

***UNITED STATES – COUNTERVAILING DUTY MEASURES
ON CERTAIN PRODUCTS FROM CHINA***

Recourse to Article 22.6 of the DSU by the United States

(DS437)

**RESPONSES OF THE UNITED STATES OF AMERICA
TO THE ADVANCE QUESTIONS FROM THE ARBITRATOR**

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A. NESTED APPROACH TO ELASTICITIES OF SUBSTITUTION, INCLUDING THE USE OF THE “RULE OF TWO”

- 1. To China and the United States: Please provide evidence at the product level either in support of, or against, differing macro- and micro-elasticities for each of the products at issue. Please also provide arguments for or against applying the same approach to elasticities of substitution for each of the products at issue, that is, applying either the Rule of Two or constant elasticities between all suppliers.**

Response:

1. There is no product-level evidence in support of China’s assumption that the elasticity of substitution across imported varieties is two times larger than the elasticity of substitution between imports and domestic goods for any of the products at issue in this proceeding. To the extent there may be any reason to expect systematic differentiation between imported and domestic varieties, China has not provided any methodology to obtain a more precise estimate of the appropriate micro-elasticity. Therefore, if the Arbitrator must apply a rule of thumb for elasticities of substitution, the standard “Rule of One” assumption – *i.e.*, that macro- and micro-elasticities are equal for the same product – is the most appropriate choice.

2. Contrary to China’s assumption, the United States has found compelling evidence supporting constant macro- and micro-elasticities for each of the products at issue, based on the relevant U.S. International Trade Commission (“USITC”) reports. In this proceeding, both the United States and China have relied on these USITC reports for elasticities of substitution. For instance, both parties have set the macro-elasticity (*i.e.*, the elasticity of substitution between domestic and imported goods) equal to the elasticity of substitution reported in the USITC reports.¹ The United States and China have also both used the demand and supply elasticity estimates reported in USITC reports. All of these elasticities are developed within the framework of a non-nested, constant elasticity of substitution model.² The arbitrator in *US – Anti-Dumping Methodologies (China)* (DS471) likewise used the elasticities reported in USITC reports to estimate the level of nullification or impairment.³ China acknowledges that these elasticities have the advantage that they are estimated for the specific product under investigation and have been reviewed by all parties subject to the investigation.⁴ China merely declines to use the elasticity of substitution in the USITC reports as the micro-elasticity.

3. The USITC typically collects and considers evidence on pairwise substitutability between domestic, subject import, and non-subject import varieties in the course of its investigations. This evidence is useful here because it can indicate whether trade diversion to importers other

¹ See Written Submission of the United States of America (February 18, 2020) (“U.S. Written Submission”), para. 133; Methodology Paper of the People’s Republic of China (January 14, 2020) (“China’s Methodology Paper”), footnote 41 and para. 96.

² See U.S. Written Submission, para. 129; China’s Methodology Paper, para. 96.

³ See *US – Anti-Dumping Methodologies (China)* (Article 22.6 – US), para. 7.36; *US – Washing Machines (Korea)* (Article 22.6 – US), paras. 3.97–3.98.

⁴ China’s Methodology Paper, para. 83.

than the subject country can be expected. China explains that a nested approach to elasticities of substitution should be used “where significant trade diversion to other importers can be expected.”⁵ Trade diversion may be expected in industries where all imported varieties are significantly differentiated from the domestic variety in terms of their intrinsic characteristics, quality, or terms of sale. As elaborated below, all but one of the USITC investigations pertinent to this dispute find that domestic, Chinese, and non-subject imported varieties are similarly comparable in terms of intrinsic characteristics, quality, and terms of sale. Table 1, below, summarizes evidence from the USITC reports supporting the Rule of One for each of the products at issue.

- **Comparability of domestic goods, Chinese imports, and non-subject imports:** In most of the relevant investigations, the USITC asked a sample of purchasers to evaluate the comparability of the product pairwise for domestic goods, subject imports (*i.e.*, imports from China), and non-subject imports based on a set number of factors. An import-nested demand system may be appropriate if the results suggest that imports from China and imports from non-subject countries are systematically more comparable with each other than they are with the domestic product. As shown in Table 1 below, responding purchasers for all but one of the products at issue indicated that domestic, Chinese, and non-subject products were all comparable on almost every factor related to quality and terms of sale. The United States has found evidence supporting some degree of systematic domestic-import differentiation for only one product, Wire Strand.⁶ This supports adopting the Rule of One assumption rather than the Rule of Two assumption.
- **Interchangeability between domestic goods, Chinese imports, and non-subject imports:** The USITC also asked a sample of producers, importers, and purchasers to evaluate the degree to which domestic goods, subject imports, and non-subject imports can generally be used in the same applications – *i.e.*, whether they are interchangeable. An import-nested demand system may be appropriate if the results imply that imports from China and imports from non-subject countries are systematically more interchangeable with each other than they are with the domestic product. As shown in Table 1 below, responses from the producers, importers, and purchasers did not show that imports from China and imports from non-subject countries are more interchangeable with each other than with the domestic product. This again supports the Rule of One assumption.

Table 1: Summary of Evidence from USITC Reports Supporting the Rule of One

⁵ China’s Methodology Paper, para. 86.

⁶ The importance of the “Buy America(n)” provisions in key markets for Wire Strand suggests that imports may be considered differentiated from domestic Wire Strand. However, this is not sufficient to support a proposition that the micro-elasticity is twice the value of the USITC’s elasticity of substitution estimate.

	Comparability of Domestic Goods, Chinese Imports, and Non-Subject Imports	Interchangeability Between Domestic Goods, Chinese Imports, and Non-Subject Imports
Aluminum Extrusions	All pairwise comparable on almost every factor related to quality and terms of sale, according to a plurality of responding purchasers; most purchasers reported that Chinese imports and non-subject imports were comparable on every factor. ⁷	Always or frequently interchangeable across all sources, according to most producers, most importers, and most purchasers who responded; similar degrees of interchangeability between domestic good, Chinese imports, and non-subject imports. ⁸
OCTG	All pairwise comparable on many factors related to quality and terms of sale, according to most responding purchasers; purchasers reported a greater degree of comparability between domestic product and non-subject imports than between domestic product and Chinese imports for factors related to quality and terms of sale. ⁹	“A high degree of interchangeability among the domestic like product, subject imports, and non-subject imports” ¹⁰ ; similar degrees of interchangeability between domestic good, Chinese imports, and non-subject imports. ¹¹
Solar Panels	All pairwise comparable on almost every factor related to quality and terms of sale, according to most responding purchasers. ¹²	Always or frequently interchangeable across all sources, according to the majority of producers, importers, and purchasers who responded; similar degrees of interchangeability between domestic, Chinese and non-subject imports. ¹³
Print Graphics	All pairwise comparable on almost every factor related to quality and terms of sale, according to most responding purchasers. ¹⁴	Always or frequently interchangeable across all sources, according to the majority of producers, importers and purchasers who responded. ¹⁵
Kitchen Shelving	<i>Survey responses on comparability with non-subject import redacted from the public report as BCI.</i> ¹⁶	<i>Survey responses on interchangeability with non-subject import redacted from the public report as BCI.</i> ¹⁷

⁷ USITC Publication 4677, p. II-12 (Exhibit CHN-37).

⁸ USITC Publication 4677, p. II-12 and Table II-9 (Exhibit CHN-37).

⁹ USITC Publication 4124, pp. II-16-II-17 (Exhibit CHN-23).

¹⁰ USITC Publication 4532, p. 11 (Exhibit USA-89).

¹¹ USITC Publication 4124, pp. II-19-II-20 (Exhibit CHN-23).

¹² USITC Publication 4874, pp. II-24-II-25 (Exhibit CHN-46).

¹³ USITC Publication 4874, pp. II-24-II-25 (Exhibit CHN-46).

¹⁴ USITC Publication 4656, p. II-20 (Exhibit CHN-51).

¹⁵ USITC Publication 4656, p. II-20 (Exhibit CHN-51).

¹⁶ USITC Publication 4098, pp. II-7–II-8 (Exhibit CHN-19).

¹⁷ USITC Publication 4098, pp. II-6-II-7 (Exhibit CHN-19).

	Comparability of Domestic Goods, Chinese Imports, and Non-Subject Imports	Interchangeability Between Domestic Goods, Chinese Imports, and Non-Subject Imports
Pressure Pipe	All pairwise comparable on almost every factor related to quality and terms of sale, according to most responding purchasers. ¹⁸	Always or frequently interchangeable between domestic product and Chinese imports, and domestic product and Chinese imports always or frequently interchangeable with non-subject imports, according to the majority of respondents. ¹⁹
Steel Cylinders	<i>No information on comparability with non-subject imports reported.</i>	Slightly less interchangeability between Chinese and non-subject imports than between domestic and imported goods from either source. ²⁰
Line Pipe	No general comparison to non-subject imports in the USITC report, but most purchasers found domestic product, Chinese imports, and Korean imports to be comparable on almost all factors related to quality or terms of sale. ²¹	Always or frequently interchangeable across all country pairs, according to the majority of respondents; greater interchangeability between domestic product and non-subject Japanese and Korean imports than between domestic product and other imports. ²²
Seamless Pipe	No direct pairwise comparison between imports from China and non-subject imports, but for most quality-related factors, domestic goods, Chinese imports, and non-subject imports were comparable, according to most purchasers; in regard to factors related to sales terms, non-subject imports and domestic product were considered by more purchasers to be comparable on more factors than Chinese imports and domestic product. ²³	Always or frequently interchangeable across all country pairs, according to the majority of respondents; similar degrees of interchangeability between domestic good, Chinese imports, and non-subject imports. ²⁴
Wire Strand	“Based on available information, staff believes that, for [wire] strand made to the same ASTM specifications, there is a high degree of substitution between domestic [wire] strand and subject imports sold for end uses not subject to ‘Buy America(n)’	Always or frequently interchangeable across all country pairs, according to the majority of respondents for most factors related to quality or terms of sale. ²⁶

¹⁸ USITC Publication 4064, pp. II-12-II-13 (Exhibit CHN-19).

¹⁹ USITC Publication 4064, p. II-10 (Exhibit CHN-4).

²⁰ USITC Publication 4328, pp. II-9-II-10 (Exhibit CHN-41).

²¹ USITC Publication 4055, p. II-11 (Exhibit CHN-11).

²² USITC Publication 4055, pp. II-12-II-13 (Exhibit CHN-11).

²³ USITC Publication 4190, pp. II-14-II-15 (Exhibit CHN-32).

²⁴ USITC Publication 4190, p. II-16 (Exhibit CHN-32).

²⁶ USITC Publication 4162, pp. II-14-II-15 (Exhibit CHN-28).

	Comparability of Domestic Goods, Chinese Imports, and Non-Subject Imports	Interchangeability Between Domestic Goods, Chinese Imports, and Non-Subject Imports
	provisions. However, the existence of substantial end-use markets subject to ‘Buy America(n)’ provisions reduces the overall substitutability of [wire] strand in the U.S. market.” ²⁵	

4. To be clear, the United States, in principle, does not disagree with the proposition that a nested approach should be considered where trade diversion is expected. However, to implement this approach, appropriate parameter estimates for both macro- and micro-elasticities are required. Simply doubling the domestic-import elasticity of substitution derived for a non-nested Constant Elasticity of Substitution (“CES”) model is not appropriate. More importantly, as the above evidence has demonstrated, significant trade diversion is not expected for the products at issue in this proceeding, as imported and domestic varieties are not systematically differentiated. Rather, many are standardized materials produced to common specifications such that they are fully interchangeable across all sources.

5. The United States also takes this opportunity to address assertions on this point that China made in its written submission. China’s response to the U.S. opposition to using the Rule of Two rests on three pillars: 1) a mischaracterization of the U.S. argument, 2) a selective interpretation of Feenstra, et al. (2018), on which China primarily relies to support its use of the Rule of Two,²⁷ and 3) misplaced reliance on the claim that the Rule of Two is a “dominant approach in the literature.”²⁸

China’s Mischaracterization of the U.S. Argument

6. First, China makes a mistaken comparison when it argues that the U.S. suggestion to implement an industry-specific, evidence-based adjustment for supply shocks²⁹ to imports from certain third countries is evidence that the “import-import response is larger than the import-domestic response.”³⁰ It is true that the supply shock implies that imports from certain third countries have gained market share at China’s – and all other varieties’ – expense. It is also true that a nested model like the one China proposes generates a larger increase in the market shares of competing importers (*i.e.*, importers other than China). However, the similarities end there. The assumption underlying the U.S. supply shock adjustment (*i.e.*, that a positive shock for third countries affected China’s relative competitiveness in 2017) is fundamentally different from the assumption underlying China’s Rule of Two (*i.e.*, that the import-import response is larger than

²⁵ USITC Publication 4162, p. II-10 (Exhibit CHN-28).

²⁷ See China’s Methodology Paper, paras. 88-89; Written Submission of the People’s Republic of China (March 24, 2020) (“China’s Written Submission”), paras. 55-59.

²⁸ China’s Written Submission, para. 59.

²⁹ Economists conceptualize changes in a country’s supply potential as shifts in the supply curve (*see* Figure 2 of the U.S. written submission). The events that stimulate these shifts are commonly referred to as supply shocks.

³⁰ China’s Written Submission, para. 61.

the import-domestic response), and these different assumptions have substantially different implications for estimating the level of nullification or impairment.³¹

7. The underlying assumption of the nested CES demand model that China has specified is that imports from China are more substitutable for imports from non-subject countries than they are for the domestic variety. China’s application of the Rule of Two implies they are twice as substitutable. The implication of this erroneous assumption is that China’s model grossly overestimates U.S. buyers’ tendency to substitute away from the Chinese variety as a direct result of the duties on imports from China. In turn, it results in a gross overestimation of the change in imports from China when the duties are reduced, *i.e.*, the level of nullification or impairment.

8. On the other hand, the underlying assumption of the U.S. supply shock adjustment is that producers in certain third countries have exogenously increased their ability to supply the U.S. market during the period between the year prior to the imposition of the relevant countervailing duty (“CVD”) measure and 2017, which represents the expiration of the reasonable period of time (“RPT”). Supply shocks in third countries diminish China’s market share – and those of all other competitors – independently of any duties on Chinese imports. This does not imply that imports from China are more substitutable for imports from non-subject countries than they are for the domestic variety. It simply reflects the evolution of the industry over the interim period between the imposition of the CVD measure and 2017.

China’s Selective Interpretation of Feenstra, et al. (2018)

9. Second, China’s interpretation of Feenstra, et al. (2018) (“the Feenstra paper”) fails to accurately represent the paper’s implications for the proceeding here. The Feenstra paper conducts two statistical tests comparing macro- and micro-elasticities for a non-randomly selected set of products that are not representative of the products at issue in this proceeding. The first test is for the null hypothesis that the micro-elasticity is less than or equal to the macro-elasticity versus the alternative hypothesis that the micro-elasticity is greater than the macro-elasticity. In this test, the authors reject the null hypothesis in two-thirds to three-quarters of the products in the sample. For the remaining products (one-quarter to one-third of the products) the null hypothesis is not rejected and the authors cannot conclude the alternative hypothesis is valid, *i.e.*, that the micro-elasticity is greater than the macro-elasticity. However, China incorrectly concludes that the authors “are able to clearly reject the U.S. assertion that the import-import

³¹ To elaborate, the underlying assumption of the nested CES demand model that China has specified is that imports from China are more interchangeable with imported varieties from non-subject countries than they are with domestically-produced varieties. China’s application of the Rule of Two implies imports from China are twice as interchangeable for all products. China argues that the elasticity of substitution parameter used in the U.S. and past arbitrators’ specifications represents only the elasticity of substitution between domestic varieties, and therefore must be increased with respect to other imported varieties in order to capture their greater interchangeability. In its methodology paper, China applies this demand structure for every product at issue in this proceeding, and, as detailed elsewhere in the U.S. response to this question, this is at odds with the evidence. The implication of this erroneously assumed functional form is that China’s model over-estimates U.S. buyers’ tendency to substitute away from the Chinese variety as a direct result of the duties. In turn, China over-estimates the change in imports from China when duties are reduced, *i.e.*, the level of nullification or impairment.

elasticity is as low as the import-domestic elasticity in over one third of the products.”³² China misinterprets this weak evidence that the micro-elasticity may be larger than the macro-elasticity as definitive evidence that the micro-elasticity is exactly two times larger than the corresponding macro-elasticity for all products. China’s conclusion is unsupported.

10. In the second test, the Feenstra paper tests the null hypothesis that the Rule of Two is valid, *i.e.*, that the micro-elasticity is exactly two times the macro-elasticity. The Feenstra paper finds statistical evidence to reject the null hypothesis in one-tenth to one-fifth of the products in the sample. China acknowledges that the Feenstra paper rejects the null hypothesis that the Rule of Two “holds exactly” for some products, but erroneously argues that “if the goal is to adopt a convention that is applied across products, the evidence provided by the Feenstra paper effectively rejects the U.S. position in that it clearly favours the Rule of Two over the Rule of One.”³³ China’s assertions are wrong for a number of reasons.

11. First, China’s goal should not be to adopt a convention or a rule of thumb but should be to provide robust evidence that the micro-elasticity is twice the macro-elasticity in order to assume that the Rule of Two is valid for the products at issue in this proceeding. The Feenstra paper does not provide such evidence. Statistically, failure to reject the null hypothesis is not evidence that the Rule of Two is favored over the Rule of One. By construction, the statistical inference is to reject or not reject the null hypothesis. It cannot “accept” the null hypothesis. If the null hypothesis is rejected, the alternative hypothesis is accepted. More to the point, statistically, failure to reject the null hypothesis is not evidence that the null hypothesis is true. As China acknowledges, this occurs in one-fifth of the cases in the test conducted in the Feenstra paper, where the null hypothesis is rejected. China not only misinterprets the Feenstra paper, but fails to provide any statistical evidence that the Rule of Two is a reasonable assumption for the products at issue in this proceeding. Instead, China simply assumes that the Rule of Two is valid for this proceeding and, as a result, generates a grossly inflated trade damage estimate, which results in an overestimated level of nullification or impairment.

12. Moreover, the results of the statistical tests alone do not support the conclusion that one outcome is more likely than another possible null hypothesis. Based on Bayes’ Theorem,³⁴ it is

³² China’s Written Submission, para. 57.

³³ China’s Written Submission, para. 58.

³⁴ Bayes’ Theorem provides the probability of a null hypothesis given the outcome of a statistical test. China’s advocacy for the *ad hoc* Rule of Two rests on the Feenstra paper failing to reject the Rule of Two for some, but not all, of the products analyzed. The relevant formulation of Bayes’ Theorem is:

$$\Pr(H_0|\tau = 0) = \frac{1 - \alpha}{(1 - \alpha) + (1 - \beta)}$$

Here α is the size of the test, and $1 - \alpha$ is the probability that our statistical test tells us not to reject the null hypothesis when the null hypothesis is, in fact, true (*i.e.*, $\Pr(\tau = 0|H_0)$). In a standard statistical test, we set the size equal to 0.05. β is the power of the test. It is the probability of a statistical test rejecting the null hypothesis when the null hypothesis is false. Therefore, $1 - \beta$ is the probability of the statistical test failing to reject the null hypothesis when the null hypothesis is, in fact, false (*i.e.*, $\Pr(\tau = 0|H_A) = 1 - \beta$).

not possible to do so without knowing the statistical power of the estimator.³⁵ Bayes' Theorem implies that the power of the statistical estimator must be known in order to determine the probability that a null hypothesis is true when the statistical test fails to reject the null hypothesis. However, the Feenstra paper does not provide information on the power of the test. Therefore, the fact that the Feenstra paper fails to reject the Rule of Two for some, but not all, of the products analyzed cannot be used as evidence that the micro-elasticity is always two times greater than the macro-elasticity.

13. The estimates in the Feenstra paper are also so imprecise that it is difficult to distinguish between a null hypothesis of constant elasticities between all suppliers and a null hypothesis of the Rule of Two. Moreover, in contrast to China's assertion, the Feenstra paper does not provide statistical evidence that tests whether a null hypothesis of a Rule of One versus a null hypothesis of an *ad hoc* Rule of Two is more likely.

14. While China presents a thought experiment in Exhibit CHN-96, this test is merely illustrative and is not robust evidence that the Rule of Two holds in this situation. Furthermore, China utilizes the wrong data from the Feenstra paper. Once this error is corrected, the test presents evidence in favor of the null hypothesis that the macro- and micro-elasticities are equal to each other. The Feenstra paper, in Table 4, reports that the point estimates for the import-import elasticity and the domestic-import elasticity are different for 73 of 98 products. China, in Exhibit CHN-96, offers a thought experiment to discuss the likelihood of this outcome if the two elasticities are drawn from identical distributions. Put technically, China asks, "what is the probability of drawing 73 or more elasticities out of 98 trials where the micro-elasticity is larger than the macro-elasticity if the two elasticities are drawn from the same distribution?" That is, for some product j , the elasticities are drawn from:

$$\text{elasticity}_m \sim \text{distr}(\mu, \sigma) \text{ for all } m \in \{\text{macro}, \text{micro}\}$$

15. The Feenstra paper employs an example of tossing a fair coin where the head is the outcome in which the micro-elasticity is larger than the macro-elasticity and the tail is the outcome in which the macro-elasticity is larger than or equal to the micro-elasticity. The paper then asks, "what is the probability of getting 73 or more heads in 98 flips if the coin is fair (*i.e.*, that the two elasticities are drawn from the same distribution as above)?" The answer is nearly zero.

16. However, because of uncertainty (*i.e.*, variance) in the estimator, the same Table in the Feenstra paper reports that the micro-elasticity is statistically greater than the macro-elasticity only for 34 of 98 products. The probability that one gets 34 (or more) heads in 98 trials is 99.8 percent. When the Feenstra paper runs the same evaluation using its two-step generalized method of moments ("GMM") estimation method, it finds that the micro-elasticity is statistically significantly larger in only 26 of 98 cases. The probability of this occurring under the null hypothesis proposed by China in Exhibit CHN-96 is 99.997 percent. The United States provides

³⁵ See R. Startz, "Choosing the More Likely Hypothesis," *Foundations and Trends in Econometrics*, vol. 7, no. 2, pp. 119-189 (2014) (Exhibit USA-104).

this data in Exhibit USA-102, which incorporates the relevant cumulative probabilities to the data provided in Exhibit CHN-96.

17. Finally, the results of the Feenstra paper do not support China’s position because they do not apply to the products at issue here and cannot be generalized. Upon comparing the data in the replication file, which lists the Harmonized Tariff Schedule of the United States (“HTSUS”) codes of the products that were in the sample selected in the paper, against the HTSUS codes of the products at issue here, the United States finds that none of the products in this proceeding were in the sample used in the Feenstra paper. In fact, there is no overlap in the two samples even at the 6-digit HTSUS level. Therefore, the results of the Feenstra paper, which provide only weak evidence with respect to products from other industries, cannot be used as robust evidence about the elasticity structure of the products at issue in this proceeding.

18. Moreover, it is unreasonable in statistical terms to attempt to generalize the weak results of the Feenstra paper, particularly since the Feenstra paper only covers 0.5 percent of all 10-digit HTSUS codes. In addition, the Feenstra paper is not based on a randomly selected sample of 10-digit HTSUS codes. The Feenstra paper does not show that the sample is representative of all products,³⁶ nor does it claim that its results are generalizable outside of the sample used in the paper. However, China appears to implicitly make such a claim.

19. Therefore, China’s advocacy for the *ad hoc* Rule of Two relies on extrapolating beyond what is supported by the data presented in the Feenstra paper. As explained above, the Feenstra paper’s results do not apply to the products under investigation. Therefore, the United States requests that the Arbitrator use the Rule of One, which is the simplest model specification that is consistent with theory (*e.g.*, Armington (1969) (Exhibit CHN-59)) and offers testable predictions, rather than the *ad hoc* Rule of Two.

China’s Misplaced Reliance on the Purported “Dominance” of the Rule of Two in Certain Literature

20. Lastly, China’s suggestion that the Arbitrator should adopt the Rule of Two in this proceeding because “the Rule of Two is the elasticity choice in virtually every applied CGE model exercise that China is aware of”³⁷ is irrelevant and fails to outweigh the critical reasons that the Arbitrator should not adopt the false assumption. While the United States acknowledges that the Rule of Two has been used in certain Computable General Equilibrium (“CGE”) literature, such as the Global Trade Analysis Project (“GTAP”), the United States has also shown, in Exhibit USA-33, that the USITC has decided against using the rule of thumb in its impact studies of new trade agreements. In the same exhibit, the United States also explains how this rule originated in studies that relied on small, single-country samples and employed biased econometric techniques. In many cases, the authors did not conduct robust tests on whether the macro- and micro-elasticities were statistically different. Therefore, the Rule of Two should be

³⁶ The data used in the Feenstra paper are generated by merging U.S. import data at the 10-digit HTSUS level with U.S. supply data from the Current Industrial Reports (“CIR”) for the years 1992-2007. The result is a sample of 109 goods, covering over 21,800 10-digit HTSUS codes. The sample of analysis was determined by data availability.

³⁷ China’s Written Submission, para. 64.

understood as a mere simplification of convenience, rather than as a rigorously estimated elasticity. China does not dispute this criticism of the origin of the Rule of Two. Applying the Rule of Two to elasticities of substitution for each of the products at issue here, without robust evidence, results in a grossly inflated estimate of trade impact, which exceeds the level of nullification or impairment.

B. WHETHER TO CONSIDER THE EFFECT OF BOTH SUBSIDIES AND DUMPING ON CHINA’S MARKET SHARES

2. To China and the United States: The United States proposes to include anti-dumping duties in step one of the two-step Armington approach simultaneously with the CVDs at issue. Please indicate for each of the products at issue whether any trade remedy measures were in place in what you consider the year prior to the implementation of the CVDs.

Response:

21. As a preliminary matter, as the United States will detail in the U.S. response to question 4, below, the United States has demonstrated that it is necessary to adjust the two-step model used by the arbitrator in DS471 to correct an overestimation problem that results from the effect on China’s market shares caused by dumping during the year prior to the imposition of the CVD measures. As explained in the U.S. written submission,³⁸ in addition to the subsidies that are the subject of this dispute, China’s market share in the year prior to the imposition of the CVDs is distorted by the fact that Chinese firms were also selling merchandise in the U.S. market at prices that were less than fair value, *i.e.*, dumping. Failing to account for dumping would generate counterfactual market shares that overstate China’s underlying competitiveness. Estimates of the level of nullification or impairment based on these inflated step one counterfactual market shares would likewise be inflated.

22. To be clear, the issue is not that antidumping (“AD”) measures or any other trade remedy measures were in place in the year prior. The issue is that dumping was occurring during the year prior, as well as subsidization, and accordingly, the existence of that dumping and the relevant AD duties should be taken into account when calibrating the model in step one. In fact, there were no final AD measures in place for any of the products at issue in this proceeding during the year prior to the imposition of the CVD measures. For each of the ten products, the final AD measure and the final CVD measure were imposed in the same calendar year, and the final AD measures were imposed at or around the same time as the final CVD measures.³⁹

23. That being said, the United State notes that, as shown in Table 2 below, for certain of the products at issue in this proceeding (Aluminum Extrusions, Line Pipe, Pressure Pipe, OCTG, Steel Cylinders, and Wire Strand), pursuant to the relevant CVD investigations and companion AD investigations, provisional measures in the form of cash deposits were required during some portion of the year prior to the imposition of the final CVD measures. Consistent with Article

³⁸ See U.S. Written Submission, para. 72.

³⁹ See Exhibit USA-75.

7.1 of the *Agreement on Implementation of Article VI of the General Agreement on Tariffs and Trade 1994* (“AD Agreement”) and Article 17.1 of the *Agreement on Subsidies and Countervailing Measures* (“SCM Agreement”), cash deposits are applied when the U.S. Department of Commerce (“USDOC”) makes an affirmative preliminary determination in an AD investigation or a CVD investigation. As shown in the table below, these provisional measures are limited in time: provisional AD and CVD measures expire after 120 days (or 180 days for provisional AD measures, if so requested).⁴⁰

Table 2: Provisional Measures for Seven Products that Were in Effect in the Year Prior to Imposition of CVD Measure

Product	Year Prior to Imposition of CVD Measure	Period CVD Cash Deposits/Provisional Duties Were Collected	Period AD Cash Deposits/Provisional Duties Were Collected	Effective Date of AD Order
Aluminum Extrusions	2010	09/07/2010 – 01/06/2011	11/12/2010 – 03/11/2011	05/26/2011
Line Pipe	2008	09/09/2008 – 01/08/2009	11/06/2008 – 03/05/2009	05/13/2009
Pressure Pipe	2008	07/10/2008 – 11/09/2008	09/05/2008 – 01/04/2009	03/17/2009
OCTG	2009	09/15/2009 – 01/14/2010	11/17/2009 – 03/16/2010	05/21/2010
Steel Cylinders	2011	10/18/2011 – 02/17/2012	12/15/2011 – 04/14/2012	06/21/2012
Wire Strand	2009	11/2/2009 – 03/01/2010	12/23/2009 – 04/22/2010	06/29/2010

24. For the remaining products at issue (Kitchen Shelving, Print Graphics, Seamless Pipe, and Solar Panels), as shown in Table 3 below, pursuant to the relevant CVD investigations and companion AD investigations, no cash deposit was required in the year prior to imposition of the CVD measures.

Table 3: Provisional Measures for Four Products that Were Not in Effect in the Year Prior to Imposition of CVD Measure

Product	Year Prior to Imposition of CVD Measure	Period CVD Cash Deposits/Provisional Duties Were Collected	Period AD Cash Deposits/Provisional Duties Were Collected	Effective Date of AD Order
Kitchen Shelving	2008	01/07/2009 – 05/06/2009	03/05/2009 – 07/04/2009	09/14/2009
Print Graphics	2009	03/09/2010 – 07/08/2010	05/06/2010 – 09/05/2010	11/17/2010
Seamless Pipe	2009	03/01/2010 – 06/30/2010	04/28/2010 – 08/27/2010	11/10/2010
Solar Panels	2011	03/26/2012 – 07/25/2012	05/25/2012 – 09/24/2012	12/07/2012

⁴⁰ See sections 703(d) and 733(d) of the Tariff Act of 1930, as amended (“the Tariff Act”) (19 U.S.C. §§ 1671b(d), 1673b(d)) (Exhibit USA-90). Duty collection resumes if the USDOC publishes an AD/CVD order following an affirmative final determination by the USDOC and an affirmative final determination of injury by the USITC. See sections 705(c)(2), 706(a), 735(c)(2), and 736(a) of the Tariff Act (19 U.S.C. §§ 1671d(c)(2), 1671e(a), 1673d(c)(2), 1673e(a)) (Exhibit USA-90). If either of the final determinations is negative, then all cash deposits collected are refunded. See sections 705(c)(2) and 735(c)(2) of the Tariff Act (19 U.S.C. §§ 1671d(c)(2), 1673d(c)(2)) (Exhibit USA-90). If the USITC’s affirmative final determination is limited to a finding of threat, then all provisional measures in the form of cash deposits are refunded. See sections 706(b)(2) and 736(b)(2) of the Tariff Act (19 U.S.C. §§ 1671e(b)(2), 1673e(b)(2)) (Exhibit USA-90). If the USDOC publishes an AD/CVD order and if the cash deposits collected exceed the final duties, then the amount of difference is refunded. If the cash deposits collected following the preliminary determination are less than the final duties, then the difference is disregarded. See sections 707 and 737 of the Tariff Act (19 U.S.C. §§ 1671f, 1673f) (Exhibit USA-90).

3. **To China and the United States: Depending on the product at issue and different anti-dumping duties applied to Chinese imports, the United States includes up to three distinct Chinese varieties in the two-step Armington model. Can the parties address whether this formulation by the United States can be considered equivalent to the formulation suggested by China with one Chinese variety and subject to a level of anti-dumping duties that are a weighted average of the different anti-dumping duties on the distinct Chinese varieties? If not, what are the implications of the modelling approach suggested by the United States for the application of the two-step Armington model and ultimately the calculation of the level of nullification or impairment?**

Response:

25. As a preliminary matter, and as further discussed in detail in the U.S. response to question 4, below, it is critical to take into account AD duties in the estimation of the level of nullification or impairment here. Doing so contributes to ensuring that the measure of nullification or impairment is calculated using a model that 1) represents the U.S. market at the expiration of the RPT as accurately as possible, and 2) is based on a counterfactual scenario that correctly captures the change in the relevant duty rates applied to imports from China in that period.
26. Specifying the model with a single Chinese variety and a weighted-average AD duty will not yield the same estimate of nullification or impairment as the model proposed by the United State because AD duties vary across varieties. To be sure, the two formulations are broadly equivalent. That is, if a simplifying assumption is made that the same weighted-average AD rates apply to all imports from China, then specifying the model with a single Chinese variety would be without loss of generality – *i.e.*, would not affect the results. However, by taking advantage of the more detailed information that was used by the arbitrator in DS471, and is thus readily available for use in this proceeding, the model proposed by the United States can generate more precise estimates of China’s market share, and thus more precise estimates of the level of nullification or impairment.
27. A “variety” in the model is distinguished by three elements: 1) elasticity values, 2) calibrated parameter values, and 3) AD and CVD rates.⁴¹ In the U.S. model specification, each Chinese variety has identical elasticity values. However, we define distinct Chinese varieties distinguished by known AD rates and corresponding calibrated parameter values. Importantly, the calibrated parameters, *inter alia*, represent each Chinese variety’s relative competitiveness in the U.S. market, which is crucial for precise measurement of nullification or impairment.
28. As explained in paragraphs 73-85 of the U.S. written submission, model precision is improved by specifying a set of varieties that is sufficiently detailed to characterize relative competitiveness in the U.S. market. In those paragraphs, the United States has described and graphically illustrated why the introduction of a “rising suppliers” variety is necessary to more

⁴¹ See U.S. Written Submission, Table 1, for definitions of each of these elements.

accurately represent the relative competitiveness of imports from China at the expiration of the RPT. The United States elaborates on this passage in the U.S. response to question 5, below.

29. For a similar reason, specifying multiple Chinese varieties with varying AD rates improves precision. It allows the model to account for differences in the trade effects of imposing higher versus lower AD rates on subsets of Chinese imports. Counterfactual market shares resulting from step one of the two-step Armington approach will be relatively larger for imports subject to lower duty rates. The improved precision resulting from specifying distinct varieties carries over to step two, as the step one counterfactual market shares define the calibrated parameters that represent China’s relative competitiveness in the post-RPT market, and ultimately, the estimated level of nullification or impairment. Finally, the counterfactual scenario from which nullification or impairment is calculated will more accurately capture the changes in duty rates imposed on imports from China based on varieties.

30. In principle, improved precision could mean either increased or decreased estimates of nullification or impairment. In this proceeding, under the model proposed by the United States, China’s total step one counterfactual market share (*i.e.*, the sum of the market shares of the three Chinese varieties) actually exceeds estimates of China’s market share obtained in a corresponding single variety model with a weighted average AD rate, for each of the seven products that were also at issue in DS471, as shown in Table 4, below. This means that the model proposed by the United States generates higher estimates of nullification or impairment than those of the corresponding single variety model for all seven products that were also at issue in DS471.

**Table 4: Market Share and Estimated Nullification or Impairment,
Based on the U.S. Model Versus a Corresponding Single Variety Model**

Product	Total China Step One Counterfactual Market Share		Nullification or Impairment (\$million)	
	Three Variety (U.S.) Model	Single Variety Model	Three Variety (U.S.) Model	Single Variety Model
Aluminum Extrusions	2.8	2.6	10.8	9.2
Print Graphics (Coated Paper)	12.3	12.0	1.7	1.6
OCTG	9.2	8.1	87.0	69.0
Solar Panels	14.2	7.7	7.9	2.9
Steel Cylinders	21.0	20.6	2.7	2.6
Line Pipe	1.3	1.2	3.9	3.8
Seamless Pipe	6.9	6.9	0.9	0.9

4. To the United States: The United States calculates the level of nullification or impairment by maintaining the anti-dumping duties also in implementing the second step of the two-step Armington approach. In its written submission, the United States argues that this adjustment is necessary in order for the market shares estimated in step one to better take into account China’s actual competitiveness in the remedy year. Please elaborate on why this adjustment is necessary specifically for implementing step two of the Armington approach, and what are its effects on the estimates generated in step two.

Response:

31. The purpose of the two-step Armington approach is to generate a counterfactual market representation to determine how the market would be different if CVD rates were WTO-consistent at the expiration of the RPT. The correct measure of nullification or impairment depends on the answer to that question. If the model ignores other contemporaneously imposed duties directly affecting imports from China in 2017, it cannot answer that central question. Instead, such a model would be asking how the market would be different if CVD rates were WTO-consistent and AD duties were never imposed in the first place. The two scenarios are fundamentally different, and the scenario in which the model disregards contemporaneously imposed AD duties would produce an inaccurate measure of nullification or impairment.

32. To understand why adjusting for AD duties is necessary for implementing step two of the two-step Armington approach, it is important to first understand why it is important for step one. The purpose of step one is to estimate a set of market shares, which is in turn used to calibrate the step two model from which an estimate of nullification or impairment is calculated. Thus, the objective of the step one model is to generate a counterfactual market that represents the U.S. market after the expiration of the RPT, that is, in 2017.

33. This objective is carried out by calibrating the step one model using trade data from the year prior to the imposition of the relevant CVD measure, and then simulating the set of policy changes that have influenced each market participant's relative competitiveness in 2017. As stated in the U.S. written submission, China's market share in the year prior to the imposition of the CVDs was distorted by dumping, in addition to the subsidies that are the subject of this dispute.⁴² Put differently, China's actual relative competitiveness in 2017 was directly influenced by the correction for dumping, *i.e.*, AD duties. Therefore, the step one model cannot generate the correct counterfactual market for 2017 unless AD duties are taken into account. In turn, if the model cannot generate a counterfactual market that adequately represents the U.S. market in 2017, the level of nullification or impairment cannot be correctly measured in step two.

34. Using OCTG as an example, Figure 1 of the U.S. written submission, excerpted below, presents market share estimates from a step one model that disregards AD duties ("CVD-only") and a step one model that takes into account both duties ("CVD+AD"). Both models are calibrated using data from 2009, the year prior to the imposition of the CVD and AD measures on OCTG. In 2009, U.S. imports of OCTG from China were supported by Chinese government subsidies and were sold in the U.S. market at less than fair value. In response, the United States imposed CVD and AD measures in 2010. Both duties remained in place at the expiration of the RPT.

35. The CVD-only model simulates only the imposition of 12.26 percent CVDs. As a result, the CVD-only estimate of China's market share is roughly double that generated in the CVD+AD model. The estimate generated in the CVD+AD model correctly simulates the imposition of both duties on imports from China, totaling up to 166.59 percent in 2010. In sum,

⁴² See U.S. Written Submission, para. 72.

the CVD-only model fails to generate a counterfactual market representing China’s position in the U.S. market in 2017 because it vastly understates the duties that were applied to Chinese imports in that year.

Figure 1: 2017 Data versus Counterfactual Market Shares



36. When the step two model is calibrated using the overstated step one counterfactual market shares from the CVD-only model, as shown in Figure 1, above, the model would incorrectly suggest that imports from China are more competitive than they actually were in 2017 because it would not account for the correction for dumping (*i.e.*, AD duties) that was in effect at that time. Because the impact of duties on trade flows calculated in step two is proportional to the initial equilibrium market shares calculated in step one, the estimated trade effects of modifying the WTO-inconsistent CVD rates, which determine the level of nullification or impairment, would be overstated as well.

37. In addition to the incorrect calibration caused by omitting AD duties from step one, the CVD-only model would also distort the counterfactual scenario conducted in step two. In the OCTG example above, in step two, the CVD-only model simulates a reduction in total duty rates on imports from China from 12.26 percent to 2.07 percent. In contrast, under the CVD+AD model, total duties on imports from China would decrease from up to 166.59 percent to 156.40 percent – which is the correct counterfactual scenario. The combination of the incorrect calibration and the incorrect counterfactual scenario in step two would result in an inflated estimate of nullification or impairment of \$230 million. A model that properly accounts for the AD duties that were actually imposed contemporaneously with the CVDs and remained in effect in 2017 would generate a more accurate estimate of \$98 million.⁴³

38. China, in its written submission, suggests that including AD duties in the model requires the Arbitrator to “assess the[ir] WTO-consistency or inconsistency.”⁴⁴ This is not true. The modelling exercise involves no such requirement, as the United States simulates no changes to the values of the AD duties in its analysis. Moreover, contrary to China’s assertion, it is entirely irrelevant whether the AD duty rates are WTO-consistent for the purposes of the model, as they are incorporated into the model only to correctly represent the actual extent of duties on imports from China in the relevant period.

39. China further suggests that disregarding AD duties from the two-step Armington approach can isolate the effect of CVD measures.⁴⁵ In fact, as the United States has demonstrated above, quite the opposite holds. There is no question that China’s actual 2017

⁴³ Note that this estimate does not reflect the indirect effects of contemporaneous policy changes in China’s competitors, *i.e.*, the supply shock, which is discussed in paragraphs 73-85 of the U.S. written submission and in the U.S. responses to questions 5-7.

⁴⁴ China’s Written Submission, paras. 31-33.

⁴⁵ See China’s Written Submission, para. 35.

imports were affected by both CVD and AD duties. If it were true that the Armington approach could isolate the effect of a particular policy (here, CVDs) by excluding all other relevant policies (such as AD duties), then the nullification or impairment estimates obtained in a model that simulates changes in both CVD and AD duties (*i.e.*, the CVD+AD model) should be equal to the sum of the nullification or impairment estimates obtained in models that simulate changes in each policy individually. On the contrary, as shown in Table 5, below, for every single product, the sum of the nullification or impairment estimates from individually modifying CVD and AD duties exceeds the estimate obtained in a model that simulates concurrent changes in both CVD and AD duties. In other words, whether WTO-consistent or WTO-inconsistent, the AD duties did exist, and they can and should be taken into account in the analysis.

40. Table 5 reports nullification or impairment estimates under three counterfactual scenarios: 1) modifying CVD rates only, 2) modifying AD rates only (as was done in DS471⁴⁶), and 3) simultaneously modifying CVD and AD rates. For every product, the sum of nullification or impairment estimates from making these policy changes individually exceeds the nullification or impairment estimate from making the same changes simultaneously. Therefore, it is incorrect to state that the CVD-only model isolates the effect of CVD duties.

Table 5: Nullification or Impairment Estimates under Three Scenarios (in \$ million)

	Scenario 1: Modify CVD rate only	Scenario 2: Modify AD rate only	Sum of N/I in Scenario 1 and Scenario 2	Scenario 3: Modify both CVD rate and AD rate
Aluminum Extrusions	55.0	498.5	553.5	468.0
Print Graphics (Coated Paper)	1.9	29.1	31.0	22.8
OCTG	230.1	447.9	678.0	529.5
Solar Panels	17.1	713.3	730.4	649.2
Steel Cylinders	3.8	5.6	9.4	8.1
Line Pipe	17.7	19.7	37.4	23.0
Seamless Pipe	2.9	47.3	50.2	33.5

C. WHETHER TO ACCOUNT FOR FACTORS OTHER THAN TRADE REMEDY MEASURES

5. To the United States: Please specify criteria used to designate specific third-country suppliers of certain products as “rising suppliers”. Please elaborate on whether the same criteria could be applied to all of the products at issue, and how.

Response:

⁴⁶ Reflecting the arbitrator’s decision in DS471 involves reducing AD duties on the PRC-wide variety to zero and modifying duties applied to the variety representing the Chinese exporters subject to the weighted average-to-transaction (“WA-T”) duty rate.

41. As explained in the U.S. response to question 4, above, the purpose of the two-step Armington approach is to generate a counterfactual market representation to determine how the market would be different if CVD rates were WTO-consistent at the expiration of the RPT. The correct measure of nullification or impairment depends on answering this question correctly, and to do so, the step one model must be specified such that it generates a counterfactual market that is representative of the U.S. market in 2017.
42. In several of the product markets at issue in this proceeding, investments of private firms or changes in government policy allowed certain third country suppliers to improve their relative competitiveness in the U.S. market during the period between the imposition of CVDs on imports from China and 2017. Economists conceptualize such improvements as a shift in the third countries’ supply curve.⁴⁷ Such shifts in the supply curve are commonly referred to as “supply shocks.”
43. By neglecting to account for third country supply shocks, the two-step Armington model used by China and by the arbitrator in DS471 implicitly assumes that duties imposed on imports from China are the only factors contributing to the changes in China’s market share between the year prior and 2017. However, a model that fails to account for such changes fails to answer the relevant question; rather, it assesses how the market would be different if CVD rates were WTO-consistent and if third country market shares were held proportionally constant. Such a model cannot accurately estimate the nullification or impairment caused by the WTO-inconsistent CVDs at issue in this proceeding. The resulting estimate of nullification or impairment would either understate or overstate the actual level of nullification or impairment, depending on the underlying circumstances.
44. Like the adjustment for AD duties, the supply shock adjustment proposed by the United States is necessary to more accurately calibrate the step two model, from which the level of nullification or impairment is estimated. The supply shock is simply a representation of the changes that altered third country competitiveness. It is incorporated as a “policy change” in the step one model. As explained earlier, if the step one model does not generate a counterfactual market that is representative of the U.S. market in 2017, nullification or impairment cannot be correctly measured in step two.
45. In principle, supply shock adjustments should be implemented for every product where the competitiveness of third country suppliers is not constant between the year prior to the imposition of the CVDs and 2017. Unlike the adjustment for AD duties, however, it is not possible to directly observe supply shocks and their magnitude by country. Trade data may show disproportionate increases in certain third countries’ market shares relative to other exporting countries between the year in which the CVDs were imposed and 2017. This would be suggestive of a positive supply shock.
46. In addition to trade data trends, the United States has relied on USITC investigations associated with the relevant products for documentation of investment or policy changes in third countries during the period between the imposition of the CVDs and 2017. Using this

⁴⁷ See U.S. Written Submission, Figure 2.

methodology, the United States has identified countries that are affirmatively associated with investments or policy changes and refers to them as “Rising Suppliers.”

47. Rather than attempting to be exhaustive in capturing such supply shocks, the United States has limited itself to implementing shocks on products for which: 1) there is documented evidence of industry investment or government policy linked to specific countries’ disproportionate increases in market share between the imposition of the CVD and 2017 according to relevant USITC reports, and 2) there is sufficient information to separate imports from Rising Suppliers from the rest of the world (“RoW”) aggregate (*i.e.*, imports from the world minus China). At the time of the U.S. written submission, the United States was able to confirm these criteria for Aluminum Extrusions, OCTG, and Solar Panels. In the U.S. response to question 6, below, the United States details the specific policies that provide the basis for selecting these three products for a supply shock adjustment.

48. Since submitting the U.S. written submission, the United States has been able to expand its analysis to additional USITC reports, and has identified two additional products that meet the aforementioned criteria for a supply shock adjustment.

First new product for a supply shock adjustment: Line Pipe

49. The United States imposed CVDs and AD duties on imports of Line Pipe from China in 2009.⁴⁸ The USITC’s second review of these measures states that the United States imposed AD duties on imports of Line Pipe and other related products from Korea and Turkey in 2014.⁴⁹ This implies that imports from Korea and Turkey were being sold at less than fair value in the U.S. market at that time. The conditions that enabled these countries to sell Line Pipe at less than fair value in the U.S. market⁵⁰ represent a positive shock to the ability of producers in those countries to supply the U.S. market.

50. The positive shocks that enabled dumping and the subsequent CVDs and AD duties that moderated these shocks occurred in the interim period between the imposition of duties on Line Pipe from China in 2009 and 2017. Since Line Pipe from all sources is highly substitutable,⁵¹ changes in the competitiveness of Korea and Turkey would be expected to affect the relative competitiveness of all other exporting countries, including China. As such, their combined effect is a relevant change to the structure of competition in the U.S. market as it was realized in 2017. It is therefore necessary to represent this policy change in the step one model in order to more accurately calibrate the step two model, from which the nullification or impairment estimate is calculated. Accordingly, as shown in Exhibit USA-99, the United States defines Korea and

⁴⁸ See Exhibit CHN-8.

⁴⁹ See USITC Publication 4955, p. 11 (Exhibit USA-91).

⁵⁰ In addition, the USDOC and the USITC determined that subject imports of Line Pipe from Turkey were subsidized by the government of Turkey. See USITC Publication 4580, pp. 29, I-10 (Exhibit USA-92) (explaining that the USDOC made an affirmative final determination of countervailable subsidies for Turkey based on provision of hot-rolled steel for less than adequate remuneration, customs duty and VAT exemptions, export financing, and other government programs).

⁵¹ USITC Publication 4955, p. 12 (Exhibit USA-91).

Turkey as Rising Suppliers and implements a supply shock in the step one model to account for the disproportionate increase in their U.S. market share between the year prior (2008) and 2017.

Second new product for a supply shock adjustment: Pressure Pipe

51. The United States imposed CVDs and AD duties on imports of Pressure Pipe from China in 2009.⁵² The USITC’s second review of these measure was combined with the first review of an AD measure on imports of Pressure Pipe from Malaysia, Thailand, and Vietnam.⁵³ The USITC report states that the latter AD duties went into effect in 2014.⁵⁴ Additionally, the report notes that, in 2016, the United States imposed CVD and AD duties on imports of Pressure Pipe from India.⁵⁵ This implies that imports from India were subsidized and imports of Pressure Pipe from India, Malaysia, Thailand, and Vietnam were sold at less than fair value in the U.S. market. The countervailable subsidies provided to the Indian industry⁵⁶ and the conditions that enabled India, Malaysia, Thailand, and Vietnam to dump Pressure Pipe in the U.S. market represent a positive shock to the ability of producers in those countries to supply the U.S. market.

52. The positive shocks that enabled dumping and the subsequent CVDs and AD duties that moderated these shocks occurred in the interim period between the imposition of duties on Pressure Pipe from China in 2009 and 2017. Since Pressure Pipe from all sources is highly substitutable,⁵⁷ a change in the competitiveness of India, Malaysia, Thailand, and Vietnam would be expected to affect the relative competitiveness of all other countries, including China. As such, their combined effect is a relevant change to the structure of competition in the U.S. market as it was realized in 2017. It is therefore necessary to represent this policy change in the step one model in order to more accurately calibrate the step two model, from which nullification or impairment is calculated.

53. Accordingly, as shown in Exhibit USA-99, the United States defines India, Malaysia, Thailand, and Vietnam as Rising Suppliers and implements a supply shock in the step one model to account for the disproportionate increase in their U.S. market share between the year prior (2008) and 2017. In this case, the supply shock adjustment has an effect of slightly increasing the nullification or impairment estimate, compared to the estimate that disregards third country supply shocks. This suggests that the CVD and AD duties applied to imports from China’s competitors ultimately boosted China’s relative competitiveness.

Remaining products not recommended for supply shock adjustment

⁵² See Exhibit USA-3.

⁵³ See USITC Publication 4994, p. 4 (Exhibit USA-93).

⁵⁴ See USITC Publication 4994, pp. 3-4 (Exhibit USA-93).

⁵⁵ See USITC Publication 4994, p. 23 (Exhibit USA-93).

⁵⁶ See USITC Publication 4644, p. I-6 (Exhibit CHN-5) (stating that the government programs found to be countervailable included duty drawback, export financing, and preferential water rates and electricity duty exemptions in a certain state).

⁵⁷ See USITC Publication 4994, p. 23 (Exhibit USA-93).

54. For the remaining products, the United States either has not found sufficient documentation of investment or policy change with which to identify a set of Rising Suppliers, or has not been able to separate data on imports from Rising Suppliers from the RoW aggregate. More detailed discussion of this analysis for each product is provided below.

55. Wire Strand: Trade data suggest increased sourcing of products covered by the Wire Strand CVD measure on imports from Malaysia, Portugal, Turkey, Colombia, Spain, Italy, and South Africa. However, the United States has not found documentation of investment or government policy changes in any USITC report that would identify these countries as Rising Suppliers meeting the aforementioned criteria.

56. Seamless Pipe: The first review of the Seamless Pipe CVD measure indicates that there is “enormous pressure” from non-subject imports from countries “such as India, Korea, Ukraine, and Thailand.”⁵⁸ These countries, therefore, may be classified as Rising Suppliers. However, the United States has not found documentation of specific investments or government policy changes that could be identified as the source of a shift in their relative competitiveness during the interim period between the year prior to the imposition of duties on imports from China and 2017. Additionally, data limitations make it difficult to separate imports of Seamless Pipe from these countries from those imports from all other sources.

57. Kitchen Shelving: Trade data suggest increased imports from Thailand, Malaysia, Taiwan, and Mexico in the tariff codes under which Kitchen Shelving is imported. However, the United States has not found documentation of investments or government policy changes in a USITC report that would identify these countries as Rising Suppliers meeting the aforementioned criteria. Additionally, data limitations make it difficult to identify imports of Kitchen Shelving and separate imports of Kitchen Shelving from these countries from those imports from all other sources.

58. Print Graphics: The United States imposed a CVD measure on imports of Print Graphics from Indonesia simultaneously with the CVD measure on imports from China.⁵⁹ As such, model precision could be improved by adding an Indonesian import variety and simulating the imposition of the CVD measure on imports from Indonesia in the step one model. However, data limitations make it difficult to separate imports of Print Graphics from Indonesia from the RoW aggregate. Additionally, while the first review of the China CVD measure and the Indonesia CVD measure identifies the largest non-subject import sources, the United States has not found documentation of investments or government policy changes in a USITC report that would identify those countries as Rising Suppliers meeting the aforementioned criteria.

6. To the United States: Please specify the government policies or industry investments that have occurred in “rising suppliers” and how these may have

⁵⁸ USITC Publication 4595, p. I-3 (Exhibit USA-16).

⁵⁹ See *Certain Coated Paper Suitable for High-Quality Print Graphics Using Sheet-Fed Presses From Indonesia: Countervailing Duty Order*, 75 Federal Register 70206 (November 17, 2010) (Exhibit USA-94).

resulted in an expansion of supply capabilities in these countries or territories for each of the products at issue.

Response:

59. The United States identifies, below, the relevant government policies and industry investments that underpin the supply shocks implemented in the U.S. written submission for OCTG, Solar Panels, and Aluminum Extrusions. In addition, the United States has provided this information for two new products, Line Pipe and Pressure Pipe, in the U.S. response to question 5, above. These events influenced market outcomes in 2017 after the expiration of the RPT, but are not reflected in the year prior data used to calibrate the step one model. The U.S. response to question 7, below, details how these events are captured by reflecting the supply shocks in step one of the two-step Armington approach.

OCTG

60. The United States imposed CVDs and AD duties on imports of OCTG from China in 2010.⁶⁰ The sunset review of these measure notes that, in 2013, the United States initiated AD investigations into practices in the OCTG industries of India, Korea, the Philippines, Saudi Arabia, Taiwan, Thailand, Turkey, Ukraine, and Vietnam, and CVD investigations into those of India and Turkey.⁶¹ The USITC ultimately determined that the U.S. industry was materially injured by subsidized imports from India and Turkey and by imports sold at less than fair value in the U.S. market by India, Korea, Turkey, Vietnam, Ukraine, and Taiwan.⁶² The USITC's final determination in the investigation of these nine countries notes that the USDOC also found that imports from the Philippines, Thailand, and Taiwan were sold in the U.S. market at less than fair value during the period of their investigation,⁶³ but the USITC ultimately terminated the investigation of imports from Saudi Arabia.⁶⁴ The government subsidies provided to suppliers in India⁶⁵ and Turkey,⁶⁶ and the conditions that allowed India, Korea, the Philippines, Taiwan, Thailand, Turkey, Ukraine, and Vietnam to sell OCTG at less than fair value in the U.S. market, represent a positive shock to the ability of producers in these countries to supply the U.S. market.

61. These positive shocks and the subsequent CVD and AD duties that moderate them occurred in the interim period between the imposition of duties on OCTG from China in 2010

⁶⁰ See Exhibit CHN-22.

⁶¹ See USITC Publication 4532, p. 8 (Exhibit USA-89).

⁶² See USITC Publication 4532, p. 8 (Exhibit USA-89).

⁶³ See USITC Publication 4489, p. 15 (Exhibit CHN-24).

⁶⁴ See USITC Publication 4489, p. I-1, footnote 2 (Exhibit CHN-24).

⁶⁵ See USITC Publication 4489, p. I-8 (Exhibit CHN-24) (stating that the government programs in India found to be countervailable included duty drawback, export financing, provision of hot-rolled steel for less than adequate remuneration, and electricity duty exemptions and entry tax exemptions in certain states).

⁶⁶ See USITC Publication 4489, p. I-9 (Exhibit CHN-24) (stating that the government programs in Turkey found to be countervailable included export financing, customs duty and VAT exemptions, and provision of electricity, land, and hot-rolled steel for less than adequate remuneration).

and 2017. Since OCTG products from all sources are substitutable,⁶⁷ improved competitiveness of these countries would be expected to diminish all other countries' relative competitiveness, including China. As such, it is necessary to represent this policy change in the step one model in order to more accurately calibrate the step two model, from which nullification or impairment is calculated. Their combined effect is a relevant change to the structure of competition in the U.S. market as it was realized in 2017. Accordingly, the United States defines these eight countries⁶⁸ as Rising Suppliers and implements a supply shock in the step one model to account for the disproportionate increase in their U.S. market share between the year prior (2009) and 2017.

Solar Panels

62. The United States imposed CVDs and AD duties on imports of Solar Panels from China in 2012.⁶⁹ In 2017 the United States initiated a safeguard investigation into global imports of solar panels.⁷⁰ The accompanying safeguard report details investments in manufacturing capacity made by firms between 2012 and 2016 in Korea, Malaysia, the Netherlands, Thailand, and Vietnam.⁷¹ The products that were the subject of those investments are also covered by the Solar Panels CVD order at issue in this proceeding. These investments represent a positive shock to the ability of these five countries to supply the U.S. market in the interim period between the imposition of duties and 2017. Accordingly, the United States defines these five countries as Rising Suppliers and implements a supply shock in the step one model to account for the disproportionate increase in their U.S. market share between the year prior (2011) and 2017. Since Solar Panels from all sources are substitutable,⁷² improved competitiveness of these countries would be expected to diminish all other countries' relative competitiveness, including China. As such, it is necessary to represent this change in the step one model in order to more accurately calibrate the step two model, from which nullification or impairment is calculated.

Aluminum Extrusions

63. The United States imposed CVDs and AD duties on imports of Aluminum Extrusions from China in 2011.⁷³ The sunset review of these measures notes increased imports, particularly from Canada, Mexico, and Vietnam between 2011 and 2017.⁷⁴ While Canada and Mexico are reported to be the largest sources of non-subject imports of Aluminum Extrusions during this

⁶⁷ See USITC Publication 4489, p. II-26 (Exhibit CHN-24).

⁶⁸ The United States initially included Saudi Arabia as a Rising Supplier (*see* Exhibit USA-43) but has since determined to remove Saudi Arabia based on the information in USITC Publication 4489 that the USITC ultimately terminated its AD investigation with respect to the country. This revision is reflected in the nullification or impairment estimates in Exhibit USA-101.

⁶⁹ See Exhibit CHN-44.

⁷⁰ See USITC Publication 4739, p. 6 (Exhibit USA-22).

⁷¹ See USITC Publication 4739, p. 40 (Exhibit USA-22).

⁷² See USITC Publication 4874, p. II-21 (Exhibit CHN-46).

⁷³ See *Aluminum Extrusions From the People's Republic of China: Countervailing Duty Order*, 76 Federal Register 30653 (May 26, 2011) (Exhibit CHN-35).

⁷⁴ See USITC Publication 4677, pp. IV-2, IV-11 (Exhibit CHN-37).

period, the report does not suggest there was any particular policy change or investment made during the period to support a disproportionate increase in their imports. However, the report does highlight that “Vietnam has an emerging aluminum extrusions industry, and the United States is a growing market for its exports.”⁷⁵ Investments supporting the “emerging” Aluminum Extrusions industry in Vietnam supported a more than 4,000 percent increase in the quantities of Aluminum Extrusions exported to the United States between 2011 and 2015.⁷⁶ Accordingly, the United States defines Vietnam as a Rising Supplier and implements a supply shock in the step one model to account for the disproportionate increase in Vietnam’s U.S. market share between the year prior (2010) and 2017. Since Aluminum Extrusions from all source countries are substitutable,⁷⁷ Vietnam’s emergence would be expected to diminish all other countries’ relative competitiveness, including China. As such, it is necessary to represent this change in the step one model in order to more accurately calibrate the step two model, from which nullification or impairment is calculated.

- 7. To the United States: The United States calculates the level of nullification or impairment by maintaining a “rising suppliers” variety also in implementing the second step of the two-step Armington model. In its written submission, the United States argues that this adjustment is necessary in order for the market shares estimated in step one to better take into account China’s actual competitiveness in the remedy year. Please elaborate on why this adjustment is necessary, specifically for implementing step two of the Armington approach, and what its effects are on the estimates generated in step two.**

Response:

64. As explained in paragraphs 73-75 of the U.S. written submission and in the U.S. response to question 5, above, the supply shock adjustment is necessary to account for factors other than trade remedies that influenced the evolution of market shares where there is evidence of disproportionately fast growth in market share driven by industry investment or government policy. Without this adjustment, the two-step Armington model would implicitly and inaccurately assume that the duties imposed on Chinese firms were the only factor contributing to the changes in market share between the relevant year prior and 2017. Such an assumption would generate incorrect counterfactual market shares in step one that do not represent China’s relative competitiveness in 2017, and in turn, would not calculate correct estimates of nullification or impairment.

65. In regard to the second part of the question, a short answer is that the effects of the supply shock adjustment could either increase or decrease the estimates generated in step two, depending on the nature of the supply shocks involving the specific product. To elaborate, the first step to incorporating the supply shock adjustment is to introduce the Rising Suppliers as an additional “variety” in the model. In the U.S. response to question 3, above, the United States

⁷⁵ USITC Publication 4677, p. IV-11 (Exhibit CHN-37).

⁷⁶ See USITC Publication 4677, p. IV-17 (Exhibit CHN-37).

⁷⁷ See USITC Publication 4677, pp. 39-40, II-12-II-14 (Exhibit CHN-37).

explained that a variety is distinguished by three elements: 1) elasticity values, 2) calibrated parameter values, and 3) policy variables, such as duty rates and the supply shock.⁷⁸ In the U.S. model specification, importers have identical elasticity values. However, Rising Suppliers are distinguished from the RoW by the policy change imposed in step one – *i.e.*, the supply shock – and corresponding calibrated parameter values.

66. Next, it is necessary to quantify the magnitude of the supply shock. To do so, the United States follows a standard practice in the relevant economic literature⁷⁹ in which values of calibrated parameters are adjusted to match the evolution of observed changes in the market. Specifically, the United States follows the approach in Dixon, et al. (2017),⁸⁰ which discusses best practices for “updating the baseline” of a trade model,⁸¹ and calibrates the supply shock through the method of historical simulation. The supply shock is the value of the policy variable denoted π_{rs} in the U.S. model⁸² that equates the ratio of the Rising Suppliers’ market share to the RoW market share as simulated by the step one model (*i.e.*, the step one counterfactual market shares), to the same ratio observed in the 2017 data.⁸³ This approach to quantifying the supply shock captures the change in Rising Suppliers’ relative competitiveness.

67. The OCTG measure can be used as an example to illustrate the relevance of the supply shock adjustment. As explained in the U.S. response to question 6 above, based on the USITC and the USDOC investigations, the government subsidies provided to suppliers in India and Turkey and the conditions that allowed India, Korea, the Philippines, Taiwan, Thailand, Turkey, Ukraine, and Vietnam to sell OCTG at less than fair value in the U.S. market represent a positive shock to the ability of producers in these countries to supply the U.S. market. In fact, whereas India, Korea, the Philippines, Taiwan, Thailand, Turkey, Ukraine, and Vietnam represented 14 percent of U.S. imports from countries other than China in 2009, they represented 37 percent of U.S. imports from countries other than China in 2017. Since OCTG products from all sources

⁷⁸ See U.S. Written Submission, Table 1, for definitions of these components.

⁷⁹ See C. Dawkins, T.N. Srinivasan, and J. Whalley, “Chapter 58: Calibration” in *Handbook of Econometrics, Vol 5*, edited by J.J. Heckman and E. Leamer (2001) (Exhibit USA-96).

⁸⁰ See P. Dixon, et al., “Updating USAGE: Baseline and Illustrative Application,” CoPS Working Paper No. G-269 (February 2017) (Exhibit USA-32).

⁸¹ Dixon, et al. (2017) discusses methods to “update the baseline” of a trade model, that is, to generate a counterfactual market that is representative of a time period that is more recent than the time periods reflected in existing data sets, in order to more precisely simulate a contemporary policy change. Step one of the two-step Armington model is essentially an exercise in updating the year-prior baseline to represent 2017. As such, it is highly appropriate to apply these methods. China attempts to rebut the U.S. argument by referencing Dixon and Rimmer (2012), instead of Dixon, et al (2017). See China’s Written Submission, para. 52. Dixon and Rimmer (2012) addresses CGE model validation, which is not relevant to determining how best to update the baseline of a model.

⁸² See U.S. Written Submission, para. 100.

⁸³ Since the two step Armington partial equilibrium model is a two period, static model that is being used to simulate a dynamic phenomenon, the supply shock is an abstract element of the model that does not have a straightforward interpretation on its own, contrary to China’s attempts to do so in paragraph 52 of China’s written submission.

are substitutable,⁸⁴ improved competitiveness of these countries would be expected to diminish all other countries' market shares, including China. Accordingly, the United States defines these eight countries⁸⁵ as Rising Suppliers and implements a supply shock in the step one model to account for the disproportionate increase in their U.S. market share between the year prior (2009) and 2017.

68. To implement this supply shock, we define imports from the eight countries as the Rising Suppliers variety in the U.S. OCTG market. A policy change – *i.e.*, a supply shock – affecting the Rising Suppliers variety is simulated in the step one model. The magnitude of this policy change is calibrated so that the market share estimates obtained from step one will imply that Rising Suppliers are the source for 37 percent of U.S. imports from countries other than China, matching the relationship observed in the data from 2017. The calibrated value of the supply shock in this case is -45.⁸⁶ This value is obtained using a standard calibration approach, which begins with an arbitrary starting value for the shock and then runs the model simulation repeatedly, each time strategically adjusting the supply shock value until the counterfactual step one market shares match the desired target in the observed data. In this case, the supply shock is adjusted until step one counterfactual market shares are such that the ratio of the Rising Suppliers market share to the RoW market share equals 0.58, which corresponds to the fact that Rising Suppliers comprised 37 percent of U.S. imports from countries other than China.

69. Figure 2 below, which is based on Figure 5 of the U.S. written submission, presents observed 2017 market shares and step one counterfactual market shares from three different specifications of the OCTG model. As described in the U.S. response to question 4, above, the CVD-only model disregards AD duties, and the CVD+AD model takes into account both duties. The market share estimates generated by these models imply that imports from Rising Suppliers represent 14 percent of all imports from countries other than China, unchanged from the year prior to the imposition of the CVDs (2009) and different from the actual observed 2017 data. The third model, shown as “Supply Shock” in Figure 2, simulates the imposition of CVDs and AD duties on imports from China, as well as a supply shock to the Rising Suppliers variety, such that the step one counterfactual market shares imply Rising Suppliers represent 37 percent of all imports from countries other than China. This model uniquely captures the effect of the improved competitiveness of Rising Suppliers on China's market share due to the substitutability of OCTG across all sources.

⁸⁴ Substitutability between import sources is examined in extensive detail in USITC Publication 4489 (Exhibit CHN-24).

⁸⁵ As previously indicated, the United States initially included Saudi Arabia as a Rising Supplier (*see* Exhibit USA-43) but has since determined to remove Saudi Arabia based on the information in USITC Publication 4489 that the USITC ultimately terminated its AD investigation with respect to the country. This revision is reflected in the nullification or impairment estimates in Exhibit USA-101.

⁸⁶ Note that this value does not have a straightforward interpretation on its own. Contrary to China's attempts to characterize it in China's written submission, it is an abstract concept that is representative of the evolution of the market over a period of up to ten years. Because the two step Armington partial equilibrium model is a two period model that needs to incorporate changes in the market that happened over several periods, the mechanisms for introducing this type of policy change are somewhat limited.

Figure 2: 2017 Data versus Counterfactual Market Shares



70. When the step two model is calibrated using the overstated step one counterfactual market shares from the first two models, which ignore supply shocks, the resulting step two model suggests that imports from China are more competitive than they actually were in 2017. These models fail to account for the relative deterioration of China’s competitive position in the U.S. market that is attributable to positive changes in third country industries. Because the impact of duties on trade flows calculated in step two is proportional to the initial equilibrium market shares calculated in step one, the estimated trade effects of modifying the WTO-inconsistent CVD rates, which determine the level of nullification or impairment, would be overstated as well. The incorrect calibration of the step two model yields an inflated estimate of nullification or impairment of \$230 million in the CVD-only model and \$98 million in the CVD+AD model. A model that properly accounts for the policy changes and investments made by Rising Suppliers between the year prior (2009) and 2017 generates a more accurate estimate of nullification or impairment of \$87 million. In other words, the difference of \$11 million in the CVD+AD model result and the Supply Shock model result is attributable to changes in the global market that are unrelated to the WTO-inconsistent CVD measures at issue, and thus should not be included in the estimate of the level of nullification or impairment.

D. CHINA’S NET OF DUTY ADJUSTMENT FOR THE CALCULATION OF NULLIFICATION OR IMPAIRMENT

8. **To the United States:** In paragraph 86 of its written submission, the United States defines prices (p_i) as market prices paid by buyers, not prices received by sellers. Please explain why Table 2 defines the value of imports from region f as $(1 + \tau_f)\hat{p}_f\hat{X}_f$, and region f imports’ market share as $\frac{(1+\tau_f)\hat{p}_f\hat{X}_f}{\hat{p}\hat{A}}$ applying the duty twice.

Response:

71. The value of imports from region f and the corresponding market share are incorrectly defined in Table 2 of the U.S. written submission. The United States regrets this error. Since the United States defines p_i as the price paid by buyers, it is already inclusive of the tariff. The correct definitions should be as follows:

Value of Imports from Region f (\$)	\hat{V}^f	$= \hat{p}_f\hat{X}_f$
Region f Imports Market Share	$\hat{\omega}^f$	$= \frac{\hat{p}_f\hat{X}_f}{\hat{p}\hat{A}}$

72. This inadvertent algebraic transcription mistake is not carried over into the computer program used by the United States to calculate nullification or impairment, as that program is the same program used by the arbitrator in DS471. Therefore, the correction of Table 2 of the U.S. written submission, as shown above, does not affect the calculations submitted by the United States.

9. **To China and the United States: Please comment on China’s suggested adjustment for net of duty in light of the meaning attributed to the term “nullification or impairment” in previous Article 22.6 arbitration proceedings. In particular, what do you consider to be the relevance, if any, of any impact on the original complainant’s export revenues for calculating nullification or impairment, and why?**

Response:

73. As explained in paragraph 113 of the U.S. written submission, the DS471 arbitrator defined the estimated level of nullification or impairment in a two-step Armington approach as the difference between the simulated value of 2017 U.S. imports from China under the WTO-inconsistent rates and the simulated value of 2017 U.S. imports from China under the modified, counterfactual WTO-consistent rates.⁸⁷ The calculation of nullification or impairment estimates in the computer code used in DS471 is consistent with that definition. Given the link between this proceeding and DS471, involving seven of the same products and duties imposed in parallel, the United States has followed the approach chosen by the arbitrator in DS471.

74. Tariff revenue does not, *per se*, factor into the complainant’s export revenues. If the Arbitrator decides to calculate nullification or impairment on the basis of export revenues rather than import values, that would be a departure from DS471. Notwithstanding that departure, the United States considers China’s suggested adjustment for net of duty a reasonable adjustment from the perspective of trade opportunities for China. To assist the Arbitrator, the United States has revised the U.S. computer code to incorporate China’s suggestion⁸⁸ and is providing estimates of the level of nullification or impairment net of duties in Exhibit USA-101.

E. US MARKET DATA FOR THE YEAR PRIOR TO THE IMPOSITION OF CERTAIN CVD MEASURES

10. **To China and the United States: In the case of seamless pipe, print graphics, and solar panels, the parties seem to agree on the prior years that should be taken into account. Could China please comment on the appropriateness of relying in the present proceedings on the sales data for these products previously used in DS471, as proposed by the United States? Could the United States please comment on why the proposed sales data previously used in DS471 differ from the publicly available data in the USITC reports that China proposes to use for these products?**

⁸⁷ See *US – Anti-Dumping Methodologies (China) (Article 22.6 – US)*, para. 6.72.

⁸⁸ See Exhibit USA-105.

Response:

75. With respect to Seamless Pipe, while the cited sources are different, the year prior U.S. market data used by the arbitrator in DS471 does not differ from the data that China proposes to use here. The data source used by the arbitrator in DS471 is a more recent USITC report, USITC Publication 4595 (Exhibit USA-16), and the data source used by China is an earlier USITC report, USITC Publication 4190 (Exhibit CHN-32), but the relevant data in those reports are the same.

76. With respect to Print Graphics, as explained in footnote 103 of the U.S. written submission, China included coated packaging paperboard in the subject product, while the arbitrator in DS471 did not. While both the United States and China relied on USITC Publication 4192 (Exhibit CHN-50) as the data source, the United States (like the DS471 arbitrator) uses U.S. domestic shipment data found in Table IV-4 of the USITC report, which excludes coated packaging paperboard, while China uses U.S. domestic shipment data found in Table IV-6 of the same report, which reports shipments from all U.S. integrated producers and includes coated packaging paperboard. It is possible that the arbitrator in DS471 decided to exclude coated packaging paperboard from the relevant data based on the USDOC's determination to exclude from the product scope coated packaging paperboard products with a thickness of 310 μm or more and a density of less than 0.70 g/cm^3 .⁸⁹

77. With respect to Solar Panels, the data used by the arbitrator in DS471 appears to have included both crystalline silicon photovoltaic cells and modules, while China proposes to use data that only includes modules. China's exclusion of cells in the data is incorrect because the scope of the relevant CVD measure explicitly includes cells.⁹⁰

78. Specifically, with respect to U.S. domestic shipments of Solar Panels, the United States uses the value of U.S. domestic shipments used by the arbitrator in DS471. The United States explained in footnote 2 of Exhibit USA-46 that it was not able to confirm this number based on the source cited in the decision of the arbitrator in DS471, USITC Publication 4360 (Exhibit CHN-45), because the USITC report only shows the value of domestic shipments for modules while the value of domestic shipments for cells and modules is redacted as confidential data. It is likely that the arbitrator in DS471 estimated the value of U.S. domestic shipments of cells and derived its own estimate for U.S. domestic shipments of cells and modules. China's proposed value of U.S. domestic shipments only includes the value for modules.

⁸⁹ See Memorandum to Christian Marsh from Susan H. Kuhbach, *Certain Coated Paper Suitable for High-Quality Print Graphics Using Sheet-Fed Presses from Indonesia and the People's Republic of China: Final Scope Rulings for Certain Playing Card Products and Certain Packaging Paperboard Products* (September 13, 2012) (Exhibit USA-97).

⁹⁰ See *Crystalline Silicon Photovoltaic Cells, Whether or Not Assembled Into Modules, From the People's Republic of China: Countervailing Duty Order*, 77 Federal Register 73017 (December 7, 2012) (Exhibit CHN-43) ("The merchandise covered by this order is crystalline silicon photovoltaic cells, and modules, laminates, and panels, consisting of crystalline silicon photovoltaic cells, whether or not partially or fully assembled into other products, including, but not limited to, modules, laminates, panels and building integrated materials.").

79. For U.S. imports of Solar Panels from China, the United States uses the value of U.S. imports from China used by the arbitrator in DS471. The arbitrator in DS471 used the aggregated value of U.S. imports from China based on company-specific data compiled by U.S. Customs and Border Protection (“USCBP”) (Exhibit USA-58 (BCI)). China proposes to use data for module imports only. It is likely that the arbitrator in DS471 used company-specific data for two reasons: first, to identify imports made by companies subject to the China-wide rate, which was a necessary step to calculate the level of nullification or impairment in the Article 22.6 proceeding in DS471, and second, more relevant to this proceeding, to incorporate data for both modules and cells.

80. Lastly, for U.S. imports of Solar Panels from the RoW, the United States uses the value of U.S. imports from the RoW used by the arbitrator in DS471. The arbitrator in DS471 used the aggregated value of U.S. imports from the RoW based on aggregated HTSUS-based data provided by the U.S. Census Bureau (Exhibit USA-59). These data cover both imports of modules and cells. However, China again proposes to use USITC reported data for module imports only. It is likely that the arbitrator in DS471 used the Census data in order to include both modules and cells, which the United States agrees is the correct approach.

11. To China and the United States: In the case of kitchen shelving, the parties seem to agree that the prior year to be taken into account is 2008; however, they apply different methodologies to estimate sales in this year. While the parties’ estimates for US domestic sales are similar (China: USD 84mn; US: \$99mn), their estimates of imports from China (China: \$277mn; US: \$24mn) and the rest of the world (China: \$547mn; US: \$5mn) differ widely. China constructs imports based on HS10-level data downloaded from USITC DataWeb using the codes 7321906090, 8516908050, 7321905000, 8516908010, 8418998050, 7321906040, 8418998060 and 7321906060. Can the United States comment on China’s methodology and in particular on the HS10 codes used by China? Can China comment on the United States’ alternative methodology and assumptions described in Exhibit USA-61?

Response:

81. China’s methodology incorrectly includes products that are not at issue in this proceeding. As explained in paragraph 127 of the U.S. written submission, the HS10-level data that China uses are based on basket categories containing a number of products outside of the scope of the relevant CVD measure. While the HTSUS codes that China uses to construct its proposed import data fall under the HTSUS subheadings that the USITC cites to describe the product scope,⁹¹ the USITC explicitly states: “All of these statistical reporting numbers are residual or ‘basket’ categories and contain a number of other products besides certain [Kitchen Shelving].”⁹² In other words, the HTSUS codes used by China cover a broad array of products

⁹¹ See USITC Publication 4098, p. I-6 (Exhibit CHN-19) (“Certain KASAR [*i.e.*, kitchen appliance shelving and racks] is classifiable in the [HTSUS] subheadings 7321.90.50, 7321.90.60, 8418.99.80, and 8516.90.80, and reported for statistical purposes under 7321.90.5000, 7321.90.6090, 8418.99.8050, 8418.99.8060, and 8516.90.8000.”).

⁹² USITC Publication 4098, p. I-6 (Exhibit CHN-19).

that were not specifically captured in other codes under the same 6-digit or 8-digit level subheading – including many that are not subject to the relevant CVD measure on Kitchen Shelving.

82. Of the HTSUS codes used by China, the only two codes specifically describing Kitchen Shelving are 7321.90.6040 (“Shelving and racks for cooking ovens, of iron or steel”) and 8516.90.8010 (“Shelving and racks for electric cooking stoves, ranges and ovens of subheading 8516.60.40”). Import data from the U.S. Census for these two HTSUS codes is not available for year 2008 because the two codes were not in effect prior to 2009. Therefore, as the best alternative, the U.S. estimates use a combination of 2009 and 2010 U.S. Census import data for HTSUS 7321.90.6040 and 8516.90.8010, while also taking into account the relevant market trends in the other, broader HTSUS subheadings.

83. Whereas China’s methodology assumes that Kitchen Shelving represented approximately 100 percent of all reported U.S. imports under the HTSUS codes China uses, U.S. imports under those codes excluding Kitchen Shelving (as classified under HTSUS 7321.90.6040 and 8516.90.8010) actually totaled approximately \$825 million in 2008 and \$690 million in 2009, as shown in Table 6 below. This explains the substantial difference between the U.S. estimates of imports and China’s estimates of imports. As a result, China’s methodology grossly overestimates the U.S. imports of Kitchen Shelving at issue in this proceeding.

Table 6: Value of U.S. Imports for Consumption, 2008-2010, for Kitchen Shelving and Other Parts of Cooking and Refrigeration Appliances, Combined (in \$1,000)

Country	2008	2009	2010
	Value (\$1,000)		
China	276,954	229,198	292,9001
All other	548,342	464,092	589,495
Total	824,295	693,290	882,396

Note: Because of rounding, figures may not add to total shown.

Note: Because HTSUS codes 7321.90.6040 and 8516.90.8010 were not in effect until 2009, they were excluded from the 2008 calculations.

Source: USITC DataWeb, HTSUS codes 7321.90.5000, 7321.90.6040, 7321.90.6060, 7321.90.6090, 8418.99.8050, 8418.99.8060, 8516.90.8010, and 8516.90.8050, accessed April 28, 2020.

84. To demonstrate the broad nature of the HTSUS codes used by China, the United States provides below examples of various products imported under those HTSUS codes that are not Kitchen Shelving products. These examples are an illustrative list and are not exhaustive of all products imported under those HTSUS codes:

- 7321.90.5000 (“stoves, ranges, grates, cookers ... and parts thereof, of iron or steel, parts, of articles in subheading 7321.11.30 [stove or ranges], other”) covers:
 - “Cap” and “flame stopper” set. The set comes in three sizes that conforms to three different burner stove top ranges. The “flame stopper” serves to distribute the

flame in a circular fashion around the “cap” in order to increase the surface area across, which the flame will be applied. The “cap” is made of cast iron and the “flame stopper” is made of stainless steel;⁹³

- Cast iron burner cap and a cast iron burner grate used on a domestic gas range;⁹⁴
- 7321.90.6090 (“stoves, ranges, grates, cookers, barbecues, braziers, gas rings, plate warmers and similar nonelectric domestic appliances, and parts thereof, of iron or steel, parts, other, other”) covers:
 - Tube channel assembly, secondary tube assembly, and exhaust transition;⁹⁵
 - Top cap and beauty ring (gas stove parts);⁹⁶
 - Powder-coated steel stand of a copper fire pit;⁹⁷
- 8418.99.8050 (“other parts of combined refrigerator-freezers fitted with separate external doors and parts of household type refrigerators”) covers:
 - Stainless steel freezer/refrigerator handle. The handle is approximately 28 inches long, 1¼ inches wide and 2 inches tall and is used to open the door of an upright or vertical type household freezer or refrigerator;⁹⁸
 - Plastic frame for a freezer door. This frame will be used on a side-by-side refrigerator/freezer that features a water dispenser and automatic ice maker;⁹⁹
- 8418.99.8060 (“other parts of refrigerators, freezers and other refrigerating or freezing equipment”) covers:
 - Fiberglass insulation panels known as “U-Vacua” to be used in the manufacture of refrigerators and freezers;¹⁰⁰

⁹³ See U.S. Customs and Border Protection, Customs Rulings Online Research System (“CROSS”) Ruling N301670 (November 30, 2018) (Exhibit USA-95).

⁹⁴ See U.S. Customs and Border Protection, CROSS Ruling 811549 (June 16, 1995) (Exhibit USA-95).

⁹⁵ See U.S. Customs and Border Protection, CROSS Ruling N232075 (September 14, 2012) (Exhibit USA-95).

⁹⁶ See U.S. Customs and Border Protection, CROSS Ruling N014959 (August 21, 2007) (Exhibit USA-95).

⁹⁷ See U.S. Customs and Border Protection, CROSS Ruling N251932 (April 4, 2014) (Exhibit USA-95).

⁹⁸ See U.S. Customs and Border Protection, CROSS Ruling N191238 (November 23, 2011) (Exhibit USA-95).

⁹⁹ See U.S. Customs and Border Protection, CROSS Ruling N026151 (May 15, 2008) (Exhibit USA-95).

¹⁰⁰ See U.S. Customs and Border Protection, CROSS Ruling N016386 (September 25, 2007) (Exhibit USA-95).

- Ice and water dispenser parts, identified as a louvered panel, a front panel, a drain pan, a grille and a cover. These parts are designed for use with a commercial grade ice and water dispenser. All of the components are made of ABS plastic with the exception of the grille which is made of stainless steel;¹⁰¹
- Micro-channel refrigerator heat exchanger;¹⁰²
- 8516.90.8050 (“other parts for the cooking stoves, ranges and ovens of subheading 8516.60.40, HTSUS”) covers:
 - Pizza Rack for Pressure Oven BROR Series (Set of 2), HSN Item Number 361-852;¹⁰³
 - Fan convection assembly that includes, at the time of importation, a convection plate, convection element, an insulation plate, a motor convection fan, an insulation/convection pad made of fiberglass and a cooling fan.¹⁰⁴

85. Because the HTSUS codes used by China, as shown above, capture a number of products that are outside of the scope of the relevant CVD measure, the U.S. methodology, as shown in Exhibit USA-61, instead uses the HTSUS data where data specifically pertaining to Kitchen Shelving products (under HTSUS 7321.90.6040 and 8516.90.8010) is available and adjusts for import trends of products under the other HTSUS codes referenced in the USITC’s product scope description, the market shares of imports from China and from the RoW, and other Kitchen Shelving market-related factors. As explained in paragraph 127 of the U.S. written submission, this methodology provides a more precise estimate of the actual values of imports of subject merchandise within the scope of the CVD measure.

12. To China: In the case of kitchen shelving, the United States argues that, while China used import values based on HTSUS categories, it would be more accurate to use data collected by the US Customs and Border Protection. In its written submission, China responded that it is not in agreement with the US adjustments because these are designed to diminish the size of the market in the remedy year, thereby lowering the implied N/I under the two-step method. Please elaborate your position.

Response:

86. This question is addressed to China.

¹⁰¹ See U.S. Customs and Border Protection, CROSS Ruling N143618 (February 11, 2011) (Exhibit USA-95).

¹⁰² See U.S. Customs and Border Protection, CROSS Ruling N206476 (March 19, 2012) (Exhibit USA-95).

¹⁰³ See U.S. Customs and Border Protection, CROSS Ruling N259281 (December 16, 2014) (Exhibit USA-95).

¹⁰⁴ See U.S. Customs and Border Protection, CROSS Ruling N278085 (August 31, 2016) (Exhibit USA-95).

- 13. To China and the United States: In the case of pressure pipe, line pipe, OCTG, wire strand and aluminium extrusions, China’s proposed prior years are one year earlier than the United States’. China proposes to use sales data from publicly available USITC reports, whereas the United States uses USCBP and shipments data. Setting its views on the appropriate year prior aside for a moment, could each party please comment on the appropriateness of the sales data provided by the other party?**

Response:

87. As explained in paragraph 124 of the U.S. written submission, the United States has used the same shipment data that were used by the arbitrator in DS471 for the products that were also at issue in the DS471 arbitration, which include Line Pipe, OCTG, and Aluminum Extrusions. For the products that were not at issue in DS471, including Pressure Pipe and Wire Strand, the United States has derived the data using a methodology that is consistent with the methodology used by the arbitrator in DS471. The United States provides more detailed comments on each product below.

88. With respect to Pressure Pipe, which was not subject to the Article 22.6 proceeding in DS471, the United States derived the relevant data using a methodology that mirrors the methodology used by the arbitrator in DS471. For U.S. domestic shipments, both the United States and China base their data on the same USITC report, USITC Publication 4064 (Exhibit CHN-4), but China uses 2007 and the United States uses 2008 as the relevant year prior. The U.S. methodology annualizes U.S. domestic shipments for 2008 by using partial year data (January through September 2008). This is the same annualization methodology used by the arbitrator in DS471. China also uses this annualization methodology, but for the preceding year (*i.e.*, January through September 2007). For U.S. imports from China and from the RoW, the United States uses import data for 2008 from the U.S. Census Bureau (Exhibit USA-65),¹⁰⁵ whereas China uses import data for 2007 from USITC Publication 4064. The United States consistently uses 2008 as the year prior and accordingly uses 2008 data because the CVD measure on Pressure Pipe was imposed in 2009.

89. With respect to Line Pipe, which was at issue in DS471, the United States uses the same data used by the arbitrator in DS471. For U.S. domestic shipments, both the United States and China base their data on the same USITC report, USITC Publication 4055 (Exhibit CHN-11), but China uses 2007 and the United States uses 2008 as the relevant year prior. Like the methodology used by the arbitrator in DS471, the U.S. methodology annualizes U.S. domestic shipments for 2008 by using partial year data (January through September 2008). China uses full year data for 2007 as reported in USITC Publication 4055. For U.S. imports from China, the United States uses the same data used by the arbitrator in DS471, which is an aggregated value of 2008 imports under the relevant HTSUS codes provided by USCBP,¹⁰⁶ whereas China uses 2007 import data from USITC Publication 4055. For U.S. imports from the RoW, the United

¹⁰⁵ The United States uses the U.S. Census data because the corresponding full year data for 2008 is not available in USITC Publication 4064, which only reports data for January-September.

¹⁰⁶ The United States uses this USCBP data because that is the data used by the arbitrator in DS471 and also because the full year data for 2008 is not available in USITC Publication 4055.

States again uses the same data used by the arbitrator in DS471, which is 2008 import data from the U.S. Census Bureau (Exhibit USA-65), whereas China again uses 2007 import data from USITC Publication 4055. Consistent with the DS471 decision, the United States uses 2008 as the year prior and accordingly uses 2008 data because the CVD measure on Line Pipe was imposed in 2009.

90. With respect to OCTG, which was at issue in in DS471, the United States uses the same data used by the arbitrator in DS471. For U.S. domestic shipments, both the United States and China base their data on the same USITC report, USITC Publication 4124 (Exhibit CHN-23), but China uses 2008 and the United States uses 2009 as the relevant year prior. Like the methodology used by the arbitrator in DS471, the U.S. methodology annualizes U.S. domestic shipments for 2009 by using partial year data (January through September 2009). China uses full year data for 2008 as reported in USITC Publication 4124. For U.S. imports from China, the United States uses the same data used by the arbitrator in DS471, which is an aggregated value of 2009 imports under the relevant HTSUS codes provided by USCBP,¹⁰⁷ whereas China uses 2008 import data from USITC Publication 4124. For U.S. imports from the RoW, the United States again uses the same data used by the arbitrator in DS471, which is 2009 import data from the U.S. Census Bureau (Exhibit USA-65), whereas China again uses 2008 import data from USITC Publication 4124. Consistent with the DS471 decision, the United States uses 2009 as the year prior and accordingly uses 2009 data because the CVD measure on OCTG was imposed in 2010.

91. With respect to Wire Strand, which was not at issue in DS471, both the United States and China base their domestic shipment and import data on the same USITC report, USITC Publication 4162 (Exhibit CHN-28), but China uses 2008 and the United States uses 2009 as the relevant year prior. The United States consistently uses 2009 as the year prior and accordingly uses 2009 data because the CVD measure on Wire Strand was imposed in 2010. The United States notes that China, in its methodology paper, had originally identified 2009 as the relevant year prior and thus used the same data as the United States.¹⁰⁸

92. With respect to Aluminum Extrusions, which was at issue in DS471, the United States uses the same data used by the arbitrator in DS471. The United States bases its data on a more recent USITC report from 2017, USITC Publication 4677 (Exhibit CHN-37), while China bases its data on a USITC report from 2011, USITC Publication 4229 (Exhibit CHN-36). To be clear, both USITC reports had the same data but the United States uses 2010 and China uses 2009 as the relevant year prior. The United States consistently uses 2010 as the year prior and accordingly uses 2010 data because the CVD measure on Aluminum Extrusions was imposed in 2011. The United States notes that China, in its methodology paper, had originally identified 2010 as the relevant year prior and thus used the same data as the United States.¹⁰⁹

¹⁰⁷ The United States uses this USCBP data because that is the data used by the arbitrator in DS471 and also because the full year data for 2009 is not available in USITC Publication 4124.

¹⁰⁸ See Exhibit CHN-53, p. 1.

¹⁰⁹ See Exhibit CHN-53, p. 1.

- 14. To the United States: In the case of steel cylinders, China’s proposed prior year is one year earlier than the United States’, and the parties employ different methodologies to estimate the sales in the year they consider relevant. Please comment on why you have proposed an alternative methodology for data for: (i) Chinese and RoW imports; and (ii) estimating US domestic sales. Please also comment on China’s methodology to estimate the share of TriMas’s sales attributable to Norris Cylinder, as indicated in Exhibit CHN-94.**

Response:

93. As explained in paragraph 126 of the U.S. written submission, the United States uses the same data used by the arbitrator in DS471. With respect to Chinese and RoW imports, the difference in methodology results from using different data sources. Neither the United States nor China base their data on the relevant USITC report, USITC Publication 4328 (Exhibit CHN-41), because the report does not make data for U.S. imports from China and from the RoW publicly available, due to confidentiality. The United States, as shown in Exhibit USA-44, relies on the same data used by the arbitrator in DS471. The arbitrator there, like the United States, identified 2011 as the relevant year prior because the CVD measure on Steel Cylinders was imposed in 2012.¹¹⁰ For U.S. imports from China, the arbitrator in DS471 used company-specific 2011 import data compiled by USCBP, as shown in Exhibit USA-58. For U.S. imports from the RoW, the DS471 arbitrator used 2011 data from the U.S. Census, aggregating imports under HTSUS 7311.00.0030, as shown in Exhibit USA-59. In contrast, China uses 2010 data from the U.S. Census for HTSUS 7311.00.0030 for both imports from China and from RoW. The United States notes that China, in its methodology paper, had originally identified 2011 as the relevant year prior, and accordingly, had used the same data as the United States and the DS471 arbitrator for U.S. imports from the RoW.¹¹¹

¹¹⁰ The United States agrees with the arbitrator in DS471 that the relevant year prior for each product, for the purpose of conducting the first step of the Armington-based counterfactual analysis, is the year prior to the imposition of the relevant CVD measure. See U.S. Written Submission, para. 125. China’s approach of identifying the relevant year prior, based on the date on which provisional measures were imposed pursuant to a preliminary affirmative determination by the USDOC, fails to take into account the fact that provisional measures are, as the name indicates, preliminary and temporary in duration. As explained in the U.S. response to question 2, above, provisional AD and CVD measures expire after 120 days (or 180 days for provisional AD measures, if so requested), and exposure to duty liability is not confirmed until a final CVD determination and the imposition of a duty order. Even then, under the U.S. retrospective system of AD and CVD duty assessment, final duty liability is typically not known until later, when the USDOC determines final AD or CVD duty margins in an administrative review. China argues that the relevant year prior should be the year prior to the imposition of provisional measures, instead of the imposition of the applicable CVD order, in order to reflect the so-called “trade-depressing effects of the WTO-inconsistent duties.” See China’s Written Submission, paras. 19-21. China is mistaken. As stated in paragraph 19 of the U.S. written submission, the purpose of this Article 22.6 proceeding is to determine the level of nullification or impairment by estimating the impact of removing the WTO-inconsistent measures following the expiration of the RPT, and it is not an arbitrator’s task to attempt to simulate a return to a time before the imposition of those measures. Accordingly, as explained in footnote 56 of the U.S. written submission, any trade effects arising from higher duties before the expiration of the RPT are not subject to this proceeding. The United States disagrees with China’s attempt to change the relevant year prior based on provisional measures, which would distort the purpose of this arbitration and deviate from the approach taken in DS471.

¹¹¹ See Exhibit CHN-53.

94. With respect to estimating U.S. domestic sales, the DS471 arbitrator, the United States and China all base their data on TriMas’s 10-K report, estimating that 50 percent of sales were attributable to cylinders, including Steel Cylinders, in the absence of publicly available information that is directly on point. Both the United States (following the DS471 arbitrator’s approach) and China assume that 50 percent of total cylinders sales stems from Norris Cylinder.¹¹²

95. To estimate U.S. domestic shipments based on Norris Cylinder’s sales, China assumes that two-thirds of Norris Cylinder’s sales consisted of domestic shipments. However, China does not provide the basis for this assumption. China may be basing its assumption on the fact that the reported increase in export net sales (\$13.4 million) was 35.3 percent of the reported increase in total net sales (\$38.0 million) of industrial cylinders as stated in TriMas’s 2012 10-K report (Exhibit CHN-55). If that is the case, that approach is problematic because a percentage share calculated based on respective value changes is not the same as the percentage share of the actual values.

96. Instead of using the unsupported assumption China appears to have made, the United States has based its U.S. domestic shipment data on the entire value of Norris Cylinder’s sales, as shown in Exhibit USA-60. The U.S. estimate of domestic shipments includes both domestic shipments and exports because there was no information available to allow us to credibly calculate the relative share of domestic sales compared to export sales for steel cylinders (as part of Norris Cylinder’s Engineered Components), or even more broadly across all of the company’s six product segments.

15. To the United States: Please address China’s argument that some of the sales data sources used by the United States are not public and cannot be independently verified.

Response:

97. China has made no attempt to support its argument, and China’s argument lacks any foundation.

98. As an initial matter, it is a matter of commonsense that an adjudicator considers that “the burden of proof rests upon the party, whether complaining or defending, who asserts the affirmative of a particular claim or defence.”¹¹³ The same commonsense applies to evidence, and contestation of that evidence. The United States has adequately substantiated the content and source of the data it has submitted. If China were to argue that the data submitted by the United States are not accurate, it would be China’s burden to prove that argument. In reality, China does not actually appear to have asserted any inaccuracy in the USCBP import data that

¹¹² The United States evenly split TriMas’s net sales of Engineered Components products between producers of equipment for the oil industry and producers of cylinders, in the absence of any other readily available information. See Exhibit USA-60.

¹¹³ *US – Wool Shirts and Blouses (AB)*, p. 14. See also *China – Autos (US) (Panel)*, para. 7.6.

the United States has submitted with the U.S. written submission as Exhibits USA-44, USA-45, and USA-49, and China certainly has made no effort whatsoever to support any such assertion.

99. China suggests – in passing – that the confidential USCBP import data are “data neither China nor the Arbitrator can verify”.¹¹⁴ China also has offered no support for this contention. It appears to the United States that China’s argument that the USCBP import data cannot be independently verified lacks merit. The General Administration of Customs China (“GACC”), like USCBP, collects data on exports.¹¹⁵ China could compare the USCBP import data, which the United States has submitted, with export data compiled by its own GACC. In this way, China itself could verify the accuracy of USCBP data if it wishes to do so. China could then make any argument of inaccuracy, and China could support such an argument with evidence, if China were, in fact, to consider that any of the USCBP data are not accurate.

100. Until China asserts that the USCBP import data are not accurate and supports such an argument with evidence, there is no reason for the Arbitrator to question the accuracy of the USCBP import data that the United States has submitted.

101. That being said, the United States takes this opportunity to further explain why it has submitted and relied on confidential USCBP import data. The United States has done so to provide the Arbitrator information that will permit the most accurate estimate of nullification or impairment. Ultimately, the United States relies on a limited amount of non-public data, all of which has been provided to the Arbitrator with the U.S. written submission. Where public data are available and adequately reflect the necessary information for the subject product, the United States has used public data.

102. For context, the United States has provided the following information to operate the two-step Armington approach with the U.S. proposed adjustments:

- The relevant CVD rates and less than adequate remuneration (“LTAR”) rates (which are public and included in Exhibit USA-100);
- The relevant AD rates (which are public and included in Exhibit USA-50);
- The relevant elasticity parameter estimates for total demand, U.S. domestic supply, and substitution for each of the products at issue in this dispute (which are public and provided in Exhibit USA-46);
- U.S. domestic shipment data for the year-prior and 2017 (which are public and included in Exhibits USA-44 and USA-45);

¹¹⁴ See China’s Written Submission, para. 6.

¹¹⁵ See General Administration of Customs China (“GACC”), <http://english.customs.gov.cn> (last accessed May 3, 2020).

- U.S. import data from China for the year-prior and 2017 (some of which are confidential data compiled by USCBP and included in Exhibits USA-44, USA-45, and USA-49); and
- U.S. import data from the RoW for the year-prior and 2017 (which are based on public data and included in Exhibits USA-44 and USA-45).

103. With respect to U.S. import data from China in 2017, while this data cannot be substituted with publicly available data, it is appropriate to use this confidential data in this proceeding because this data provides the most accurate estimate of imports from China that are subject to the CVD measures at issue here.

104. Through its Automated Commercial Environment (“ACE”) system, USCBP processes import entries and collects data that allows the United States to determine which imports are subject to CVDs and at which duty rates. USCBP collects data using the description of the product as defined in the relevant CVD order, which establishes the scope of products to which CVDs are applied. As a result, USCBP is the most accurate source of data regarding actual imports of the subject product that are subject to duties.

105. In contrast, the data used by China based on HTSUS categories often includes products outside the scope of the CVD measure. Many of the reference HTSUS codes are broad categories, of which the subject product is only a subset. In fact, as explained in paragraph 142 of the U.S. written submission, the actual level of imports of the subject products based on USCBP data is between 0 percent and 89 percent of the level of imports estimated using HTSUS categories. As a result, capturing total trade flows occurring under the HTSUS categories, as China has done in this proceeding, is inappropriate because it necessarily overstates the value of trade subject to the relevant CVDs.

106. Therefore, the United States has used a limited amount of business confidential information from USCBP’s ACE database because that is the best data available to accurately capture the value of trade subject to the relevant CVDs and thus accurately estimate the level of nullification or impairment.

107. Finally, the United States recalls that the arbitrator in DS471 also relied on USCBP data on U.S. imports of the subject product from China, as reported in Exhibits USA-45, USA-49, and USA-64.

F. ELASTICITY ESTIMATES FOR CERTAIN PRODUCTS

16. **To China and the United States: In the case of OCTG, China proposes to rely on a demand elasticity of -0.5 (citing USITC publication 4124, Exhibit CHN-23), whereas the United States proposes to rely on a demand elasticity of -0.875 (citing USITC Publication 4489, Exhibit USA-55). Could the parties please comment on this difference in data. Could the United States also specify the source of its figure of -0.875 (Exhibit USA-55 vs Exhibit CHN-24)?**

Response:

108. The demand elasticity of -0.875 proposed by the United States is based on the estimates found in the more recent USITC report on OCTG published in September 2014 (Exhibit CHN-24).¹¹⁶ It is calculated by taking the midpoint between -0.75 and -1.0, which is the range estimated by the USITC for demand elasticity. The relevant portion of the 2014 USITC report explains that:

The U.S. demand elasticity for OCTG measures the sensitivity of the overall quantity demanded to a change in the U.S. market price of OCTG. This estimate depends on factors discussed earlier such as the existence, availability, and commercial viability of substitute products, the level of inventories held, and the component share of OCTG in the production oil and gas exploration and production. Based on the available information, the aggregate demand for OCTG is likely to be moderately inelastic and in a range of -0.75 to -1.0. Purchasers would not likely be very sensitive to changes in the price of OCTG and would continue to demand fairly constant quantities over a considerable range of prices.¹¹⁷

109. In contrast, China’s proposed demand elasticity of -0.5 is based on a more dated USITC report, which was published in January 2010.¹¹⁸

110. The United States proposes that the Arbitrator use the elasticity estimate of -0.875 because that estimate reflects the more recent product market in the United States and is more appropriate for the purpose of assessing the nullification or impairment in 2017 than an elasticity estimate based on older (and more limited) data. The United States further notes that the same elasticity estimate of -0.875 was used by the arbitrator in DS471.¹¹⁹

17. To China and the United States: In the case of kitchen shelving, print graphics, and aluminium extrusions, China proposes domestic supply elasticities of 7.5, 3, and 5, respectively, whereas the United States proposes elasticities of 3, 4, and 4, respectively.

a. For kitchen shelving, in USITC publication 4098 (CHN-19), a range of 5 to 10 is reported, so the midpoint would be 7.5. Could the United States please comment on the source of its proposed elasticity of 3 for kitchen shelving?

Response:

111. The United States appreciates an opportunity to clarify. It appears that we made an inadvertent typographic error when inputting the value into our program. The correct supply

¹¹⁶ See Exhibit USA-46, “Data Sources” column for OCTG.

¹¹⁷ USITC Publication 4489, p. II-47 (Exhibit CHN-24) (underline added).

¹¹⁸ See USITC Publication 4124, p. II-22 (Exhibit CHN-23) (suggesting a value range of -0.25 to -0.75).

¹¹⁹ See WT/DS471/ARB/Add.1, Annex E-5 “Data Inputs for Elasticities.”

elasticity for Kitchen Shelving is 7.5, as the Arbitrator has pointed out and as shown in Exhibit USA-46. The United States regrets the error.

112. Revising the supply elasticity from 3 to 7.5 lowers the U.S. estimate of the level of nullification or impairment for Kitchen Shelving from \$1.43 million to \$1.40 million.¹²⁰ This is reflected in new Exhibit USA-101, which presents corrected U.S. estimates of nullification or impairment for all of the products at issue.

- b. In the case of print graphics and aluminium extrusions, the United States cites more recent USITC documents (USITC publications No. 4656 (Exhibit CHN-51) and No. 4677 (Exhibit CHN-37), respectively) than China (USITC publications No. 4192 (Exhibit CHN-50) and No. 4229 (Exhibit CHN-36), respectively). Could the parties please elaborate on the specific reasons why the Arbitrator should rely on the data in one document over the other?**

Response:

113. As the question notes, the United States proposes using more recent USITC estimates for U.S. domestic supply elasticities. For Print Graphics, USITC Publication 4656, cited by the United States, was published in December 2016, while USITC Publication 4192, cited by China, was published in November 2010. For Aluminum Extrusions, USITC Publication 4677, cited by the United States, was published in March 2017, while USITC Publication 4229, cited by China, was published in May 2011. Because the elasticity estimates in USITC Publication 4656 and USITC Publication 4677 reflect the more recent product markets in the United States, they are more appropriate for the purpose of estimating the level of nullification or impairment in 2017.

114. The United States further notes that the same domestic supply elasticity estimates of 4 and 4 for Print Graphics and Aluminum Extrusions, respectively, were used by the arbitrator in DS471.¹²¹

- 18. To China and the United States: In the case of print graphics, China cites an elasticity of substitution between domestic and imported products of 4, taken from the earlier USITC publication No. 4192 (Exhibit CHN 50), whereas the United States cites an elasticity of 3, sourced from the more recent USITC publication No. 4656 (Exhibit CHN-51). Please elaborate on the specific reasons why the Arbitrator should rely on the data in one document over the other.**

Response:

115. As the question notes, the United States proposes using more recent USITC estimates for the elasticity of substitution. USITC Publication 4656, cited by the United States, was published

¹²⁰ This revised figure also reflects a correction of another typographic error that the United States made when inputting the value into its program. The correct value for China's year prior market share for Kitchen Shelving is [***], as shown in Exhibits USA-47, USA-52, USA-54, and USA-56, but the United States inadvertently inputted [***] into its program. The United States regrets the error.

¹²¹ See WT/DS471/ARB/Add.1, Annex E-5 "Data Inputs for Elasticities."

in December 2016, while USITC Publication 4192, cited by China, was published in November 2010. As explained above in response to question 17, because the elasticity estimates in USITC Publication 4656 reflect more recent product markets in the United States, they are more appropriate for the purpose of estimating the level of nullification or impairment in 2017. The downward adjustment of the USITC estimate of the elasticity of substitution from 4 in the 2010 report to 3 in the 2016 report shows that the USITC found, based on six additional years of data, that domestic and imported products were somewhat less substitutable than previously estimated.

116. The United States further notes that the same substitution elasticity estimate of 3 was used by the arbitrator in DS471.¹²²

19. To the United States: In paragraph 132 of its written submission, the United States mentions that for solar panels the domestic supply elasticity is the midpoint of 4 and 7, that is 5.5; however, in its calculation and Exhibit USA-46, the United States refers to a value of 6. Please explain the reasons for this difference and identify the value that you consider relevant.

Response:

117. The United States has discovered an inadvertent typographical error in its calculation and in Exhibit USA-46. The correct domestic supply elasticity is 5.5.¹²³ This is calculated by taking the midpoint between 4 and 7, which is the range estimated by the USITC for domestic supply elasticity in its 2019 report.¹²⁴ The United States cited this range in both its written submission and Exhibit USA-46, but incorrectly presented the midpoint of the range. The United States regrets the error.

118. Revising the domestic supply elasticity from 6 to 5.5 slightly decreases the U.S. estimate of the level of nullification or impairment for Solar Panels from \$7.943 million to \$7.936 million. This is reflected in new Exhibit USA-101, which presents corrected U.S. estimates of nullification or impairment for all of the products at issue.

119. While the arbitrator in DS471 used a domestic supply elasticity estimate of 6 (range of 5-7), that was based on an older USITC report published in 2012.¹²⁵ It appears that the arbitrator in DS471 did not have access to the more recent data in USITC Publication 4874, which was published in March 2019. Consistent with the U.S. responses to questions 16, 17, and 18, the

¹²² See WT/DS471/ARB/Add.1, Annex E-5 “Data Inputs for Elasticities.”

¹²³ For this elasticity estimate, paragraph 132 of the U.S. written submission mistakenly cited USITC Publication 4360 (Exhibit CHN-45), an older USITC report on Solar Panels published in November 2012, instead of USITC Publication 4874 (Exhibit CHN-46), which was published in March 2019. To clarify, the stated range of 4-7 is from USITC Publication 4874 and is correct. As explained above in the U.S. responses to questions 16, 17, and 18, the elasticity estimates in the more recent USITC documents cited by the United States are more appropriate for the purpose of estimating the level of nullification or impairment in 2017.

¹²⁴ See USITC Publication 4874, pp. II-27-II-28 (Exhibit CHN-46).

¹²⁵ See USITC Publication 4360, pp. II-31 (Exhibit CHN-45).

United States proposes that the estimate of 5.5, which is based on more recent data in the 2019 USITC report, is more appropriate for the purpose of this proceeding.

G. IDENTIFICATION OF RELEVANT CVD DETERMINATIONS FOR CERTAIN MEASURES

20. To the United States: Please clarify whether the claim regarding the identification of the relevant counterfactual WTO-consistent CVD rates applies to four products (as indicated in paragraph 30 of the United States’ written submission) or only to line pipe, OCTG, and pressure pipe (as indicated in paragraph 40 of the United States’ written submission).

Response:

120. Paragraph 30 of the U.S. written submission incorrectly asserts that China misidentified the relevant CVD determinations for four products when, in actuality, that is only the case for three products. The United States regrets this error. Paragraph 40 of the U.S. written submission correctly refers to three products and explains that “China’s proposed WTO-inconsistent CVD rates shown in Exhibit CHN-52 appear to be the original net subsidy rates, rather than the section 129 rates. Because the section 129 proceedings resulted in revised CVD rates for Line Pipe, OCTG, and [Seamless Pipe], Exhibit USA-28 corrects the error for the three products by replacing the pre-section 129 net subsidy rates with the section 129 rates.”¹²⁶

121. In China’s written submission, China argues that “the Arbitrator should not use the revised net subsidy rates” from the section 129 determinations in Line Pipe, OCTG, and Seamless Pipe because “the effective date for the USDOC’s revised determinations was *after* the expiry of the RPT,” or the reasonable period of time.¹²⁷ China contends that “[i]t is well established that compliance measures implemented after the expiry of the RPT do not form part of the counterfactual analysis under Article 22.6 of the DSU.”¹²⁸ China’s position is not supported by Article 22.6 of the DSU and is contrary to a number of decisions in past Article 22.6 arbitrations.

122. In discussing the arbitrator’s decision in *US – Tuna II (Mexico) (Article 22.6)*, China emphasizes references in that decision to the compliance measure existing at the time of the expiration of the RPT.¹²⁹ Of course, as the arbitrator in *US – Tuna II (Mexico) (Article 22.6)* explained, “[t]he text of Article 22.6 does not specify which measure should form the basis of the request for, or authorization of, suspension of concessions.”¹³⁰ While that arbitrator analyzed

¹²⁶ As explained below in the U.S. response to question 21, paragraph 40 of the U.S. written submission should have referred to Seamless Pipe rather than Pressure Pipe. Despite this inadvertent error in paragraph 40, Exhibit USA-28 presents the correct section 129 CVD rates.

¹²⁷ China’s Written Submission, paras. 17, 16 (italics in original).

¹²⁸ China’s Written Submission, para. 13.

¹²⁹ See China’s Written Submission, para. 13.

¹³⁰ *US – Tuna II (Mexico) (Article 22.6)*, para. 3.18.

other parts of Article 22 of the DSU as context and, in doing so, discussed the relevance of whether a measure was taken prior to the expiration of the RPT, the arbitrator also discussed the relevance of whether a measure has been reviewed and found to be WTO-inconsistent.¹³¹ In particular, the arbitrator cited, as a reason for using an earlier compliance measure as the basis of its assessment of nullification or impairment, that the later compliance measure was not yet “a measure that has been found to be WTO-inconsistent.”¹³²

123. In contrast, in this proceeding, while the section 129 determinations for Line Pipe, OCTG, and Seamless Pipe were finalized shortly after the expiration of the RPT,¹³³ those measures have been reviewed and found to be WTO-inconsistent in Article 21.5 compliance proceedings.

124. In other prior Article 22.6 proceedings, arbitrators have used compliance measures adopted after the expiration of the RPT as the basis for the assessment of the level of nullification or impairment. For example, in *US – FSC (Article 22.6 – US)*, the United States adopted a compliance measure after the expiration of a revised RPT.¹³⁴ That compliance measure was then the subject of findings in an Article 21.5 compliance proceeding.¹³⁵ The parties there agreed that the U.S. compliance measure adopted after the expiration of the RPT was the relevant measure for the purposes of the analysis in the Article 22.6 proceeding, and the arbitrator also agreed.¹³⁶

125. Similarly, in *US – COOL (Article 22.6 – US)*, the RPT expired on May 23, 2013, and the United States published a Federal Register notice announcing the compliance measure on May 24, 2013, a day after the expiration of the RPT.¹³⁷ That compliance measure was found WTO-inconsistent in an Article 21.5 compliance proceeding.¹³⁸ The issue of the compliance measure

¹³¹ See *US – Tuna II (Mexico) (Article 22.6)*, paras. 3.19-3.25.

¹³² *US – Tuna II (Mexico) (Article 22.6)*, para. 3.25.

¹³³ The United States notes that it explained during the Article 21.3(c) proceeding that 15 months would not be enough time to bring the U.S. measures into compliance with the DSB’s recommendations. The DSB’s recommendations concerned myriad issues in a number of CVD investigations. In particular, with respect to Line Pipe, OCTG, Pressure Pipe, Seamless Pipe, and Solar Panels, the USDOC received numerous comments from interested parties concerning the preliminary determinations in these section 129 proceedings, for which it needed additional time for fair and full consideration. As a result of the complexity of these issues and the volume of comments received, with respect to those CVD proceedings, the USDOC was unable to make final determinations in the section 129 proceedings by the expiration of the RPT (*i.e.*, April 1, 2016), despite its best effort. The USDOC concluded the process required for the implementation of the final determinations at the earliest practicable time, which was May 26, 2016. See Exhibit USA-1 (explaining that the USDOC issued its final determinations in these section 129 proceedings on April 26, 2016, and May 19, 2016, and that the Office of the U.S. Trade Representative notified the USDOC on May 26, 2016, that pursuant to the relevant U.S. law, consultations with the USDOC and the appropriate congressional committees with respect to those determinations were completed).

¹³⁴ See *US – FSC (Article 22.6 – US)*, para. 2.12.

¹³⁵ See *US – FSC (Article 22.6 – US)*, para. 2.12.

¹³⁶ See *US – FSC (Article 22.6 – US)*, para. 2.13.

¹³⁷ See *US – COOL (Article 22.6 – US)*, footnotes 5, 59. See also *US – COOL (Article 21.5) (Panel)*, para. 5.

¹³⁸ See, *e.g.*, *US – COOL (Article 22.6 – US)*, para. 1.4 and footnote 6.

coming into existence shortly after the expiration of the RPT is not discussed in the decision of the arbitrator in that Article 22.6 proceeding, and the amended COOL measure, together with the original measure, was the basis for the analysis of the level of nullification or impairment there.¹³⁹

126. Accordingly, even if China’s understanding of the decision of the arbitrator in *US – Tuna II (Mexico) (Article 22.6)* were correct, and the United States considers that it is not, two other Article 22.6 arbitrators have reached a different conclusion concerning the relevance of a compliance measure that came into existence after the expiration of the RPT. This shows that, contrary to China’s argument, whether a measure was implemented prior to the expiration of the RPT is not a dispositive factor in determining the relevant measure for the counterfactual analysis in an Article 22.6 proceeding. It is certainly not the case that China’s understanding is “well established.”¹⁴⁰

127. For these reasons, as well as those given in the U.S. written submission,¹⁴¹ the section 129 rates are the appropriate WTO-inconsistent CVD rates to use in the counterfactual analysis here because the final determinations in the section 129 proceedings, which were reviewed in the Article 21.5 compliance proceedings, are the relevant measures for the purpose of this Article 22.6 proceeding.

21. To the United States: In paragraph 40 of its written submission, the United States proposes to use the Section 129 CVD rates for pressure pipe, as contained in Exhibit USA-28, instead of those suggested by China in Exhibit CHN-52. However, the rates reported for pressure pipe in these two exhibits seem to be identical. Please confirm or clarify this.

Response:

128. Paragraph 40 of the U.S. written submission should have identified Seamless Pipe rather than Pressure Pipe. The United States regrets the error. Thus, the three products for which China incorrectly proposed to use the pre-section 129 net subsidy rates, rather than the section 129 rates, are Line Pipe, OCTG, and Seamless Pipe. The WTO-inconsistent CVD rates provided by China should be changed to reflect the section 129 CVD rates for these three products. Despite the inadvertent error in paragraph 40 of the U.S. written submission, the United States used the correct section 129 CVD rates and provided correct explanations in Exhibit USA-28.

¹³⁹ See *US – COOL (Article 22.6 – US)*, footnote 59. The arbitrator explained that “[t]he ‘amended COOL measure’ comprised the original COOL measure as amended by the 2013 Final Rule issued by the Agricultural Marketing Service (AMS) of the U.S. Department of Agriculture (USDA). The 2013 Final Rule is titled Final Rule on Mandatory Country of Origin Labeling of Beef, Pork, Lamb, Chicken, Goat Meat, Wild and Farm-Raised Fish and Shellfish, Perishable Agricultural Commodities, Peanuts, Pecans, Ginseng, and Macadamia Nuts (7 CFR Parts 60 and 65), 78 Fed. Reg. 31367-31385 (24 May 2013).” *US – COOL (Article 22.6 – US)*, footnote 6.

¹⁴⁰ China’s Written Submission, para. 13.

¹⁴¹ See U.S. Written Submission, paras. 34-40.

- 22. To the United States: In paragraph 27 of its written submission, China presents alternative N/I estimates should the Arbitrator conclude that Section 129 rates may be used to calculate N/I in these proceedings and, in fact, China presents alternative CVD rates in Exhibit CHN-100 for this scenario. Please provide a reasoned comment on the alternative data proposed by China in Exhibit CHN-100.**

Response:

129. The United States concurs with the alternative CVD rates presented in Exhibit CHN-100, which correctly reflect the section 129 rates, with the exception of the rates for Wire Strand. The U.S. response to question 28, below, explains why the counterfactual WTO-consistent CVD rates for Wire Strand provided in Exhibit CHN-100 are incorrect, and that response provides the correct rates, which the United States originally provided in Exhibit USA-28.

130. For convenience, the United States refers the Arbitrator to new Exhibit USA-100, which presents a comprehensive list of the WTO-inconsistent CVD rates (the section 129 rates) and counterfactual WTO-consistent CVD rates for each of the products at issue in this proceeding.

H. SUGGESTED USE OF A GDP DEFLATOR FOR CALCULATING THE VALUE OF THE US MARKET

- 23. To the United States: For pressure pipe, OCTG, print graphics, aluminium extrusions, steel cylinders and solar panels, China uses the most recent public USITC documents as a source for the total size of the US market in 2017. Please comment on the accuracy and suitability of this data for the original data year (i.e. before China applies a GDP deflator ranging from 1.02-1.06 in all cases, except solar panels where the data year is already 2017).**

Response:

131. First, the United States notes that neither the USITC report for Solar Panels (USITC Publication 4874 (Exhibit CHN-46)) nor the USITC report for Steel Cylinders (USITC Publication 4328 (Exhibit CHN-41)) reports publicly available U.S. apparent consumption data for the specific products at issue. The figures presented by China as representing the U.S. market size of the relevant original data year for the two products are estimates based on an unsupported methodology for calculating U.S. domestic shipments, in conjunction with U.S. imports reported in the USITC reports. As a result, these data are neither accurate for the purpose of representing U.S. apparent consumption for the original data year, nor suitable for the purpose of estimating U.S. apparent consumption for 2017, even if China's deflator approach were a valid method for making such an estimation. Of course, as elaborated below, the deflator approach is not a valid method for China's stated purpose.

132. China applies a GDP deflator to U.S. apparent consumption in an original data year for which data from USITC reports is available, purportedly to estimate U.S. apparent consumption for 2017. The outcome would merely show the value of U.S. apparent consumption in that original data year in terms of 2017 dollars, rather than the actual U.S. apparent consumption in

2017. In effect, China is assuming constant consumption between the original data year and 2017.

133. While the underlying USITC data are likely accurate for the original data year, there is no evidence that putting the U.S. market size for that original data year in terms of 2017 dollars, by applying a GDP deflator, would accurately reflect the size of the U.S. market in 2017. A GDP deflator, which is nominal GDP divided by real GDP, is a measurement of inflation. It can be used on a given year's value to calculate what that value would be in terms of another year's dollars. However, a GDP deflator is not an appropriate proxy for projecting the future demand or consumption, or measuring the past demand or consumption, for a product. In this sense, the data for the original data year is not suitable for the purpose of estimating the total size of the U.S. market in 2017, as China attempts to do.

134. As shown in Figures 3-5, below, and in Exhibit USA-102, actual U.S. apparent consumption, as reported in USITC reports, has varied, sometimes dramatically, year to year, unlike estimates generated by China's GDP deflator using a historical year's data valued in terms of future years.

- The blue line in these figures represents the actual value of U.S. apparent consumption for the years that the USITC reported data for the specific product.¹⁴² The USITC calculated these values by summing the value of each of the components of U.S. apparent consumption (*i.e.*, U.S. domestic shipments, U.S. imports of the subject product from China, and U.S. imports of the subject product from the RoW), based on questionnaires and/or official trade statistics.
- The red triangle represents China's estimate for U.S. apparent consumption in 2017, which China derives by applying the GDP deflator on the value of U.S. apparent consumption for the most recent year (such as the original data year) that the USITC reported data for the product. The application of the deflator is represented by the dashed line. China applied the GDP deflator for seven products (Aluminum Extrusions, OCTG, Line Pipe, Pressure Pipe, Print Graphics, Seamless Pipe, and Wire Strand). The difference between the original data year on which the deflator was applied and 2017 was 10 years for Line Pipe, nine years for Wire Strand,¹⁴³ eight years for Seamless Pipe, four years for OCTG, and two years for Aluminum Extrusions, Pressure Pipe, and Print Graphics. There is no evidentiary basis to

¹⁴² For Aluminum Extrusions (2016), OCTG (2009), Line Pipe (2008), and Pressure Pipe (2008 and 2009), the USITC reported partial year data for January-September. *See* Exhibit CHN-37 (Aluminum Extrusions), Exhibit CHN-23 (OCTG), Exhibit CHN-11 (Line Pipe), and Exhibit CHN-4 (Pressure Pipe). The figures reflect annualized data for these years for the relevant products.

¹⁴³ The United States notes that for Wire Strand, China appears to make an exception from its deflator methodology by applying the deflator to the 2008 U.S. apparent consumption, instead of the 2009 U.S. apparent consumption, even though 2009 was the most recent year that the USITC reported data for Wire Strand. Had China actually applied its own stated methodology, it would have estimated \$281 million for the 2017 U.S. apparent consumption. By deviating from its own methodology, China's estimate results in more than double that amount, \$631 million. *See* Exhibit CHN-95.

assume that U.S. apparent consumption would be identical to what it was 10 years ago (taking into account inflation).

- The solid orange line applies China’s GDP deflator on the value of U.S. apparent consumption for the first year that the USITC reported for the product. If the original data year plus a deflator were a good proxy for measuring a future or past actual value of apparent consumption, it would not be dependent on the original data year selected since the use of the deflator inherently assumes constant consumption between the original data year and the remedy year; in other words, the solid orange line would intersect with the red triangle (China’s estimate). Since the solid orange line does not intersect with the red triangle at year 2017 for any of the products at issue, as shown in the figures below and in Exhibit USA-102, this demonstrates that China’s deflator approach is grounded on an unsupported assumption that the original data year chosen by China is the best proxy for the remedy year. To be clear, the fact that the original data year chosen by China is the most recent year for which USITC reported data was available does not prove that that year was the best proxy for 2017.
- The black square represents the U.S. estimate for U.S. apparent consumption in 2017. For all but two of the products that were also at issue in DS471, the estimate is the same as the estimate used by the arbitrator in DS471.¹⁴⁴ This estimate is based on totalling the estimates for the three components of U.S. apparent consumption: U.S. domestic shipments, U.S. imports from China, and U.S. imports from the RoW.

Figure 3: U.S. Apparent Consumption for Print Graphics



Figure 4: U.S. Apparent Consumption for Pressure Pipe



Figure 5: U.S. Apparent Consumption for Seamless Pipe



¹⁴⁴ In Print Graphics and Seamless Pipe, the United States has adjusted U.S. imports from the RoW to exclude non-subject products (*see* U.S. Written Submission, para. 146) and therefore the U.S. estimate for U.S. apparent consumption is lower than the estimate used by the DS471 arbitrator. The same adjustment was also made for the U.S. estimate of U.S. apparent consumption for Pressure Pipe for the same reason. *See* U.S. Written Submission, para. 146.

135. As shown in the above figures, there is no relationship between the actual value of 2017 U.S. apparent consumption and the projected 2017 value based on applying the GDP deflator to the value from the first year for which USITC data was available (*i.e.*, the solid orange line). Particularly, if a remedy year happened to be imposed in 2009 or any other year that the economy was in recession, the GDP deflator would fail to reflect the actual decline and instead would show growth in consumption. Because a GDP deflator is not able to accurately estimate consumption for every year, it simply is not an appropriate tool for estimating consumption for any given year. Moreover, it is inappropriate to assume that the year China chose as an original data year is the best proxy for the remedy year in terms of apparent consumption.

136. Exhibit USA-102 shows graphical comparisons for five products that were also at issue in DS471, for which China uses a deflator,¹⁴⁵ and two products that were not at issue in DS471, for which China uses a deflator.¹⁴⁶ It also includes one product for which China does not use a deflator,¹⁴⁷ for the purpose of demonstrating that applying the deflator to an original data year would not intersect with China’s remedy year estimate for that product, just as with the other products.

137. In contrast, the U.S. estimates of U.S. apparent consumption are based on accurate estimates of each of the components of U.S. apparent consumption – *i.e.*, U.S. domestic shipments, U.S. imports from China, and U.S. imports from the RoW. The United States has provided this information in Exhibit USA-45. The United States further notes that the arbitrator in DS471 used these same estimates in its decision for five of the seven products that were also at issue in DS471. Even for the other two products, the United States uses the estimates used in DS471 for U.S. domestic shipments and U.S. imports from China, but has made a necessary adjustment to the estimate of U.S. imports from the RoW to exclude non-subject products.¹⁴⁸

138. Additionally, with respect to Solar Panels, the value provided by China for 2017 U.S. apparent consumption is not found in the USITC report cited by China, USITC Publication 4784 (Exhibit CHN-46). Rather, it appears that China’s estimate was based on an assumption that imports have 90 percent of the U.S. market.¹⁴⁹ China has not provided any basis for this assumption.

139. With respect to Steel Cylinders, China calculated its estimate by assuming that 50 percent of the total sales of TriMas’s cylinder products represented the subject product and excluding one third of that number under an unsupported and unrealistic assumption that they were exports.

¹⁴⁵ Print Graphics, Seamless Pipe, Aluminum Extrusions, OCTG, and Line Pipe.

¹⁴⁶ Pressure Pipe and Wire Strand.

¹⁴⁷ Solar Panels.

¹⁴⁸ See footnote 145, above.

¹⁴⁹ See Exhibit CHN-53, footnote X (“Apparent Domestic Consumption Redacted (BCI); but, it reports imports in 2017 of \$3,795,655,000 (Table I-10); assume imports have 90% of market implies Apparent Domestic Consumption of \$4,217,438,889.”).

The United States refers the Arbitrator to the U.S. response to question 14, above, for further and more detailed discussion of this issue.

- 24. To China: For line pipe, wire strand and seamless pipe, China estimates the total market size in 2017 by applying a GDP deflator to the prior year total market size, whereas the United States estimates the total market size using industry data, USITC publications, customs and US Census Bureau data. Please comment on the US methodology and data.**

Response:

140. This question is addressed to China.

- 25. To China and the United States: In the case of kitchen shelving, China estimates the total market size in 2017 by applying a GDP deflator to its estimated prior year total market, whereas the United States estimates the total market in 2017 by applying the same methodology it uses to estimate the prior year sales (Exhibit USA-61). Please comment on the other party’s methodology and data for estimating the 2017 total market size.**

Response:

141. The United States refers the Arbitrator to the U.S. response to question 23, above, which explains why China’s methodology, using a GDP deflator as a proxy for calculating U.S. apparent consumption in 2017, is invalid. In addition, the United States refers the Arbitrator to the U.S. response to question 13, above, which explains why China’s estimate of the U.S. market in the year prior is incorrect because that estimate encompasses the entirety of the cited HTSUS categories, even though the Kitchen Shelving at issue is only a small subset of those categories. The U.S. estimates for U.S. apparent consumption in the year prior and in 2017 appropriately take into account these factors, as explained in Exhibit USA-61.

- 26. To China and the United States: In the case of the products at issue other than solar panels, China estimates prior year sales and/or remedy year sales based on other years using a GDP deflator. Would the parties be in a position to submit any other publicly available deflators that are more specific to each of the products in question?**

Response:

142. The United States refers the Arbitrator to the U.S. response to question 23, above, which explains why China’s methodology using a GDP deflator is invalid, and, more generally, why any deflator, by nature, would fail to serve as an accurate proxy for estimating U.S. apparent consumption in a given year. The United States is unable to provide any other deflators that are more specific to each of the products, and notes that even a more product-specific deflator would not be immune to this inherent problem.

I. IDENTIFICATION OF THE PORTION OF THE CVD RATE ATTRIBUTABLE TO INPUT SUBSIDY PROGRAMMES

- 27. To the United States: In footnote 27 to paragraph 24 of its written submission, China explains that it rejects the addition of coking coal to the LTAR rate for Hengyang in seamless pipe, arguing that it has not challenged the USDOC’s treatment of coking coal with respect to specificity and that the findings upheld by the Appellate Body with respect to seamless pipe pertain to specificity only. Please comment on this argument, with special reference to Exhibit CHN-90.**

Response:

143. Based on the evidence presented by China in Exhibit CHN-90, the United States concurs that the findings in the original proceeding with respect to Seamless Pipe pertain to specificity only, which pertained to the input subsidy program for steel rounds but not for coking coal.¹⁵⁰ As a result, the United States amends the relevant LTAR rate to account for steel rounds only. This is reflected in new Exhibit USA-100, which lists the relevant factual and counterfactual CVD rates for each product.

- 28. To the United States: In footnote 28 to paragraph 24 of its written submission, China claims that Exhibit USA-23 does not explain how the revised LTAR rates suggested by the United States for the provision of wire rod with respect to the Fasten companies and All Others were calculated, but only provides the rates already submitted in CHN-52. Please comment on this argument and clarify the relevance of Exhibit USA-23 for the specific LTAR rate argued by the United States.**

Response:

144. In the Wire Strand CVD investigation, the LTAR rate for the provision of wire rod with respect to Fasten Companies was modified following publication of the final determination to correct a ministerial error. The correction was in response to petitioners’ allegation, described in Comment 19 of the relevant Issues and Decision Memorandum, concerning “Whether the [USDOC] Erred By Including Intra-Company Sales in the Denominator Used in the Net Subsidy

¹⁵⁰ The United States initially included the LTAR rate for coking coal based on footnote 450 of the final panel report in the Article 21.5 proceeding, which cites the USDOC’s preliminary determination on public bodies and input specificity: “[t]he relevant inputs cited by the USDOC were stainless steel coil, hot-rolled steel, wire rod, steel rounds, caustic soda, green tubes, primary aluminium, seamless tubes, standard commodity steel billets and blooms, polysilicon, and coking coal” (underline added). Due to the size and complexity of the original dispute brought by China, which concerned 17 CVD investigations, it was not clear to the United States that China did not challenge the USDOC’s treatment of coking coal with respect to specificity and only challenged it with respect to public body and benefit, even though China did challenge the treatment of the only other input at issue for Seamless Pipe (*i.e.*, steel rounds) with respect to all three issues.

Calculation of the Wire Rod for LTAR Program.”¹⁵¹ In regard to Comment 19, the USDOC’s error correction memorandum, which is provided in Exhibit USA-23, states:

Petitioners note that in the Final Determination the [USDOC] stated that it sought to remove intra-company sales from the denominator used in the net subsidy rate calculations of the Fasten Companies. See Comment 19 of the Issues and Decision Memorandum that accompanied the Final Determination. Petitioners contend that in the Final Determination the [USDOC] nonetheless erred when it did not deduct [] in intra-company sales that Hongyu Metal made to Fasten Steel from the sales denominator used in its net subsidy rate calculations. Petitioners argue that the [USDOC] should correct this error.¹⁵²

145. In the same memorandum (Exhibit USA-23), the USDOC states that it agrees with petitioners and that it was the USDOC’s intent to remove intra-company sales from the denominator used in the net subsidy calculations. The memorandum then revises Fasten Companies’ net subsidy rates accordingly.¹⁵³ The ministerial error pertaining to Fasten Companies’ LTAR rate for wire rod is the only error discussed in Exhibit USA-23. There is no reason to suppose that the revision of Fasten Companies’ total net subsidy rates resulted from correction of any other errors or some other change.

146. In other words, the correction of the ministerial error pertaining to the calculation of the LTAR rate for wire rod resulted in an increase of that LTAR rate (and accordingly, the total net subsidy rate) for Fasten Companies.¹⁵⁴ Accordingly, the 0.57 percent increase in Fasten Companies’ revised net subsidy rate is wholly due to a 0.57 percent increase in Fasten Companies’ LTAR rate for wire rod. Therefore, the correct LTAR rate for wire rod for Fasten Companies is 6.75 percent (as opposed to China’s 6.18 percent). Further, the correct All Others

¹⁵¹ See Memorandum to Ronald K. Lorentzen, Deputy Assistant Secretary for Import Administration, *Pre-Stressed Concrete Steel Wire Strand from the People’s Republic of China*, Issues and Decision Memorandum for Final Determination (May 14, 2010), p. 91 (Exhibit CHN-25) (underline added).

¹⁵² See Memorandum to Paul Piquado, Acting Deputy Assistant Secretary for Import Administration, *Countervailing Duty Investigation: Pre-Stressed Concrete Steel Wire Strand from the People’s Republic of China*, Final Determination Ministerial Error Allegation (Jun. 29, 2010), pp. 1-2 (Exhibit USA-23) (referencing Comment 19 of the relevant Issues and Decision Memorandum (Exhibit CHN-25), which pertains to the provision of wire rod for LTAR).

¹⁵³ See Memorandum to Paul Piquado, Acting Deputy Assistant Secretary for Import Administration, *Countervailing Duty Investigation: Pre-Stressed Concrete Steel Wire Strand from the People’s Republic of China*, Final Determination Ministerial Error Allegation (Jun. 29, 2010), p. 2 (Exhibit USA-23).

¹⁵⁴ See Memorandum to Paul Piquado, Acting Deputy Assistant Secretary for Import Administration, *Countervailing Duty Investigation: Pre-Stressed Concrete Steel Wire Strand from the People’s Republic of China*, Final Determination Ministerial Error Allegation, p. 2 (Exhibit USA-23) (showing an increase of Fasten’s net subsidy rate from 8.85 percent to 9.42 percent, and as a result, an increase of the All Others net subsidy rate from 27.35 percent to 27.64 percent).

rate for Wire Strand is 11.03 percent (as opposed to China’s 10.75 percent). Table 7 below shows the calculations:

Table 7: Calculations of WTO-Consistent Counterfactual Rates for Wire Strand

Company	WTO-Inconsistent Rate	-	LTAR Rate	=	WTO-Consistent Counterfactual Rate
Fasten Group	9.42		6.75		2.67
Xinhua Metal Products	45.85		15.31		30.54
All Others	$(9.42+45.85) / 2$ = 27.64		$(6.75+15.31) / 2$ = 11.03		$(2.67+30.54) / 2$ = 16.605

29. **To China:** In paragraph 16 of its methodology paper, China proposes the following calculation yielding the WTO consistent CVDs to be applied to step two of the two-step Armington approach: the total CVD rate applicable to each order should be modified by deducting the portion of the total CVD rate that the USDOC determined to be attributable to the alleged provision of inputs for LTAR. In exhibit CHN-100, China presents the data on total CVD rates, LTAR rates, and WTO-consistent CVD rates for the “All Others” category. For Aluminum extrusion, solar panels, and OCTG, however, the WTO consistent CVD rates indicated by China in Exhibit CHN-100 do not seem to correspond to the total CVD rates minus the LTAR rates reported in the same Exhibit. Please elaborate on the reason for this.

Response:

147. This question is addressed to China.