

United States – Subsidies on Upland Cotton
(WT/DS267)

**Opening Statement of the United States of America
at the Second Session of the First Meeting
of the Panel with the Parties**

October 7, 2003

I. Introduction

1. Mr. Chairman, in the U.S. further submission, we began the work of untangling Brazil's unfocused accusations, carefully examining facts and legal interpretations. We continue that work today.

2. I will attempt not to reiterate all of the arguments put forward by the United States in its further submission – for example, our request for preliminary rulings set out in Section II of the further submission that “other payments,” cottonseed payments, and certain export credit guarantees are not within the scope of this dispute or our argument set out in Section III of the further submission that crop insurance payments are not “specific” within the meaning of Article 2 of the Subsidies Agreement. Neither we will reiterate serious errors of legal interpretation of the relevant provisions on which Brazil bases its claims, errors that in many instances in and of themselves demonstrate that Brazil has not met its burden as the complaining party in this dispute. Instead, in this statement the United States will address other failures by Brazil to carry its burden of demonstrating that U.S. subsidies have the effects complained of.

3. The failures we address in this statement primarily relate to causation – that is, whether Brazil has adduced evidence and arguments sufficient to establish a presumption that U.S. subsidies have resulted in “serious prejudice” to Brazil’s interests, a more than equitable share of world export trade for U.S. cotton, or threat of the foregoing.

4. First, we address Brazil’s failure to establish to whom certain payments go and whether certain payments may properly be attributed to exported upland cotton – that is, what actually is the “subsidized product” and what amount of subsidy is attributed to that product. Because Brazil has not established these elements, Brazil has not adequately identified the challenged subsidies and has not demonstrated that subsidies to upland cotton have any “effect.”

5. Second, even aside from the absence of evidence about the “subsidized product” and the size of the subsidies, Brazil’s simple story does not suffice to demonstrate causation. We previously noted in our further submission that Brazil had utterly failed to explain other factors affecting world cotton supply and demand that led to extraordinarily low prices in recent years, even while trying to attribute those prices to the effect of U.S. subsidies. Brazil’s failure to account for those other factors prevents it from demonstrating that “the effect of the subsidy” was serious prejudice to Brazil’s interests. In this statement, we show the Panel in visual terms the disconnect between U.S. subsidies and price developments. I note that in making this presentation, the United States agrees (on this limited point) with the explanation of Brazil’s

economist that cotton plantings depend in large part on “the expectations about production incentives that growers hold at the time they make their planting decisions.”¹

6. Third, we address Brazil’s assertion that it has demonstrated causation through the use of a simulation model, as augmented by Mr. Sumner. We note that, without answers to the questions noted above on whether there is a “subsidized product” and the size of the challenged subsidies, there is no basis to attempt to model any results. However, without removing the burden of proof from Brazil on these points, we do demonstrate in this statement that Brazil's approach is fundamentally flawed in all aspects. In this statement, Dr. Joseph Glauber, the Deputy Chief Economist of the US Department of Agriculture, presents a critique of Mr. Sumner's use of, and embellishments of, the FAPRI model to which he has referred earlier today. This critique not only points out that Brazil has neglected to provide the Panel and the United States with sufficient detail to assess accurately the validity of Mr. Sumner’s results but also points out that the use of this model for a retrospective analysis (that is, for MY 1999-2002) runs contrary to the intent and design of the model. In sum, even had Brazil carried its burden with respect to the existence and size of the challenged subsidies, Mr. Sumner’s analysis cannot establish causation.

7. Finally, we will conclude the statement with some additional legal points and explanations of how Brazil has failed to meet its burden as the complaining party in this dispute.

¹ Brazil’s Further Submission, Annex I, para. 17.

II. Brazil’s Analysis Fails to Establish to Whom Certain Payments Go and Whether Certain Payments May Properly Be Attributed to Exported Upland Cotton

8. Let me begin by expanding a bit on the issue of causation, an issue to which Brazil gives only cursory attention in its submission. One of the fundamental elements of Brazil’s claims is that Brazil needs to identify the “subsidized product” that is causing the serious prejudice that Brazil claims its interests are suffering.

9. For example, for purposes of a claim under Article 6.3(c) of the Subsidies Agreement, the “effect of the subsidy” must be “significant price undercutting” or “significant price suppression, price depression, or lost sales” caused by “the subsidized product.” Article 6.5 confirms that price undercutting includes “any case in which such price undercutting has been demonstrated through a comparison of prices of *the subsidized product* with prices of a non-subsidized like product supplied to the same market.” Similarly, under Article 6.3(d) “the effect of the subsidy” must be an increase in world market share “in a particular *subsidized primary product or commodity*.” We also note that under Articles 6.4 and 6.3(b), pursuant to which Brazil is not claiming serious prejudice, the “change in relevant market shares” involves an examination of the “relative shares of the market” of the non-subsidized like product and “the subsidized product.” Brazil has not even explained, however, what is the “subsidized product” for each of the types of subsidies from which it claims serious prejudice.

10. Brazil’s panel request identifies the challenged measures as “subsidies provided to US producers, users, and/or exporters of upland cotton.”² However, it is for Brazil as the complaining party, to establish who are the recipients of the subsidies and that the subsidies are properly attributed to upland cotton. Brazil’s failure to do so means that Brazil has not carried its burden in demonstrating that upland cotton is subsidized for purposes of considering adverse effects.

11. Brazil appears to assume that the “subsidized product” is upland cotton in the form traded on the world market. Yet many of the subsidies at issue are paid to producers of cotton. Cotton is processed and sold before being traded. Brazil has made no showing of how the subsidy to the producer can be assumed to pass through to the exporter.

12. In the Peace Clause portion of this dispute, we have discussed at length certain decoupled payments that are not linked to production of upland cotton. These are the green box (1) direct payments and (2) production flexibility contract payments and the non-green box non- or minimally-distorting (3) counter-cyclical payments and (4) market loss assistance payments. With respect to these decoupled payments, Brazil has failed to demonstrate who the recipients of these payments are in connection with any exported upland cotton.

² WT/DS267/7, at 1.

13. The Panel will recall this as a point raised in the context of the U.S. rebuttal of Brazil's unfounded assertion that these decoupled payments are product-specific support. Once again, Brazil simply presumes that every upland cotton producer is an upland cotton base acreage holder and receives a decoupled payment. Brazil has brought forward no facts to demonstrate that this is the case.

14. In fact, following the first session of this panel meeting, Brazil recognized that, even on its own theory, it could not count the entirety of decoupled payments with respect to upland cotton base acreage as “support for upland cotton” because the amount of acreage devoted to upland cotton production is *less than* the upland cotton base acreage for decoupled payments.³ Let me clarify: in 2002, there were approximately 14 million acres of upland cotton, but there were 16 million “upland cotton base acres” under the 1996 Act for purposes of production flexibility contract and market loss assistance payments. That is, in 2002 there were *at least* 2 million upland cotton base acres not being used for production of upland cotton. However, Brazil's revised number, just as its original number, is merely a guess because Brazil has failed to demonstrate that the acres currently being used for upland cotton production are, in fact, upland cotton base acres. That is, Brazil has presented no evidence that the recipients of these decoupled payments on upland cotton base acres are, in fact, upland cotton producers.

³ See Brazil's Answer to Question 67 from the Panel, para. 130 notes 2-5.

15. In addition, even while Brazil claims that decoupled payments are support specific to cotton production, Brazil tacitly admits that they are not. Brazil concedes, as it must, that not all payments go to production of cotton. Brazil's "adjustment" of 14/16 of decoupled payments (while too small an adjustment) only establishes that the payments are not for cotton production - otherwise how could 14/16 of the payments be specific support for cotton production but 2/16 not be?

16. Thus, putting aside that Brazil has not contradicted the U.S. presentation of the economic literature that decoupled payments have no or at most minimal trade-distorting effects or effects on production, Brazil has not substantiated what is the amount of these decoupled payments that current cotton producers have received. In fact, a careful reading of Brazil's arguments with respect to "specificity" in its Further Submission reveals that Brazil repeatedly (and correctly) refers to the recipients of decoupled payments as "holders of upland cotton base acreage,"⁴ rather than (in the words of Brazil's panel request) upland cotton "producers, users, and/or exporters."

17. We note that, even if Brazil had brought forward evidence that the recipients of these payments were upland cotton producers, that would not be enough. Brazil would still need to allocate these payments, which Brazil concedes are not linked to current production of upland cotton, over total production on a recipient's farm. We note the context provided by Annex IV of the Subsidies Agreement, which explained the calculation of the *ad valorem* subsidization of a

⁴ See, e.g., Brazil's Further Submission, paras. 45, 49, 52, 53, 54, 58, 59.

product under the now-defunct Article 6.1(a) of the Subsidies Agreement. This Annex provided that (among other conditions), unless “the subsidy is tied to the production or sale of a given product,” the overall rate of subsidization of a “product” is found by taking the amount of the subsidy over the “total value of the recipient firm’s sales in the most recent 12-month period.”⁵ For example, suppose a recipient of a decoupled income payment had a 100 acre farm with 50 cotton base acres, and the farmer currently grows corn and cotton. The decoupled payment on the 50 cotton base acres would be allocated to the farmer across all corn and cotton production on the 100 acres, rather than (as implied by Brazil’s approach) allocated to the acreage producing cotton.

18. Thus, Brazil assumes that the subsidies at issue are received by someone currently producing cotton, based simply on the fact that the subsidy is based on past production of cotton. Brazil has not explained how this makes upland cotton currently for sale on the export market the “subsidized product” with respect to these payments. Brazil has failed to demonstrate that the recipients of the subsidies are involved in current cotton production, nor has it demonstrated how much of the subsidy, even under Brazil’s approach, should be allocated to other products produced by the recipient, such as corn or soybeans.

19. Brazil purports to include export credit guarantees under the GSM-102 program within its actionable subsidy claims. However, Brazil has merely alleged the quantities of export credit

⁵ Subsidies Agreement, Annex IV, paras. 1-3.

guarantees benefitting cotton and the value of exports. Brazil has nowhere presented evidence on any alleged subsidy rate resulting from this program nor the amount of the subsidy. In fact, we would note that Brazil's summary of the "total amount of subsidies" and the "level of subsidization" given in its Further Submission relies on payments listed in the U.S. Department of Agriculture Upland Cotton Fact Sheet, which, of course, contains no subsidy amount for export credit guarantees.⁶ Therefore, Brazil again has not provided any evidence with respect to the amount of the subsidy alleged to be provided by U.S. export credit guarantees.

20. In sum, Brazil has failed to identify the "subsidized product" for each subsidy, nor has it demonstrated how much the product is subsidized. These are fundamental questions, for without them it is impossible to even begin an analysis of the effects caused by the "subsidized product," let alone analyze whether these effects have caused serious prejudice to Brazil's interests.

III. Brazil Has Not Established that U.S. Subsidies Have Suppressed or Depressed Prices in the Same Market

21. Brazil would like you to believe a simple story— that the "strong temporal link"⁷ between the size of U.S. subsidies and the extraordinarily low market prices of recent years demonstrates that the challenged U.S. subsidies caused suppression or depression of those prices. Brazil even suggests that the size of U.S. subsidies coupled with the "dominating U.S. world market share" (defined, as we noted in our further submission, on a faulty interpretation of "world market

⁶ Brazil's Further Submission, para. 110, fig. 2 & n. 145.

⁷ Brazil's Further Submission, para. 109.

share” as share of “world export trade”), creates a “*de facto* presumption” of serious prejudice, a concept nowhere found in the Subsidies Agreement. We recall that where Members intended to create a presumption in a given situation, they knew how to do so.⁸ As noted above, Brazil has in fact not even demonstrated the subsidized product for each of the subsidies it challenges or the size of the subsidies to exported upland cotton. However, without relieving Brazil of its burden on these issues, we note that even Brazil’s overly simplified approach does not suffice to demonstrate causation. U.S. subsidies largely resulted from low market prices, not the other way around.

22. In our further submission, we explained that Brazil had utterly failed to explain other factors affecting world cotton supply and demand that led to those extraordinarily low prices, even while trying to attribute those price effects to U.S. subsidies. Brazil’s failure to account for those other factors prevents it from demonstrating that “the effect of the subsidy” was serious prejudice to Brazil’s interests.

23. We also note that, in the crush of other information Brazil presented in its further submission, Brazil neglected to reflect perhaps the most important measurement of U.S. support: the marketing loan rate. Recall that Brazil has stated that the “largest average domestic payments made for upland cotton between MY1999-2002 were made under the marketing loan program,”⁹ and the United States notifies these subsidies as product-specific support linked to production.

⁸ See Subsidies Agreement, Article 6.1; Agriculture Agreement, Article 10.3.

⁹ Brazil’s First Submission, para. 70.

Brazil's expert explains that "the marketing loan provides a benefit to cotton farms equal to the (non-negative) difference between the loan rate established by the U.S. cotton program and the cotton loan repayment rate, which is equal to the adjusted world price (AWP) of cotton."¹⁰ Of course, the incentive provided by the loan rate remained essentially unchanged during the period Brazil complains about: over marketing years 1999 through 2001, the marketing loan rate was 51.92 cents per pound; in marketing year 2002, the rate increased slightly to 52 cents per pound. A simple comparison of the loan rate to international prices demonstrates the utter disconnect between the decline in cotton prices between, roughly, marketing years 2000 to 2001 and the incentive offered by U.S. marketing loans. (See Exhibit US-44.)

24. This is nowhere more evident than in marketing year 2001, in which large marketing loan payments were made as a result of low market prices from the time of harvest on. However, Brazil has failed to explain to you what market conditions were like at the time when planting decisions were taken by U.S. (and other Northern Hemisphere) producers. These market signals, which we began to detail in the U.S. further submission, suggested that market prices would remain high. (See Exhibit US-45.) In the event, market prices collapsed in the course of 2001, but after Northern Hemisphere producers had planted. Thus, the large marketing loan payments in marketing year 2001, which were made many months after planting decisions had been taken and costs incurred, do not demonstrate that marketing year 2001 payments had the effect of increasing U.S. production and causing serious prejudice to Brazil's interests. (I note that this

¹⁰ Brazil's Further Submission, para. 33.

graph and supporting data do show that futures prices were below the marketing loan rate in February 2002. Dr. Glauber addresses this circumstance later in this statement.)

25. It is interesting to note that Brazil’s expert acknowledges this very point – that is, contrary to Brazil’s implication in its further submission, the large marketing loan payments in marketing year 2001 could not have had effects in marketing year 2001 when prices were at their lowest level in years. As Dr. Sumner explains: “[W]hile the market price for marketing year 2001 eventually dropped to historic lows, at the time of planting for that marketing year (during February-May 2000), prices were much higher.”¹¹ In fact, we would largely agree with the following explanations on marketing loans provided by Brazil’s expert:

- “The magnitude of the impact [of marketing loans] to produce cotton is equal to the expected difference between the loan rate, which is known at planting time, and the growers’ expectations about the [Adjusted World Price] of cotton at the time of planting.”¹²

- “Acreage planted to cotton in a given year (normally between February and May) does not depend on actual realizations of prices, climate or other factors, which occur later. Instead, cotton plantings depend on costs and the *expectations* about production incentives that growers hold *at the time they make their planting decisions*. Thus, [for

¹¹ Brazil’s Further Submission, Annex I, para. 71.

¹² Brazil’s Further Submission, Annex I, para. 34.

example,] for marketing year 2000, which began on 1 August 2000, the expectations of cotton farmers about production incentives are those held during the previous winter, prior to planting the crop and several months before the beginning of the 2000 marketing year.”¹³

We cannot fail to note that Brazil has not presented in its further submission *any* information on “the expectations about production incentives that growers hold at the time they make their planting decisions,” information on which its own expert has stated “cotton plantings depend.” Brazil claims that “[t]his is a case involving basic economic principles of supply and demand,”¹⁴ and yet Brazil’s simple explanation of the conditions in marketing years 1999 through 2002 ignores “the basic economic principles” its own expert says are relevant in this case.

IV. The Sumner Model Presented by Brazil Is Inadequately Explained, Inappropriately Applied for a Retrospective Analysis, and Apparently Uses Faulty Assumptions and Estimations

26. In this portion of our oral statement, the United States turns to the analysis presented by Dr. Sumner, which purports to take into account the relevant “basic economic principles” that Brazil avoids in its further submission. In presenting this reaction to his analysis, we must note that the use of a simulation model to explore the counter-factual of removal of U.S. subsidies cannot be made without answers to the questions on the subsidized product and size of the subsidies that we detailed in Part II of this statement. That is, the use of a simulation model

¹³ Brazil’s Further Submission, Annex I, para 17.

¹⁴ Brazil’s Further Submission, para. 1.

cannot relieve Brazil of its burden of arguing the elements necessary to establish its claims. At this time, however, we do present a critique of Dr. Sumner's analysis to continue our long march through Brazil's further submission, showing that Brazil's approach is fundamentally flawed in all aspects.

27. Brazil would have you believe that it has demonstrated causation through the use of a simulation model, as augmented by Mr. Sumner. In this statement, Dr. Joseph Glauber, the Deputy Chief Economist of the US Department of Agriculture, presents a critique of Mr. Sumner's use, and embellishments, of a model developed by FAPRI, the Food and Agricultural Policy Research Institute. Dr. Glauber has served as Deputy Chief Economist since 1992. Prior to this position, he served as Senior Staff Economist for Agriculture, Natural Resources and Trade at the President's Council of Economic Advisers from 1991-92 and as research economist and section leader of fibers and oilseed research at the Economic Research Service at the U.S. Department of Agriculture from 1984-1991. Dr. Glauber received his PhD in Agricultural Economics from the University of Wisconsin in 1984 and holds an AB in anthropology from the University of Chicago. Over his professional career, Dr. Glauber has written extensively on crop insurance, disaster assistance and farm and trade policy.

28. Among other responsibilities, the Office of the Chief Economist is responsible for coordinating supply, demand and price forecasts for the Department. The U.S. Department of Agriculture publishes these estimates monthly in the *World Agricultural Supply and Demand Estimates*. The Office of the Chief Economist also coordinates the Department's annual baseline

projections for major commodities prepared for submission of the President's annual budget proposals. We stress these responsibilities because much of his comments today will focus on the use of baseline models to estimate the effects of U.S. commodity programs on world cotton markets. Let me turn now to Dr. Glauber.

(Statement of Dr. Glauber)

29. My statement will supplement the U.S. submission to the Panel of the Parties of September 29 and will discuss and critique the analysis provided by Dr. Sumner in Annex I of Brazil's Further Submission of September 9, 2003. I should say at the outset that my comments are based on the material provided by Dr. Sumner in Annex I and what I have inferred by my familiarity with the FAPRI modeling framework and baseline models in general. Since Dr. Sumner has not provided access to the model itself, I cannot say with certainty how the modeling affects the results. Nonetheless, based on what has been presented in Annex I, I believe that the analysis is flawed in several respects and as a result, the conclusions drawn are biased and misleading.

30. In his submission, Dr. Sumner presents an analysis of the impacts of the U.S. cotton program using a simulation model adopted from the FAPRI baseline model. As Dr. Sumner has pointed out in his submission, the FAPRI model utilizes a well-known simulation framework similar to the baseline models of the U.S. Department of Agriculture and the Congressional Budget Office. Yet, while the modeling approach he uses is well accepted for forward-looking projections, I will argue that the use of the model to analyze the historical period 1998-2002 is

more problematic and misleading. I will also argue that the use of lagged prices for price expectations ignores information available to producers in the form of futures prices. I will also raise issue with the baseline used in the analysis. Lastly, I take issue with how he has modeled the effects of U.S. commodity programs on producer planting decisions and argue that his results are at odds with the broader economic literature.

Use of baseline model for back-casting purposes is inappropriate.

31. Baseline models are typically used to analyze policy changes (e.g., a new farm bill) relative to the policy environment currently in place. In this sense, Dr. Sumner's analysis of the 2003 to 2007 period reflects the conventional approach to baseline modeling. Baseline projections are, by construction, forward looking; that is, projections are made given current expectations about future values of so-called exogenous variables (such as GDP growth, exchange rates, or crop yields). Producers are assumed to make planting decisions based on expectations regarding prices, yields, and program payments.

32. Using a baseline model to simulate counterfactual outcomes over the historical period 1999-2002 is more problematic, however, because of the implicit assumption of perfect foresight. That is, the model is calibrated to the actual values that occurred in that year while, in fact, producers could not have anticipated such events when planting decisions occurred. This potentially overstates the effects of the program because the model assumes outcomes that were unanticipated by producers when they made their planting decisions. Also, it is not clear from Dr. Sumner's analysis to what extent actual observed data enter into the solution process. For

example, does acreage response in year t depend on actual yields from period $t-1$ or trend yields over the 1998-2002 period or an updated average of prior years? The difference is not merely conceptual: the choice of values can potentially affect the reported results.

The use of lagged prices as proxies for expected prices leads to biased outcomes, particularly in periods when there are large shocks in world markets.

33. Dr. Sumner's use of lagged prices as a proxy for expected prices is also problematic. Appropriate measures that capture a producer's price expectation have been the subject of numerous studies in the economic literature. A number of studies have used naive or adaptive schemes as proxies for price expectations in supply response. Both naive and adaptive expectations models use lagged variables as substitutes for expectations like the model in this case. In the case of expected price, the price that prevailed in period $t-1$ would be used for a proxy of the expectation for price in period t . Recent studies have criticized this approach. For example, in his classic paper on rational price expectations, Muth (1961) has argued that there is little evidence that expectations based on past prices are economically meaningful.¹⁵ In a 1976 paper, Gardner contended that the futures price for next year's crop is the best proxy for expected

¹⁵ Muth, J.F. "Rational Expectations and the Theory of Price Movements," *Econometrica* 29(1961): 315-335. (See Exhibit US-48.)

price.¹⁶ And since that time there have been numerous papers written using futures prices in supply response estimation.^{17 18}

34. Unfortunately, the use of futures prices in a multi-commodity modeling framework for extended time projection is cumbersome. First, equations must be developed that can predict values for futures contracts in simulation analysis. Second, many commodities lack an organized futures exchange (e.g., grain sorghum). For these reasons, large-scale models like those used by FAPRI, USDA and the U.S. Congressional Budget Office typically use lagged prices rather than futures prices as proxies for price expectations.

35. Nonetheless, the use of lagged prices as a modeling convenience does not preclude the possibility of bias. In periods where there is reasonable stability in markets, lagged prices function adequately as a proxy for price expectations. However, in those years where there are large shocks, lagged prices are poor predictors of expected price. Futures prices, by contrast, are more efficient because they are based on more current information. Consider as an example the 2002 crop year. In the Sumner analysis, area response to the removal of the cotton loan program results in a 36-percent reduction in U.S. planted area—the largest single effect for any of the years considered in his analysis. Based on lagged prices, price expectations for 2002 were 29.8 cents

¹⁶ Gardner, B.L. “Futures Prices in Supply Analysis,” *American Journal of Agricultural Economics* 58(1976):81-84. (See Exhibit US-49.)

¹⁷ Chavas, J.P., R.D. Pope, and R.S. Kao. “An Analysis of the Role of Futures Prices, Cash Prices and Government Programs in Acreage Response.” *Western Journal of Agricultural Economics* 8(1983): 27-33. (See Exhibit US-50).

¹⁸ Morzuch, B.J., R.D. Weaver, and P.G. Helmberger. “Wheat Acreage Supply Response Under Changing Farm Programs.” *American Journal of Agricultural Economics* 62(1980):29-37. (See Exhibit US-51)

per pound, a 40 percent reduction from 2001 levels. Yet, the futures market data suggests a far smaller reduction in expected price. December futures prices taken as an average in February 2002 averaged 42.18 cents per pound, a 28 percent drop from year earlier levels. Based on Dr. Sumner's range of supply response elasticities of 0.36 to 0.47, a decline of this magnitude would suggest a drop in acreage of 10 to 13 percent from the preceding year. In fact, actual U.S. cotton acreage dropped 12 percent (from 15.5 million acres in 2001 to 13.7 million acres in 2002) suggesting acreage levels entirely consistent with world market conditions and price expectations.

Choice of baseline biases the effects of government programs.

36. Dr. Sumner's estimates of U.S. program impacts after marketing year 2001 are further inflated by his choice of a low-price baseline for the counter-factual comparison. His estimate for the 2002 A-Index is 51 cents, compared with 54 cents in FAPRI's March 2003 baseline and an actual price of 56 cents¹⁹. For 2003, Dr. Sumner's A-Index is estimated again at 51 cents, whereas FAPRI's baseline has a 58.4 cent forecast and the International Cotton Advisory Committee is currently forecasting 60 cents. The A-Index is currently (as of September 15, 2003) at 65.5 cents. The low-price baseline exaggerates the 2003-07 results and ensures projections of significant marketing loan payments throughout 2003-07.

¹⁹ Food and Agricultural Policy Research Institute. "FAPRI 2003 U.S. Baseline Briefing Book." FAPRI-UMC Technical Data Report 04-03. March 2003. (See Exhibit US-52)

37. The low-price baseline also affects the price wedge between the adjusted world price (AWP) and the farm price. Recall that marketing loan benefits occur whenever the AWP is below the loan rate. Dr. Sumner's baseline shows a price wedge between the farm price and the AWP that is much higher than indicated by recent history. Under his baseline, the farm price exceeds the AWP by an average of 8 cents per pound over the 2003-07 period. By contrast, under the 2003 FAPRI baseline, the farm price exceeds the AWP, on average, by less than 2 cents over the same period. The result is that the baseline inflates expected producer revenue under U.S. programs by 6 cents per pound. Based on an average cotton yield of 645 pounds per acre, this bias increases revenue by almost \$39 per acre. Removing the marketing loan thus gives a bigger acreage shift than what would otherwise occur if the price wedge were more in line with the current FAPRI baseline.

38. The degree of the bias can be derived using the scenario results presented by Dr. Sumner. In his model, Dr. Sumner assumed that the presence of crop insurance added \$19 to net returns. Removing the \$19 from net returns reduced planted area by an average of 486 thousand acres over the 2003-07 period. Therefore, it is reasonable to expect that removing the additional \$39 would have between a 500,000 to million-acre impact. In the marketing loan scenario, acreage fell by an average of 992 thousand acres over the 2003-07 period. Under more reasonable price relationships, the decline would be less than one-half that amount. Based on Dr. Sumner's own analysis, changes of only one-half million U.S. acres can move world prices by 1.0 to 1.5 percent.

Treatment of decoupled programs is unconventional and biased.

39. Dr. Sumner's treatment of decoupled payments (particularly from Annex I on pages 16-21) is neither a "standard" feature of other models, nor is it as "consistent" with USDA work in the area as repeated citations of that work might suggest. There has been considerable work done by the USDA and other researchers on such programs, both theoretical and empirical, which acknowledges the programs may have some impact on production, and that those impacts depend in part on farmer's expectations (Westcott et al., 2002).²⁰ However, the research concludes that the impact appears negligible.

40. Dr. Sumner, on the other hand, uses a stylized logic to come up with the estimates for the impact of production flexibility contract (PFC) payments that have neither empirical nor theoretical grounding. He then generates a range of impacts and takes a "conservative" approach by selecting the "lower" end of his range. Through this process he is able to create impacts for programs notified as so-called "green box" payments, which are then used in his model.

41. He cites, then ignores, recent USDA empirical work showing that decoupled payments have a only a small impact (ERS 2003).²¹ He justifies this, in part, by saying that the analysis looked at all programs, while he is looking only at cotton. However, in both their inception and administration, these programs must be considered as a whole. Treating part of the overall

²⁰ Westcott, P., Young, C.E., and Price, M., USDA, ERS, The 2002 Farm Act, Provisions and Implications for Commodity Markets, Economic Research Service, November 2002. (See Exhibit BRA-42)

²¹ USDA, ERS, Decoupled Payments: Household Income Transfers in Contemporary U.S. Agriculture, M.E. Burfisher and J. Hopkins, Eds. USDA ERS AER Number 822. February 2003. (See Exhibit US-53)

programs as though they were a “cotton program” distorts the programs. It is widely accepted that these programs have whole farm impacts rather than crop specific impacts—the payments received do not have crop-specific impacts. Furthermore, the impact is much smaller than Dr. Sumner has estimated; the whole farm impact is, at its upper estimate, perhaps one-quarter to one-fifth the impact he cites for cotton alone. He thus vastly overstates the impact of these payments on cotton production.

42. Dr. Sumner argues that market loss assistance (MLA) payments have a larger effect on area than do PFC payments despite the fact that MLA payments were paid on the identical payment base as the PFC payments. Moreover, MLA payments were authorized by Congress on a post hoc basis as emergency supplemental payments. Supplemental legislation authorizing each of these payments was passed several months after planting for the crop year in question had occurred. Dr. Sumner included these payments in his acreage equations and asserts that producers had expectations that they would receive market loss assistance payments at the time of planting. If producers had expectations of payment, then they also knew that they would be eligible to receive such a payment regardless of what crop they planted. Indeed, they could choose not to plant and still be eligible for the payment. This would argue that market loss assistance payments, like production flexibility contract payments, direct payments, and counter-cyclical payments are decoupled from planting decisions and should not be included in an acreage response equation.

43. Like other direct payments, counter-cyclical payments are based on historical production rather than actual production. The fact that the payment rate is tied to current prices does not mean that payments are less decoupled from current production. Indeed, as economists have shown, producers can hedge counter-cyclical payment rates using options markets, thus converting a counter-cyclical payment into a fixed direct payment.²² An article written in November 2002 by extension economists at Mississippi State University explains to farmers how they may lock in their counter-cyclical payment (CCP):

“With cotton prices at historically low levels, many landowners and producers are undoubtedly considering planting their cotton base to some other crop (or not planting it at all) while collecting a cotton CCP. The risk in pursuing this strategy is that cotton prices may rise between the time planting decisions are made and the end of the subsequent marketing year. If prices rise sufficiently, the CCP could be reduced or even eliminated. Recognizing this risk, many landowners and producers are looking for strategies to protect the anticipated CCP using existing futures market instruments.”²³

The authors then go on to describe how one can purchase options contracts and lock in the value of the anticipated CCP payment.

²² Anderson, C.G. “Consider “Hedging” Strategies to Enhance Income Beyond Farm Program Payments” Texas A&M University, Extension Economics, October 2002 (See Exhibit U-54)

²³ Anderson, J.D., K. Coble, and C. Miller. “Protecting the Counter-Cyclical Payment on Cotton.” *Agricultural Economic and Policy Perspectives*. Vol. 1, No. 6 Mississippi State University, Department of Agricultural Economics November 2002 , pp3-4 (See Exhibit US-55)

44. Dr. Sumner argues that counter-cyclical payments “clearly provide more production incentive than the market loss or the direct payments,” yet offers no empirical evidence to justify such a claim. The claim, as well as his treatment of decoupled payments in general, is particularly puzzling given a recent paper by Dr. Sumner that concludes that the 2002 farm bill would have minimal effect on cotton area and world prices. In a recent article published in the *Australian Journal of Agricultural and Resource Economics*, Dr. Sumner cites a FAPRI analysis that suggests that the effects of the farm bill on U.S. and world cotton prices would be less than 1 percent. Indeed, he goes on to add that: “The impacts of the FSRIA will be hard to isolate amid the normal flux of world markets.”²⁴ We agree with Dr. Sumner’s previously *published* conclusions on these points.

Treatment of crop insurance.

45. As we have documented in our previous submissions, crop insurance subsidies are generally available for most crop producers and hence do not give a specific advantage to one crop over another. Thus, their effects are not commodity specific, and have no or minimal impacts on cotton markets.

46. Moreover, crop insurance purchases by cotton growers have generally been at lower coverage levels than for other row crops. This was particularly the case before 2002 when less than 5 percent of insured cotton acres were insured at coverage levels greater than 70 percent.

²⁴ Sumner, D.A. “Implications of the US Farm Bill of 2002 for Agricultural Trade Negotiations.” *Australian Journal of Agricultural and Resource Economics*. 47(2003): 99-123, at 114. (See Exhibit US-56)

Over 2002-03, roughly 90 percent of cotton acreage insured was at coverage levels at 70 percent or less. Coverage levels of 70 percent or less are consistent with the criterion under Paragraph 8(a) of Annex 2 of the Uruguay Round Agreement on Agriculture in determining minimal trade distorting payments for natural disasters. This suggests that even if one were to consider cotton crop insurance subsidies as crop specific, over 90 percent of insured cotton area would be exempt as having no or minimal trade-distorting effects.

47. Lastly, the economic literature on the effects of crop insurance on production is clearly mixed. While many studies like the ones cited by Brazil have suggested crop insurance subsidies may have a slight effect on acreage, the effects on production are less clear. If crop insurance encourages moral hazard problems like those cited by Brazil, crop yields will be adversely affected as producers attempt to increase crop insurance indemnities. If moral hazard and adverse selection problems are severe, they could potentially have a negative effect on production. The Economic Research Service study cited by Dr. Sumner (Young et al. 2001)²⁵ only examines the effects of crop insurance subsidies on acreage. The authors assume that yields are unaffected when they simulate production effects. Recent studies by Smith and Goodwin (1996),²⁶ Babcock and Hennessy (1996)²⁷ and Goodwin and Smith (2003)²⁸ suggest that farms

²⁵ Young, C.E., M. Vandeveer, and R. Schnepf. "Production and Price Impacts of U.S. Crop Insurance Programs," *American Journal of Agricultural Economics* 83(2001): 1196-1203. (See Exhibit US-57)

²⁶ Smith, V. and B. Goodwin. "Crop Insurance, Moral Hazard and Agricultural Chemical Use." *American Journal of Agricultural Economics* 78(1996):428-38. (See Exhibit US-58)

²⁷ Babcock, B. and D. Hennessy. "Input Demand Under Yield and Revenue Insurance." *American Journal of Agricultural Economics* 78(1996):416-27. (See Exhibit US-59)

²⁸ Goodwin, B. and V. Smith. "An Ex Post Evaluation of the Conservation Reserve, Federal Crop Insurance, and other Government Programs: Program Participation and Soil Erosion." *Journal of Agriculture and Resource Economics* 28(2003):201-216. (See Exhibit US-60)

with more insurance tend to use less inputs like fertilizer and pesticides and vice versa. This demonstrates a potential moral hazard problem with crop insurance that suggests that crop insurance participation may have a negative effect on yields. Lower yields may well offset the marginal effects on crop area.

Effect on production costs.

48. Also missing from Dr. Sumner's analysis was a reduction in costs that would have resulted from the removal of direct payments. ERS's report on Decoupled Payments as well as other ERS research has documented the effects of decoupled payments increasing land rental costs. It is inconsistent to model the effects of removing direct payments on revenue, but not include the effects on costs.

Treatment of Step 2.

49. The size of Step 2 payments under the baseline appears to be biased upwards, in part, due to the low-price baseline discussed earlier. Step 2 payments average 5.6 cents per pound over the 2003-07 period. Elimination of Step 2 payments are estimated to raise world prices by an average of 1.6 cents, while causing farm prices to fall by 2.5 cents per pound. These results are inconsistent with other analyses of Step 2. For example, in 1999, when Congress was debating whether to reauthorize Step 2 subsidies, the FAPRI analyzed the effects of reauthorization for the Senate Committee on Agriculture, Nutrition and Forestry. Their analysis estimated an average Step 2 payment of 5.3 cents per pound. These payments resulted in an increase of the spot price of U.S. cotton by 4 cents and a fall in the world cotton price of less than 0.5 cents. (See Exhibit

US-61). Thus, contrary to the results of Dr. Sumner's model, the benefits of Step 2 payments would appear to largely accrue to the producer, with only negligible effects on world markets. While the model documentation is lacking, one potential explanation for the difference may be the more price responsive acreage equation in the Sumner model (see below).

Supply specification overstates acreage response.

50. Dr. Sumner reports that his acreage elasticities with respect to expected net returns are 0.47 in 2003 and claims that these are comparable to USDA results. However, given the linear formulation of his demand equations, an elasticity with respect to net returns of 0.47 implies that the price elasticity is 0.70. This implies an almost 50 percent greater response to movements in price. Such an elasticity produces more exaggerated acreage shifts from relatively small price movements.

Other Studies

51. In addition to Dr. Sumner's analysis, Brazil has provided the panel with various studies to support its allegations that the U.S. support programs cause significant impact on the world cotton market. The results of the studies cited by Brazil varied based on the programs included and the structure of the model. On our preliminary review, many of these studies have flaws that put in question the results. We will present a written analysis of these studies at a later date; let me now give general comments about their shortcomings that result in overstated impacts.

52. The first group of studies cited by Brazil (Meyers; Ray et al.) report results on U.S. price changes and not world price changes. At first glance, the results from these studies may seem to indicate a large impact from the support programs. However, under Brazil's claim of price suppression or depression, it has argued that it is world prices that are relevant. And as Dr. Sumner has recognized in his report, changes in world prices allegedly due to changes in U.S. programs would be substantially less than any change in U.S. farm prices.

53. The second group of studies cited by Brazil (ICAC, Goreux, Center for International Economics, and the IMF) do report results on world prices. The studies provide an extreme range of results, from 2.2 percent to 26.3 percent. A common problem with these studies is that they do not distinguish between the decoupled payments and coupled payments, apparently postulating that decoupled payments are as trade-distorting as coupled payments – an assumption that is not supported by the economic literature and results in overstated impacts, as discussed above. These studies also ignore the impacts of competing crops in the decision-making of producers, which even Dr. Sumner, despite other flaws in his approach, recognizes must be accounted for. Additionally, the studies focus on production and not on planted acreage.

54. We also note that Brazil did not include in its table 23 studies by USDA and the IMF that find smaller impacts than studies Brazil did include in its table for its price suppression discussion. The USDA study reported that removing the U.S. marketing loan program would result in U.S. prices increasing between 1 and 5 cents per pound, implying an even smaller

impact on world prices.²⁹ The IMF study, an updated version of the analysis cited by Brazil, found that world prices would have been 2 percent higher with the removal of the U.S. production support programs.³⁰ While there are methodological issues with these studies as well, the IMF results are much smaller than Dr. Sumner's 12.5 percent impact, suggesting that in fact his results are not very conservative.³¹

Conclusion

55. In conclusion, while Dr. Sumner has presented a modeling framework that is conventional, much of how he has modeled farm programs can be considered as "unconventional". Despite claims by the author to the contrary, the analysis presented in Annex I is not "conservative", but rather produces results that are inflated and inconsistent with a wider body of academic research. Let me conclude by thanking you again for this opportunity.

(End of Dr. Glauber's statement)

56. Let me put Dr. Glauber's initial comment in slightly different terms: the report provided by Brazil as Annex I to its further submission does *not* provide the model itself, including detailed specifications of the equations used therein. As a result, Brazil is essentially asking the

²⁹ Westcott, P.C. and J.M. Price. "Analysis of the U.S. Commodity Loan Program with Marketing Loan Provisions" USDA, ERS, Agricultural Economics Report No. 801. April 2001. (See BRA-222)

³⁰ Tokarick, S. "Measuring the Impact of Distortions in Agricultural Trade in Partial and General Equilibrium." IMF Working Paper. WP/03/110. May 2003. (See Exhibit US-62).

³¹ Brazil's Further Submission, para 199 ("His resulting analysis provides conservative estimates that predict effects below those of some USDA estimates as well as below those of some of the studies set out below.").

Panel and the United States to accept Dr. Sumner's results on faith alone. Dr. Glauber has pointed out why Dr. Sumner's approach is inappropriate for a retrospective analysis of the effect of U.S. subsidies. Even were Dr. Sumner's approach appropriate, however, Brazil has failed to this point to provide sufficient evidence to allow the Panel to fully understand and evaluate that model. Thus, quite apart from the flaws identified by Dr. Glauber, Brazil's reliance on Dr. Sumner's inadequately explained results, evident throughout Brazil's latest submission, further demonstrates that Brazil has *not* established a *prima facie* case that U.S. subsidies have the effects complained of.

V. Additional Legal Arguments

57. The United States has explained in some detail numerous errors in Brazil's interpretations of the legal provisions under which it brings claims in this dispute. I will not repeat those points here but do wish to develop certain arguments commenced in the U.S. further submission.

58. With respect to price suppression or depression under Article 6.3(c) of the Subsidies Agreement, the parties disagree as to the meaning of "significant." The United States has pointed out that "significant" modifies the phrase "price suppression or depression," which means that it is the level of price suppression or depression itself that must be "important, notable" or "consequential"³² according to the ordinary meaning of the terms. Brazil believes that it is the effect on the producers of the complaining Member that must be "significant." We

³² U.S. Further Submission, para. 83.

find it implausible that the Subsidies Agreement was intended to create multiple standards for panels to apply: that is, what may be “significant” to one Member’s producers may be “insignificant” to another’s. In similar fashion, Brazil’s interpretation would mean that one level of “price undercutting” could be significant to one Member’s producers but “insignificant” to another’s. Context for rejecting Brazil’s approach can be found in Article 15.2 of the Subsidies Agreement, which sets out for countervailing duty purposes the same effects found in Article 6.3. This text makes it even more clear that the analysis is whether the level of prices suppression or depression itself is “significant”: “With regard to the effect of subsidized imports on prices, the investigating authorities shall consider whether . . . the effect of such imports is otherwise to depress prices *to a significant degree* or to prevent price increases, which otherwise would have occurred, *to a significant degree*.”³³ Brazil has not suggested that the analysis under Article 15.2 should be different than that under Article 6.3(c). Thus, it is the level of price suppression or depression itself that must be “significant.”

59. Dr. Glauber’s critique demonstrates that Brazil’s presentation of results from a simulation model cannot satisfy Brazil’s burden of showing that the effects of U.S. subsidies are significant price suppression or depression in the same market as Brazilian cotton. In addition, we would note that it is difficult to credit Brazil’s argument that U.S. subsidies have caused significant price suppression or depression when Brazil itself complains about U.S. step 2 payments, which can only occur when the U.S. Northern Europe-delivered price is higher than the A-index (that

³³ Subsidies Agreement, Article 15.2 (italics added).

is, the five lowest priced growths) for a 4-week period. In fact, Brazil's own submission demonstrates that it is *Brazil's* price that consistently undercuts the U.S. California price (one of the U.S. growths that potentially forms part of the A-index).³⁴ In fact, over the period of which Brazil complains, the lowest-priced U.S. growth has rarely been among the five lowest-priced growths included in the A-index price, meaning that approximately one-third of the price quotes used to establish the A-index have consistently been below the lowest U.S. price. (See Exhibit US-46.)

60. With respect to Brazil's claim under Article 6.3(d), we have noted that Brazil misinterprets "world market share" as "share of world export trade" as used in GATT 1994 Article XVI:3. The "world market" for upland cotton evidently includes the United States. Thus, the U.S. share of the world market for upland cotton should be defined as U.S. consumption plus U.S. exports over world consumption. As set out in Exhibit US-47, U.S. world market share has been relatively stable "over a period when subsidies have been granted" and shows no "increase" in each year of the period complained of (and, in fact, a decline in several years).

61. With respect to GATT 1994 Article XVI:3, we note that Brazil appears to assume that it may advance a claim under this provision on all challenged U.S. subsidies. However, Article XVI:3 only applies to export subsidies. Paragraph 3 is found in Part B of Article XVI, entitled

³⁴ Brazil's Further Submission, para. 241 fig. 17.

“Additional Provisions on Export Subsidies,” and follows paragraph 2, which states that “[c]ontracting parties recognize that the granting of a subsidy on the export of any product may have harmful effects for other contracting parties.” Paragraph 3 follows with the words: “Accordingly, contracting parties should seek to avoid the use of subsidies on the export of primary products.” The second sentence of paragraph 3 then follows this hortatory statement with the obligation not to apply subsidies in a manner that “results in a contracting party having more than an equitable share of world export trade in that product.” Therefore, as Brazil has predicated its claim under Article XVI:3 on evidence relating to all challenged U.S. subsidies and not only those subsidies it alleges are export subsidies, Brazil has failed to establish a *prima facie* case on its claims.

62. Finally, with respect to Brazil’s claims of a threat of serious prejudice, the United States notes Brazil’s failure to present recent market data, which belie the notion that there is a clearly demonstrated and imminent likelihood of future serious prejudice. In fact, market prices have risen dramatically in recent months: the A-index average for September 2003 has been 64.06 cents per pound. Futures prices demonstrate that market participants predict increasing upland cotton prices over the course of the current marketing year 2003 (approximately 70-72 cents per pound in the Northern Hemisphere’s spring – that is, at the time Brazilian growers will be harvesting their crop). In this regard, we note that these facts contradict Brazil’s allegation that, because the subsidies provided under the 2002 Act are “even larger” than those provided under

the 1996 Act,³⁵ it is even more certain that serious prejudice will result in the future. In fact, prices are currently above the level at which (according to Brazil's own expert) the marketing loan program confers any benefit on U.S. upland cotton producers³⁶ and are expected to remain so. If there is not a "clearly demonstrated and imminent likelihood" of serious prejudice in marketing year 2003, it follows that there cannot be a threat of serious prejudice for marketing years 2004-07, either.

VI. Conclusion

63. In conclusion, the United States thanks the Panel for its attention to this lengthy statement. It has been a significant challenge to read and react to the voluminous Brazilian further submission. Today, we have continued our efforts to explain to the Panel the fatal flaws in Brazil's presentation of its case. We will continue those efforts over the course of this meeting and in future submissions and we stand ready to answer any questions you may have.

³⁵ *See, e.g.*, Brazil's Further Submission, para. 344.

³⁶ Brazil's Further Submission, Annex I, para. 33.