In The LCIA
No. 7941

THE UNITED STATES OF AMERICA,

Claimant,

v.

CANADA,

Respondent.

POST-HEARING BRIEF ON REMEDY

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UNITED STATES POST-HEARING BRIEF ON REMEDY

1. Pursuant to the Tribunal's Procedural Order No. 4, dated September 29, 2008, the United States respectfully submits this post-hearing brief on remedy. The United States responds to the specific questions raised in Procedural Order No. 4, in serial order, addressing the issue raised in paragraph 3.1 of the order in the following introduction, and addressing questions 3.2(a)-(c) in the subsequent sections.

INTRODUCTION

2. At the hearing on remedy, held from September 22 to September 23, 2008, the United States offered the Tribunal the only reasonable interpretation of the 2006 Softwood Lumber Agreement ("SLA" or "Agreement"). It offered the only interpretation that gives meaning to the entire dispute resolution provision contained in Article XIV and demonstrated that the SLA provides for retrospective remedies and requires those remedies to be in the form of compensatory adjustments to the export measures. To aid the Tribunal in its task, the United States provided four proposals for appropriate compensatory adjustments to the export measures. Canada put forward no alternate remedies, and its abbreviated cross-examination of Dr. Neuberger left his testimony virtually untouched. To the limited extent that Canada substantively criticized three of our four proposed remedies, Canada's criticisms fail to undermine the appropriateness of the proposed remedies. In any event, none of this allows Canada to escape the mandatory provisions of Article XIV, which include determination of an appropriate remedy.

3. The following sections of the introduction address the Tribunal's request that the parties discuss the most relevant results of the hearing, and the remaining

sections address the Tribunal's questions regarding the liability hearing discussion on procedure, burden of proof, and the expert testimony.

I. The SLA Requires Retroactive Compensation For All Breaches

4. The United States demonstrated that Article XIV provides a comprehensive dispute resolution mechanism in which the Tribunal determines a reasonable period of time for the breaching party to cure its breach *and* determines compensatory export measures in an amount that remedies the breach, in case the breaching party fails to cure the breach within the reasonable period of time. Stmt. Of Case, ¶¶ 20-33; Reply Mem., ¶¶ 15-16; Tr. 29:19-35:12. The Tribunal performs both these tasks simultaneously so that the breaching party (in this case Canada) is aware both of the time it has to cure the breach and the consequence of its failure to timely cure. Stmt. Of Case, ¶ 26; Reply Mem., ¶¶ 16-17; Tr. 31:14-22. [1]

5. If a dispute arises as to whether the breach has been cured or remedied, Article XIV provides additional mechanisms to resolve any such dispute. Stmt. Of Case, ¶¶ 21-25; Reply Mem., ¶¶ 18-19; Tr. 31:14-24:19. The absence of any compensatory export measures would undermine those additional mechanisms and prevent the parties from exercising their rights and implementing the terms to which they agreed. Reply Mem., ¶¶ 18-19; Tr. 35:2-12.

6. In contrast, to support its view that the SLA provides only prospective remedies for breaches, Canada offered at best a truncated view of Article XIV — one that violates the mandatory provisions of paragraph 22, and one that prevents the parties from invoking their rights under paragraphs 27 and 29 of the article. Reply Mem., ¶ 18. To

[1] Citations to "Tr.___" refer to the transcript of proceedings on remedy.

defend its counterintuitive reading, Canada offered strained analogies to multilateral trade agreements that bear no resemblance in text or in purpose to the SLA. Reply Mem., ¶ 11; Rebuttal Mem., ¶¶ 53-60; Stmt. Of Defence, ¶ 31-42.

7. Canada then superimposed its labored reading of the SLA onto the question of remedy, concluding that, because the SLA provides only prospective remedies, a remedy cannot be designed to redress a breach that occurred in the past. Reply Mem., ¶ 11; Rebuttal Mem., ¶¶ 28-42; Stmt. Of Defence, ¶¶ 11-30. Thus, although Canada's failure to correctly calculate expected United States consumption ("EUSC") for six months resulted in an overshipment of 216 million board feet ("MMBF") of softwood lumber and although that overshipment distorted the market equilibrium, Canada insisted it need not remedy that breach, except to begin performing the calculation correctly. *See* Tr. 251:4. Canada's reading, if adopted, would also endanger the fundamental utility of the SLA as a means of resolving disputes between the parties.

8. As we demonstrated in our written statements and during the hearing, Article XIV directs the Tribunal to determine a cure period of no more than 30 days *and* to determine appropriate compensatory measures to compensate for the breach. Stmt. Of Case, ¶¶ 20-33; Reply Mem. ¶¶ 5, 15-16. Without this mandatory, two-step process, the remainder of Article XIV, and in particular paragraphs 27 and 29, cannot function. Reply Mem., ¶¶ 18-19.

9. Canada avoids the text of the SLA, and largely ignores the SLA's context. Instead, Canada suggests that the SLA's provision for a "reasonable period of time" for Canada to cure the breach is similar to language used in other "trade agreements." Tr.

323:15-16; Stmt. Of Defence, ¶¶ 38-40; Rebuttal Mem., ¶¶ 48, 53. First, as we demonstrated during the hearing, the SLA is not a multilateral trade agreement like the North American Free Trade Agreement ("NAFTA") or the World Trade Organization ("WTO") agreement. Tr. 24:8-25:9, 42:17-45:10; Reply Mem., ¶¶ 32-34. Indeed, the SLA does not govern all trade *between* the United States and Canada. It does not control United States exports of softwood lumber to Canada. Rather, it regulates Canadian exports of softwood lumber *to* the United States by a system of Canadian-imposed export measures. SLA, art. VII. That is, the United States agreed to refund five billion dollars in antidumping and countervailing duty deposits — not to restrict its lumber trade with Canada. SLA, art. IV; Stmt. Of Case, ¶ 6. It agreed to do this, in part, to settle the vast and multi-forum litigation pending before United States domestic courts, the WTO, and NAFTA tribunals — not, as Canada contends (Tr. 326), merely to comply with its own domestic law. SLA, art. II; Annex 2A.[2]

10. Second, even assuming that these multilateral trade agreements *were* appropriate substantive comparisons, Canada still failed to demonstrate any similarities indicating that their prospective-only dispute resolution systems should govern the enforcement of the SLA. Canada relies primarily upon the WTO Dispute Settlement Understanding's ("DSU's") use of the term "reasonable period of time" to conclude that the SLA, which also uses that phrase, prohibits retrospective remedies. Tr. 318:24-21:12; Stmt. Of Defence, ¶¶ 31-42; Rebuttal Mem., ¶¶ 48, 53-70. Of course, Canada fails to acknowledge that the "reasonable period of time" to comply with WTO recommendations *should not exceed 15 months*. CR-24, art. 21, ¶ 3(c). As the United

[2] The United States also agreed to forego its domestic trade remedies as long as the SLA was in place. SLA, art. V.

States explained during the hearing, the purpose of this extended and flexible time frame is to permit sovereign nations to come into "compliance" with the recommendation of a WTO ruling. Tr. 24:8-13; CR-24, art. 21, ¶ 1.

11. In contrast, the SLA does not contemplate that the Tribunal make "recommendations" to the breaching party, nor does it provide breaching parties time to come into "compliance" with those recommendations. Reply Mem., ¶¶ 28-31. The Tribunal's decisions under the SLA are "final and binding," not recommendations. SLA, art. XIV, ¶ 20. Further, the SLA contemplates that "breaches" be "cured." These terms are not used in the WTO DSU. Reply Mem., ¶ 28-31. Canada pessimistically insists that the 30-day cure period cannot be used to negotiate or agree upon a cure because the SLA does not contain such an explicit suggestion. Rebuttal Mem., ¶¶ 49-51. Canada's reading of the SLA is contrary to the general preference for amicable resolution of state-to-state disputes.

II. Each Of The Remedies Proposed Is Appropriate

12. Although the purpose of the September hearing was to address a remedy for Canada's breach, Canada never even assumed the possibility of a remedy or offered any remedy of its own. *See also* Stmt. Of Defence, ¶ 25, ¶¶ 29-30; Rebuttal Mem., ¶¶ 40-42. Instead, Canada offered an increasingly confused interpretation of the SLA, arguing that the SLA does not "support" or authorize the four remedy proposals put forth by the United States — or any remedy at all. Tr. 312:15-16, 23-24; 314:20-21. Indeed, Canada made the critical concession that it never even considered the possibility of a remedy and approached its economic analysis "with the conclusion that there is no authority for reparations in the Agreement." Tr. 316:12-14.

13. The SLA not only authorizes, but mandates, the determination of "appropriate" compensatory adjustments to the export measures "in an amount that remedies the breach." SLA, art. XIV, ¶¶ 22-24; Reply Mem., ¶¶ 49-56; Stmt. Of Case, ¶¶ 34, 41-47. The SLA does not instruct the Tribunal *how* to go about making this determination, except to provide that the compensatory measures be appropriate adjustments to the quotas and/or to the export charges. As such, the United States offered the Tribunal four appropriate yet distinct proposals — each of which would remedy the breach. Our proposals are suggestions for appropriate compensatory measures. The SLA provides for a determination of appropriate compensatory measures, regardless of whether those proposals are made by a party.

14. Should the Tribunal agree that Canada treated Option B regions as Option A regions during the breach period (because Canada failed to impose the higher export charges that necessarily accompanied shipping over quotas), our first and preferred approach most appropriately remedies the result of Canada's breach. It does not require the Tribunal to consider any external issues beyond the operation of the export measures themselves, and it recognizes that there are only two export measure regimes under the SLA — Option A or Option B. Tr. 281:12-282:18; Stmt. Of Case, ¶¶ 48-52; Reply Mem., ¶¶ 67-73; CR-3, ¶¶ 48-56; 24, CR-13, ¶¶ 53-55. There is no middle category.

15. Alternatively, should the Tribunal deem appropriate a remedy tied to the economic effects of the breach, then it should implement our second proposed remedy, which estimates the price depression resulting from the breach, and then calculates the export charge necessary to counteract that price effect. Stmt. Of Case, ¶¶ 53-57; Reply

Mem., ¶¶ 74-81. Should the Tribunal deem appropriate a remedy that concretely reduces exports, the United States' third approach provides such an approach. Stmt. Of Case, ¶ 62; Reply Mem., ¶¶ 81-84. Finally, should the Tribunal deem appropriate a remedy that hews more closely to the precise breach that was found, the United States' fourth remedy incorporates the EUSC adjustments that the Tribunal determined Canada failed to make. Stmt. Of Case, ¶¶ 63-64; Reply Mem., ¶¶ 85-87.

16. Canada has failed to demonstrate why any of these four proposed remedies is not "appropriate." Indeed, given the brief cross-examination of Dr. Neuberger, the United States' expert testimony and remedy proposals remain largely intact and unrebutted. Canada chose instead to spend a great deal of time insisting that *any* remedy *except* a cash payment, would be "unreliable" and "speculative." Tr. 127:4-129:18; 317:6-14.

17. Canada never acknowledged that, absent an agreed-upon cure, the SLA requires any remedy to be in the form of compensatory adjustments to the export measures.[3] That these adjustments may be complex does not make them any less mandatory under the Agreement. Most certainly, the alleged complexity does not wrest authority away from the Tribunal to determine compensatory adjustments.

18. Similarly, even if any of these adjustments would change the current "equilibrium" in the operation of the export measures, that "equilibrium" is a fiction created by Canada's breach. As Dr. Kalt conceded, the original overshipment that resulted from Canada's breach created the initial disruption to the equilibrium. Tr.

[3] Canada expressed surprise at the idea of cash compensation as a cure. Tr. 320:14-18. However, nothing in the SLA prohibits Canada from curing a breach by cash payment, provided the United States agrees. Indeed, Canada's own expert repeatedly opined that a cash payment is ideal. Tr. 129:5-13.

250:24-251:6. Dr. Kalt never explained why the original distortion to the SLA's equilibrium should be tolerated, while a corrective disruption to the artificial, breach-created equilibrium should not. Similarly, Dr. Kalt never explained why a continuing breach would present substantively different remedy concerns than an historical breach. Obviously, if Dr. Kalt (who has been continuously engaged by Canada in the softwood lumber dispute for more than 20 years) were to admit that even a continuing breach creates a market disturbance, he would reveal that Canada's interpretation – taken to its logical conclusion – permits no remedy at all for *any* breach. This would mean that the remedy provision is inoperative, which cannot be the case.

RESPONSE TO QUESTIONS

I. Question 3.2(a):

> Has the **Agreement of the Parties** at the end of the Hearing on Liability, recorded in section I paragraph 4 of the Decisions in the Award on Liability, applied by the parties' submissions of April 3, 2008, and later, and consequently by PO 2 on further procedure on remedies, **changed the provisions of Art. XIV paragraphs 22 [et] seq. [of the] SLA**, and if so, to which effect? [emphasis in original]

19. The parties' agreement at the end of the hearing on liability did not change the provisions of Article XIV. The SLA was entered into and signed by the Governments of Canada and the United States, represented by the United States Trade Representative and Canada's Department of Foreign Affairs and International Trade ("DFAIT"). If the parties wish to amend the Agreement, they must do so in writing. SLA, art. XIX. Counsel are not authorized to amend the Agreement, orally or otherwise.

20. Rather, at the close of the liability hearing, the parties actually *confirmed* the terms of the SLA and, in Canada's case, did not inform the Tribunal that the particular posture of this case could obviate the need for any further proceedings. If the

Tribunal finds that a party has breached the SLA, the SLA then the Tribunal "shall" identify a reasonable cure period and determine appropriate compensatory adjustments. The Chairman noted – and the parties did not disagree – that paragraph 22 was "mandatory." Tr. of Hearing on Liability, 123:21, 124:9. However, because the proceedings were bifurcated, the parties would have to agree to an amended procedure. As the Chairman noted, "Now, if we find there is no breach, that is the end of the case. That, I think is clear. On the other hand, if we do find a breach on one of the two claims, the question is how do we go on. May I refer you to Article XIV(22), which provides in a mandatory way, it looks, the Tribunal shall take certain actions and consequences." Tr. 123:17 – 124:22. Accordingly, the parties agreed that, *as a procedural matter*, the Tribunal could undertake the tasks in paragraph 22 at some later date (after further submissions from the parties on remedy), but that the requirements of paragraph 22 could not be ignored.

21. Canada never stated that a remedy proceeding would be unnecessary or that paragraph 22(b) would be unnecessary. To the contrary, in April 2008, both parties responded to the Tribunal's Liability Award and letter with proposed schedules. Canada proposed a Procedural Order with two rounds of briefing and a hearing for the presentation of fact witness testimony and expert witness testimony. Notably, Canada did not state its belief that no further proceedings were needed because Paragraph 22 was not operative, nor did it suggest that the Tribunal needed to decide whether Paragraph 22 was operative prior to a hearing on remedy.

22. Although Canada now contends that the first phase of this arbitration was "pointless," Tr.67:17-18, it failed to allege this earlier. Rather, it agreed with the

Tribunal that paragraph 22 was mandatory. Given the SLA's text and the parties' *procedural* agreement to accommodate a bifurcated proceeding, the Tribunal should decline to consider Canada's recent and convenient position. Consistent with its earlier conclusion that paragraph 22 is mandatory, the Tribunal should undertake the two tasks set forth in the SLA.

II. Question 3.2 (b)

Which Party has the burden of proof for which aspects of the claims raised?

23. As a general matter, the burden of proof rests upon the party asserting a claim or fact that, if not substantiated, will result in an adverse decision on the claim or fact. Therefore, depending upon the claim asserted, either the claimant or the respondent may bear the burden of proof.[4] Accordingly, regarding the proper interpretation of the SLA's dispute resolution provision, the United States bears the burden of demonstrating that its interpretation is the more reasonable.

24. Regarding the merits of an appropriate remedy, the United States bears the burden of demonstrating first, a breach, and second, the consequences of the breach. The Tribunal already has found a breach. Award on Liability, p. 97, ¶ I.3. And Canada agrees that, without carrying forward or carrying back excess lumber, the breach resulted in an overshipment of 216 MMBF. Tr. 201:3-14. This overshipment is the consequence of the breach. Accordingly, the United States has satisfied its burden.

[4] The United States has omitted citations to new authorities in this section, and throughout this brief, because paragraphs 4 and 5 of Procedural Order No. 4 prohibit the parties from including any additional exhibits or authorities in their post-hearing briefs. We note, however, that the Tribunal has requested a response to a legal issue in question 3.2(b). Accordingly, should the Tribunal wish us to provide a copy of the legal authorities that support the statements made in the United States' response to question 3.2(b), we will of course provide them immediately.

25. Unlike other agreements that either do not include specific remedy provisions or contain different remedy provisions, paragraph 22 of Article XIV clarifies that neither party bears a burden to demonstrate "appropriate" compensatory adjustments to the export measures. Instead, paragraphs 22 and 23 explain that the Tribunal "shall determine" appropriate compensatory adjustments and that those adjustments "shall" be in an amount that remedies the breach. SLA, art. XIV, ¶¶ 22-23.

26. To the extent that one or the other party wishes the Tribunal to adopt a particular proposed remedy, it is that party's burden to demonstrate that the remedy is (as the SLA requires) "appropriate," and that the remedy comprises either adjustments to export charges and/or adjustments to quotas. However, because the SLA provides for a determination of appropriate compensatory measures regardless of whether a party has proposed a remedy, paragraph 22 of Article XIV mandates a remedy in the form of compensatory adjustments to the export measures in any event.

27. If a respondent is unable to rebut the *prima facie* evidence offered by a claimant in support of an issue on which the claimant bears the burden of proof, then the Tribunal may accept such *prima facie* evidence as satisfying the burden of proof. Here, Canada responded with specific criticisms of three of the United States' four remedy proposals. As discussed further below, Canada failed to rebut the fourth and final remedy proposal. Accordingly, the Tribunal is free to adopt the United States' fourth remedy proposal based solely upon the *prima facie* showing of appropriateness. Of course, regardless of whether the Tribunal resorts to this lower standard of proof, the United States has demonstrated that its fourth proposed remedy is appropriate and satisfies the

requirements of the SLA. As stated, Dr. Neuberger's testimony remained substantively unrebutted on this issue. CR-3, ¶ 43 n.19 and CR-13 ¶ 71.

28. As demonstrated below, each of the United States' four remedy proposals provides appropriate adjustments to the export measures in an amount that remedies the breach. Our first and preferred remedy treats Option B regions the way Canada should have treated them during the breach period. It requires nothing more than a recognition of the two-tiered export measure mechanism. Similarly, the remaining proposed remedies provide alternate, appropriate ways to remedy the breach. Canada has failed to rebut the appropriateness of these proposals, except to reiterate that *any* compensatory adjustments that affect future export measures are speculative and unreliable.

III. Question 3.2(c)

> **In case the Tribunal concludes that a retroactive compensation system has to be applied under Art. XIV paragraphs 22 [et] seq., what are the results of the examination of the experts at the hearing regarding the possible models or the best model for determining appropriate adjustments according to paragraph 22(b)?**[5]

29. The examination of the experts confirmed both the quantification of the consequences of the breach (that is, the amount of overshipment) and the appropriateness of the United States' four remedy proposals.

30. The parties agree that if Canada is not permitted to carry forward or carry back lumber volumes from one month to the next, Canada's breach resulted in an overshipment of 216 MMBF of lumber into the United States. Tr. 96:21-97:3; 201:3-12. Additionally, testimony confirmed that each of the four proposed remedies constitutes a

[5] When the Tribunal refers in Procedural Order No. 4 to "the possible models or best model for determining appropriate adjustments," we understand the Tribunal to refer to the United States' proposed remedies. Only the second proposed remedy uses a "model" in the narrow, economic sense of the term.

set of appropriate adjustments to the export measures in an amount that remedies the breach.

31. During his testimony, Dr. Kalt refused to acknowledge that any compensatory adjustments to the export measures could remedy Canada's breach. Tr. 126:5-127:17. Instead, he assumed that, as a matter of principle, compensatory adjustments to export measures were too inexact a remedy and that only a cash payment could provide a "reliable" and "nonspeculative" remedy. Tr: 143:11-17. To the extent, if any, that Dr. Kalt ever accepted the framework of compensatory adjustments, his testimony failed to rebut the appropriateness of the United States' proposed remedies. Indeed, Canada explained in its closing remarks that it *never even considered the possibility of a remedy* and approached its economic analysis "*with the conclusion that there is no authority for reparations* in the Agreement." Tr. 316:12-14 (emphasis added).

32. Regarding the United States' first and preferred remedy, Dr. Kalt merely opined incorrectly that Option B regions did not act like Option A regions because they stayed within the quotas (albeit the incorrect quotas). Tr. 177:11-19. Even if this were an accurate conclusion (which it is not),[6] Dr. Kalt failed to acknowledge that Canada effectively *treated* Option B regions as Option A regions for purposes of the Agreement. Canada did not hold Option B regions to the correctly calculated quotas.

33. To attack the United States' second proposed remedy, Dr. Kalt primarily raised hypothetical criticisms of Dr. Neuberger's price-effects model. Tr. 144:2-23. As demonstrated below, Dr. Kalt's criticisms of Dr. Neuberger's price-effects model fail to undermine the legitimacy of the model. Dr. Kalt did not build a model or otherwise

[6] Canada exceeded even its incorrectly calculated quotas in February and March 2007. CR-3 at Ex. 3.

conduct any independent economic analysis that produced a result in conflict with Dr. Neuberger's conclusions. Tr. 176:19-177:5; 185:4-7. Even if Dr. Kalt's criticisms of the model were valid, they are irrelevant because Dr. Neuberger's model does not apply in any way to any of the other proposed remedies — a point that Dr. Kalt reluctantly conceded. Tr. 216:16; 218:21-23; 219:1-4. Dr. Kalt's efforts to impugn the remaining three remedies based upon perceived flaws in the unrelated price-effects model are, therefore, misleading and should be rejected.

34. In response to the United States' third proposed remedy, Dr. Kalt offered only a confusing hypothetical to demonstrate what proved to be an illusory bias. RR-27, 28-29. Testimony revealed that even Dr. Kalt found his own hypothetical confusing. Tr. 239:14-249:6. Dr. Kalt testified that the remedy is "biased" because it requires the Tribunal to "forecast" future regional quota volume ("RQVs"), and, according to Dr. Kalt, sometimes the forecast is too high and sometimes it is too low. Tr. 260:2-261:4 But, as revealed during Dr. Kalt's cross-examination, the chance of the forecast being too high is the same as the chance of it being too low. Tr. 249:14-23; 260:2-261:4. Therefore, there can be no bias.

35. Notably, Dr. Kalt offered *no* specific rebuttal to the United States' fourth proposed remedy, offering the Tribunal no reason not to adopt this fourth remedy given the United States' demonstration of its appropriateness.[7]

[7] Dr. Kalt referred to the United States' fourth remedy only when discussing generally his opposition to all of the United States' remedies. Tr.137:10; 219:2-4; RR-2, ¶¶ 11, 15, 33; *see also* RR-2, ¶¶ 71-72 (discussing the remedy individually but stating only that the remedy failed to meet Dr. Neuberger's criteria and would rely on "unpredictable" future conditions). His testimony failed to address the remedy substantively and merely supports his general and incorrect belief that breaches of the SLA cannot be adequately remedied with compensatory export measures.

A. Canada Overshipped 216 MMBF Of Lumber During The Breach Period

36. Both parties' experts agree that the data contemporaneously available at the time of the breach are the more accurate data to use for purposes of calculating the proper RQVs that should have been in place during the breach period. Tr. 95:9-96:20. Both experts also agree that Option B regions shipped 216 MMBF over the correctly-calculated quotas. Tr. 96:21-97:3; 201:3-12. The SLA provides no mechanism to reduce that overshipment. Nevertheless, Canada instructed its expert to speculate and assume the SLA would have permitted Canada to carry forward and carry back lumber volumes between *all* months, an assumption that, according to Dr. Kalt, reduces Canada's overshipment from 216 MMBF to 142 MMBF. Tr. 201:15-202:2; CR-2, ¶ 30. Canada failed to provide the Tribunal with any basis in the SLA to justify Dr. Kalt's assumption.

37. Option B regions may, under certain limited conditions, borrow quota volumes between two consecutive months. SLA, Annex 7B, ¶¶ 4-7; Stmt. Of Case, n.11; Reply Mem. ¶¶ 88-95. Generally, an Option B region may carry forward unused quota to the next month, or carry back quota from a subsequent month, to increase its RQV for a given month. *Id.* However, the total carry forward/carry back in any month may not exceed 12 percent of the region's RQV for that month. *Id.*

38. The United States demonstrated in its statement of the case on remedy and reply memorial that the calculation of Canada's overshipments must be without regard to the carry forward/carry back provisions of the SLA. Stmt. Of Case, n.11; Reply Mem. ¶¶ 88-95. This is because Canada did not comply with the September 12, 2006 side letter agreement between the parties requiring Canada to "disclose to the United States, on a monthly basis . . . for each Option B region, the total volume of quota carried-forward

from the month" and "the total amount of quota carried-back to the month." CR-4. Although Canada overshipped in excess of even the incorrectly calculated RQVs, CR-3, Ex. 3; Stmt. Of Case n.11, Canada has never disclosed that it used carry forward/carry back volumes, and has not offered any other evidence that it has done so.

39. Specifically, Ontario overshipped even its incorrectly calculated quotas in February and March 2007. *See id.* This illustrates not only that Canada has not complied with the side letter agreement, but also that Canada treated Option B regions as Option A regions during the breach period. Dr. Kalt failed to address this issue. Because Canada has failed to establish its compliance with the carry forward/carry back provisions of the SLA, there is no reason for the Tribunal to speculate that Canada would have behaved any differently.

40. Without any citation or other support, Canada stated in its Rebuttal Memorial that it made such disclosures "since the inception of the Agreement" on the DFAIT website. Rebuttal Mem., ¶105. However, all quotas shown on the DFAIT website are free of any adjustment for carry forward/carry back volumes. Canada also baldly asserts that "Canadian officials" disclosed carry forward/carry back volumes during a meeting in November 2007. Rebuttal Mem., n.88. Canada produced no evidence of this disclosure either in its submissions or at the hearing. Without any supporting affidavit or other documentation, Canada has failed to meet its burden to prove this contention. [8]

[8] Dr. Kalt's calculations assumed that Canada's Option B regions carried forward and carried back lumber volume between all months of the breach period. RR-2, ¶ 30. Disallowing carry forward/carry back, Dr. Kalt's calculation of Canada's total overshipments as a result of the breach rises from 142 MMBF to 216 MMBF. Tr. 201:3-14; CR-48.

41. Even if the Tribunal were to permit Canada to violate its side letter agreement and exploit the carry forward/carry back provision, Canada has miscalculated the permissible allowance. The Agreement specifies that "[n]o quota volume may be carried back or carried forward between any two months *unless the Region's exports are subject to a volume restraint in both months*." SLA, Annex 7B, ¶7 (emphasis added). There were no volume restraints in place for Option B regions during the SLA "transition period" from October through December 2006. SLA, Art. VI, n.2. Therefore, Canada could not have carried forward volumes from December 2006 to January 2007.

42. Indeed, Canada has repeatedly conceded that volume restraints were not in effect during the transition period (October to December 2006). In its statement of defence on liability, Canada stated: "January through March 2007 was the first quarter in which the EUSC calculation could be, and was, used in the formula to determine the quota allocated to Option B Regions under Annex 7D, *since quotas were not in effect before this time*." *See* Stmt. of Def., ¶28(b) (emphasis added); CR-57.

43. Again in its statement of defence, Canada conceded that "transition rules specified in the Agreement . . . deferred operation of Option B until January 1, 2007." *See* Stmt. of Def., ¶105; CR-56. Finally, in its rebuttal memorial on liability, Canada assumed that the first RQVs for Option B regions would begin in January 2007. Rebuttal Mem., ¶104 ("starting with the first RQV calculations for Option B regions in January 2007"); CR-58. Canada cannot take one position for purposes of defending its position on liability, and the opposite position now. If Canada is bound to its concessions, as it should be, and if Canada's faulty calculation is corrected, Dr. Kalt's calculation of the

total Option B region overshipments (including speculation for carry forward and carry back), would rise by 38 MMBF, from 142 MMBF to 180 MMBF. Tr. 203:1-5; CR-48.

44. Notwithstanding its concessions, Canada now seizes upon a footnote in Article VI to contend that the SLA actually *permits* carry forward from December 2006 to January 2007. Tr. 113:23-114:12; Rebuttal Mem., ¶109. The footnote describes the arrangements during the "transition period," when Option B regions were subject to Option A export charges. SLA, art. VI, n.2. If an Option B region did not exceed the quotas that *would have been in place* (but were not) during any month of the transition period, it was entitled to a refund of the higher Option A export charges paid during that month. *Id.*; *see* Reply Mem. ¶¶ 91-95.

45. During examination of Dr. Neuberger, Canada highlighted the last sentence of the footnote to create the misimpression that Option B regions were somehow subject to volume restraints during the transition period. Tr. 113:23-114:12. The final sentence states:

> [i]n determining the volume restraint levels which would have applied to an Option B Region during the transition period, the carry-forward and carry-back rules laid out in Annex 7B shall be taken into account for all of the months of the transition period.

SLA, art. VI, n.2. In other words, the sentence requires consideration of carry forward/carry back rules when calculating the volume restraints that *would have applied* but did not actually apply, for purposes of determining whether the now-Option B regions should receive a refund of Option A export charges. The sentence does not create volume restraints that never existed. In fact, use of the phrase "would have applied" confirms that volume restraints *did not* apply. Accordingly, because there was no volume

restraint in December 2006, Canada cannot carry forward volume from December 2006 to January 2007. *See* Reply Mem., ¶¶ 91-95. Therefore, at the very least, Canada's overshipments were 180 MMBF, not the 142 MMBF Dr. Kalt contends.[9]

B. Each Of The United States' Four Remedy Proposals Is Appropriate

46. As a preliminary matter, it is necessary to update certain of our four proposals using the correct, agreed-upon overshipment calculation.[10] In the table below, the four proposals are updated to reflect the higher total overshipment volume (216 MMBF) using the contemporaneous data both experts agree is appropriate.[11] The first column reflects Dr. Neuberger's original proposals using revised data; the second column reflects Dr. Neuberger's proposals using the agreed-upon contemporaneous data:

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[9] Dr. Neuberger identified an additional error in Canada's carry forward/carry back calculation. CR-13, ¶ 68, n.29. For example, if Canada wished to carry back 12 percent volume from February 2007 to January 2007, the new quota for February 2007 should be reduced by the amount carried back. It is that new, reduced quota from which the maximum 12 percent should be calculated in February. Instead, Canada assumed that it could use 100 percent of the original February quota to calculate carry forward/carry back. As Dr. Neuberger explains, this approach defies common sense. If Canada had performed this part of the calculation correctly, the overshipment would increase by approximately 4 MMBF.

[10] Dr. Neuberger originally calculated a total overshipment volume of 182 MMBF using revised data instead of contemporaneous data. Reply Mem., ¶¶ 89-90; CR-3 at ¶¶ 27-32. As he explained in his testimony, he did so because, at the time he performed the calculations, he was not satisfied that he had access to the full range of contemporaneously available data. Tr. 95:17-25. He then incorporated this volume (182 MMBF) into his proposed remedies. CR-3 at ¶¶ 33-65.

Dr. Neuberger and Dr. Kalt now agree that it is proper to use the contemporaneous data. As Dr. Neuberger explained in his testimony, "based on the information that's become available to me since I wrote my second rebuttal report, that the contemporaneous data are more appropriate." Tr. 96:18-20.

[11] The remedies using the 216 MMBF figure agreed upon at the hearing were calculated by substituting 216 MMBF into Dr. Neuberger's second and third proposals. For example, the model-based remedy was updated by substituting the 216 MMBF figure into Dr. Neuberger's model, explained in CR-3, App. A.

Remedy	Parameters of Remedy Using Total Overshipment Volume of 182 MMBF	Parameters of Remedy Using Total Overshipment Volume of 216 MMBF
I. Option A Remedy	Collect an additional 10 percent, *ad valorem*, export charge on Option B region exports until CDN$ 68.3 million (including interest) has been collected	Calculation remains the same
II. Model-Based Remedy	Collect additional CDN$ 91.5 million (including interest) in export charges, *ad valorem*, on Option B region exports	Collect additional CDN$ 110.5 million (including interest) in export charges, *ad valorem*, on Option B region exports
III. RQV Remedy	Reduce Option B region RQVs by total of 182 MMBF over six month remedy period (after forecast reduction)	Reduce Option B region RQVs by total of 216 MMBF over six month remedy period (after forecast reduction)
IV. EUSC Remedy	Reduce EUSC during the remedy period by the amount of the required EUSC adjustment in the first half of 2007, using revised data	Make the same calculation, using contemporaneous data

47. The SLA states that the Tribunal shall "determine *appropriate* adjustments to the Export Measures to compensate for the breach" should Canada fail to cure its breach within a reasonable period of time that the Tribunal determines. SLA, art. XIV, ¶22(b) (emphasis added). The SLA does not define "appropriate" but leaves the determination to the discretion of the Tribunal. Indeed, numerous approaches may be appropriate, as long as they consist of compensatory adjustments to export measures. Reply Mem., ¶¶ 62-66; Stmt. Of Case, ¶¶ 43-47. As such, the Tribunal may determine it is appropriate to implement any one of, or any combination of, the four proposed remedies.

48. For example, the Tribunal may find it appropriate to implement Dr. Neuberger's preferred remedy — what the United States calls the Option A remedy. Stmt. Of Case, ¶¶ 48-52; Reply Mem. ¶¶ 67-73. For the reasons explained by Dr. Neuberger in his reports, it is appropriate to impose an additional export charge on Option B producers because, by incorrectly calculating quotas and allowing Option B producers to violate their correctly calculated quotas, Canada in effect treated Option B regions as Option A regions. CR-3, ¶¶ 48-52; CR-13, ¶¶ 53-55. Thus, the Option A remedy appropriately targets the unpaid export charge that Option B regions should have paid if they had been Option A, *regardless of the effect of the breach on Canadian and United States producers*. *Id.* It acknowledges that the Agreement recognizes only two kinds of regions. The Option A remedy also recognizes and corrects the inherent unfairness to those Option A regions that complied with the Agreement and paid the appropriate charges — charges that Canada should have collected from Option B regions during the breach period. CR-3, ¶ 48.

49. Similarly, for reasons discussed more fully below, the Tribunal may determine that remedies two, three, or four are appropriate. For example, the Tribunal may wish to identify a remedy that captures the economic effects of the breach. In that case, the second proposed remedy, which seeks to recover the price depression caused by the breach, is most appropriate. CR-3, ¶¶ 57-65; Stmt. Of Case, ¶¶ 53-57; Reply Mem., ¶¶ 74-81.

50. The Tribunal may determine that it is appropriate to implement Dr. Neuberger's third remedy, the goal of which is to remove the volume of lumber overshipped during the first half of 2007, after adjusting for export levels below RQVs.

CR-3, ¶¶ 41-43; Stmt. Of Case, ¶ 62; Reply Mem., ¶¶ 81-84. This remedy makes sense given the parties' agreement that the breach caused the overshipment; therefore, the removal (via RQV reductions, or "tightening," as Dr. Kalt stated at the hearing) of an equal amount of Canadian lumber from the United States market is a logical means to "compensate for the breach." Tr. 133:12-24. Except to pose an inexplicable hypothetical that attempted but failed to demonstrate "bias" in this remedy proposal, Canada failed to meaningfully criticize this remedy. Tr. 239:14-249:23; 260:2-261:4; CR-50; RR-27, ¶¶ 27-29.

51. Finally, the Tribunal could find the fourth remedy appropriate, given that a reduction of EUSC during the remedy period would match exactly Canada's failure to make the adjustment during the breach period. Stmt. Of Case, ¶¶ 63-64; Reply Mem., ¶¶ 85-87; CR-3, ¶ 43, n.19. In fact, Canada and Dr. Kalt have never meaningfully criticized this remedy, which is the remedy tied most directly to the breach found by the Tribunal: Canada failed to make the paragraph 7D(14) adjustments for six months (the breach period); the remedy requires Canada to make the foregone adjustments during the remedy period. Tr. 133:25-134:3; 134:12.[12]

52. Regardless of which remedy or combination of remedies the Tribunal chooses, Canada's general proposition that it is infeasible to adjust export measures to remedy a past breach of the SLA should be rejected. RR-2, ¶ 11; RR-27, ¶ 13; Tr. 127:4-

[12] Under the fourth remedy, Canada should make the ordinary adjustment to EUSC that would ordinarily be made during the remedy period. Then, the adjustment that should have been made during the two quarters of the breach period is subtracted from the adjusted EUSC. The EUSC adjustment that should have been made during the first quarter of 2007 was 612.2. The EUSC adjustment that should have been made during the second quarter of 2007 was 890.5. These adjustments can be readily calculated using Dr. Kalt's data for adjusted EUSC (CR-48).

17; RR-2, ¶ 11. As explained below, this proposition, expressed through Dr. Kalt's testimony, ignores Canada's agreement in the SLA that remedies consist of adjustments to export measures, lacks economic coherence, and reflects internally inconsistent views of the proposed remedies.

53. For example, Dr. Kalt's opinion that Option B producers did not benefit from their lumber shipments during the breach period – during which those producers overshipped their quotas but paid no commensurate export charges – defies common sense, not to mention basic laws of economics. Tr. 155:8-156:5, 215:11-216:1. Dr. Kalt also testified that the proposed remedies are "punitive" and likely to cause effects that significantly exceed the deleterious effects of Canada's SLA violation; yet he simultaneously argued that market participants could easily evade those effects by altering their inventory behavior. Tr. 184:7-10; 186:18-25. Similarly, Dr. Kalt contended that Canada's breach of the SLA had only a *de minimis* effect on United States lumber markets; yet he simultaneously argued that the proposed remedies, which are directly tied to the breaching behavior, will have much larger effects on Canadian lumber producers. Tr. 141:23-142:5; RR-2, ¶¶ 14-15; RR-27, ¶¶ 20-26.

54. Although these conflicting criticisms pervade Dr. Kalt's testimony, it is important to reiterate that Canada had only a very limited criticism with respect to the first, third, and fourth proposed remedies. This is because the parameters of these three remedies do not emanate from Dr. Neuberger's economic model, the subject of nearly all of Dr. Kalt's testimony. Nevertheless, Dr. Kalt raises several general complaints regarding remedies under the SLA, which we address below before turning to Dr. Kalt's critique of Dr. Neuberger's model.

55. Dr. Kalt's criticisms suffer from his unwillingness to accept the remedial framework to which the parties agreed. For example, he lamented that the remedies would be implemented in a softwood lumber market that is different from the market that existed at the time of the breach, that the remedies will have "collateral effects" on market players in addition to Option B producers, and that any remedy will "distort" the parties' going-forward expectations under the SLA. Tr. 137:14-138:13.

56. Of course, any remedy that consists of compensatory adjustments to export measures will necessarily be implemented during a market different from the breach market. This would be true even for a continuing breach. Any remedy could potentially affect players other than Option B producers. Any remedy is by definition an adjustment to the current operation of the SLA's export measures. In other words, Dr. Kalt's concerns merely support his underlying assumption that a breach of the SLA should only be remedied by a cash payment. The parties did not agree to remedy breaches by cash payments (although as we have suggested, Canada is free to propose a *cure* in the form of a cash payment to the United States or to the United States industry). Rather, the parties agreed that breaches would be remedied by compensatory adjustments to the export measures.

1. Implementation Of A Remedy In Today's Market Is Appropriate

57. Dr. Kalt finds it problematic that the remedy ordered by the Tribunal will be implemented under different market conditions from those that existed at the time of the breach. Tr. 136:17-21; RR-2, ¶¶ 11, 26. Dr. Kalt claims that changed supply and demand conditions are "problematic" because the breach "target" – 216 MMBF of lumber – is dwarfed by a softwood lumber market many times larger. Tr. 139:12-140:22.

In his opinion, the changed market and the small "target" render it very difficult to design a reliable and non-speculative remedy that represents an exact offset to the breach using export measures. Tr. 128:10-24.

58. First and foremost, Dr. Kalt has invented an unreasonable and artificial standard for the Tribunal to apply in identifying a remedy for Canada's breach. His novel standard – that a remedy provide an exact offset to the breach under virtually the same market conditions – has no basis whatsoever in the text of the SLA or in law. A remedy need only be "appropriate." SLA, Art. XIV, ¶22(b). There is no requirement in the SLA that the Tribunal impose a remedy under the exact same market conditions as those in which the breach occurred. Indeed, such a feat would be impossible. A changed market – a condition that will likely arise with any breach – is no barrier to the imposition of a remedy.

59. Similarly, Dr. Kalt's criticism that remedy proposals one, three, and four do not return to United States producers the lost producer surplus caused by Canada's breach, misses the point. Tr. 167:3-168:10; RR-27, ¶¶ 7-8. Both parties agree that the first remedy proposal seeks to assess the uncollected Option A export charges, while proposals three and four seek to reduce Option B lumber exports. Tr. 132:12-134:12. We agree that these three remedies are calculated and implemented independent of any calculation of lost producer surplus. However, Dr. Kalt's observation misdirects the Tribunal by again interposing a standard different from what the SLA requires. There is no provision in the SLA that requires a remedy to return lost producer surplus to affected producers.

60. This is so even for a continuing breach. Dr. Kalt assumes that only continuing breaches can be remedied. Tr. 125:13-126:15; RR-27, ¶¶ 11-15. If a party continues to breach after the Tribunal issues its award, Dr. Kalt opines that compensatory adjustments to the export measures could remedy the continuing breach because, in Dr. Kalt's view, the breach could presumably be immediately addressed with an equal and opposite remedy. Tr. 125:13-22; RR-27, ¶ 12. This proposition finds no support in the SLA or in economics, yet conveniently fits within Canada's legal theory that no remedy is required.

61. That is, even if Canada continued to breach the SLA after the Tribunal issued its award, compensatory adjustments to the export measures would have to be imposed the next month, *at the earliest*.[13] They cannot be applied in "real time." The next month would necessarily represent a changed market. It cannot be that an aggrieved party is entitled to a remedy only when the "remedy market" happens to match exactly the breach market because the breach market will likely *never* match the remedy market. The SLA certainly provides no support for Canada's proposition. Rather, the SLA contemplates that *future* compensatory adjustments can remedy a breach, regardless of the differences between the breach and remedy markets.

62. Dr. Kalt failed to give any reason, economic or legal, to support his assertion that it is easier to remedy a continuing violation than a past one. In fact, the effect of a past violation is arguably clearer, since it occurred under a known set of supply and demand conditions. By contrast, a continuing violation is likely to have more

[13] Depending upon the nature of the continuing breach and lags in the data necessary to quantify compensatory adjustments, the imposition of compensatory adjustments could very well lag behind the breach month and into the next quarter.

complex effects where the effects of the violations and the remedial response must be analyzed (under Dr. Kalt's theory), in a continuously evolving and potentially volatile market conditions. Tr. 286:8-288:4; CR-29, ¶¶ 5-11. Accordingly, identifying a remedy to compensate for a past breach is comparatively straightforward.

63. In any event, Dr. Neuberger has calibrated his proposed remedies to adjust to the changed supply and demand conditions of the future remedy period. CR-3, ¶¶ 16, 19-20, 25; CR-13, ¶¶ 18-25. For example, even Dr. Kalt acknowledges that the Option A remedy is designed to be applied over a flexible time frame: a longer period if future export quantities are lower, and a shorter period if future quantities are higher. Tr. 141:7-11; CR-13, ¶ 20. Logically, this assures that the remedy amount is satisfied more quickly in a strong market, but more gradually in a weak market. This is also true of the second remedy.

64. Similarly, the forecasting step in the United States' third proposed remedy adjusts Option B regions' RQVs to accommodate a changed market and ensure that the United States obtains a meaningful remedy, that is, a true reduction in Canadian exports to compensate for the breach. CR-3, ¶ 42-43; Tr. 133:12-24. If forecasted Option B exports during the remedy period are below the RQVs, RQVs are adjusted to ensure that they actually lower volume; on the other hand, if Option B regions are forecasted to ship up to their RQVs during the remedy period, then the RQVs are left alone. That is, they are unadjusted prior to imposing the compensatory reduction. CR-3, ¶ 16. This ensures that the adjustment of RQVs for the breach is commensurate with supply and demand conditions that exist at the time the remedy is applied. *Id.*; Tr. 237:7-239:7.

2. None Of The Remedies Results In Impermissible Collateral Effects

65. Dr. Kalt testified that the proposed remedies would not only affect the intended target – Option B producers – but would also affect "other Parties beyond those who are the target of the proposed reparations." Tr. 141:17-142:17. He labels these effects the "collateral effects" of the remedies. Id. There is no real criticism here, only an observation that, as explained below, inures to Canada's benefit.

66. Even assuming the relevance of Dr. Kalt's point, the imposition of *any* trade remedy, such as a tariff or quota adjustment, will naturally affect others in the marketplace besides simply the breaching party. In fact, a remedy for a continuing breach would similarly affect others in the market place. Dr. Kalt did not explain why this effect is tolerable in one case but not the other.

67. In any event, Dr. Kalt conceded on cross-examination that any so-called "collateral effects" actually benefit Canada. Tr. 251:11-252:11. As a matter of basic economics (and as Dr. Kalt agreed), a remedy that either increases export charges on Option B producers or "tightens" Option B quotas will result in: (1) increased Option B supply remaining in Canada during the remedy period; (2) marginally lower lumber prices in Canada caused by the greater supply; and (3) marginally higher lumber prices in the United States caused by lower supply from Option B producers. Tr. 180:9-181:14; *see also* ROBERT S. PINDYCK & DANIEL L. RUBINFELD, MICROECONOMICS 321-26 (6th ed. 2005) (attached at RR-2, Encl. A).

68. This means, for example, that Canadian Option A producers and producers from the maritime provinces will benefit from marginally higher prices in the United States (a market far larger than Canada) during the remedy period. Tr. 182:6-183:6.

Similarly, Canadian consumers will benefit under each of the remedies due to lower prices in Canada caused by greater lumber supply remaining in Canada during the remedy period. Tr. 181:10-18. Finally, the Canadian treasury will benefit from the collection of additional export charges under Dr. Neuberger's first two remedies. Tr. 181:19-22. Thus, assuming the validity of Dr. Kalt's observation, the net effect of any remedy on Canada is positive, and the losses of the Option B producers are outweighed by the gains to other Canadian producers, Canadian consumers, and the Canadian government. Tr. 183:7-17. A remedy that benefits Canada as a whole (while adversely affect the breaching regions) cannot be considered punitive.

3. The Disruption To The Equilibrium Caused By The Breach Must Be Remedied

69. Dr. Kalt complained that adjustments to export measures will "distort[] th[e] going-forward equilibrium" the parties established under the SLA. Tr. 142:19-143:17. Again, this concern merely reflects Dr. Kalt's wholesale adoption of Canada's legal position on remedy, Tr. 316:12-14 (Canada's explanation of its position), without regard to the explicit provisions of the SLA requiring remedies to be in the form of compensatory adjustments to the export measures.

70. In any event, Dr. Kalt mistakenly defines the "going forward" world as that which was conceived when the SLA was adopted. Tr. 142:20-25. He failed to consider, however, that the "going forward" world purportedly conceived when the SLA was adopted was already interrupted by Canada's breach of the agreement. It was Canada's failure to properly calculate EUSC and the resulting Option B quotas that led to the "distortion" of the "going forward equilibrium" under the SLA. This "distortion" took the form of a 216 MMBF overshipment of Canadian lumber improperly exported to

the United States. To compensate for Canada's breach, the Tribunal may indeed need to interrupt the "going forward" world of the SLA, just as Canada's breach interrupted that world in the first instance. Although Dr. Kalt ultimately conceded that the breach caused a distortion, Tr. 250-24-251:6, Dr. Kalt failed to offer any economic rationale for allowing the distortion in the market created by Canada's breach to continue unremedied.

4. Dr. Neuberger's Model-Based Remedy Appropriately Compensates For The Breach

71. Dr. Kalt's testimony focused almost exclusively on the merits of Dr. Neuberger's second remedy — in particular the economic model used to calculate the price effect of the breach. But Dr. Kalt declined to offer any competing model and failed to identify any actual weakness in the structure of Dr. Neuberger's model aside from the purely speculative "inventory effects." Instead, he quibbled that Dr. Neuberger used the incorrect "export supply elasticity" in his model, and he incorrectly predicted that the compensatory measures could be undermined by changed inventory practices. Tr. 143:18-144:23.

72. With respect to the first issue, as Dr. Kalt revealed in his testimony, and as Dr. Neuberger confirmed, the export supply elasticity used is within the narrow range of acceptable elasticities, whereas Dr. Kalt's proposed export supply elasticity falls far outside those adopted by any peer-reviewed academic literature.

73. As a matter of basic economics, elasticities reflect the sensitivity of supply and demand to changes in prices. The elasticity of supply measures the responsiveness of the amount supplied to changes in prices. A higher supply elasticity means that producers respond more to a given change in price. A lower, or inelastic, supply elasticity means that supply responses are more muted for a given price change.

Similarly, the *export* supply elasticity reflects the responsiveness of exports to changes in price. A higher export supply elasticity means exporters react more sensitively to price changes, while a lower elasticity means exports are less responsive.

74. Dr. Neuberger's economic modeling is explained in Appendix A to his May 29, 2008 expert report. CR-3, App. A. As a practical matter, Dr. Neuberger's model has two components, or modules — an "effects" module and a "remedy" module. *Id.* The "effects" module calculates the price effect in the United States caused by the overage during the time of the violation — in other words, the US$ 1.94. [14] CR-3, App. A, 1-4. The "remedy" module calculates the export charge needed to counteract this price effect — in other words, the additional export charge of US$ 39.65 per MBF. *Id.*, 5-7.

75. The "effects" module does not use an Option B region export supply elasticity at all. CR-3, App. A 1-4; 205:22-226:17. [15] Thus, Dr. Kalt's commentary on export supply elasticities is irrelevant to the US$ 1.94 price effect calculated by Dr. Neuberger. The "remedy" module uses an Option B export supply elasticity because the

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[14] Dr. Neuberger's price effect of US$ 1.94 is, of course, a conservative estimate of the effect of Canada's breach because it is derived from using a total overshipment figure of only 182 MMBF. Using the contemporaneous data urged by Dr. Kalt – which both experts now agree is appropriate – Canada's overshipments actually total 216 MMBF. Using this corrected volume, the price effect in Dr. Neuberger's model rises from US$ 1.94 per MBF to US$ 2.31 per MBF, and the resulting additional export charge rises from US$ 39.65 per MBF to US$ 47.88 per MBF.

[15] No Option B supply elasticity enters into the calculation of the US$ 1.94 price effect. This is clear from the formula at the bottom of page 2 of the Appendix which utilizes five elasticities in the denominator: domestic demand (E_d), domestic supply (E_u), Option A export supply (E_a), rest of Canada export supply (E_n), and rest of world export supply (E_r). CR-3, App. at 2. The five elasticities are also listed in Dr. Neuberger's Table A-1 (titled "Calculating Quantity Effects"), which confirms that no Option B region elasticity was used to estimate the price effect of the overshipment. *Id.* at 5.

determination of how much of an additional export charge must be placed on Option B producers to undo the US$ 1.94 price effect depends upon how responsive Option B producers would be to such an additional charge (which effectively lowers the price they would receive for a given amount of lumber). The more responsive Option B producers are to price changes (that is, the higher the Option B export supply elasticity), the lower the additional export charge that is required. Conversely, the less responsive Option B producers are to price changes (that is, the lower the Option B elasticity), the greater the export charge that is required.

76. In his testimony, Dr. Kalt did not challenge any of the other elasticities used in the "effects" module because he is aware that these other elasticities fall within the range of acceptable values that he himself has used in his work[16] and that researchers have used in the most recent economics literature. Tr. 226:3-17. And he only challenges one of the *six* elasticity values in Dr. Neuberger's "remedy" module. CR-3, App., 5-7. Tr. 226:13-227:19 ("Q. These are elasticities you haven't disagreed with, correct, Dr. Kalt? A. That's correct, but I'm just telling you how the model works.").

77. To the extent that Dr. Kalt took issue with this single export supply elasticity used in only one module, he also concluded that, because the Neuberger model is extremely sensitive to whatever export supply elasticity is chosen, the results are unreliable. Tr. 144:16-20. However, the range of export supply elasticities in the peer-

[16] Tr. 231:23-232:10 (discussing Joseph P. Kalt, *The Political Economy of Protectionism: Tariffs and Retaliation in the Timber Industry*, *in* TRADE POLICY ISSUES AND EMPIRICAL ANALYSIS 339 (Robert E. Baldwin, ed. 1988), available at http://www.nber.org/books/bald88-2) (Dr. Kalt uses a trade model similar to that employed by Dr. Neuberger to estimate the welfare effects of a 15 percent tariff on Canadian exports)).

reviewed, academic literature is narrowly confined to values between 0.6 and 1.0.[17] Tr. 97:10-14. Using an accepted range of elasticities, the remedial export payment amount to compensate for the breach ranges from US$55.8 million to US$87 million.[18] Thus, to the extent the sensitivity issue raised by Dr. Kalt has any merit, it does not reduce the effects-based remedy to zero, much less obviate the SLA's requirement to remedy Canada's breach.

78. Dr. Kalt avoids the use of an export supply elasticity that falls within the range in the peer-reviewed academic literature. Instead, Dr. Kalt presents export supply elasticity values from 1.17 to 11.26 to demonstrate the sensitivity of Dr. Neuberger's effects-based remedy. RR-2, App. A, Fig. A-2. This range of values, however, is misleading. Dr. Kalt ignores the fact that Canadian export supply is inelastic (less than 1.0), and that *all* realistic values found by or used in the peer-reviewed economics literature – *including his own 1988 published paper* – over the past 20 years are in the range of 0.625 to 0.917. Tr. 97:10-14. The very few higher values have been recognized as "outliers" and largely ignored in the literature.

79. Specifically, Dr. Kalt himself calculated and confirmed a value of 0.9 in his 1988 published paper, after reviewing the range of export supply elasticities in the literature. Tr. 230:23-232:2. Dr. Kalt explained in his 1988 published paper that there are good reasons to expect the export supply elasticity of Canadian softwood lumber exports to the United States to be inelastic (less than 1.0). Tr. 236:15-24. This is

[17] Dr. Neuberger testified at the hearing that estimates in the economic literature of export supply elasticities range from 0.6 to 1.0, with sensitivity analyses from 0.4-1.4. Tr. 97:10-:21.

[18] This remedial export payment range is conservatively calculated using a total overshipment calculation of 182 MMBF. If the corrected figure of 216 MMBF is used, the corresponding range is $60 million to $104.7 million.

because, in Dr. Kalt's words, "North America is virtually a closed market," the United States is the buyer of more than 60 percent of Canadian output, and transportation costs to other markets are prohibitively high. *Id.*

80. The following table illustrates the narrow range of export supply elasticity values from the published academic literature.

Source	Export Supply Elasticity
Adams, McCarl & Homayounfarrokh (1986)[19]	0.917
Boyd & Krutilla (1987)[20]	0.89 (sensitivity tested from 0.45 to 1.35)
Kalt (1988)[21]	0.90 (sensitivity tested from 0.50 to 1.8)
Zhang (2001)[22]	0.625 to 0.917
Kinnucan & Zhang (2004)[23]	0.90 (sensitivity tested from 0.45 to 1.35)

[19] Tr. 232:13-18 (discussing Kalt (1988), *supra* note 15 and Darius M. Adams, Bruce A. McCarl & Lalehrokh Homayounfarrokh, *The Role of Exchange Rates in Canadian-United States Lumber Trade*, 32 FOREST SCI. 973 (1986) (cited in Kalt (1988), *supra* note 15)).

[20] Tr. 231:19-22 (discussing Kalt (1988), *supra* note 15 and Roy Boyd & Kerry Krutilla, *The Welfare Implications of U.S. Trade Restrictions Against the Canadian Softwood Lumber Industry: A Spatial Equilibrium Analysis*, 20 CANADIAN J. OF ECON. 17 (1987) (cited in Kalt (1988), *supra* note 15)).

[21] Tr. 231:23-232:10 (discussing Kalt (1988), *supra* note 15).

[22] Tr. 233:1-25 (discussing Daowei Zhang, *Welfare Impacts of the 1996 United States – Canada Softwood Lumber (Trade) Agreement*, 31 CANADIAN J. OF FOREST PRODUCTS RES. 1958 (2001) (available at http://pubs.nrc-cnrc.gc.ca/rp/rppdf/x01-130.pdf) (included as item no. 11 of the "Materials Reviewed" section of the June 29, 2008 Kalt Expert Report, RR-2, App. B and identified during cross-examination at the Hearing on Remedies)). The following question and answer were given during cross-examination: Q. Do you have any reason to doubt my assertion that in the 2001 paper that you relied upon, the authors reported a range of export supply elasticities from 0.625 up to 0.9? A. No, that seems consistent." *Id.*

81. Yet, at the September hearing, Dr. Kalt insisted upon using export supply elasticities greater than 1, relying exclusively upon unpublished sources. For example, Canada made reference during its examination of Dr. Neuberger to a paper by Stoner, McFarland and Gurrea. Tr. 109:16-110:16 (discussing Robert D. Stoner, Henry McFarland & Stuart Gurrea, Economic Impact of the Expiration of the SLA (Oct. 6, 2004) (unpublished expert study, Economists Incorporated)). This paper used an export supply elasticity of 0.90 and tested the sensitivity using values as high as 2.0. Tr. 258:14-259:6. Dr. Neuberger testified, and Canada does not dispute, that this paper was never submitted for peer review or publication. Tr. 120:16-21. Therefore, while the paper does use a reasonable figure of 0.9 for export supply elasticity, we did not include the paper in our survey of the scientific literature, nor did Dr. Neuberger rely upon the paper in developing his model.

82. Similarly, Dr. Kalt asked the Tribunal to consider an export supply elasticity of 11.26. RR-2, App. A, Fig. A-2. Yet this 11.26 figure emanates from an unpublished research note (the "Baker study"), the results of which have never been accepted in the economics literature. *Id.* In response to questioning from Mr. Veeder, Dr. Kalt admitted that this supply elasticity value falls well outside the normal range of acceptable values, was less reliable and of limited "usability." Tr. 266:12-267:14.

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[23] Tr. 234:1-10 (discussing Henry W. Kinnucan & Daowei Zhang, *Incidence of the 1996 Canada-U.S. Softwood Lumber Agreement and the Optimal Export Tax*, 52 CANADIAN J. OF AGRIC. ECON. 73 (2004) (included as item no. 13 of the "Materials Reviewed" section of the June 29, 2008 Kalt Expert Report, RR-2, App. B and identified during cross-examination at the Hearing on Remedies)).

83. Indeed, other peer reviewed material relied upon by Dr. Kalt (the "Latta and Adams paper") explains that the Canadian supply elasticities in the Baker study were "in some cases 10 times larger than others reported in the literature" and were "far higher than any [supply] elasticities reported elsewhere in the literature for either the United States or Canada." *See* RR-2, App. A, p. 32 (discussing Gregory S. Latta & Darius M. Adams, *An Econometric Analysis of Output Supply and Input Demand in the Canadian Softwood Lumber Industry*, 30 CANADIAN J. FOREST RES. 1419, 1420, 1423 (2000) (attached as Att. D to June 29, 2008 Kalt Expert Report, RR-2)). Notably, Latta and Adams calculated a general supply elasticity of 0.65, and noted the similarity of its figure to the 0.49 figure reported in yet *another* peer-reviewed paper. These general supply elasticities are consistent with the findings in the economics literature on export elasticities. CR-13, ¶¶ 43-50.

84. In reality, therefore, the relevant export supply elasticity falls within a relatively narrow range of values. To be sure, the general supply elasticity value Dr. Neuberger used in his first report (0.57) is near the bottom end of the range of export supply elasticities reported in the published literature. Using this elasticity, Dr. Neuberger calculates the need for a tariff of US$ 39.65 per MBF to offset the US$ 1.94 per MBF price effect, yielding payments of US$ 86.7 million if applied to the same volume of lumber as during the overage period. CR-3, ¶ 63.[24]

85. In any event, even if Dr. Neuberger had used the 0.9 elasticity at the high end of the range reported in the literature (and as used by Dr. Kalt himself in his 1988

[24] The use of Dr. Neuberger's elasticity of 0.57 and the corrected overshipment volume of 216 MMBF yields an export tax of US$ 47.88 per MBF and a total payment of US$ 104.7 million.

published paper), the resulting export charge necessary to reverse the price effect of the breach would still be within the range proposed by all the United States' remedies. That is, the necessary export charge on Option B exporters would decrease to US$ 25.52 per MBF. This in turn, would lower the overall remedy payment from US$ 86.7 million to US$ 55.8 million over the remedy period.[25] Thus, Dr. Kalt's criticism does not allow Canada to avoid a remedy.

86. Further, the experts now agree that Canada overshipped 216 MMBF during the breach period, not 182 MMBF as Dr. Neuberger first conservatively calculated. Using this updated overshipment calculation in Dr. Neuberger's model and even using the high-end 0.9 export supply elasticity figure, an additional export charge of US$ 30.32 per MBF, with total payments yielding US$ 66.3 million, is required to offset the price effect of Canada's breach.

87. Thus, regardless of which acceptable, peer-reviewed export supply elasticity is used, the range of increased export charge necessary to reverse the price effect of the breach is between US$ 55.8 million to US$ 86.7 million. Correcting the overshipment volume to 216 MMBF, the range rises to between US$ 66.3 million and US$ 104.7 million.

88. All told, Dr. Kalt's criticisms of the elasticities used in Dr. Neuberger's economic model merely parrot Canada's legal position that a remedy is too difficult to craft. To the extent that Dr. Kalt has identified what he considers to be more appropriate

[25] The figures in paragraphs 85-87 were generated by substituting the relevant export supply elasticity and overshipment volume (either 182 or 216 MMBF) into Dr. Neuberger's economic model explained in CR-3, App. A.

elasticities, his suggestions should be rejected because they are so far outside the range of those endorsed by the academic literature.

89. Dr. Kalt raises a final and equally invalid criticism regarding Dr. Neuberger's model. He testified that Dr. Neuberger's model fails to account for possible inventory adjustments by Option B lumber suppliers or lumber purchasers in the United States. Tr. 154:5-155:7; 185:8-188:15; 262:21-263:8. Dr. Kalt stated that Option B producers could respond to an additional export charge by holding additional inventories to avoid the charge, and waiting to release those inventories until after the remedy expires. *Id.*

90. There is no reason to expect such inventory behavior. First, the effects-based remedy will likely operate for at least six months, with no date certain when the remedy will expire. CR-29, ¶¶ 19-23. Thus, while Option B producers could theoretically increase their inventories as a means to avoid the tariff, they would have to hold these inventories for an indeterminate period of at least several months in order to do so. Canada has offered no evidence that Option B producers are in a position to adopt such behavior over a multi-month period. Dr. Kalt, for example, finds that lumber producers on average hold inventory equal to a month to a month-and-a-half of sales — certainly not sufficient to lead to inventory building over a six-month or greater time frame. RR-27, ¶ 34.

91. Dr. Kalt also speculates that United States lumber purchasers may respond to the marginally higher prices during the remedy period by depleting their inventories, thus diminishing the price-increasing effect of the remedy. Yet Dr. Kalt offered no evidence regarding the inventory practices of United States purchasers at all. As a matter

of economics and common sense, United States purchasers are unlikely to make significant changes in inventory behavior in response to the relatively small United States price effect predicted by Dr. Neuberger.

CONCLUSION

92. We respectfully request that the Tribunal determine a reasonable period of time for Canada to cure the breach and respectfully request that the Tribunal also identify appropriate compensatory adjustments to the export measures in an amount that remedies Canada's breach.

93. With respect to the cure period, we request that the Tribunal determine that 30 days would be a reasonable period of time for Canada to cure the breach.

94. With respect to appropriate compensatory adjustments to the export measures, we request that the Tribunal adopt one of the United States' four remedy proposals. In particular, we respectfully submit that the first proposed remedy most effectively remedies the breach by treating Option B regions as Option A regions during the breach period. Under this remedy, Canada should be required to collect an additional 10 percent *ad valorem* export charge upon softwood lumber shipments from Option B regions until the entire remedy amount of CDN$ 63.9 million, plus CDN$ 4.36 million in interest (a total of CDN$ 68.26 million) has been collected. This remedy stays within the confines of the SLA itself and does not require the Tribunal to determine the economic effects of the breach.

95. Alternatively, we request that the Tribunal adopt the second proposed remedy. Using the agreed-upon overshipment calculation of 216 MMBF, Canada should be required to collect an additional export charge of CDN$ 47.30 per MBF upon

softwood lumber shipments from Option B regions, until the entire remedy amount of CDN$ 110.5 (including interest) is collected. This remedy appropriately considers the price effect of the breach and correctly reverses that price effect.

96. Alternatively, we request the Tribunal to adopt our third proposed remedy. Under this proposal, Canada should be required to adjust downward the RQV for each month/region of the remedy period, first, by the average amount by which the correctly calculated RQV exceeded actual exports in the preceding six-month period, and second, by the average amount of the corresponding overage for that month/region during the six-month breach period.

97. Alternatively, we request the Tribunal to adopt the fourth proposed remedy. Canada failed to identify any specific weakness in this remedy. This remedy perhaps most closely reverses the breach identified by the Tribunal. Canada failed to make the correct EUSC calculation for the first two quarters of 2007. Under this remedy, Canada should be required, for the two quarters of the remedy period, to make downward adjustments to EUSC in the amount that Canada should have for the two quarters of the breach period, in addition to any adjustments already required by the SLA. Specifically, in the first quarter following the expiration of the reasonable period of time to cure, Canada should adjust EUSC downward by 612.2 MMBF. In the second quarter following expiration of the reasonable period of time to cure, Canada should adjust EUSC downward by 890.5 MMBF. The remedy does not require the Tribunal to identify the economic effects of the breach, nor does it require the Tribunal to look beyond the terms of the SLA.

98. Finally, should the Tribunal prefer not to adopt any of these proposed remedies, we respectfully request the Tribunal to determine other appropriate compensatory adjustments to the export measures in an amount that remedies the breach.

Respectfully submitted,

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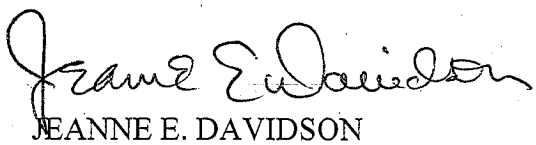

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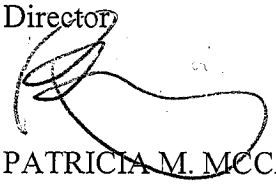

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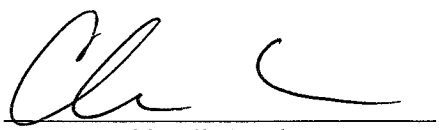
October 31, 2008

CERTIFICATE OF SERVICE

I hereby certify that I caused a copy of the United States Post-Hearing Brief on Remedy to be submitted, together with attachments, pursuant to Article 15.3 of the LCIA Rules and Procedural Order No. 2, and is being simultaneously transmitted by email and by overnight courier to the legal representative of the Respondent on October 31, 2008.



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