

# **Exhibit J**



## TABLE OF CONTENTS

I.	INTRODUCTION AND ASSIGNMENT .....	1
II.	ONGOING VERSUS PAST BREACHES.....	1
III.	PRODUCER SURPLUS AND THE AVAILABILITY OF POTENTIAL REMEDIES .....	4
IV.	EFFECTS OF “TEMPORARY TARIFFS” .....	7
V.	ALLEGED BIAS IN THE MARKET ADJUSTMENT TO QUOTAS .....	10
VI.	METHODOLOGY OF OVERSHIPMENT CALCULATIONS .....	11
	EXPERT’S DECLARATION .....	12

## EXHIBITS

**Exhibit 1** Forecast Exports Relative to Actual Exports and RQV by Region, in MMBF

## **I. INTRODUCTION AND ASSIGNMENT**

1. My name is Jonathan A. Neuberger. I previously submitted Expert Witness Reports in this matter on May 29, 2008, and July 21, 2008.
2. Pursuant to the Tribunal's Procedural Order No. 3, I was asked by counsel for the United States Department of Justice to prepare this report in response to the Rebuttal Statement offered by expert witnesses for Canada, Joseph P. Kalt and David Reishus ("Kalt"), dated August 11, 2008 ("second report").
3. Nothing contained in Kalt's second report alters my conclusions regarding the reasonableness of remedies I propose to compensate for Canada's breach of the Softwood Lumber Agreement ("SLA"). Most important, the preferred remedy I described in my first report, in which Option B producers pay additional export charges equal to the taxes they avoided during the violation period, is unaffected by any criticisms offered by Kalt in his second report. The other remedies I propose similarly withstand Kalt's scrutiny.
4. This report addresses three lines of argument presented by Kalt: 1) that remedies are feasible for an ongoing breach but not a past breach; 2) that my remedies are unrelated to one measure of economic harm, lost producer surplus; and 3) that the temporary nature of any remedy renders its effects uncertain. Finally, I address in the last section of this report the claim by Kalt that my third remedy, in which RQVs are adjusted to reflect lower market demand, is fundamentally biased. As noted above, none of these criticisms alters my conclusions regarding the remedies I propose.

## **II. ONGOING VERSUS PAST BREACHES**

5. Kalt asserts in his second report that, while it may be possible to create a compensatory market intervention for an ongoing violation of the SLA, it is infeasible to do so for a past violation, i.e., where the breaching party has discontinued its breaching behavior. Kalt explicitly accepts the proposition that one can remedy a continuing breach using offsetting export measures because "in the case of a breach that has continuing effect on market outcomes, undoing the

- ongoing breach through imposition of an offsetting market restriction on the breaching party can restore the market equilibrium to that which would have occurred absent the breach.”<sup>1</sup> What he fails to do, however, is explain why this same logic is inapplicable when the goal is to provide compensation for a past breach.
6. In particular, Kalt neglects to explain why one cannot remedy a past breach except when the remedy is applied to the exact “same market conditions” in which the breach occurred.<sup>2</sup> According to Kalt, even though an ongoing breach may produce complex effects on the various market participants, possibly in an environment of change, a compensatory remedy using export measures is feasible.<sup>3</sup> Yet he argues that these same complexities prevent remediation of a past breach, where he states that no intervention is needed to “restore the market equilibrium that would have occurred absent the breach.”<sup>4</sup>
  7. This latter statement is particularly curious given that Kalt also concedes that, even with a past breach and changing market conditions, a feasible remedy could be applied if there were a “mechanism by which non-distortive cash compensation would be paid to a particular subset (e.g., U.S. producers) of all affected parties as offset for a breach.”<sup>5</sup> This is a significant concession on his part because it makes clear that a past breach is not remedied simply by returning the market to the same place it would have been without the breach. Additional compensation, in the form of “non-distortive cash compensation” also is necessary.
  8. It is true that a remedy imposed under changing conditions is more complex than one imposed under constant conditions. Nevertheless, the need to apply a complex remedy in a complex market that has undergone changing conditions is insufficient reason to eschew altogether remedying a past breach. There is no principled reason that such changing conditions cannot be accounted for in the context of a past

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<sup>1</sup> Kalt second report at ¶11.

<sup>2</sup> *Ibid.* at ¶12.

<sup>3</sup> *Ibid.* at ¶11.

<sup>4</sup> *Ibid.* at ¶¶11, 15.

<sup>5</sup> *Ibid.* at ¶13.

breach as they can be, according to Canada's experts, in the context of an ongoing breach. Clearly an ongoing violation such as a Canadian government program that circumvents the SLA by providing benefits to Canadian lumber producers, or even a continuing RQV violation, would also be challenging to remedy. Yet Kalt embraces the concept that export measures can be employed as a legitimate means to compensate for such a continuing breach.

9. As indicated above, Kalt concedes that continuing breaches can be remedied even as the market changes and the effect of the ongoing breach thereby changes. The underlying assumption when there are continuing breaches clearly is that changing conditions not only influence the effect of the breach, but also the remedy necessary to offset those effects. In the case of a past breach, by contrast, only the remedy is affected by changing conditions, since the effect of the breach is already determined. As my earlier reports make clear, I have specifically designed my proposed remedies to account for changing market conditions.<sup>6</sup> There is no reason that tailoring the remedies to changing market conditions will not work just as well in the case of past breaches as in continuing breaches.<sup>7</sup>
10. Finally, it should be noted that Kalt asserts that there are no continuing effects of the breach that occurred during the first six months of 2007.<sup>8</sup> He has done no study of the breach or the market, however, to determine if this is in fact true. Economic principles generally would indicate that the opposite conclusion should apply, since the breach constitutes a "shock" to the system whose effects are expected to dissipate over time. Kalt's own analysis, represented in Figure 4 of his initial Report, depicts the result of the breach as a market movement from one equilibrium point (P1Q1) to another (P2Q2) as a result of the "shock" of additional supply. Even

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<sup>6</sup> See, e.g., Neuberger Report at ¶¶ 42, 62 and Neuberger Rebuttal Report at ¶20.

<sup>7</sup> Kalt asserts, but presents no evidence, that changes in economic conditions will have a large effect on the relief. However, under my effects-based model, a change in the volume sold in the market, with no change in the relative shares of different sources of supply, will not affect the necessary export charge. A decline in the lumber price will increase the calculated size of the export charge, but not by much. For example, a 10 percent decline in price will raise the export charge by about 2 percent. Given that lumber prices generally have fallen since the period of the violation, ignoring this effect was a conservative assumption that caused the model to somewhat understate the amount of relief needed under my effects-based remedy.

<sup>8</sup> Kalt second report at ¶7.

though this depiction simply compares two static states of the world, it cannot be assumed that the economic effects associated with the new equilibrium disappear once the breach is over, or even that they dissipate rapidly, as Kalt asserts.

11. Even if Kalt were correct that the current market price is close to the price that would have occurred in the absence of the breach (and again, he has offered no analysis to demonstrate this), he neglects to account for the drop in price and resulting detrimental impact on U.S. producers that he appears to concede occurred during the breach period.

### **III. PRODUCER SURPLUS AND THE AVAILABILITY OF POTENTIAL REMEDIES**

12. Much of the Kalt second report focuses on my second remedy, in which I propose additional export charges on Option B producers based on an economic model of U.S. lumber markets and the detrimental impact of the breach on U.S. producers. Kalt asserts that none of the remedies I propose comports with “standard economic analysis” and that the proposed remedies are punitive rather than compensatory.<sup>9</sup> Yet the remedies I propose, particularly my second remedy tied to a model of economic effects, are closely related to a remedy concept that Kalt endorses. While he apparently does not agree that remedies in this case should center on U.S. producers, Kalt nevertheless states that:

...if, as the U.S. now argues, the proper focus regarding remedy is not on all economic effects on the U.S., but is to be solely on effects on U.S. producers, standard economic analysis provides the means of measuring the economic effect on U.S. producers of any purported past volume and price effect. This measure, known as “producer surplus,” utilizes the economic tools we previously described and quantifies the economic effect on U.S. producers of any purported change in the U.S. lumber price caused by the export overage.<sup>10</sup>

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<sup>9</sup> *Ibid.*, pp. 3-4.

<sup>10</sup> *Ibid.*, p. 3; emphasis added.

13. Kalt is correct that changes in producer surplus can be used as a measure of economic harm to producers resulting from market effects caused by a breach. Importantly, this loss of producer surplus is directly related to the price effect that I estimate and discuss in my earlier reports. The economic model that I use to develop my second price-based remedy can readily be employed to compute the change in producer surplus that arises as a direct consequence of the price-reducing impact of Canada's breach of the SLA. Using the parameters described in that report, I compute the lost producer surplus to be US \$34.0 million. That is, according to the economic standard espoused by Canada's own experts, U.S. producers were harmed by Option B exporters exceeding their RQVs during the first six months of 2007 by an amount equal to US \$34.0 million.<sup>11</sup>
14. This figure for lost producer surplus cannot be viewed in isolation. Rather, for purposes of devising an effects-based remedy for Canada's SLA breach, it is necessary to consider remedies consistent with the SLA that provide this level of relief to U.S. softwood lumber producers. The SLA limits any compensatory remedies to those export measures that are specifically identified in the SLA, that is, to export charges or volume restrictions. It is in this context that I offer my second (effects-based) remedy proposal.
15. For this remedy, I use an economic model to show that Canada's breach of the SLA reduced U.S. lumber prices by an average of US \$1.94 per thousand board feet ("MBF") during the first half of 2007. I then use a variant of this model to quantify the amount of additional export charges (applied to the same volume of Option B exports that were shipped in the first half of 2007) that is required to "undo" the estimated reduction in U.S. lumber prices. By extension, this is also the amount of additional export charges that is necessary to "undo" the \$34.0 million loss of U.S. producer surplus resulting from the breach. As I note in my first report, I determined that an additional export charge of US \$39.65 per MBF is required to

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<sup>11</sup> Dr. Kalt asserts that the proper elasticity to use for purposes of computing producer surplus should be an export supply elasticity rather than the more general supply elasticity that I used. Estimates in the economics literature of export supply elasticities for Canadian softwood lumber fall in the approximate range of 0.4 to 1.1. The figure I use, 0.57, is well within this range.

raise U.S. lumber prices by the same US \$1.94. Multiplying this additional export charge by the export volume of Option B regions during the first half of 2007, or 2,187.76 million board feet (“MMBF”), yields total additional export charges of US \$86.7 million. This figure represents my second proposed remedy, based on the economic effects on U.S. producers of Canada’s SLA violation.

16. The amount of additional export charges under this remedy exceeds the estimate of the change in U.S. producer surplus of US \$34.0 million derived from the same model using the same parameters. However, the additional export charges exceed the lost producer surplus for clear reasons that are dictated by the SLA itself. The goal of the remedy is to raise U.S. prices by the same US \$1.94 by which they were reduced due to the overage. In order to achieve that goal *utilizing agreed-upon export measures*, the additional export charge to Option B producers must account for the fact that as the U.S. price rises in response to expected Option B export reductions, there are offsetting increases in exports to the U.S. from the rest of Canada and, to a much smaller extent, other countries. These supply responses increase the export charge on Option B producers above what would be necessary if there were no offsetting supply responses. In the ultimate equilibrium in the remedy model, the export charge necessary to raise the U.S. price by US \$1.94 is US \$39.65 per MBF, which, when multiplied by the breach-period export volume, results in a total payment of US \$86.7 million. This, however, is precisely the export charge that is needed to return US \$34.0 million in producer surplus to U.S. producers. In this sense, the second remedy I propose is driven by consideration of the same producer surplus concept espoused by Kalt. Kalt may complain that the agreed-upon export measures under the SLA are relatively blunt instruments. However, the intent and effect of the second remedy are directly related to the harm caused by the breaching behavior of Option B exporters and serves to restore the lost producer surplus that Kalt claims is a measure of harm.
17. Moreover, the total amount by which the additional export charges exceed the lost U.S. producer surplus overstates any purported “punitive” aspect to this remedy because Canada itself will collect the export charges. These additional receipts thus are part of Canada’s federal tax revenues and can be expected to improve overall

Canadian economic welfare. It is true that the burden of this additional export charge falls on Option B producers. Nevertheless, it was the Option B producers who breached the SLA in the first place by exceeding their applicable RQVs.

#### IV. EFFECTS OF “TEMPORARY TARIFFS”

18. In Section III.A. of his second report, Kalt asserts that Option B producers may perceive an additional export charge as a “temporary tariff,” whose precise effects would differ from those reflected in the model, since market participants would be expected to know the measures are temporary and would react strategically to them. Kalt cites economic theory and empirical research that has shown that temporary policies of known length engender different economic responses than permanent ones. Kalt discusses, for example, the impact of a temporary “tax holiday,” in which the spending response of consumers exceeds the response to a similar, permanent tax change. This higher effect is said to arise because consumers alter the timing of their spending decisions to take advantage of temporarily lower taxes, which they know will disappear on a date certain.<sup>12</sup> In contrast, when tax rates change permanently, such temporal shifting of consumption behavior does not occur.
19. Kalt states that lumber market participants will anticipate the temporary nature of the remedies I propose, and rationally seek to minimize their impact. He suggests, for example, that Option B producers will respond to temporarily higher export charges (under my price-based remedies) by adding to inventories rather than by exporting products to the U.S., thereby mitigating the impact of the remedy. Likewise, he states that U.S. purchasers are likely to make inventory adjustments that mitigate the U.S. price effects of the remedy.<sup>13</sup>
20. Kalt’s criticisms are inapplicable and misplaced. First, it is not at all clear how consumers’ responses to temporary tax cuts *of fixed duration* are equivalent to softwood lumber producers’ responses to additional export taxes *of uncertain duration*.

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<sup>12</sup> *Ibid.*, p. 15.

<sup>13</sup> *Ibid.*, p. 16.

While Kalt tries to argue that the level of uncertainty will be “modest,”<sup>14</sup> and that “uncertainty would be reduced”<sup>15</sup> as the remedy period progresses, these arguments are not credible. With my first (Option A) remedy, for example, the period will be uncertain because shipments will be subject to the additional tax until the total tax is collected. The tariff in my second price-based remedy is designed in such a way that the compensatory charge must be applied to the same *volume* of Canadian exports as the breach period rather than for a specified period of time.<sup>16</sup> As such, Canadian producers will not know with certainty how long the remedy will be in effect, even if they have access to public information that they can observe over time.

21. More importantly, any strategic behavior of the type that Kalt projects (e.g., building up inventories to escape the tariff) will tend to increase uncertainty regarding the length of the remedy period, since this type of conduct reduces exports and increases the period over which the remedy applies. Market participants will tend to have different estimates of how much of this type of behavior is occurring, and thus will make different forecasts of the length of time the remedy would be in place. The greater the uncertainty regarding the duration of the remedies, the less relevant are Kalt’s concerns regarding the effects of a temporary tax of certain length.
22. Second, Kalt then claims that a “temporary” tax is likely to engender *greater* responses than equivalent permanent taxes. He states, for example, that temporary investment incentives are sometimes adopted to accelerate investments into the incentive period, noting that “these differences [between temporary and permanent effects] are commonly exploited for policy reasons.”<sup>17</sup> The implication, of course, is that if the proposed tariff on Option B exports were perceived to be temporary, one would expect a particularly strong impact on exports. Indeed, Kalt explicitly predicts that if the Option B tariff is perceived to be temporary, one would expect “a large reduction in [Option B] exports,” since exporters “would have incentives to add to

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<sup>14</sup> *Ibid.*, p. 15.

<sup>15</sup> *Ibid.*, p. 17.

<sup>16</sup> Neuberger Report, p. 25.

<sup>17</sup> Kalt second report, p. 15.

inventory,” which would be undone once the tariff ended.<sup>18</sup> The prediction of this type of inventory behavior constitutes an admission on the part of Kalt that the proposed remedies will lead Canadian producers to reduce their exports to the U.S. in the manner predicted.<sup>19</sup> Whether export reductions occur because of inventory behavior, shutting down a shift, or selling in other markets, the effect is the same. While there may be offsetting increases in exports after the remedy period is over, these remain subject to volume restraints under the SLA.

23. Third, Kalt nevertheless states that, despite expected large reductions in Option B exports under a “temporary tariff,” there would be, at best, only a minimal increase in the market prices seen by U.S. producers, upsetting the goal of the remedy.<sup>20</sup> The claimed reason is that reduced exports from Option B exporters would be “filled in by inventory adjustments” by U.S. buyers, i.e., buyers would draw down inventories when the additional tariff was in effect (keeping prices from rising) and then replenish them later when the tariff was removed.<sup>21</sup> This argument is made essentially by assertion, since the extent of Kalt’s analysis is to say that “buyers undoubtedly also hold inventory.”<sup>22</sup> Kalt has not established that expected cutbacks in exports by Option B sellers in response to a “temporary tariff” would lead to significant inventory draw downs by U.S. buyers that would minimize any U.S. price effect of the remedy.<sup>23</sup> The “temporary tariff” argument is a red herring.

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<sup>18</sup> *Ibid.*, p. 16.

<sup>19</sup> Of course, an export-reducing effect is also likely to occur even if there is no accentuating inventory behavior, simply due to the higher marginal cost of exporting given the tariff. In fact, contrary to Kalt, it is not clear that one would expect increased inventories by exporters in the case of a temporary tariff. One reason for Option B exporters to incur the cost of increased inventories is to be able to ship greater amounts at the end of the remedy period when the tariff no longer applies. At that point, however, U.S. prices are likely to be lower, unless U.S. purchasers have engaged in inventory draw downs during the remedy period, and now need to replenish that inventory, raising U.S. prices. Such behavior by U.S. purchasers is unlikely.

<sup>20</sup> *Ibid.*, p. 16.

<sup>21</sup> *Ibid.*, p. 16.

<sup>22</sup> *Ibid.*, p. 16. Kalt present statistics purporting to show that Canadian *sellers* hold inventories, on average, of about 1.5 times monthly production. He does not present any evidence regarding inventory practices of U.S. *buyers* (*Ibid.*, note 40).

<sup>23</sup> A related point is that Kalt tries to analogize inter-temporal inventory adjustments of softwood lumber producers and buyers in the face of an asserted “temporary” export tariff to the types of inter-temporal adjustments discussed in the tax literature that investors might make to a temporary capital gains tax or a depreciation allowance. Realization of a capital gain, which can only be done once for any specific gain, is

## V. ALLEGED BIAS IN THE MARKET ADJUSTMENT TO QUOTAS

24. Kalt also takes issue with one of my volume-based remedies, in which RQVs are adjusted in two ways: first, by an amount that reflects the extent to which exports are below RQVs due to current demand conditions; and second, by a quantity that addresses the overage during the violation period.<sup>24</sup> He states that the first of these adjustments is inherently biased in the direction of too large an adjustment and thus produces, on an expected basis, RQVs that are too low.
25. In my earlier reports, I did not endorse any particular estimation technique to be used to determine the first adjustment. I referred to one possible mechanism for this purpose, a moving average of recent export data. It should be noted that a moving average is not inherently a biased estimator, and other estimation techniques also could be explored.
26. The potential for bias arises, not due to any assumed estimation technique, but because only downward adjustments to RQVs are contemplated under the proposed methodology. That is, the remedy treats the adjustment asymmetrically, reducing RQVs if quotas are not binding, but leaving in place existing RQVS if estimated exports exceed applicable quotas.
27. Kalt presents a confusing hypothetical example to demonstrate his bias conclusion.<sup>25</sup> In this example, the target (actual) adjustment for the level of the market is -50 MMBF but forecast exports are measured with error equal to  $\pm 100$  MMBF with equal probabilities. This is an extreme example encompassing a particularly wide range of estimates.

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different from being in the ongoing business of selling lumber, and examples from the behavior of those realizing gains do not shed much light on the likely behavior of lumber sellers or buyers. As such, Kalt cannot simply assume the types of inventory adjustments he does based on the claimed reactions of investors in the face of temporary taxes.

<sup>24</sup> See Section II.F. of Kalt's second report.

<sup>25</sup> *Ibid.*, pp. 13-14.

28. While the potential for bias may theoretically exist, this issue has little practical relevance under the conditions likely to exist during the remedy period. In **Exhibit 1**, I present the results of computations for the most recently available six months of export data, March to August 2008. For each of the four Option B regions, I compute RQVs and forecasts of exports based on a three-month moving average of past exports, lagged three months to reflect the time delay in reporting these data. I also present actual exports to show how well the estimates performed. As revealed in the charts of Exhibit 1, the forecasts are sometimes above actual exports and sometimes below. On average, they appear to be relatively unbiased predictors of the actual values. This suggests that Kalt's concerns about bias, although possibly of theoretical interest, are unlikely to have any practical significance.

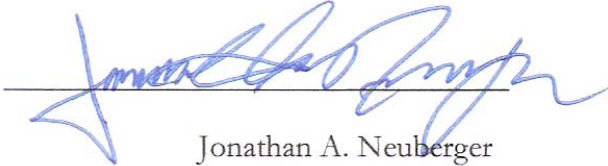
## **VI. METHODOLOGY OF OVERSHIPMENT CALCULATIONS**

29. Kalt responds to my calculations of the Option B overshipments caused by the breach. Kalt's use of contemporaneous data produces a total overshipment volume of 216 MMBF. My use of revised data produces a total overshipment volume of 182 MMBF. If the Tribunal agrees with Canada that it is more appropriate to use contemporaneous data, as opposed to the revised data that I have used, my proposed remedies change as follows. First, the additional tax to be collected under the Option A remedy remains the same because the remedy is not tied to the magnitude of the overage. Second, using my model of economic effects of Canada's breach, the additional tax to be collected is US \$102.0 million. RQV adjustments under the third remedy, after reducing RQVs by the amount determined through forecasting exports, will total 216 MMBF rather than 182 MMBF.

## **EXPERT'S DECLARATION**

- (i) As in writing my initial Report, I understand that my duty in providing written reports and giving evidence is to help the Tribunal, and that this duty overrides any obligation to the party who has engaged me. I have complied with my duty.
- (ii) I believe that the facts I have stated in this report are true and that the opinions I have expressed are correct.
- (iii) I have endeavored to include in my report those matters, of which I have knowledge or of which I have been made aware, that might adversely affect the validity of my opinion.
- (iv) I have indicated the sources of all information I have used.
- (v) I have not without forming an independent view included or excluded anything that has been suggested to me by others (in particular my instructing lawyers).
- (vi) I will notify those instructing me immediately and confirm in writing if for any reason my existing report requires correction or qualification.
- (vii) I understand that:
- (viii) my rebuttal report, subject to any corrections before swearing as to its correctness, will form the evidence to be given under oath or affirmation;
- (ix) I may be cross-examined on my rebuttal report by a lawyer assisted by an expert; and
- (x) I am likely to be the subject of public adverse criticism if the Tribunal concludes that I have not taken reasonable care in trying to meet the standards set out above.

- (xi) I confirm that I have not entered into any arrangement where the amount or payment of my fees is in any way dependent on the outcome of the case.



Jonathan A. Neuberger

Principal