 2003 and 2004, one would expect that prices would recover when demand increased greatly in 2005 and 2006.  [ 102 ], they did not. Further, as the United States has demonstrated, that the relevant competition conditions – i.e., increased price pressure from Airbus and Boeing’s failed attempts to resist Airbus aggressive pricing – would not have existed in the absence of the subsidy.


99 U.S. FWS, para. 806.

100 In fact, the article provided by the EC states that the typical escalation formula, while based on changes in the producer price index, often results in increases that are greater than what would be predicted by the producer price index alone – in other words, that the producer price index is a conservative estimate of the price increase that can be expected to occur. U.S. Comments on EC Answers to Second Panel Questions, para. 304 (citing *Escalation: The Great Industry Scam*, Aircraft Economics (May/June 2005), at 37 (Exhibit EC-926)).


102 U.S. SWS, paras. 724-729.
80. Additional HSBI evidence relevant to the price suppressing (and price depressing) impact of Airbus pricing in the LCA market has been discussed in prior U.S. submissions. The United States also refers the Panel to the HSBI documents cited in those submissions.

238. Without prejudice to its arguments regarding the appropriate reference period to be examined by the Panel in assessing the question of injury under Article 5(a), the United States is requested to update the information set forth in Table 4, at paragraph 746 of its first written submission, to include data for calendar year 2006.

Response:

81. The information requested is presented in Table 2, below.

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103 U.S. FCOS, paras. 74-75; U.S. SWS, HSBI Appendix, paras. 18, 36-39; U.S. SCOS, paras. 57-58.

104 Exhibit US-621 (HSBI), for the reasons given in U.S. SWS, HSBI Appendix, para. 18, is particularly informative.
Table 2. Trends in Boeing’s LCA Operations (revised).

<table>
<thead>
<tr>
<th></th>
<th>2001</th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
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</thead>
<tbody>
<tr>
<td>Production (aircraft)</td>
<td>518</td>
<td>377</td>
<td>273</td>
<td>280</td>
<td>284</td>
<td>387</td>
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<tr>
<td>Capacity Utilization</td>
<td></td>
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<td></td>
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<tr>
<td>Sales (US dollars, millions)</td>
<td>35,056</td>
<td>28,387</td>
<td>22,408</td>
<td>21,037</td>
<td>22,651</td>
<td>28,465</td>
</tr>
<tr>
<td>Operating income (US dollars, millions)</td>
<td>1,911</td>
<td>2,107</td>
<td>707</td>
<td>753</td>
<td>1,432</td>
<td>2,733</td>
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<tr>
<td>Return on assets</td>
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<tr>
<td>Cash flow (US dollars, millions)</td>
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<tr>
<td>Employees</td>
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<td></td>
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<tr>
<td>Wages paid (US dollars, millions)</td>
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<tr>
<td>Productivity (US dollars, thousands)</td>
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</tr>
</tbody>
</table>

239. Would the United States please indicate the extent, if any, to which the data set forth in Table 4, at paragraph 746 of its first written submission, as well as updated information provided pursuant to the Panel's request, includes results relating to sales for export?

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105 Reflects 2006 reduction in total capacity from [ ] aircraft per month to [ ] aircraft per month, due to the closure of the Boeing 757 production line in 2005.

106 In 2006, Boeing changed its accounting policy with respect to concessions received from vendors. The sales data provided for 2006 reflect this change in accounting methodology. For comparative purposes, sales data for prior years (available for 2002, 2003, 2004, and 2005) are provided using the adjusted methodology.

107 Due to a clerical error, the 2001 cash flow originally provided was actually the figure for 2000. The corrected figure for 2001 is provided in this table.

108 In preparing this revision, it was discovered that a clerical error had been made in the original Table 4 in converting hourly wage rates into annual wages. The corrected calculation is provided here. Although the absolute numbers differ from the figures previously provided, the trend is the same.

109 Because productivity is calculated as sales per employee, the 2006 change in Boeing’s accounting methodology for sales also affects the calculation of productivity.
Response:

82. The information presented in Table 4 of the U.S. first written submission and updated as requested by the Panel in response to the previous question relates to the U.S. domestic industry producing LCA – that is, the LCA operations of Boeing Commercial Aircraft.

83. Article 16.1 of the SCM Agreement defines the “domestic industry” for purposes of the SCM Agreement as “the domestic producers as a whole of the like products.” Further, Article 15.4 calls for an “examination of the impact of the subsidized imports on the domestic industry” including “an evaluation of all relevant economic factors and indices having a bearing on the state of the industry.” For this reason, the United States has presented data on economic factors and indices affecting the entire U.S. domestic industry. The domestic industry relevant to the U.S. material injury claim includes U.S. production “as a whole” of LCA products, including production for export. The issue to be examined under Article 15.4, however, is limited to the impact of subsidized imports (i.e., not subsidized sales of Airbus aircraft outside the U.S. market) on the U.S. domestic industry as a whole. Accordingly, even if sales or deliveries of subsidized Airbus LCA outside the U.S. market have contributed to the declines in the “economic factors and indices” mentioned in Article 15.4, the United States has limited its material injury claim under Article 5(a) to the impact of subsidized imports in the U.S. market on those factors and on the U.S. domestic industry as a whole.

84. To this end, the United States has presented separate data on trends in the volume and value of subsidized imports and Boeing sales in the U.S. market. Further, the United States has shown that the impact of subsidized imports – the U.S. market share of which increased by 18 percentage points from 2001 to 2005 (13 percentage points from 2001 to 2006) when measured by volume, and by 25 percentage points from 2001 to 2005 (21 percentage points from 2001 to 2006) when measured by value – has resulted in material injury to the U.S. domestic industry.

240. Could the United States comment on the information presented by the EC at paragraph 2162, of its first written submission, in the table entitled "Trends in Boeing's LCA Operations"? Does the United States accept the accuracy of the information therein, and if not, could the United States explain why not, and what, in its view, is the correct data?

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110 U.S. FWS, paras. 733-736 (through 2005); U.S. SWS, paras. 731-733 (through 2006).

111 U.S. FWS, paras. 748-753; U.S. SWS, paras. 735-739.
Response:

85. Some of the data presented by the EC in paragraph 2162 of its first written submission is identical to that presented by the United States. These areas of agreement include operating income (which the EC calls “net earnings”), cash flow, and employment.\(^{112}\)

86. There is a slight difference in the production data provided by the United States and the EC. As explained in response to question 283, the discrepancy appears to be the result of the EC’s improper inclusion of a small number of non-LCA aircraft in the production total. The U.S. data on this point reflects only LCA deliveries and is therefore the proper figure.

87. The EC also includes several sets of data on orders for future deliveries, including both the number of orders, share of orders under several metrics, and the backlog of orders. Although these orders, if fulfilled, represent future production and sales revenue for Boeing, current production, sales revenue, and employment figures for Boeing are related to current deliveries, not expected future deliveries. Thus, data on orders are relevant at most to a determination of threat of material injury, not present material injury. The EC data on orders, order share, and backlog are therefore not relevant to the Article 15.4 analysis of the present state of the domestic industry.

88. The remaining discrepancies relate to the measurement of return on assets and capacity utilization. These differences reflect methodological disagreements between the United States and the EC as to the proper way to measure these factors for purposes of a material injury inquiry in this dispute.

89. With respect to the “return on investments” factor enumerated in Article 15.4, the United States estimated the return on Boeing’s LCA investments by dividing the operating income of Boeing’s LCA division (Boeing Commercial Aircraft or “BCA”) by the total of Boeing’s LCA-related assets. These assets include the assets of Boeing’s LCA division and a share of Boeing’s corporate assets allocable to LCA production. The latter category includes cash and investments, prepaid pension expenses, net deferred tax assets, capitalized interest, and assets held by Boeing’s Shared Services Group, allocated to BCA based on its proportion of total revenues of the Boeing Company.\(^{113}\) The EC methodology, by contrast, is limited to considering the assets of

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\(^{112}\) There is slight discrepancy in the cash flow figure for 2001, reflecting a clerical error in the U.S. data. The United States has corrected this figure in Table 2, above.

\(^{113}\) In addition, BCA matched pre-delivery payments with the value of inventory that represents the costs of producing the associated unfinished LCA. The remainder of pre-delivery payments were classified as liabilities for purposes of the return on assets calculation.
Boeing’s LCA division and does not include any of Boeing’s corporate assets.\textsuperscript{114} As Boeing’s corporate-level investments do not represent a separate profit center, but rather support Boeing’s operations in all of the several industries in which Boeing operates, the inclusion of a portion of those assets in determining Boeing’s return on LCA-related assets is appropriate.

90. In the circumstances of this dispute, the trend in the financial position of the U.S. LCA industry is evident from the pattern of BCA’s operating income. The parties agree that BCA’s operating income declined by two-thirds from 2001-02 ($1.9 billion and $2.1 billion, respectively) to 2003-04 ($707 million and $753 million, respectively) and improved without fully recovering in 2005 ($1.4 billion).\textsuperscript{115} When this figure is divided by the relevant investments (whether BCA’s assets, as the EC does, or all Boeing’s LCA-related assets, as the United States does), the basic trend is similar. Thus, the Panel need not decide whether the U.S. or EC metric for return on investments is more accurate for purposes of this dispute.

91. With respect to “capacity utilization,” the parties do not appear to disagree on the basic facts. As the EC recognizes, “\{c\}apacity is a more complex concept in the LCA industry than in many other industries because it cannot be based on machine rated capacity or factory floor bottlenecks.”\textsuperscript{116} Rather, as the United States has shown, Boeing determines its production levels over the medium term based on the level of orders it has received and expects to receive.\textsuperscript{117}

92. It is undisputed that Boeing’s LCA production fell substantially after 2001.\textsuperscript{118} A significant portion of this decline in Boeing’s production is attributable to the increased share of the U.S. market captured by subsidized imports.\textsuperscript{119} Because Boeing received fewer orders for deliveries of LCA after 2001, Boeing reduced its employment levels, demands on suppliers, and other factors of production, but it did not reduce its basic capacity to produce LCA at prior levels. Thus, as the United States has shown, Boeing’s capacity utilization – defined as actual production divided by Boeing’s historic actually attained capacity level – fell over the reference period in line with the decline in actual production.\textsuperscript{120} The EC contends, by contrast, that

\textsuperscript{114}EC FWS, para. 2195.

\textsuperscript{115}U.S. FWS, para. 746; EC FWS, para. 2162.

\textsuperscript{116}EC FWS, para. 2198.


\textsuperscript{118}U.S. FWS, para. 746; EC FWS, para. 2162.

\textsuperscript{119}U.S. FWS, paras. 736, 738-740, 748, 750, 752.

\textsuperscript{120}U.S. FWS, para. 746.
because Boeing did not produce aircraft beyond the number of orders but rather reduced the number of planned delivery slots in anticipation of fewer deliveries, its capacity utilization – defined as actual production divided by the number of planned delivery slots – was approximately 100 percent throughout the period.\footnote{EC FWS, paras. 2162, 2198-2210.}

93. It is undeniable that Boeing reduced both LCA production levels and the number of scheduled LCA delivery slots, compared to its physical capacity and prior production and delivery levels, in roughly equal proportion.\footnote{As noted in response to Question 238, this total capacity was reduced for 2006 to reflect the closure of Boeing’s 757 production facilities in 2005.} For the United States, these facts demonstrate a decline in capacity utilization that, together with other facts, evidence the existence of material injury. The EC asserts, by contrast, that because these figures fell in roughly equal proportion, “capacity utilization” was strong and unchanged over the relevant period. However, the EC does not and cannot explain how a reduction in the number of planned delivery slots due, in part, to sales lost to subsidized imports in the U.S. market, is evidence of the health of the domestic industry.

94. The measurement of capacity utilization proposed by the United States therefore provides probative evidence of whether material injury exists, while the EC’s measurement does not. Indeed, because neither Boeing nor – at least in recent years – Airbus produces LCA other than in response to orders, the EC’s methodology for determining “capacity utilization” would produce a figure of approximately 100 percent regardless of what was actually occurring in the market. Thus, the EC’s definition of “capacity utilization” provides information that is irrelevant to an examination of the impact of subsidized imports on the domestic industry for purposes of Article 15.4.

241. Is it the United States' position that material injury to the domestic industry is demonstrated in this case on the basis of an end point-to-end point comparison of the information for the reference period? How should the Panel consider the impact of "other factors" in the context of such an comparison?

Response:

95. In this dispute, the United States has shown that indicators of the health of the domestic industry declined dramatically in 2003 and 2004, when compared to the beginning of the reference period in 2001.\footnote{U.S. FWS, paras. 746-747.} Although some indicators showed a degree of improvement in 2005,
when the Panel was established to evaluate the U.S. claim of material injury, the improvement was not sufficient to reverse the declines of the previous years. In other words, even with the partial improvements in some indicators in 2005, the overall decline in the industry’s position over the reference period establishes that, at the time the Panel was established in 2005, the industry was suffering material injury for purposes of Article 5(a).

96. To establish whether the subsidized imports have caused the overall declines in the industry’s condition, the Panel will need to analyze whether there is a correlation between those declines and the price and volume trends of the subsidized imports. The downward trends in the industry’s condition over the period can be traced directly to decreased revenues due to dramatically reduced production and sales volume and lower unit prices. No causes for the poor state of the domestic industry other than decreased production and prices exist, nor have such other causes been alleged.\(^{124}\) Finally, although factors other than subsidized imports – such as decreasing total LCA demand in the U.S. market and loss of market share in other LCA markets – contributed to the decreased production and prices for Boeing’s LCA business overall, the loss of U.S. market share to subsidized imports played a substantial independent role.\(^{125}\)

97. Thus, it is not the U.S. position that a simple end-point to end-point analysis will demonstrate the existence of material injury by reason of the subsidized imports here for purposes of the Panel’s Article 5(a) analysis. Instead, an analysis of trends affecting the domestic industry over the reference period will assist the Panel in determining what factors caused the declines in the state of the domestic industry by the end of the period, which in turn will help the Panel determine whether subsidized imports caused material injury. Although the state of the domestic industry has improved since the establishment of the Panel, the reasons for this improvement do not reflect a reduced impact of subsidized imports in the U.S. market.\(^{126}\) These facts and analysis taken as a whole support the U.S. claim of material injury in this dispute.

242. Article 15.4 of the SCM Agreement provides that the examination of the impact of subsidized imports "shall include" evaluation of all relevant factors, "including actual and potential decline in output, sales, market share, profits, productivity, return on investments, or utilization of capacity; factors affecting domestic prices; actual and potential negative effects on cash flow, inventories, employment, wages, growth, ability to raise capital or investments". Is it the United States’ position that the information it has

\(^{124}\) The only other factors that have been identified – such as cost-cutting by Boeing – reflects improvements in the situation of the domestic industry unrelated to subsidized imports, not harm to the domestic industry from factors unrelated to subsidized imports. U.S. FWS, para. 747.

\(^{125}\) U.S. FWS, paras. 748, 752.

\(^{126}\) U.S. FNCOS, paras. 185-187.
presented on "return on assets" serves as an indicator of "return on investments" referred to in Article 15.4?

Response:

98. Yes, data on "return on assets" – that is, the operating profits of Boeing’s LCA division divided by Boeing’s LCA-related assets – is the most reasonable measurement of the U.S. LCA industry’s return on investments during the relevant period. As explained in the U.S. response to Question 240, all of Boeing’s LCA-related assets – whether or not held by Boeing’s LCA division – represent Boeing’s “investment” in LCA production. The EC contends that the portion of Boeing assets (such as investment in corporate facilities that support all Boeing’s commercial activities, including but not limited to LCA) should be excluded from the calculation – incorrectly, as explained in response to Question 240. However, the EC does not appear to contest the general principle that return on assets, however defined, is a relevant measure of the U.S. domestic LCA industry’s return on investments for purposes of the Article 5(a) analysis.

99. In any event, trends in the domestic LCA industry’s return on investment – under either the U.S. or EC definition – generally mirror the overall trends in the state of the domestic industry. There is a significant decline in 2003 and 2004 compared to prior years, and a partial improvement (but far from a complete recovery) in 2005.127 Data on this indicator, therefore, confirms the overall picture of the state of the domestic industry as demonstrated by all of the other relevant data in this dispute.

C. INFRASTRUCTURE

243. The parties disagree about the aggregate cost for the infrastructure measures at Mühlenberger Loch (land filling, flood protection and special purpose facilities). The EC contends, relying on Exhibit EC-548, that the cost was €693 million, while the United States asserts the cost was closer to €751 million (USFWS para. 432). Could the United States please clarify the evidence on which it relied in making that estimation? In addition, does the United States agree that the total value of the site created was approximately €87 million?

Response:

100. In stating that the aggregate cost for the infrastructure measures at the Mühlenberger Loch was Euro 751 million, the United States relies on the assessment by the Hamburg Court of

127 U.S. FWS, para. 746; EC FWS, para. 2162.
Auditors included in its 2003 annual report (Exhibit US-188). The EC’s assertion that this assessment is "outdated" is incorrect. As the Hamburg Court of Auditors explained, information that had been provided to it by the Hamburg government neglected to include all relevant costs. For example, the Hamburg government had left out approximately Euro 71.5 million in interim financing costs – i.e., interest on loans taken out by ProFi, the government-owned developer responsible for the Mühlenberger Loch project. The report on which the EC relies (Exhibit EC-548) also fails to take account of these costs.

101. Regarding the second part of the Panel’s question, the United States does not disagree that the value of the site created was approximately Euro 87 million. In this regard, the United States calls the Panel’s attention to paragraph 432 and footnotes 516 and 517 of the U.S. first written submission.

244. If the Panel were to accept the proposition that, to be consistent with a market benchmark, the city of Hamburg would have required a return based on the entire cost of its investment in the site, is there a period of time over which the United States considers that cost would have to be recouped through rent?

Response:

102. According to the expert opinion of the German real estate surveyor firm of Dr. Keunecke & Stoehr (Exhibit US-189),

{C}ommercial investors in real estate in Germany (i.e., providers of capital to create and develop real estate and real property in Germany) generally expect their capital to be

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129 EC FWS, para. 758.


131 There, the United States refers to the expert opinion of the German real estate surveyor firm of Dr. Keunecke & Stoehr (Exhibit US-189), which finds the value of land in the vicinity of the Mühlenberger Loch site in 2000 (the year the government decided to create and develop the site) to be between Euro 51.13 and Euro 61.36 per square meter. Based on a surface area of approximately 1.6 million square meters leased to Airbus (see U.S. FWS, para. 426, n.510), the value of the site, therefore, is between Euro 81.8 million and Euro 98.2 million. It should be noted that the calculation in paragraph 432 and footnotes 516 and 517 of the U.S. first written submission is based on a surface area of 1.4 million square meters, which represents only the land newly created by transforming the Mühlenberger Loch wetland, as opposed to the entire surface area covered by Airbus’s lease.
refinanced over a period of about 15 years, including financing costs. This corresponds to an annual return of between 9% and 12% – about ten times the return that the lease price agreed between Hamburg and Airbus generates. 132

103. Given the terms of Airbus’s lease of the Mühlenberger Loch site, no matter how long the period over which Airbus pays rent, the City of Hamburg will never recoup its investment, let alone the cost of financing that investment. The nominal, full lease rate for the land is approximately Euro 5.16 million per year. 133 Taking into account various rate reductions allowed by the City of Hamburg, the actual rate is Euro [ ] million per year. 134 Based on an investment of approximately Euro 690 million to create the land (i.e., [ ]), the lease thus generates a return to the City of Hamburg of between [ ] percent and 0.7 percent per year. 135 This is less than the average inflation rate in Germany. 136 In effect, therefore, the Airbus lease yields a negative return for the City of Hamburg.

245. The EC asserts that the City of Bremen paid [ ] for the extension of the Bremen Airport runway and [ ] for noise reduction (ECFWS, para. 864). The United States argues that the extension costs were DM 40 million, plus a further DM 10 million for noise reduction measures (USFWS, para. 453). Could the United States clarify the evidence on which it relied in making this estimation?

132 Expert Opinion No. 27649/06, Benchmarks for Land Values concerning Hamburg Airbus Site “Mühlenberger Loch,” Kreekslag 10, 21129 Hamburg Finkenwerder at 10 (Oct. 9, 2006) (“Keunecke Report”) (Exhibit US-189); see also Immobilienstandort Metropolregion Hamburg: Die Logistikbranche boomt dank dem Hafen, Frankfurter Allemeine Zeitung (June 3, 2005) (explaining that investors in Germany expect recovery of their investments, not including financing costs or profits, to take 12.9 years) (Exhibit US-191).

133 See, e.g., EC FWS, para. 761.

134 See U.S. SWS, para. 357.


136 See Keunecke Report at 10 (Exhibit US-189).

137 The inflation rate in Germany was 1.4% in 2000, 2.0% in 2001, 1.4% in 2002, 1.1% in 2003, 1.6% in 2004, 2.0% in 2005, 1.7% in 2006, and 2.2% in 2007. This data is available from the German Statistische Bundesamt (German Federal Statistical Services) at https://www-genesis.destatis.de/genesis/online/logon (for 2000-2006) and at http://www.destatis.de/jetspeed/portal/cms/Sites/destatis/Internet/DE/Presse/pm/2007/12/PD07__529__611,templateId=renderPrint.psm1 (for 2007) (Exhibit US-674).
Response:

104. During the Annex V process, the Facilitator expressly requested the EC to provide information relating to the Bremen runway extension and noise reduction, including information concerning costs. However, the EC refused to provide that information.\[138\] Therefore, the United States has relied on the public information available to it.

105. That information is addressed in the U.S. response to Question 21.\[139\] As discussed there, the United States relies on a motion submitted by the SPD in the Bremen Parliament on May 16, 1988,\[140\] (adopted by the Parliament two days later\[141\]) as well as a contemporaneous statement by a member of the Bremen Parliament.\[142\]

II. QUESTIONS TO THE EUROPEAN COMMUNITIES

III. QUESTIONS TO BOTH PARTIES

A. CAPITAL INVESTMENTS AND SHARE TRANSFERS

280. In Japan - DRAMS, the Panel considered (at para. 7.276) that the determination of the existence of benefit under Article 1.1(b) of the SCM Agreement might be based on, *inter alia*, evidence of whether or not a financial contribution was provided on the basis of "commercial considerations". Do the parties consider that the absence of independent financial analyses of a company's financial condition and prospects is evidence of "non-commercial considerations" sufficient to establish the existence of benefit? Please indicate how, if at all, the presence or absence of independent financial analyses should

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138 See Replies to Questions by the Facilitator under Annex V of the SCM Agreement by the European Communities at 44 (Nov. 18, 2005) (response to Question 48 (b)) (Exhibit US-5 (BCI)).


140 Bremische Bürgerschaft, Antrag (Entschließung der Fraktion der SPD), Drs. 12/194, paras. 12 and 13 (Exhibit US-195).

141 Bremische Bürgerschaft, 18. Sitzung am Mittwoch, dem 18. Mai 1988, Plenarprotokoll, at 1032, paras. (B) and (C) (Exhibit US-196).

affect the Panel's assessment of any benefit conferred by the alleged German equity infusion into Deutsche Airbus and the alleged French equity infusions into Aérospatiale.

Response:

106. In prior submissions and statements, the United States has discussed at length the absence of contemporaneous, independent financial analyses in connection with any of the government equity infusions at issue in this dispute. The United States has shown that the absence of any such analyses strongly supports the conclusion that these investment decisions were “inconsistent with the usual investment practice of private investors” (to use the language of Article 14(a) of the SCM Agreement), or not based on “commercial considerations” (to use the language of the Japan – DRAMs panel report).

107. As previously explained, each of the investment decisions at issue involved a company in dire financial circumstances. Additionally, in providing to Aérospatiale its stake in Dassault, the French government knowingly incurred a loss – i.e., its uncompensated relinquishment of control of Dassault. In light of these circumstances, a private investor would have assumed the risks of investment only after first establishing a basis for expecting that returns would be commensurate with the risks assumed and would offset any losses knowingly incurred. In particular, a private investor would have relied on contemporaneous, independent financial analyses. By investing without the support of such analyses, the governments conferred a benefit on Airbus inasmuch as they provided it with equity despite the absence of information that private investors would have required.143

108. In response to the present question, the United States emphasizes a few key points as to how the absence of contemporaneous, independent financial analyses should affect the Panel’s assessment of the German and French equity infusions.

109. First, it is important to recall how the presence or absence of contemporaneous, independent financial analysis is relevant to a determination of whether an equity infusion confers a benefit within the meaning of Article 1.1(b) of the SCM Agreement and thus constitutes a subsidy. As the Appellate Body found in Canada – Aircraft, Article 14 of the SCM Agreement “constitutes relevant context for the interpretation of ‘benefit’ in Article 1.1(b).”144 With respect to equity infusions, Article 14(a) provides that the relevant inquiry is whether “the


144 Canada – Aircraft (AB), para. 155.
investment decision can be regarded as inconsistent with the usual investment practice . . . of private investors in the territory of {the} Member.”

110. As the United States explained in its first written submission (citing the panel report in EC – DRAMs), “Contemporaneous independent analyses of the finances and prospects of the company are among the key types of evidence available to show whether an equity infusion was consistent with the usual investment practice of private investors.” Conversely, the absence of contemporaneous independent analyses – as is the case in this dispute – tends to show that an investment decision is not consistent with the usual investment practice of private investors; that is, it is not based on commercial considerations. When a government provides equity to a company without following the usual investment practice of private investors, it is doing something that a market-oriented investor would not do. Absent any evidence that a market-oriented investor would have reached the same result (i.e., would have provided the equity) even though it would have followed a different practice (i.e., based its decision on contemporaneous, independent financial analysis), the government’s provision of equity without following the usual investment practice of private investors strongly supports the conclusion that the equity infusion confers a benefit within the meaning of Article 1.1(b) of the SCM Agreement.

111. In Japan – DRAMs, Korea argued that evidence that a financial contribution is not based on commercial considerations (because, for example, it is not supported by independent financial analysis) is not sufficient to conclude that the contribution confers a benefit. In Korea’s view, even if a financial contribution is not based on commercial considerations, it does not confer a benefit if the recipient could have received a contribution on equivalent terms from an investor following usual market practices. Rejecting this argument, the panel referred to two categories of evidence: (1) “evidence of the terms that the market would have offered,” and (2) “evidence of whether or not the financial contribution was provided on the basis of commercial considerations.” The panel found that Japan’s investigating authority had been confronted only with the second type of evidence, not the first type, and that evidence of the second type was sufficient to support the authority’s conclusion that the financial contribution at issue conferred a benefit on the recipient. The Appellate Body upheld that finding.

112. Likewise, other panels have found a financial contribution to confer a benefit where the contribution was not provided on the basis of commercial considerations, as evidenced by the

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145 U.S. FWS, para. 564 (citing EC – DRAMs, para. 7.208); see also U.S. Responses to Second Panel Questions, para. 324.

146 See Japan – DRAMs (Panel), para. 7.273.

147 See Japan – DRAMs (Panel), para. 7.276 and n.475.

148 See Japan – DRAMs (AB), paras. 222, 226-229.
absence of contemporaneous, independent financial analysis. As the Japan – DRAMs panel noted, the EC – DRAMs panel made such a finding. In particular, the EC – DRAMs panel noted Korea’s argument that the financial contributions to the Hynix company at issue in that dispute were made based on the belief that “the going concern value of Hynix was greater than its liquidation value.” The panel then found (agreeing with the EC) that “the banks do not seem to have based this conclusion on independent assessment studies, as could be expected given the situation of Hynix.”

113. The panel in Korea – Commercial Vessels also found evidence of an independent financial analysis to be “very relevant” to determining whether a financial contribution was provided on a commercially reasonable basis and thus whether it conferred a benefit. That panel’s findings, as well as the EC’s responses to that panel’s questions regarding the relevance of independent financial analyses, are discussed in the U.S. response to Question 224.

114. Like the investigating authority in Japan – DRAMs, the Panel in this dispute is confronted with evidence that equity infusions were provided to a recipient on the basis of considerations other than commercial considerations. This evidence includes, significantly, the absence of any contemporaneous, independent financial analyses supporting the infusions and the dire financial circumstances of the recipients at the time the infusions were made. Also like the investigating authority in Japan – DRAMs, the Panel does not have before it evidence rebutting the evidence of non-commercial considerations, such as evidence that, even though investments were made on bases other than commercial considerations, their terms were consistent with terms that the market would have offered. Given this circumstance, the Panel should conclude that the German and French government equity infusions were inconsistent with the usual investment practice of private investors and thus conferred benefits on Airbus.

115. In light of the absence of independent financial analyses supporting any of the government equity infusions in dispute, the EC has advanced two arguments. In the case of the German government’s DM 505 million equity infusion to Deutsche Airbus in 1989, the EC argues that “there is no need for the type of ‘independent assessment studies’ discussed by the United States” in light of what the EC calls “an investment on identical terms” by a private

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149 See Japan – DRAMs (Panel), para. 7.276, n.474.

150 EC – DRAMs, para. 7.208.

151 Korea – Commercial Vessels, para. 7.437.

152 See U.S. Responses to Second Panel Questions, paras. 310-313.

 investor.\textsuperscript{154} In the case of the French equity infusions (both the 1987-to-1993 infusions to Aérospatiale and the 1998 provision to Aérospatiale of the French government’s stake in Dassault), the EC tries to characterize certain evidence as contemporaneous, independent financial analyses.\textsuperscript{155} Both arguments are deeply flawed.

116. With respect to the first argument, the United States has shown that there was no private “investment on identical terms” to the German government’s DM 505 million equity infusion. The United States refers the Panel, in particular, to its response to Question 156 and its comment on the EC’s response to Question 188.\textsuperscript{156} There the United States lays out the three principal errors in the EC’s attempt to use Daimler-Benz’s purchase of a 50.3 percent shareholding in Messerschmitt-Bölkow-Blohm AG (“MBB”) as a market benchmark to support the EC’s view that the investment in Deutsche Airbus by KfW – the German state-owned bank – was commercial:

- First, Daimler’s investment in MBB – a company engaged in a diverse range of activities – entailed far different risks from KfW’s investment in Deutsche Airbus – a subsidiary of MBB focused exclusively on LCA production.

- Second, Daimler’s investment depended critically on a major restructuring of Deutsche Airbus, of which the very transaction at issue – the KfW investment – was a key part. The Daimler investment is not an appropriate benchmark for analyzing whether the KfW investment was commercial, because the KfW investment was a precondition for the Daimler investment occurring in the first place.

- Third, the Daimler investment in MBB and the German government’s investment in Deutsche Airbus were not made on “equal terms.” Unlike Daimler’s investment, the German government’s investment was subject to an obligation to sell its shares to MBB by a date certain, with limitations on the amount the government would be able to recover.

117. As the EC has failed to establish Daimler’s investment in MBB as a benchmark showing the commercial nature of KfW’s investment in Deutsche Airbus, it has failed to undermine the relevance of the uncontested fact that KfW’s investment was not supported by contemporaneous, contemporaneous, contemporaneous,

\textsuperscript{154} EC Comments on U.S. Responses to Second Panel Questions, para. 408.

\textsuperscript{155} See EC Comments on U.S. Responses to Second Panel Questions, paras. 418, 424.

\textsuperscript{156} See U.S. Responses to Second Panel Questions, paras. 128-139; U.S. Comments on EC Responses to Second Panel Questions, paras. 144-148.
independent financial analysis of Deutsche Airbus. In the absence of any such analysis, the investment was inconsistent with the usual investment practice of private investors and thus conferred a benefit on Airbus within the meaning of Article 1.1(b) of the SCM Agreement.

118. While the EC admits that the German equity infusion was not supported by contemporaneous, independent financial analyses, it asserts that the French government’s infusions to Aérospatiale from 1987 to 1993 (during which time the company’s own chairman described the company as “repellent” from an investor’s point of view) were supported by “contemporaneous, objective evidence of Aérospatiale’s positive future prospects.” However, as the United States explained at the second Panel meeting, the evidence to which the EC refers either is not objective or does not relate to Aérospatiale in particular; it is not the sort of contemporaneous, independent analysis of the target of a potential investment on which a private investor would have relied. The evidence consists almost entirely of internal documents from Aérospatiale and Airbus GIE, as well as the French state-owned bank Crédit Lyonnais. The remainder of this evidence consists of Boeing documents that speak to the prospects of the aircraft industry in general as opposed to Airbus in particular.

119. The EC’s attempt to portray certain documents as contemporaneous, independent analyses of the French government’s 1998 investment (its provision of its stake in Dassault to Aérospatiale) is similarly flawed. As the United States has explained, the EC’s characterization of these documents as contemporaneous with the Dassault share transfer is demonstrably false. Whereas the investment occurred in December 1998, the documents to which the EC refers date from February through April 1999. Further, these documents relate

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158 See U.S. SWS, para. 534; *see also* EC Comments on U.S. Responses to Second Panel Questions, para. 420.

159 See U.S. SNCOS, paras. 99-104. It also bears recalling that, while the EC accused the United States of ignoring this evidence (see EC SWS, para. 534), the overwhelming majority of the evidence was not provided until the EC filed its second written submission – that is, after the Panel’s first substantive meeting with the parties, the deadline provided in the Panel’s Working Procedures for the submission of all factual evidence. See U.S. SNCOS, para. 100.

160 See EC SWS, para. 534.

161 *See, e.g.*, EC Responses to Second Panel Questions, para. 208 (“evidence demonstrates that the French State’s transfer of its Dassault stake was justified by contemporaneous valuations of the companies”); EC Comments on U.S. Responses to Second Panel Questions, para. 424 (asserting that investment was supported by “thousands of pages of independent assessments undertaken by several world-renowned private investment banks” “at the time”).

162 See U.S. Comments on EC Responses to Second Panel Questions, paras. 165-166.
to a different transaction from the Dassault share transfer; they relate to the public float of shares in the combined Aérospatiale-Matra entity. That they happen to address the value of the Dassault shares in that context has nothing to do with whether the government’s provision of the Dassault shares to Aérospatiale (which entailed the uncompensated relinquishment of its control of Dassault) was consistent with the usual investment practice of private investors.\textsuperscript{163}

120. In sum, none of the equity infusions at issue in this dispute was supported by contemporaneous, independent financial analyses of the recipient of the infusion. For that reason, these infusions were inconsistent with the usual investment practice of private investors. The absence of contemporaneous, independent financial analyses strongly supports the conclusion that the infusions conferred benefits, especially given the dire financial status of Deutsche Airbus and Aérospatiale, respectively, at the time of the transactions.\textsuperscript{164} The companies received equity infusions from investors (the governments) that did not base their investments on contemporaneous, independent financial analyses, whereas a commercial investor would have based its investment on such analyses.

121. The \textit{Japan – DRAMs} panel suggested that there may be cases in which such evidence should be weighed against “evidence of the terms that the market would have offered.”\textsuperscript{165} But, just as Korea put no such evidence before the Japanese investigating authority, so the EC has put no such evidence before the Panel. Accordingly, based on the evidence that the German and French governments did not act consistently with the usual investment practice of private investors, the Panel should find that their equity infusions to Deutsche Airbus and Aérospatiale, respectively, conferred benefits within the meaning of Article 1.1(b) of the SCM Agreement.

B. \textbf{Adverse Effects}

281. Neither party has presented or relied upon either list prices, or actual transaction prices, for LCA, in the context of arguments relating to price suppression, price depression, price undercutting, or lost sales, with respect to injury under Article 5(a), or serious prejudice under Article 6(3)(c). Could the parties explain the reason for the lack of such information - is it their view that such information is unreliable, not probative, not meaningful, or unavailable?

\textsuperscript{163} See U.S. Comments on EC Responses to Second Panel Questions, paras. 162-163, 168.

\textsuperscript{164} See U.S. FWS, paras. 546 (Deutsche Airbus) and paras. 569-571, 583-586, 591, 598-603, 610-612 (Aérospatiale).

\textsuperscript{165} See \textit{Japan – DRAMs (Panel)}, para. 7.276, n.475.
Response:

122. The pricing and other information, including campaign-specific HSBI information, provided by the United States is sufficient to demonstrate the existence of significant price suppression and depression, price undercutting, and lost sales for purposes of its claims under Article 5(a) and Article 6.3(c). The pricing and other information, including campaign-specific HSBI information, provided by the EC, is insufficient to rebut the existence of these forms of adverse effects, and in many cases confirm their existence. We urge the Panel to keep in mind the probative value of the evidence that is before it when considering the possible value of other evidence that, for whatever reason, is not before the Panel.

123. The ordinary meaning of the term “price” includes the “sum in money or goods for which a thing is or may be bought,” or the “actual cost of acquiring, producing, etc. something calculated according to some specific measure.” Thus, in order to determine whether “price” suppression, “price” depression, or “price” undercutting is occurring, one must consider the actual price of the LCA – that is, the actual cost to a specific LCA purchaser of acquiring LCA and any related goods or services that may be sold along with the LCA.

124. The EC’s expert, Rod Muddle, explains:

{There are a number of elements that go into the “price” that can be negotiated between an aircraft manufacturer and a purchaser. It is only by comparing each of these elements that it is possible for an airline to determine the value of competing offers by Airbus and Boeing.}

Because list prices are only one of these elements, list prices alone are not generally meaningful for conducting an analysis of LCA pricing under Article 6.3(c). Rather, the analysis must be based upon evidence regarding the actual price, including all of the relevant elements in a particular transaction.

125. Mr. Muddle identifies a number of elements that form part of the total “price” of any given LCA transaction. These include:

- list price;
- additional equipment (avionics, seats, in-flight entertainment, etc.);
- specifications (maximum takeoff weight certifications, etc.);
- price escalation formula;

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167 Rod P. Muddle, The Dynamics of the Large Civil Aircraft Industry, para. 52 (Exhibit EC-19).
• pre-delivery payment schedules;
• discounts (dollar terms or percentage of list or other price); and
• engine manufacturer discounts.\(^{168}\)

Each of these elements is subject to negotiation in any given transaction, and Boeing and Airbus may offer different combinations of these elements at various times throughout a sales campaign.

126. Mr. Muddle also identifies a number of additional items that also affect the value of an LCA offer from Airbus or Boeing to an airline. Although he does not include them as an element of “price,” these elements represent items of value that are included in an LCA offer and therefore must be considered in the context of a price evaluation. These include:

• operating costs of various models (fuel, maintenance, etc.);
• seating and cargo capacity of various models;
• available delivery dates;
• options for future orders at a pre-determined price (on varying terms);
• guarantees of future (resale) value of aircraft at time of planned replacement;
• assistance in disposal of existing aircraft;
• cost savings based on current operation of aircraft of same model or manufacturer;
• manufacturer guarantees of various aspects of aircraft performance;
• support (parts, technical guidance, crew and pilot training, etc.); and
• financing terms and conditions.\(^{169}\)

All of these factors impact the value of the LCA being offered and the “price” that is offered by the competing manufacturers in any particular transaction.

127. As the United States has previously explained,\(^{170}\) and as also discussed above in response to Question 235, in any given sale the customer is the only person who has access to all of the information necessary to determine the value of the two competing offers. Neither Boeing nor Airbus has full access to the details of the other party’s offer. Moreover, Boeing and Airbus may not necessarily treat identical concessions in the same way in their own internal accounting for the price they calculate for any given offer or sale. For example, publicly available evidence demonstrates that when Iberia Airlines selected the Airbus A340 over the Boeing 777 in 2003, the provision by Airbus of a “residual value guarantee” – a guarantee by Airbus that the A340 would retain a certain value in the used LCA market at some future date – was determinative of

\(^{168}\) Rod P. Muddle, *The Dynamics of the Large Civil Aircraft Industry*, paras. 52-64 (Exhibit EC-19).

\(^{169}\) Rod P. Muddle, *The Dynamics of the Large Civil Aircraft Industry*, paras. 65-93 (Exhibit EC-19).

\(^{170}\) U.S. FWS, paras. 799-800.
the final result. However, when the EC provided certain Airbus pricing data to the Annex V facilitator, the EC explained that this pricing data did *not* include the value of a number of types of concessions, including residual value guarantees. Boeing rarely provides such guarantees, and when it does, U.S. accounting rules require it to monetize the value of any associated potential liability, such as a residual value guarantee, in the reported sales price.

128. Thus, even if Airbus and Boeing reported their own internal calculations of the final “price” they offered in a given sale, one could not assume that such calculations represented an “apples-to-apples” comparison of the actual final price that was offered. Rather, in order to conduct a meaningful analysis, it would be necessary to examine – as the customer does – each element of the two offers and take the proper value of each such element into account in performing the evaluation. If there is evidence that the customer has, in fact, taken all of the elements of the two offers into account and reached the conclusion that the actual price in one offer is considerably lower than the actual price in another, it is not necessary for the Panel to replicate this analysis in order to find that there is evidence of price undercutting in that particular transaction. In other words, evidence of actual prices is both necessary and sufficient to determine that there was price undercutting, and the United States has provided such evidence for a significant number of particular transactions. Given that it is not feasible, in the circumstances of this dispute, for the Panel to replicate the customers’ analysis, evidence of the customers’ analysis is the best evidence available of the relative level of actual offer prices in particular sales.

129. Thus, to continue with the example of Iberia Airlines, when the airline states (as it did) that the final Airbus price – including residual value guarantees, performance guarantees, and financing terms – was lower than Boeing’s price, this is *prima facie* evidence of price undercutting in the Iberia sale. Where the airline states – as Iberia did – that this lower Airbus price was a major factor in Airbus’s winning, and Boeing’s losing, this sale, this is also *prima facie* evidence of a lost sale due to price undercutting. Other evidence, of course, must be drawn upon to demonstrate that the price undercutting (both in its own right and as it relates to lost sales) is the effect of the subsidy.


172 EC follow-up responses, Dec. 22, 2005, at 45-47 (providing a list of types of concessions not accounted for in EC pricing data, including item xxxiv, residual value guarantees).


174 U.S. FWS, para. 789 and evidence cited therein; *see also* Exhibit US-626 (HSB1), US-628 (HSB1), and US-629 (HSB1).
130. With respect to price suppression and price depression, Boeing has provided the United States with indexed data representing Boeing’s average actual price, by model and year, both for original sales and for sales taking into account subsequent re-pricing. The United States has submitted this data to the Panel as business confidential information.\footnote{U.S. FWS, Exhibit US-444; U.S. SWS, Exhibit US-616 (revised to 2006).} Boeing explains that these prices reflect the value of all price concessions, using a consistent accounting methodology across the years. These prices cannot be directly compared with those of Airbus because, as explained above, Airbus and Boeing do not necessarily value all price concessions in the same way. However, because the Boeing data are developed and presented using a consistent methodology, they are internally consistent and therefore are reliable data for determining price trends for Boeing products.

282. Both parties appear to acknowledge that customers monetize the specific attributes of different models of LCA they are considering for purchase. Is there any generally applicable basis upon which this calculation is made? Could the parties comment on how this practice can be taken into account in assessing the information presented regarding price suppression, price depression, underselling, and lost sales?

Response:

131. As explained in response to Question 281, customers monetize all of the elements that affect the value of an offer to sell LCA, including differences in attributes of the particular LCA models being offered. As a very general matter, it can be stated that customers examine how these attributes affect factors relating to operating costs (e.g., fuel burn) and operating revenues (e.g., seating capacity) in the context of the particular missions for which they intend to use the LCA being purchased. However, actually carrying out this examination can be quite complex. The statement of Mr. Muddle, provided by the EC, outlines some of the issues that are considered in evaluating, for example, how seating capacity affects the operating revenues expected from a particular LCA model.\footnote{Rod P. Muddle, \textit{The Dynamics of the Large Civil Aircraft Industry}, paras. 67-69 (Exhibit EC-19).}

132. Because customers monetize these attributes of individual models, Airbus and Boeing take these differences into account in the prices that they offer to customers. Thus, for example, when increasing fuel costs resulted in a greater value advantage for Boeing’s fuel-efficient two-engine 777 in comparison with Airbus’s less efficient four-engine A340, Airbus announced
publicly that it would calculate the impact of this value differential and “pay it” to purchasers of the A340 through lower prices.\footnote{177} 

133. The United States has taken these facts into account in structuring its \emph{prima facie} case for each type of serious prejudice described in Article 6.3(c) alleged in this dispute. With respect to \emph{price undercutting} and \emph{lost sales} (to the extent price undercutting is relevant in particular sales), the United States has presented evidence with respect to customers’ evaluations of the actual price offered by Airbus and Boeing, taking into account all price concessions and all relevant attributes of the models in question. With respect to \emph{price depression} and \emph{price suppression}, the United States has presented data on price trends for particular Boeing LCA models, each with its own set of attributes. To the extent that changes in competitive conditions related to the relative attributes of Airbus and Boeing aircraft can affect pricing trends – e.g., the greater value differential between the 777 and the A340 in periods of high fuel prices may attenuate the degree of price pressure that Boeing experiences from low A340 pricing – the United States has taken account of such changes in its analysis.\footnote{178}


\footnote{178} \textit{E.g.}, U.S. SWS, paras. 727-729.

\footnote{179} See U.S. FWS, para. 746 n.936; EC FWS, para. 2162 n.2183.

\footnote{180} Exhibit EC-21.

\footnote{181} These are denoted “Government/Private” in the “Owner Type” column of Exhibit EC-21.
than large civil aircraft. Such non-LCA aircraft are also properly excluded from the definition of the like product. In any event, the number of such deliveries is quite small. Thus, the basic trends in Boeing’s production and delivery data are unaffected even if such production is improperly included in the data.

284. Could the parties please comment on the proposition that, in a duopoly market, subsidized imports will always cause material injury to the domestic industry producing the like product in the importing country, because in the absence of such imports, the domestic industry would capture the entire market, thereby earning more revenue? In what circumstances might this not be the case?

Response:

136. The existence vel non of material injury is always a complex, fact-based endeavor that can never be decided a priori on the basis of any single fact. As Article 15.4 cautions, no one factor can “necessarily give decisive guidance” in the context of a material injury determination. Thus, while the existence of a duopoly market consisting solely of one supplier of the subsidized imports and one domestic supplier may in some ways simplify a material injury analysis – for example, there is no need to consider the effects of imports from third countries – the legal standard for determining material injury is the same as it would be in any other case.

137. In any event, the U.S. demonstration of material injury in this dispute does not depend on a finding that, in the absence of subsidized imports, the U.S. industry would have supplied the entire U.S. market. Rather, the United States has demonstrated that, at the time this Panel was established and afterwards, the U.S. LCA industry was experiencing material injury as shown by reduced production, revenues, operating margins, and employment levels, among other relevant factors. The United States has further demonstrated that (1) the loss of U.S. market share to subsidized imports in that period, much of which can be traced to particular significant sales lost by Boeing to Airbus before and during the period, and (2) the significant decline in the prices Boeing was able to achieve for its remaining LCA sales during the period, much of which can be

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182 For example, the United States has not challenged subsidies for the development of the Airbus A400M military transport, even though the A400M is derived from the A300 civil aircraft frame. Likewise, AWACS (military control and surveillance aircraft) and military tankers derived from the Boeing 767 are not part of the “like product,” although the EC appears to have included such aircraft in its Boeing production totals. See EC Exhibit EC-21 at 331 (AWACS), 336 (tankers).

183 Nonetheless, it is reasonable to assume that, but for the subsidies that were responsible for the creation of the Airbus LCA family, the second producer in the LCA duopoly would be a U.S. producer. E.g., U.S. FNCOS, paras. 147-151.

184 U.S. FWS, paras. 746-748.
traced to price undercutting by Airbus, together have been a not insignificant cause of that material injury.\footnote{185} This demonstration does not depend on the proposition identified in the Panel’s question, and therefore the Panel need not decide whether that proposition is valid in this or any other case.

285. Assuming that "the degree to which a market is limited by geography will depend on the product itself and its ability to be traded across distances\footnote{186}, what are the relevant criteria for delimiting specific geographic markets for LCA for purposes of Article 6.3(c)? Do the parties consider it possible that, given that LCA are sold throughout the world under similar conditions of competition, there is in fact only one geographic market for LCA, namely, the world market? What would be the implications of such a conclusion for the parties' arguments and the Panel's analysis of both injury and serious prejudice in this dispute?

Response:

138. Article 6.3(c) provides that the analysis of price undercutting, lost sales, price suppression, and price depression should reference events and prices that occur “in the same market.” As the Appellate Body has stated, “it seems reasonable to conclude that two products would be in the same market if they were engaged in actual or potential competition in that market.”\footnote{187} The United States agrees that LCA are sold throughout the world and that the conditions of competition for LCA sales throughout the world are generally similar. Thus, as a factual matter, it is reasonable to analyze the competition between Boeing LCA and Airbus LCA in terms of their competition in a world LCA market. The United States does not understand the EC to disagree with this proposition.

139. For purposes of displacement and impedance, however, Article 6.3(a) calls for an examination of displacement or impedance of imports of the like product “into the market of the subsidizing Member.” Likewise, Article 6.3(b) refers to the displacement or impedance of exports of the like product “from a third country market.” The Appellate Body, when noting that the text of Article 6.3(c) “imposes no explicit geographical limitation on the scope of the relevant market,”\footnote{188} expressly contrasted this provision with Article 6.3(a) and Article 6.3(b). Although, in an economic sense, competition in national LCA markets is not isolated from competition in

\footnote{185}{U.S. FWS, paras. 733-745, 749-753.}
\footnote{186}{Panel Report, \textit{US – Upland Cotton}, para. 7.1237.}
\footnote{187}{\textit{US – Cotton Subsidies (AB)}, para. 406.}
\footnote{188}{\textit{US – Cotton Subsidies (AB)}, para. 406.}
the world LCA market as a whole, these provisions expressly call for an examination of the effect of the subsidy in particular geographically limited markets.

140. Consistent with these provisions of the SCM Agreement, in presenting the U.S. claim under Article 6.3(a), the United States referenced data and analysis with respect to LCA deliveries and market share in the EC market in order to show that the effect of the subsidy is to displace or impede imports of Boeing LCA into the EC and its member States.\(^{189}\) With respect to Article 6.3(b), the United States presented data with respect to aggregate LCA deliveries and market share in all markets other than the United States and the EC, as well as in a number of individual country markets. As the United States has explained, the text of the SCM Agreement affords the Panel sufficient discretion to aggregate individual third country markets, particularly if an individual third country market is not large enough to show “clear trends in the development of the market,” as required by Article 6.4.\(^{190}\)

141. With respect to material injury, Article 15.4 provides for an “examination of the impact of the subsidized imports on the domestic industry.” Here, the focus is on the impact of subsidized imports into the territory of the complaining Member, including the volume of subsidized imports relative to domestic sales by the domestic industry and the price effects of the subsidized imports. Other effects of the subsidy, including the volume and price effects of LCA sales outside the territory of the complaining Member, are not considered in this analysis.

286. If the Panel were to consider that 2001-2003 represented a "down" portion of the LCA business cycle, do the parties consider that the Panel would be in error if it examined the effects of the alleged subsidies over the period 2001 through 2006 in order to determine whether the alleged subsidies cause adverse effects to the interests of the United States? If the Panel were to undertake such an analysis, how should data for the "down" period 2001 through 2003 be assessed so as to account for dissimilar conditions in the market over the entire period.

Response:

142. As a preliminary matter, we would recall that the claim of the United States in this dispute is that, at the time the Panel was established, the EC and certain member States were, through the use of specific subsidies, at that time causing adverse effects to the interests of the

\(^{189}\) Although several member States joined the EC during the reference period, for purposes of analyzing market share trends, the U.S. submission included LCA deliveries to all 25 member States of the EC as of 2005-2006, even if the deliveries were made prior to the date when a given member State joined the EC. U.S. FWS, para. 767 n.951.

\(^{190}\) U.S. FNCOS, para. 175; U.S. SWS, para. 704.
United States. The existence of adverse effects, therefore, must be determined as of a particular point in time – the time of the consultation request and establishment of the Panel – rather than over a period of years. However, data from a reference period are relevant in order to determine whether adverse effects existed at that point in time. Data from the prior years are relevant to establish trends; data from subsequent years may also be relevant to confirm those trends.

143. The data on market share presented by the United States (whether in the U.S. market, the EC market, or third country markets) show that Airbus greatly increased its share of all of these markets from 2001 to 2003 and has maintained most of that increased market share through 2006.⁴¹ Although Airbus had only a 38 percent share of the world LCA market in 2001, it outpaced Boeing in LCA deliveries in 2003 and every year thereafter – including 2007.⁴² With respect to price, the price of most Boeing LCA models [

¹⁹¹ U.S. FWS, para. 705 & Table 1; U.S. Answers to First Panel Questions, para. 286.

¹⁹² According to the manufacturers’ web sites, Boeing delivered 441 LCA in 2007, while Airbus delivered a record 453 LCA in 2007.


¹⁹⁴ E.g., EC FNCOS, para. 141.
world LCA demand did decline in the 2001-2003 period, the decline was not unprecedented, contrary to EC assertions. Moreover, the EC argument fails for at least two additional reasons.

146. First, the EC fails to explain why the mere fact that overall demand levels in 2001-2004 were below those in 2005-2006 would require the Panel to ignore market events that occurred in 2001-2004, if those market events have continuing effects in the present. Particularly in an industry with long product development cycles, in which – as Airbus has stated – “{n}o single year ... can be taken as an indication of market position,” and in which the time lag between order and delivery averages three years and can be considerably longer, the mere fact that demand is cyclical is not a reason to exclude trends that develop over a period of five years from the adverse effects analysis.

147. Second, and more importantly, if the market events that occurred during 2001-2003 were merely a temporary aberration due to fluctuations in demand, one would expect that Boeing’s market share and market prices would have returned to their prior levels. They have not. Thus, fluctuations in demand do not explain the market shift in Airbus’s direction that has occurred over the 2001-2006 period and that continues to exist today. It is not merely permissible for the Panel to examine why this market shift emerged in 2001-2003, in order to determine whether its continued existence is the effect of the subsidy. It is necessary.

287. What sort of temporal correlation between the level of subsidization and the adverse effects of such subsidization is to be expected in an industry such as the LCA industry, with long lead times for product development, sometimes significant intervals between orders and deliveries, and sometimes significant re-pricing during those intervals? Is the answer the same with respect to both injury to a domestic industry under Article 5(a) and serious prejudice under Article 5(c)?

Response:

148. The type of temporal correlation between subsidies and adverse effects that would be expected depends, not simply on the industry, but also – and more importantly – on the nature of the subsidy. If, for example, a complaining party claimed that the nature of a subsidy to an LCA producer was such as to have an immediate and direct impact on price, then an immediate and direct temporal correlation between the level of subsidization and adverse effects could be evidence confirming the complaining party’s theory of causation, and the absence of an

195 U.S. SWS, para. 660 and Figure 1.

immediate and direct temporal correlation could be evidence that undermines that causation theory.

149. As the United States has previously demonstrated and explained in response to several questions above, the nature of the subsidies that the EC and the Airbus governments have provided to Airbus is primarily to enable Airbus to launch new aircraft programs at a time, and in a way, that it could not have otherwise done. The effect of the subsidy is therefore to enable Airbus to offer LCA products that, but for the subsidy, it would not offer. This results in fewer sales of competing LCA products by other manufacturers and reduced prices for those other LCA products. Thus, the temporal effect of the subsidy lasts as long as the product (that is brought to market only because of subsidies) is marketed, sold, and produced. In the case of Launch Aid, where the original development loan is repaid, if at all, by a levy on future deliveries, the subsidy benefit also endures as long as the loan has not been repaid at a market rate. Thus, in the circumstances of this case, the benefit and the effect of the subsidy are long-lasting and extend over the same period. However, because the primary effect of the subsidy is to create additional LCA supply that is not delivered until several years after the initial Launch Aid disbursements for that model begin, one might not necessarily expect a precise correlation between the amount of benefit allocated to a particular year and the effects of the subsidy in that year.

150. In addition, Launch Aid and the other subsidies have a second, distinct effect of improving the financial position of Airbus, thereby enabling it to undertake more investments – including, but not limited to, increasing long-term market share through aggressive pricing – that it could otherwise do. Here, the evidence shows that Airbus in fact began to increase its market share substantially, largely through aggressive pricing, after 2001. Airbus also received large infusions of new Launch Aid for the A380 beginning in 2001. Thus, there is a temporal correlation between the infusion by the Airbus governments of additional cash through long-term, backloaded, success-dependent subsidized loans (not to mention infrastructure and other subsidies) and an increase in Airbus market share obtained through aggressive pricing. While the nature of the subsidy would not necessarily result in an immediate increase in aggressive pricing, the existence of a temporal correlation in this case – together with the demonstrated effect of Launch Aid disbursements on the cash flow of Airbus, as discussed above in response to question 229, is corroborating evidence of the causal effect of the subsidy.

197 According to the ITR report, disbursements of French, German, and Spanish Launch Aid were [ ], million Euro in 2001, [ ], million Euro in 2002, [ ], million Euro in 2003, [ ], million Euro in 2004, [ ], million Euro in 2005, and [ ] million Euro in 2006, while disbursement of British Launch Aid were [ ], million pounds sterling in 2001, [ ], million pounds in 2002, and [ ], million pounds in 2003. Exhibit EC-13, Table 1.

198 For example, it could be the case that the additional cash flow from Launch Aid disbursements merely stabilizes the financial health of the recipient in the light of launch costs and other factors. In such a case, one might not see any short- or medium-term changes in the pricing behavior of the recipient.
288. What is the appropriate methodology for this Panel to adopt in determining whether the effect of the subsidy is significant price suppression, significant lost sales, or displacement or impedance of imports and exports under Article 6.3, in light of the Appellate Body’s statement in US – Upland Cotton\(^{199}\) that it is necessary to ensure that the effects of other factors on prices (in the context of a significant price suppression claim) are not improperly attributed to the challenged subsidies?

(a) (to the United States) Does the United States consider that the other factors cited by the European Communities in this context are not relevant to the non-attribution analysis to be conducted by the Panel in a serious prejudice claim under Articles 5(c) and 6.3?

Response:

151. It is well established “it is necessary to ensure that the effects of other factors on prices,” and indeed on market share and other relevant variables, “are not improperly attributed to the challenged subsidies.”\(^{200}\) In the Cotton dispute, the Appellate Body approved that panel’s approach of first establishing that the particular form of serious prejudice under Article 6.3 (there, significant price suppression) was the effect of the subsidy and then, as a second step, considering other alleged causal factors which may affect the analysis of the causal link between subsidies and serious prejudice.\(^{201}\) We believe that the Panel may follow the same approach in this dispute.

152. The United States has identified one additional factor that has resulted in the displacement or impedance of U.S. LCA imports into the EC and of U.S. LCA exports to third country markets, as well as fewer LCA sales in the U.S. domestic market, namely, lower demand in those markets during a portion of the reference period. By focusing on changes in market share, rather than on the absolute number of deliveries, the United States has ensured that any changes in the number of Boeing deliveries to any particular market attributable to changes in demand are not attributed to the subsidies in the context of the displacement or impedance analysis under Article 6.3(a) and (b), as well as in the analysis of the volume of imports in the case of material injury. Thus, this potential other causal factor has been fully taken into account in the U.S. analysis.

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\(^{200}\) US – Cotton Subsidies (AB), para. 437.

\(^{201}\) US – Cotton Subsidies (AB), para. 437.
153. The EC has not demonstrated, as a factual matter, that any other factors break the causal link between subsidies and the several types of adverse effects that the United States has established. For each alleged other factor identified by the EC, the record establishes that the other factor did not have a significant effect on the number of Boeing deliveries or the price of Boeing LCA.

154. For example, the EC alleges that Boeing lost market share to Airbus during the 2001-2003 downturn because the downturn in demand affected Boeing’s customer base more than Airbus’s. The EC identifies Airbus’s greater reliance on leasing companies, and Boeing’s alleged greater reliance on certain U.S. airlines that were particularly affected by the aftermath of the September 11, 2001 terrorist attacks. The United States has already demonstrated that the EC has mischaracterized Boeing’s relationship with leasing companies in the relevant period and that, even assuming arguendo the validity of the EC’s approach, it could explain only a tiny fraction of Boeing’s market share loss. In addition, the United States has shown that Airbus also was a major supplier to the U.S. airlines on which, according to the EC, Boeing was supposedly excessively reliant. More than two-thirds of Airbus’s LCA deliveries in the U.S. market in 2001 (82 of 122) were made to the U.S. airlines that the EC identifies. Thus, this alleged other causal factor identified by the EC simply does not explain the dramatic surge in Airbus’s market share over the reference period, and therefore does not break the causal link between subsidies and adverse effects.

155. Likewise, the EC alleges that Boeing lost sales due to its supposed “arrogance” and inattentiveness to customer needs prior to 2004. As the United States has shown, this “arrogance” primarily appears to mean that Boeing was unwilling to reduce its prices to match those of Airbus. This factor not only does not break the causal link between subsidies and serious prejudice, but in fact confirms the central role of aggressive pricing by Airbus in causing the price depression and price suppression during the period. The EC further alleges that geopolitical concerns and the role of engine manufacturers may have played a role in serious prejudice, but once again – as the United States has explained – the evidence disproves this.

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202 EC SWS, paras. 1090-1099.

203 U.S. Answers to First Panel Questions, paras. 294-301.

204 U.S. SWS, para. 732.

205 U.S. SWS, paras. 709-710.

206 See U.S. Comments on EC Answers to Second Panel Questions, paras. 280-282 (geopolitics); U.S. SWS, HSB1 Appendix, para. 28 and Exhibit US-625 (HSBI) (engines).
156. Late in the proceedings, the EC developed a new theory that exchange rate shifts account for Airbus’s increased market share, but in fact the dollar-Euro exchange rate was moving in favor of Boeing during the period in which Airbus increased its market share most dramatically.\footnote{U.S. Comments on EC Answers to Second Panel Questions, paras. 260-262.}

157. In short, none of the alleged other causal factors by the EC turn out, upon examination of the evidence, to have any meaningful causal relationship to the adverse effects demonstrated in this dispute.

158. As the Appellate Body stated with regard to the non-attribution analysis in the context of material injury under the Antidumping Agreement, the analysis “applies solely in situations where dumped imports and other known factors are causing injury to the domestic industry at the same time.”\footnote{US – Hot-Rolled Steel (AB), para. 223.} Therefore, where an alleged “other factor” is not, in fact, causing injury, no further non-attribution analysis is required. The same logic applies in the context of serious prejudice – an alleged “other factor” that is not, in fact, causing serious prejudice need not be further examined. Accordingly, the other factors identified by the EC are “not relevant” in the sense that they are not, as a factual matter, actual significant other causes of serious prejudice or material injury.

289. In which circumstances, if any, would it be reasonable to conclude that a subsidy that has the indirect effect of lowering a firm's costs of production will result in that firm lowering its prices?

Response:

159. It is a fundamental principle of elementary economics that, under conditions of perfect competition, the market-clearing price is the price at which the marginal cost of production equals the marginal revenue from production. A subsidy that lowers the marginal cost of production, or increases the marginal revenue from production, would thus be expected – again, under conditions of perfect competition – to have some effects on production levels, price, or both, depending on the facts of a particular industry.

160. In the real world, of course, the effects of subsidies are not as easy to trace as they are in a theoretical model. In particular, the LCA industry does not operate under the traditional assumptions of perfect competition (no barriers to entry, identical products, perfect information, pure price-taking, etc.). Whether a subsidy has price effects is therefore something that must be
evaluated on a case-by-case basis, taking into account the nature of the subsidy, actual evidence with respect to the evolution of the market, and other relevant facts.

161. As explained above in response to question 230, the challenged subsidies in this dispute have demonstrable price effects that are manifest in the evidence before the Panel. Whether other subsidies in other circumstances do or do not have price effects is a fact-specific question that the Panel need not resolve.

290. In US – Upland Cotton, the Panel noted that for a basic and widely traded commodity such as upland cotton, "a relatively small decrease or suppression of prices could be significant because, for example, profit margins may ordinarily be narrow, product homogeneity means that sales are price sensitive or because the sheer size of the market in terms of the amount of revenue involved in large volumes trade on the markets experiencing the price suppression." Do the parties consider that, for a product such as LCA, a relatively small decrease or suppression of prices could be "significant" for purposes of Article 6.3(a)? Please explain why or why not, and indicate the factors that the Panel should consider in determining whether the effect of alleged subsidies to Airbus is "significant" price suppression within the meaning of Article 6.3(c).

Response:

162. As the quote from the panel report in Cotton makes clear, there is no general rule that allows one to determine a priori whether a particular amount of price suppression is significant. Some of the factors cited by that panel in favor of a relatively low standard with respect to upland cotton – such as supposedly low ordinary profit margins or product homogeneity – do not apply to LCA.

163. In this dispute, the United States has demonstrated a degree of price suppression that is much greater than the “relatively small decrease or suppression of prices” at issue in Cotton. From 2001 to 2006, the nominal price of Boeing LCA – that is, not adjusted for inflation – was much lower than in 2001. When adjusted for the 22 percent increase in the producer price index over this period, the decline is startling. Notwithstanding record demand in 2005 and 2006, average 737 prices for orders placed in 2006, in inflation-adjusted terms, were 21 percent below the prices for orders placed in 2001, at the

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210 U.S. SWS, para. 726 n.909.

211 U.S. SWS, para. 726.
cusp of a “down” market cycle. Clearly, something was suppressing Boeing’s LCA prices during this period, and on any measure was doing so to a significant degree.

164. Price trends for the 777 are somewhat different from trends for other Boeing LCA over this period, but – as the United States has shown – this difference also illuminates the nature of the causal impact of Airbus subsidies on LCA pricing.\textsuperscript{212} Prices for the 777 [\textsuperscript{213}], this was because [\textsuperscript{214}] In 2006, when the fuel penalty associated with the A340 became increasingly significant with the cost of fuel, [\textsuperscript{215}]. Thus, in 2006, the level of price suppression experienced by the 777 was [\textsuperscript{216}], as the A340 – Airbus’s least competitive aircraft – became increasingly more costly to operate and Airbus faced increased limits on its cash position due to A380 and A350 delays.

165. The large levels of price suppression – [\textsuperscript{216}] – stand in sharp contrast to [\textsuperscript{216}]. This suggests that, where actual average prices may vary by 1 or 2 percent from the baseline expected price as predicted by the producer price index, it may be difficult to show that significant price suppression for that particular model is occurring. However, when actual average prices fall by 10 percent, 20 percent, or more with respect to that baseline – particularly when sharply increased demand would be expected to result in a greater ability for LCA producers to raise prices – it may be inferred that price suppression, or even price depression, is occurring, and that the impact of such price suppression is significant.

291. How, if at all, should the Panel’s assessment of whether specific sales campaigns provide evidence of price suppression, lost sales or displacement or impedance of imports and exports, be affected by the consideration that Boeing was the incumbent supplier to the purchaser in those campaigns?

\textsuperscript{212} U.S. SWS, paras. 727-729.

\textsuperscript{213} U.S. FWS, para. 808.

\textsuperscript{214} U.S. FWS, para. 808; U.S. SWS, para. 727.

\textsuperscript{215} Exhibit US-612 (BCI).

\textsuperscript{216} U.S. SWS, paras. 727-729.
Response:

166. As a preliminary matter, the United States bases its claims of displacement or impedance of imports and exports under Article 6.3(a)-(b) and its claims of significant price depression or suppression under Article 6.3(c) on overall total deliveries of LCA to particular markets and to overall average prices for the several LCA models. Although evidence from particular sales campaigns may illuminate the changing dynamics of the relevant LCA markets more broadly, and thus may be relevant to the issue of causation, the primary evidence for the existence of displacement or impedance and price suppression or depression is the large decline in Boeing’s market share and in the prices of Boeing LCA during the reference period.

167. With respect to the particular sales campaigns in which Boeing was the incumbent supplier, these customers would have an incentive to continue to order Boeing LCA due to the switching costs involved in changing suppliers. In order to induce a customer already operating Boeing aircraft to switch suppliers, Airbus therefore would have to offer greater price discounts than it would to a customer without an incumbent supplier. Thus, as public sources described the Airbus offer to easyJet:

{The offer made by Airbus had to be sufficiently attractive to prise easyJet away from Boeing. A near equal bid between Airbus and Boeing would have inevitably resulted in a decision favoring the latter. Clear water between the two manufacturers was necessary to tempt easyJet away from the traditional source of equipment for low-cost carriers.}

Additional HSBI evidence relevant to this question has been discussed in prior U.S. submissions. The United States also refers the Panel to the HSBI documents cited in those submissions.

168. In addition, it is noteworthy that although examples abound of Boeing customers switching to Airbus, it is difficult to find examples of airlines at which Airbus was the incumbent supplier and customers were induced to switch to Boeing. For example, an Airbus presentation at the 2006 Farnborough Air Show claimed that 54 airlines have switched from the Boeing 737 to the Airbus A320, but that only 4 airlines have switched from the A320 to the 737 – and 2 of those switched back to the A320.


218 U.S. FCOS, para. 71; U.S. SWS, HSBI Appendix, paras. 16-17.

169. This evidence highlights the importance of Airbus pricing policy to its substantial increase in LCA market share at the expense of Boeing in recent years.

292. In paragraph 1069 of the EC’s SWS, the EC argues that "pricing is based on supply and demand". Would both parties please address the implications of this premise in a duopoly market where it appears that strategic interactions are of crucial importance? In their replies, would both parties please indicate how they consider pricing relates to costs in such a market?

Response:

170. The United States can agree that LCA “pricing is based on supply and demand.” Both Airbus and Boeing have an incentive to charge as high a price as possible for their products and still win the sale. At the same time, there is significant competition between Boeing and Airbus that holds prices down. For example, the Nevin and Seabright study found that adding a third competitor (Airbus) to the existing Boeing/McDonnell-Douglas duopoly did not provide a significant consumer benefit, suggesting that a duopoly provides sufficient competition to keep prices down in the LCA market. From this, it is reasonable to conclude that subsidies to LCA producers will have market effects primarily to the extent that they affect the supply of, or demand for, LCA.

171. In this dispute, however, the United States has shown that Launch Aid and other subsidies have a direct impact on the supply of LCA because of their impact on Airbus’s LCA product launch decisions. An LCA producer does not only decide whether to produce one more marginal aircraft in an existing program (based on the expected marginal cost of producing one more unit and the expected marginal revenue from selling one more unit), but also must decide whether to spend the billions of dollars necessary to develop an entire LCA program, based on whether the expected costs of the program (sunk development costs plus expected future production costs) are justified by the expected revenue from the program (expected future sales volume times expected future unit price).

172. As Dr. Dorman’s model illustrates, the long time horizons of LCA program launch decisions, the resulting large degree of uncertainty in the cost/benefit analysis that must precede a launch decision, and the combination of high uncertainty and enormous launch costs, profoundly shape the LCA industry. Indeed, it is widely recognized that “the commercial aircraft industry may, more than most, be one in which outcomes are largely determined by a few strategic

commitments.\footnote{Benjamin Esty & Pankaj Ghemawat, \textit{Airbus vs. Boeing in Super Jumbos} (Harvard Business School Strategy Working Paper No. 02-061, Feb. 2002) at 1 (Exhibit EC-344).} By influencing and distorting the outcome, timing, and content of these “strategic commitments,” Launch Aid profoundly distorts competition in the LCA market in ways that other forms of government support do not.

173. The EC makes the quoted statement – that LCA “pricing is based on supply and demand” – in order to rebut an alleged U.S. argument that “[\textit{I}]”\footnote{EC SWS, para. 1069.} As the U.S. responses to the Panel’s supplementary questions has hopefully made clear, the U.S. argument is based on no such reasoning.\footnote{In fact, as noted in the response to Question 230 above, it is the EC that has elsewhere embraced the most extreme form of this exact argument.} What fundamentally shapes competition in the LCA market is not the marginal cost of producing one more aircraft, but the risk that an LCA producer assumes by undertaking the enormous costs of developing and bringing to market a new model of LCA, in the hopes of recovering that cost over a period of decades in a world filled with uncertainties.

174. By providing Launch Aid, the EC and the Airbus governments take on the risk that, in a world of market-based launch financing, would rest only on Airbus. Everything else, including Airbus’s pricing practices, flows from this fundamental shift of the principal commercial risk of LCA production away from Airbus.

\footnote{In fact, as noted in the response to Question 230 above, it is the EC that has elsewhere embraced the most extreme form of this exact argument.}
LIST OF ADDITIONAL U.S. EXHIBITS

European Communities and Certain Member States – Measures Affecting Trade in Large Civil Aircraft

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