

***INDIA – MEASURES CONCERNING THE IMPORTATION  
OF CERTAIN AGRICULTURAL PRODUCTS:  
RECOURSE TO ARTICLE 22.6 OF THE DSU BY INDIA***

**(DS430)**

**EXECUTIVE SUMMARY  
OF THE UNITED STATES OF AMERICA**

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## SUMMARY OF THE U.S. METHODOLOGY PAPER

### I. INTRODUCTION

1. The United States has requested authorization to suspend concessions or other obligations at an annual level based on a formula commensurate with the trade effects caused to the interests of the United States by India's failure to comply with the recommendations and rulings of the Dispute Settlement Body ("DSB"). For 2016 alone, and for one product alone, the level of nullification or impairment exceeded \$478 million dollars. The level grows larger with each passing year.

2. A broad range of U.S. products are impacted by India's import ban. The methodology paper's analysis, however, focuses on the loss of U.S. exports of frozen, bone-in chicken leg quarters (CLQs) – that is, one subset of poultry meat – due to the ban. The United States focuses on this product due to the accessibility of data necessary for the modeling of trade losses. The focus should not be taken as an indication that the United States experienced no or minimal trade losses with respect to the other products affected by India's import ban. To the contrary, the United States is experiencing a substantial level of nullification or impairment with respect to these products. Moreover, the U.S. methodology also likely results in underestimation of the level of nullification or impairment experienced by the United States just with respect to CLQs.

3. Lost U.S. CLQ exports due to India's import ban are calculated using a static partial equilibrium model. This analytical framework is grounded in academic literature and has been used to quantify the trade effects of similar measures. Past Article 22.6 arbitrators have also relied on a partial equilibrium model. Using this methodology and currently-available data, the estimate of the level of nullification or impairment for 2016, just for CLQs, due to India's AI measure is at least \$478.1 million.

4. The U.S. request under Article 22.2 of the *Understanding on Rules and Procedures Governing the Settlement of Disputes* ("DSU") is for authorization to suspend concessions or other obligations with respect to India at an annual level based on a formula commensurate with the trade effects caused to the interests of the United States by the failure of India to bring its import ban into compliance with its WTO obligations. Accordingly, the annual level of nullification or impairment should be represented by a formula. For 2017 and subsequent years, the minimum annual level of nullification or impairment may be calculated as: 2016 nullification or impairment  $\times (1 + \text{growth rate})^t$ . The growth rate is 15 percent, and  $t$  is the number of years forward from the base period in 2016. Accordingly, the minimum level of nullification or impairment may be represented by the amount of at least \$478.1 million  $\times (1 + .15)^t$ .

### II. INDIA'S IMPORT BAN AND THE COUNTERFACTUAL SCENARIO OF NO BAN

5. The Arbitrator has determined that the level of nullification or impairment will be determined in light of the measures in existence on the date that the RPT expired. It is undisputed that, as of the expiry of the reasonable period of time on June 19, 2016, India had not

withdrawn or modified in any way the avian influenza measures that were the subject of the DSB's recommendations. Accordingly, for the present analysis, India's import ban is contrasted with a counterfactual scenario in which no ban exists on the importation of the products in question into India. This is consistent with the counterfactual scenarios used by past arbitrators in other Article 22.6 arbitrations.

### **III. BACKGROUND ON THE U.S. AND INDIAN POULTRY SECTORS**

6. From 2006-2016, India's poultry consumption has grown by 8 percent per year on average. In 2017 it is estimated to increase by 7 percent from 2016. Since 2012, the demand for processed poultry products in particular in India has increased. India's domestic price for CLQs is higher than the world price for CLQs plus trade costs (including India's tariff and landing charge), meaning that imported U.S. CLQs would compete favorably with domestically-produced CLQs.

7. The U.S. poultry industry is the world's largest producer of poultry meat. Fifteen to 20 percent of U.S. poultry production is exported. U.S. poultry meat exports go to over a hundred different markets. The U.S. poultry sector is highly efficient, due to economies of scale and scope in processing and marketing. Vertical integration gives processors the ability to lower per-unit processing costs and meet consumer requirements. The United States is the world's largest exporter of CLQs, with average annual exports during 2012-16 of 1.6 million metric tons. The average annual value of those exports was \$1.597 billion. No other major supplier effectively competes with the United States in the export of bone-in CLQs.

### **IV. EMPIRICAL RESULTS, EXPLANATION OF METHODOLOGY, AND DATA**

8. The methodology used to calculate the level of nullification or impairment is a partial equilibrium model. In order to estimate the level of nullification or impairment due to India's import ban, it is appropriate to employ a "price wedge" approach. NTBs distort relative prices between world and domestic markets. To estimate the effect of India's import ban on U.S. exports, one first calculates the relative price distortion – i.e., the price wedge. U.S. export losses due to India's import ban are then estimated by calculating the total quantity of U.S. exports to India that would have occurred in the absence of the import ban.

9. In 2016, India's wholesale poultry (CLQs) price was \$2.83 per kg. Without the import ban, India's poultry prices would have been equal to the world price, plus freight, insurance, landing charges, and India's tariff. In 2016, the world price, plus freight, insurance, landing charges, and India's tariff equaled \$1.70 per kilogram. Using the methodology explained above, the calculations show a price wedge of \$1.13 per kilogram, or 40 percent of India's domestic wholesale CLQ price.

10. U.S. export losses are estimated by calculating the resulting quantity effects of removing the 40 percent price wedge. Removal of the price wedge (i.e., equivalent to removal of the ban) would result in both: (a) an increase in processed poultry consumption in India, due to greater product availability and lower prices, and (b) a reduction in domestic processed poultry

production stemming from lower prices. Together, these effects represent the total amount of domestic consumption that would be supplied by U.S. imports if the ban were withdrawn.

11. To ascertain the increase in consumption that would occur on withdrawal of the import ban, the price elasticity of demand is multiplied by the quantity of processed chicken in the Indian market and the price wedge as a percentage of India's domestic price. This calculation results in an increase in consumption of 378,274 metric tons. To ascertain the adjustment in production that would occur on withdrawal of the ban, the price elasticity of supply is multiplied by the quantity of processed chicken in the Indian market and the price wedge as a percentage of India's domestic price. This calculation results in a decrease in Indian processed chicken production of 252,182 metric tons. To calculate the level of nullification or impairment, these two results (378,274 metric tons plus 252,182 metric tons) are added to obtain a total export loss of 630,456 metric tons. Multiplying the unit price (\$758 per mt) by the quantity results in a level of nullification or impairment of **\$478.1 million**.

12. The domestic Indian wholesale prices for CLQs used for the price wedge calculation were sourced from a publicly available website, Poultry Bazaar ([www.poultrybazaar.net](http://www.poultrybazaar.net)) that reports wholesale poultry prices at the Murga ("Chicken") market in New Delhi, as well as other Indian regions and cities. The Federal Reserve is the source of monthly exchange rate data to convert rupees into U.S. dollars. The Poultry Bazaar website is the only identifiable public source that collects wholesale price data on chicken leg quarters and other processed chicken parts. To assess if the Murga market price for CLQs in Delhi is a representative price for other parts of India, wholesale prices for whole birds in the Delhi market were compared to prices in other major markets. Using the Delhi price data provides a conservative estimate of the market price in India.

13. The world price is considered to be equal to the average U.S. per unit export price for CLQs to the world ( $p^{ex}$ ). The equivalence between these prices reflects the impact of sizable U.S. exports on the world CLQ market and the fact that export prices would be expected to adjust to a world market price. The source for data on U.S. export prices is the U.S. Census, which is the official source for U.S. trade data. To convert the world price to an "as delivered" basis ( $P^i$ ), one must account for necessary trade costs. First, to obtain a world price that includes the cost of freight and insurance, the free on board (FOB) per unit export price is converted to a cost, insurance, and freight (CIF) price. India's 100 percent tariff is then applied, as well as India's landing charge of 1 percent of the CIF value of imports.

14. The data source for Indian broiler consumption used for this analysis is the official USDA estimate of Indian broiler consumption. This information is compiled on a regular basis by USDA as part of its ongoing research activities, and is made available to the public on the internet. Broiler consumption for foreign countries is the residual of production and net trade. Because India does not import broiler meat and exports only a negligible amount (approximately 0.1% of total production), Indian broiler consumption is virtually equal to production. U.S. CLQs would compete in the processed poultry segment in India. The processed poultry segment has been estimated at up to 20 percent of India's total poultry market. The rapid rate of growth in demand for these products, noted above, suggests that the actual present market share for this

segment may be even higher. The model uses 15 percent as a conservative assumption. This adjustment is applied to the USDA broiler consumption data.

15. According to the USDA, estimates of poultry consumption growth since the mid-1990s together with growth rates in per capita income and real poultry prices during the same period are consistent with a price elasticity of demand of -1.5. This estimate may be conservative when applied to CLQs, given that price elasticities for aggregate meat categories are smaller in absolute value than the price elasticities of their respective product categories. Despite the conservative nature of this figure, the model applies a price elasticity of demand of -1.5.

16. The USDA baseline model employs an elasticity of supply of 1 for poultry. In the widely used computable general equilibrium model, GTAP, the supply elasticity for processed meats is 1.12. India's own Indian Council of Agricultural Research (ICAR) has made supply projections using a supply elasticity of 1.75. For long run analysis, supply elasticities between 2 and 5 have been recommended. To be conservative, the model employs an elasticity of supply ( $e^s$ ) of 1.0.

#### **V. USE OF OTHER POSSIBLE, AVAILABLE PARAMETERS IN THE MODEL RESULT IN AN EVEN GREATER LEVEL OF NULLIFICATION OR IMPAIRMENT FOR CLQS**

17. The estimate presented above is a minimum for the lost CLQ exports resulting from India's ban. The U.S. analysis presumes an Indian domestic price for CLQs with the ban in place that likely reflects only the lowest priced markets. Higher prices mean that the difference between the prevailing price and the price of imported CLQs would be greater than the 40 percent price wedge used in the calculation. If the predicted Kolkata price is used, the estimated level of nullification or impairment is **\$566 million**. Second, the estimate of the processed poultry segment at 15 percent of the Indian market may well underestimate the size of this segment. It has been growing rapidly, suggesting that even slightly dated figures may underestimate its share. Some sources indicate that the size could be as large as 20 percent of supply. If the model reflects that the processed segment comprises 20 percent, the estimated level of nullification or impairment is **\$637 million**.

18. Third, the price elasticity of demand used is a price elasticity applicable to overall poultry consumption in India, not just the consumption of processed poultry or CLQs. CLQ quantity demanded may well be more sensitive to price than quantity demanded for other products like whole birds. Accordingly, the model likely underestimates the price sensitivity of demand. A higher price sensitivity of demand would mean a larger increase in growth of quantity demanded associated with opening the market to lower-priced imports. Fourth, in an abundance of caution, the model uses a highly conservative supply elasticity of 1.0. As noted above, India's own ICAR has made supply projections using a supply elasticity of 1.75. A supply elasticity of 1.75 would result in a substantially greater adjustment in domestic supply stemming from the price effect of allowing imports. Using a supply elasticity of 1.75 (but keeping all other assumptions the same) would result in an estimated level of nullification or impairment of **\$621 million**. If the model reflects that the processed poultry sector represents 20 percent and not 15 percent of the Indian market and also accepts ICAR's supply elasticity of 1.75, the resulting estimated level of nullification or impairment is **\$829 million**.

## VI. PROJECTED LEVEL OF NULLIFICATION OR IMPAIRMENT OVER TIME

19. The annual level of nullification or impairment will increase each year due to India's rapid population growth and resulting increases in consumption of the affected products. The determination of the level of nullification or impairment should account for this growth by taking the initial minimum figure (\$478.1m) and using a formula to adjust the level of nullification or impairment for subsequent years. Processed poultry consumption in India is growing at more than 15% per year. Employing this figure, one can project forward the equivalent level over time with the following formula:  $\$478,053,668 \times (1 + \text{growth rate})^t$ . In this formula,  $t$  is the number of years forward from the base period in 2016.

### SUMMARY OF THE U.S. WRITTEN SUBMISSION

#### I. INTRODUCTION

20. India agrees with the United States that the proper way to determine the level of nullification or impairment in this dispute is to calculate the price wedge that resulted from India's WTO-inconsistent import ban on U.S. poultry products, and then use a partial equilibrium model to determine the trade effect that removing the price wedge would have. India also agrees with the United States on the proper way to perform those calculations. What the parties disagree about—and therefore the only things that the Arbitrator must decide—are 1) the inputs used to determine the price wedge and in the partial equilibrium model, and 2) whether the authorized suspension of concessions should increase each year to recognize the increasing trade effect India's WTO-inconsistent import ban has on U.S. poultry exports.

#### II. INDIA'S INTERPRETATION OF THE DSU IS UNFOUNDED

21. India argues that the Methodology Paper contains two legal errors: 1) that the level of nullification or impairment can be measured with reference to calendar year 2016, and 2) that the total level of nullification or impairment—and therefore the level of suspension of concessions—can be determined as a formula, rather than a fixed number. India is wrong on both points; the Methodology Paper is consistent with the text of the DSU, as well as past decisions from arbitrators evaluating issues under DSU Article 22.6.

##### A. The DSU Does Not Mandate Measuring the Level of Nullification or Impairment by the 12-Month Period Starting When the RPT Expires

22. India and the United States agree that the level of nullification or impairment—and therefore the proper level of suspension of concessions and other obligations—should be measured over the course of one year. The parties disagree, however, on which year to measure.

23. India's position is without legal basis. This is most evident from the fact that India cites no provision of the DSU or arbitrator's decision to support its assertion. Indeed, India's position is *contrary* to the text of DSU. Article 22.6 mandates that arbitrations "shall be completed within 60 days after the date of the expiry of the reasonable period of time." If India's approach were correct, and the *only* reference period for determining the level of nullification or

impairment were the twelve-month period following the expiration of the RPT, then it would be impossible to comply with the 60 day deadline in the DSU.

24. Even if India’s position were not contrary to the plain language of the DSU (it is), there still would be no reason for the Arbitrator to adopt India’s position. Previous arbitrations have determined that the level of suspension must “be a reasoned estimate.” Further, these estimates must “rely, as much as possible, on credible, factual, and verifiable information.” The United States used calendar year 2016, and only CLQs, because the data for that year and for that product are readily available. India offers no reason why using calendar year 2016 would not reasonably estimate the level of nullification or impairment, so there is no reason for the Arbitrator to disregard that data.

25. But, India is correct that the twelve-month period following the expiration of the RPT may be used by the Arbitrator. And, consistent with the Arbitrator’s mandate to make a reasoned estimate based on credible information, some estimates and other data are available for that period. Using these updated values in the calculations outlined in the Methodology Paper leads to an *increase* in the estimated level of nullification or impairment to **\$493.5 million**.

#### **B. The DSU Does Not Prohibit the Arbitrator from Basing the Suspension of Concessions on a Formula Rather than a Fixed Number**

26. India also argues that the Arbitrator must determine the level of nullification or impairment—and therefore the level of suspension of concessions—as a fixed number, rather than a formula. This is not correct. Neither the DSU nor subsequent arbitrator decisions indicate that the Arbitrator should not base the level of suspension of concessions on a formula. As the arbitrator in *US – Continued Dumping and Subsidy Offset Act of 2000* (“*Offset Act*”) clearly put it, there is “no limitation in the DSU to the possibility of providing for a variable level of suspension if the level of nullification or impairment also varies.”

27. This of course makes perfect sense given that under Article 22.4 of the DSU, the level of suspension of concessions “is” to be equivalent to the level of nullification or impairment. Ideally, the suspension of concessions should adjust in tandem with the level of nullification or impairment to continue inducing compliance. And arbitrators have authorized suspension based on a formula when the complaining party requests it. None of the complaining parties in the arbitrations cited by India requested that the level of suspension be set by formula, so none were.

28. The request to increase the authorized suspension by a fixed percentage every year in recognition of the anticipated growth rate of India’s processed poultry market in no way increases unpredictability; rather, India (and other Members) will have clear notice of the authorized level of suspension of concessions and of the potential trade consequences of its maintenance of WTO-inconsistent measures.

29. Importantly, increasing the level of suspension of concessions each year would help ensure that the level of suspension of concessions is no more than equivalent to the actual level of nullification or impairment. As noted in the Methodology Paper, the best way to help ensure equivalency between the level of suspension of concessions and the level of nullification or

impairment in this case is to determine a level of suspension of concessions that reflects the anticipated growth in India's market over time.

### **III. INDIA'S CRITICISMS OF THE INPUTS INTO THE PRICE-WEDGE MODEL ARE WITHOUT MERIT**

30. All of India's criticisms are undermined by relevant data and academic literature

#### **A. India Fails to Link Its General Observations About Cold Chain Capacity and Consumer Preference to the Calculated Level of Nullification or Impairment**

31. India appears to believe that the economic model in the Methodology Paper was based on the Indian poultry market in general. But this is not correct. The economic model in the Methodology Paper focused on the processed poultry market in India, not the overall poultry market. Therefore, all of India's discussion of the limited cold storage facilities in India, limited refrigerator capacity, frequent electricity power outages, and health risks related to selling frozen meat in traditional outdoor markets without cold chain facilities misses the point. The economic model already took all of these into account by focusing on the existing processed poultry market, a market where these factors are not relevant because they have already been addressed.

32. The growth in the processed poultry sector is driven in part by expansion of the quick service restaurants (QSRs) and hotel, restaurant, and institutional (HRI) businesses. The QSRs and HRI businesses use and rely on existing cold chain infrastructure. As they grow, the cold chain infrastructure grows with them.

33. In addition, India has not meaningfully quantified the effect that India asserts the country's lack of cold chain capacity or consumer preference would have on the Methodology Paper's calculations.

34. As explained above, the United States *already took into account these issues* by only analyzing the processed poultry sector.

#### **B. Processed Chicken's Share of the India Poultry Market Is At Least 15%**

35. India argues that processed chicken comprises 5% of the Indian poultry market. But this claim is based on a single, unsupported source. Neither that source nor India's retained expert, Dr. Sebastian Pouliot, conducted any surveys or economic analysis. Further, India's proposed value is contrary to the substantial number of articles and studies that suggest the processed poultry market is large and growing.

36. The United States relied on *two* studies to estimate the size of the processed poultry market. The United States used the midpoint of these two studies—15%—as a conservative estimate of the size of the market.

37. If anything, these estimates are low given how fast this segment of the market is growing. As noted in the Methodology Paper, demand for processed chicken is driven by QSRs and HRI



businesses, which in turn is driven by India's urbanization and economic growth. These sectors are experiencing rapid growth.

### **C. The -1.5 Value of Price Elasticity of Demand in India is Reasonable**

38. India is incorrect when it argues that the price elasticity of demand value used in the Methodology Paper is not substantiated by reasoned justification. The elasticity value stated in Exhibit US-11 was determined by the expert judgment of agricultural economists with over 35 years of combined experience analyzing India's agricultural markets. The value stated in Exhibit US-11 does not simply attribute the -1.5 to the growth rate in per capita income, nor does it erroneously link "the concepts of price elasticity of demand and income elasticity." Rather, the authors of Exhibit US-11 adjusted upward an Indian demand elasticity for "all meats" (-0.88)—which was estimated by other economists—because that value, along with the assumed income elasticity of 1.7 could not explain the rapid observed growth in Indian poultry meat demand in the preceding years.

39. A demand elasticity of -1.5 is also supported by more recent academic literature, which found that the "own price elasticit[y] of demand" for chicken in urban areas was -1.37.

40. India's retained economist provided no explanation for how he determined that the price elasticity of demand was only -0.4; he cited to no academic work purporting to quantify price elasticity of demand, and performed no quantitative modeling or economic analysis of any kind to support his conclusion. Beyond the lack of quantitative analysis or reference to academic research on the issue, Dr. Pouliot's conclusion that the price elasticity of demand for CLQs is low in absolute terms, and lower than demand for generic meats, is contrary to the observations and conclusions of a number of academic studies of the Indian poultry market. Any lack of a reliable cold chain is irrelevant to the question of demand elasticity, which is simply a measure of how much consumers respond to changes in price.

41. But, in any event, the recent examples of Cameroon and Haiti suggest that Indian consumers may in fact "start buying U.S. poultry just because its price is allegedly lower." In the mid-1990's, both Haiti and Cameroon reduced tariffs on imported poultry meat. Soon thereafter poultry imports by each country increased dramatically. Subsequent surveys of households in both Cameroon and Haiti revealed that this increase in poultry consumption was *not* due to a change in preference.

42. Cameroon and Haiti are thousands of miles apart, and do not share a common culture, heritage, or history, yet households in both countries reacted the same way to the availability of low-cost imported frozen chicken: they bought it. A lot of it. And they bought a lot of it even though they still preferred the local fresh chicken to which they were accustomed before the tariffs were lowered.

43. There is no reason to believe that the behavior of Indian consumers would be any different from their counterparts in Cameroon and Haiti, with the convenience and price of frozen imported chicken mattering more to the purchaser than the reported preference for fresh domestic products.

**D. India’s Calculation of Transportation and Insurance Costs Is Flawed Both in Theory and in Practice**

44. The methodology India used to calculate the purported shipping costs does not provide a reliable measure of those costs.

**1. India’s Method of Indirectly Calculating Transportation Costs Is a Poor Proxy for Actual Shipping Costs**

45. India purports to calculate the costs of freight and insurance by comparing “the difference between the import unit-value and the export unit-value.” This method has a substantial number of flaws. As one academic bluntly stated, “it would be *very unwise* to use data constructed from the matched partner technique [used by India here] for any exercise where the level . . . of transportation costs matters.” This is because much of the collected data is facially implausible (i.e., the derived transportation cost is negative), and even data that is not questionable on its face can deviate from actual shipping costs to such an extent that the difference is “at least as big as the implied *ad valorem* rate being measured.”

**2. India’s Purported Calculation of Transportation Costs Is Not Accurate**

46. Even if the matched pairs analysis used by India were methodologically sound (it is not), the manner in which India calculated shipping costs would still be flawed.

47. First, the data on which India based its calculation appears to be flawed or otherwise incomplete. Second, India’s analysis appears to be the result of looking through the data and finding those countries that have the highest identifiable differences.

**3. The Transportation and Insurance Costs Used in the Economic Model in the Methodology Paper Are Reasonable**

48. The better estimate of freight and insurance is 8.5 cents per kilogram, as stated in the Methodology Paper. Not only is that the amount reported by U.S. industry, it also is the value reported in public sources.

**IV. CONCLUSION**

49. For the above reasons, the United States respectfully requests that the Arbitrator determine that the level of suspension of concessions and other obligations is an amount no less than that determined by adjusting \$478.1 million each year, consistent with the formula outlined in the Methodology Paper.

## SUMMARY OF THE U.S. OPENING ORAL STATEMENT

### I. INTRODUCTION

50. India adopted a WTO-inconsistent ban on the import of U.S. poultry products, and both parties agree that the ban has caused actual nullification or impairment of the benefits to the United States under the covered agreements. Both India and the United States agree that the best way to measure that nullification or impairment is a partial equilibrium model that incorporates a price wedge to determine the net trade effect of India’s import ban. Furthermore, India’s own values for the variables in the model result in a level of nullification or impairment of at least \$61 million, instead of the \$15 million noted in its written submission.

51. At the same time, the task of setting a level of suspension of concessions that is equivalent to the nullification or impairment caused by India’s WTO-inconsistent import ban of U.S. poultry products is complicated by a number of factors, not the least of which is the lack of reliable data about the Indian poultry market, including the ambiguously defined “processed poultry” market, and other key variables, such as how Indian consumers would behave if they were to have the opportunity to purchase lower-cost U.S. chicken meat.

52. Two key themes that are relevant to the Arbitrator’s task are:

53. *First*, the lack of readily available, reliable data on India’s poultry market in general and for specific poultry products presents a challenge. The United States developed the most robust model it could to accurately calculate the level of nullification or impairment resulting from India’s import ban. But the United States could not develop a model that incorporated additional variables because data for those variables were not available; in some instances the obstacle to developing a more robust model was the lack of trade brought about by the import ban itself.

54. The DSU does not require absolute precision in setting the level of nullification or impairment, only a “reasoned estimate” in the words of the *EC – Hormones* arbitrator. There is sufficient data that the Arbitrator can use the U.S. model to determine a reasoned estimate, but adding more variables to the model could require the Arbitrator to make additional assumptions, with little or no empirical data to support them, that would make the model’s results less reliable. Importantly, sufficient data are necessary to reasonably quantify the effect of India’s import ban. As a result, it is necessary to be very cautious when considering incorporating into the analysis of the level of nullification or impairment analysis additional variables that have not been—and in many cases cannot be—quantified.

55. *Second*, it is important to remember that the U.S. methodology paper only evaluates the effect of India’s import ban on the sale of U.S. frozen chicken leg quarters, or CLQs, and not the total effect of the ban. As a result, any level of suspension of concessions set by reference to the U.S. model will be less—indeed, likely *substantially* less—than the actual level of nullification or impairment resulting from India’s import ban.

## II. THE METHODOLOGY

56. India and the United States agree on *how* the Arbitrator should determine the level of nullification or impairment resulting from India’s import ban. Specifically, India and the United States agree that the Arbitrator should calculate the “price wedge,” which is how much higher the price of chicken is in India than the price that Indian consumers would pay for imported chicken from the United States if the ban were withdrawn. The Arbitrator can then use the price wedge in a partial equilibrium model to determine the volume of U.S. CLQs India would import if the ban were withdrawn.

## III. INPUTS

57. The parties also agree on some of the inputs to this model. India and the United States agree that the Arbitrator can use the USDA estimate of the total size of the Indian poultry market in general. India and the United States also agree that the wholesale leg price from the Murga Market in Delhi should be used as the Indian price, and U.S. Census price should be used as the U.S. price, for purposes of determining the price wedge. India and the United States also agree that the price elasticity of supply in India is 1.

58. But the parties disagree on many of the other inputs into the model. For most of the inputs on which we disagree, India supports its argument by reference to the same set of facts: namely, India’s poor cold chain and infrastructure development, and a purported preference of Indian consumers for live birds slaughtered at a wet market. But these issues are irrelevant for two independent reasons.

59. *First*, the model already takes these issues into account by valuing the impact India’s import ban has on the *processed* poultry market, rather than the poultry market as a whole. *Second*, empirical evidence from other countries suggests that lack of cold chain infrastructure and live bird preference does not prevent consumers from buying imported frozen CLQs when they are available. Consumers in Haiti and Cameroon purchased substantial quantities of imported chicken meat once restrictive tariffs were removed, *despite continuing to express a preference for fresh, local poultry*.

60. The inputs used by the United States are conservative. The United States did not use the high-end estimate for the size of the processed poultry market, 20%, but rather took the midpoint of that and other studies that suggested the size is closer to 10%. Nor did the United States use the highest price elasticity of demand found in the literature, or the lowest shipping cost. The United States also makes conservative assumptions, such as 100% of India’s tariff being passed on to consumers, even though that may not be the case. Given how conservative these estimates are, there would be a risk of setting a level of suspension of concessions that is drastically lower than the actual nullification or impairment, even when just looking at the limited CLQ market, if these already conservative assumptions and estimates were further reduced.

### **A. Price Elasticity of Demand**

61. The United States used a price elasticity of demand of negative 1.5 in its Methodology Paper. This value was taken from an analysis performed by the USDA in 2004. The authors of that analysis derived the elasticity value by performing extensive field research, reviewing information obtained from interviews with industry participants in India, and analyzing a number of different data points, including a substantial increase of Indian poultry consumption combined with moderate price growth. The negative 1.5 value is further supported by subsequent econometric research that estimated a price demand elasticity in Indian urban areas of negative 1.37. Indeed, the negative 1.5 value may be conservative.

62. India, by contrast, asserts that the price elasticity of demand is just negative 0.4. This is not supportable. Rather than finding a value in the academic literature, or performing an econometric analysis of its own poultry market, India retained a consultant who arbitrarily asserted the value and labeled it “reasonable.” India’s consultant, like India itself, cited no academic studies and performed no econometric analysis.

63. Perhaps recognizing the weakness of its position, India later asserted—again, without reference to anything at all—that “it is reasonable to rely on guestimates of the values of elasticities,” even going so far as to claim that those guestimates might be superior to empirical estimates. You do not need to be a professional economist to recognize just how flawed that statement is.

### **B. Market Size**

64. The United States calculated the level of nullification or impairment by estimating that the processed poultry market makes up 15% of the total poultry market in India. This estimate is the mid-point between the 20% estimate from Exhibit US-6 and the 10% estimate from Exhibit US-14. Again, this market size estimate is conservative; one commenter, quoted in Exhibit US-20, asserted that CLQs could capture up to 40% of *the entire Indian poultry market*.

65. By contrast, India argues that processed chicken was just 5% of the Indian poultry market in 2016. But this claim is based on a single, unsupported source that cites no surveys, academic studies, or economic analyses that support its estimate; and India cites none either.

### **C. Shipping Costs**

66. Shipping costs from the United States to India would be relatively low, at 8.5 cents per kilogram, including insurance. This figure is supported both by the publicly available website [worldfreightrates.com](http://worldfreightrates.com) and by actual rates paid by U.S. exports for shipping frozen animal products to Chinese Taipei.

67. It is important to remember that distance between origin and destination is not the sole factor in shipping costs. Two other key determinates are (1) whether the cargo must be routed through an intermediate port—a process known as “transshipping;” and (2) whether the

refrigerated containers used to ship the product to the destination port can be re-used for product leaving the destination port.

68. Transshipment increases transportation costs because the containers being transshipped must be unloaded from one vessel, stored, and then loaded on to a second vessel. Transshipment of perishable items such as CLQs is particularly difficult given that the refrigerated containers must be connected to a power source and constantly monitored to maintain refrigeration during storage. While a number of factors affect whether goods are transshipped, an important one is volume.

69. Similarly, when transporting perishable goods in refrigerated containers, the ability to re-use that container at the destination port can lower the cost of transport by up to \$500 per container.

70. This is why the United States chose Chinese Taipei as a comparison market for shipping costs. Like India would without its ban, Chinese Taipei imports a substantial volume of frozen CLQs, facilitating direct shipments from the United States without the need to transship. And, like India, Chinese Taipei exports a substantial volume of perishable animal products and therefore can reuse the refrigerated containers that are used to ship U.S. CLQs.

71. India appears unable to decide on how to best calculate shipping costs from the United States to India. In its written submission India relied on a “matched pairs” analysis, that compared the reported value from the exporting country with the reported value from the importing country. In its written submission, the United States noted both the theoretical shortcomings of the matched pairs analysis, as well as the substantial issues in its application in this proceeding.

72. Perhaps because of these critiques, India has moved on to a new method. It now argues that shipping costs should be estimated with reference to what appear to be an arbitrarily selected group of other countries that shipped perishable animal products to the United States in 2015 and 2016. But even these new values are still too high. India’s analysis does not take into account volume, or whether the products were transshipped, or distance, or whether the goods were being shipped to ports that also exported perishable items that needed to be refrigerated, or any other relevant variable. It can safely be disregarded.

#### **IV. LEGAL ISSUES**

73. The parties also disagree on two purely legal issues: (1) whether the Arbitrator can determine the level of suspension of concessions based on a formula as opposed to a fixed value; and (2) whether the reference period for determining the level of nullification or impairment should be calendar year 2016, or the twelve month period starting with the expiration of India’s reasonable period of time to comply with the DSB’s recommendation. India asserts positions that are not supported by either the text of the DSU or any past arbitrator decision.

### **A. Proper Reference Period**

74. The DSU is silent about which period to use. The DSU requires that the level of suspension of concessions be equivalent to the level of nullification or impairment resulting from the WTO-inconsistent measure. Other arbitrators have stated that the level of nullification or impairment should be a “reasoned estimate,” one that is based “as much as possible, on credible, factual, and verifiable information.” The United States chose calendar year 2016 as the reference period because data for that year were readily available.

75. India argues instead that the proper reference period should be July 2016 through June 2017. Not only does the DSU not mandate use of this reference period, mandating its use would be impossible given that the complaining party’s request for authorization must be approved by the DSB within 30 days of the expiration of the reasonable period of time to comply, unless the Member concerned objects.

76. But, the DSU does not prohibit an arbitrator from using that reference period, given the time that has elapsed since India objected to the U.S. request. If July 2016 through June 2017 were used as the reference period, it would also be necessary to update *all* relevant data to reflect this new time period. As discussed in the U.S. Written Submission, doing so actually *increases* the level of nullification or impairment to **\$493.5 million.**

### **B. Use of a Formula**

77. The DSU affords discretion to an arbitrator, requiring only equivalence between the level of suspension and the level of nullification or impairment. In this proceeding determining the level of suspension of concessions through use of a formula will better maintain the required equivalence.

78. Suspension of concessions is intended to encourage India to bring its measure into compliance with the requirements of the SPS Agreement. Given the conservative estimates used in the model, and the expected rapid growth of the processed poultry market in India, the ability of the suspension of concessions to encourage India to comply with its obligations will substantially erode over time unless the suspension of concessions grows with the market.

79. The most recent set of advance questions asked whether the United States would object to, in essence, setting the level of nullification or impairment each year by re-running the model with updated data including, importantly, “the size of the Indian processed/frozen poultry market in year t.” While the United States does not object to this approach in theory, it would be difficult if not impossible to execute in practice.

## **V. U.S. ABILITY TO MEET NEW IMPORT DEMAND**

80. Only a handful of countries in the world have the production capacity to meet anticipated demand from India, and none is price competitive with the United States.

81. India spends multiple pages of its response explaining how, *theoretically*, it would be possible for one or more countries to export poultry to India and compete with the United States.

But this theoretical possibility does not manifest itself in reality. Only a few countries are subject to India's import ban, yet India imports very little poultry.

82. India argues that the EU has a price advantage over the United States by comparing per unit cost of exports under HS code 020714. But this is comparing apples to oranges. A substantial portion of EU exports under code 020714 is mechanically deboned or mechanically separated meat. This is a byproduct of chicken processing and is used as an input for chicken products that are processed further. The United States reports this product under a different HS code. And, it is decidedly *not* a product that Indian consumers might purchase instead of U.S. CLQs. If apples are compared to apples—that is, the per unit cost of chicken legs from the EU with the per unit cost of U.S. CLQs—CLQs have a clear price advantage, as shown in the U.S. responses.

## **VI. CONCLUSION**

83. For the reasons discussed, as well as those explained in the Methodology Paper and U.S. Written Submission, the United States respectfully requests that you set the level of suspension of concessions using a formula that recognizes the strong growth of the level of nullification or impairment each year, based on a level of nullification or impairment for 2016 as no less than \$478 million.