THE SURVIVAL OF THE UNITED STATES ETHANOL SUBSIDIES AND TARIFF: ARE THERE FURTHER REASONS TO KEEP THEM ON THE BOOKS?

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I. INTRODUCTION

On May 21st, 2008, President George W. Bush vetoed the 2007 Farm Bill claiming that it "continues subsidies for the wealthy" and is inconsistent with the United States (U.S.) "objectives in international trade negotiations." Among other things, the 2007 Farm Bill reduced the tax credit for ethanol from fifty-one cents per gallon to forty-five cents and maintained the fifty-four cents per gallon tariff on imported ethanol. The House and Senate responded to the

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veto at once and overruled it, passing the bill into law on May 22, 2008.3 The maintenance of the subsidies and tariff on ethanol caused both domestic and international disagreements on the hot topic of renewable fuels.

Domestically, proponents of the subsidies and tariff, led by Senator Charles Grassley (R-IA), believe that a lift would effectively be tantamount to a U.S. subsidy of Brazilian ethanol,4 since a U.S. importer of ethanol can receive the forty-five cent tax credit regardless of the ethanol origin.5 In addition, proponents believe that the tariff and subsidies are necessary to protect the U.S. ethanol industry against cheaper foreign ethanol.6 Finally, they contend that such measures are needed to ensure the future of U.S. energy independency and to eventually reduce dependency on foreign oil.7

Opponents, including Federal Reserve Chairman Ben Bernanke, Senators Charles Schumer (D-NY), and Richard Lugar (R-Ind), defend a lift on the tariff to promptly foster cheaper ethanol in the U.S. market, relieve the upward pressure on food prices, and more rapidly diminish the United States’ dependence on imported oil.8 Additionally, “the Bush Administration [opposes the tariff extension] on the grounds that it adds a tax provision to [the] [F]arm [B]ill.”9

The international community appears to side with the domestic opponents to the U.S. subsidies and tariff on ethanol. The International Monetary Fund (IMF) reported that tariffs are detrimental because they “distort trade patterns.”10 Such protectionism measures, the IMF says, served to increase the U.S. corn-based ethanol production, which represented “seventy-five percent

7. See id.; Lane, supra note 4.
8. See Lane, supra note 4.
9. Id.
of corn consumption between 2006 and 2007," and elevated corn prices as well as poultry and meat prices indirectly through higher feedstock costs. The United Nations Food and Agriculture Organization (FAO) has reported that protectionist instruments like subsidies and tariffs have introduced market distortions, favoring inefficient technologies, obstructing international trade, and impeding developing countries efforts to build upon their competitive advantages.

Brazil, a major exporter of ethanol, has fiercely opposed United States’ subsidies and tariff. The South American country claims that its sugar-cane-based ethanol should be freely traded in the United States’ market because it is cheaper, "greener," and does not pose upward pressure on food prices. Following the recent successful challenge in the World Trade Organization (WTO) against some U.S. farm subsidy programs, Brazil may pursue a direct challenge against the Unites States’ protective policies on ethanol. As a more diplomatic alternative, Brazil is pressing to include the ethanol issue in the Doha Round of international trade negotiations, but is facing opposition from the United States.

In an attempt to better comprehend the biofuel, Part II will provide a contemporaneous perspective of ethanol and its peculiarities on the international arena. Part III will follow with an economic perspective on the imposition of tariffs. Part IV will analyze the potential illegality of the U.S. subsidies on ethanol in light of the most recent WTO decision on U.S. agricultural subsidies in United States – Subsidies on Upland Cotton. Part V will propose the inclusion of ethanol in the current Doha Round of international trade negotiations agenda as an appropriate forum to discuss the issue. Nevertheless, Part VI will conclude that the U.S. tariff and subsidies should be lifted.

11. See id. ¶ 7.
II. ETHANOL AS A PROMISING TYPE OF BIOFUEL

Biofuels are defined as "fuels produced directly or indirectly from (non-fossil material of biological origin)." Ethanol and biodiesel are the current predominant types of biofuels in the world. Today, in energy terms, ethanol accounts for almost ninety percent of the world use of biofuel, making the words biofuel and ethanol interchangeable.

Ethanol is a "clean-burning, high-octane motor fuel that is produced from renewable sources." Presently, ethanol is made mainly from corn or sugar-cane; yet any non-fossil material of biological origin rich in sugar can be converted into ethanol. Although ethanol can be used as an alternative fuel, it is most commonly used as an additive to petroleum-based fuel, with varying possible blend standards.

Because of its clean-burning and non-fossil renewable source characteristics, ethanol has been regarded as a prospective environmental friendly substitute for petroleum-based fuel. Additionally, ethanol appears promising as an economically viable alternative to the soaring prices of oil. However, the popularity of ethanol is far from unanimous. There is a growing international recognition that an increase in liquid biofuel production may exert upward pressure on the price of commodities, leading to higher food prices.

In addition, critics question the ability of ethanol to "mitigate climate change effectively," and point to the negative impact on the natural ecosystem.

15. FAO Report, supra note 12, at 1.
16. See id. ¶ 3.
17. Id. ¶ 6.
19. ENERGY INFO. ADMIN., ANNUAL ENERGY OUTLOOK 2007, WITH PROJECTIONS TO 2030, 57, DOE/EIA-0383 (2007) [hereinafter ENERGY OUTLOOK 2007], http://www.eia.doe.gov/oiaf/archive/aeo07/pdf/0383(2007).pdf (last visited June 24, 2008). "Ethanol can be produced from any feedstock that contains plentiful natural sugars or starch that can be readily converted to sugar. Popular feedstocks include sugar cane (Brazil), sugar beets (Europe), and maize/corn (United States)." Id.
A. Pros of Ethanol

The promised benefits of ethanol, although varying depending upon the source of production, are generally associated with its environmental-friendly cleaner emission profile and attractive economic advantage over petroleum. For instance, a study concluded that ethanol may reduce the total greenhouse gas emissions by up to eighty-seven percent. In addition, studies have pointed that ethanol on balance greatly reduces carbon dioxide emissions if compared to petroleum-based fuel. The Brazilian President pointed out that the use of ethanol has reduced carbon dioxide emissions by 800 million tons in Brazil. In light of the great concern with global warming and the obligation of signatories to the Kyoto Protocol to reduce greenhouse gas emissions, such environmental advantages have served to expedite the creation of governmental incentives and directives to the production and use of ethanol within their territories.

In addition to the environmental advantages, the use of ethanol appears to offer an economically viable alternative to the current record-high prices of petroleum. In 2007, the average price of crude oil has remained above seventy dollars per barrel, and is expected to average $127 per barrel in 2008. Specialists believe that the Brazilian sugar-cane based ethanol will remain economically viable if crude oil remains above thirty-five to forty dollars per barrel. As for corn-based ethanol, which is the main source of ethanol in the United States, the break-even point is approximately fifty dollars per barrel. Additionally, technological advances in fuel efficiencies for ethanol-based engines are expected to occur with the current increase in ethanol use, making ethanol economically viable at even lower crude oil prices.

25. Yahoo Brazil, supra note 13.
26. See Enrique Rene de Vera, Development, The WTO and Biofuels: The Possibility of Unilateral Sustainability Requirements, 8 CHL. J. INT’L 661, 666 (2008) [hereinafter Development, The WTO and Biofuels]. The Development argues that the projected increase in international trade for biofuels will be triggered, among other things, by government mandates compelling the use of biofuels. Id.
29. Id.
B. Cons of Ethanol

There exists a growing concern in the world that though the increase in production of biofuels offers new opportunities to the world energy challenge, it also carries risks. The world leaders, the media, and the general public have voiced concerns with the role of biofuels in soaring food prices, its true ability to mitigate climate change, and its negative impact on the environment. In early June of 2008, the FAO hosted a summit on world food security, climate change, and bioenergy. The main question to answer was whether the increase in biofuel production was among the villains of hiking food prices.

The summit culminated in a report that recognized the increase in biofuel production as a significant factor for the rise in commodity prices, but failed to offer concrete measures to mitigate the crisis. The report pointed that the price for corn, the main United States source for making ethanol, has doubled in 2007 and that competition for arable land has exerted upward pressure on the price for other commodities. In accordance, the Energy Information Association (EIA) stated that the increasing demand for biofuel feedstock is likely to increase the prices for corn commodities within the short term. Both reports, however, did not provide a correlation between the Brazilian sugar-cane consumption for ethanol production and the rise in food price. Yet, the FAO acknowledges that "[t]he nexus between fuel and food is complex" and the degree to which biofuel influences food prices "varies across countries and may not be quantifiable with certainty."

Another major concern with the expansion of ethanol production is its impact on the environment. More specifically, the land-use change from regular crops to biofuels crops may result in large emission of carbon in the atmosphere. For instance, when forests, a carbon-dense type of land, are converted to grow biofuel, the conversion creates "'carbon debts' that could take decades or even centuries to 'repay'" with the use of the biofuels. Recently, critics have accused Brazil of expanding its sugar-cane crops into the Amazonia, an event that could

30. See FAO Report, supra note 12.
32. See FAO Report, supra note 12, ¶ 11.
33. Id.
34. ENERGY OUTLOOK 2007, supra note 19.
35. FAO Report, supra note 12, ¶ 12.
36. Id. ¶ 27.
37. Id.
38. See Estudo do WWF defende beneficio ambiental do etanol [WWF Study Defends the Environmental Benefits of Ethanol], BBC BRAZIL, May 27, 2008, available at
severely harm the Brazilian environment and run against the purpose of ethanol use. However, the Brazilian government and independent studies have labeled such accusations as "myths," arguing that the Amazonia is not suitable for sugar-cane crops. Only a negligible number of sugar-cane crops touch the Amazon territory and 99.7% of the Brazilian sugar-cane crops are at least 1.3 thousand miles away from the Amazonia.  

Although the risks involved with the expansion of biofuel production are legitimate, most of the studies analyze biofuel as one category, and by doing so they do not decide on heroes and villains. Biofuels usually comprise of fuelwood, charcoal, ethanol, biodiesel, methane, and biohydrogen. Even though it appears, at least in energy terms, that biofuel and ethanol are synonyms, since ethanol accounts for ninety percent of all global biofuel use, it itself has significant differences. Generally speaking, around eighty percent of the total production of ethanol is either made of corn or of sugar-cane. Such differences result in dissimilar impact on food prices and the environment. Additionally, corn and sugar-cane face a different conversion method and have a different method of cultivation. 

C. Corn v. Sugar-Cane Ethanol

According to the FAO, "[o]f all liquid biofuels, only Brazilian sugar-cane-based ethanol has been consistently competitive during recent years . . . ." Recently, the entity has exculpated Brazilian sugar-cane-based ethanol from the possibility it was exerting upward pressure on food prices. In addition, analysts believe that Brazilian sugar-cane ethanol provides the biggest reduction in greenhouse gas emission when compared to gasoline. Unlike corn-based ethanol, they say, sugar-cane is a purer source of sugar and is extensively cultivated. Going by Nobel laureate chemist Paul J. Crutzen, "[m]ost crops

http://www.bbc.co.uk/portuguese/reporterbbc/story/2008/05/080526_wwfetanol_ac.shtml (translated by author) (last visited July 7, 2008). The study concluded that the production of sugar-cane-based ethanol poses positive effects on the environment, does not advance on Amazon's territory, and does not significantly compete with the food production. Id.  

39. BBC Brasil, supra note 13.  
40. FAO Report, supra note 12, at 1.  
41. Id. ¶ 6.  
42. FAO Report, supra note 12, at 2.  
44. FAO Report, supra note 12, ¶ 10.  
45. See Klostermann, supra note 31.  
46. FACTBOX, supra note 21.  
47. Id.
grown in the [United States] and Europe to make ‘green’ transport fuels actually speed up global warming"48 because of their peculiar fertilizer use, which emits powerful greenhouse gas.49

In addition, the estimated cost of Brazilian sugar-cane-based ethanol is $0.81 per gallon, while the U.S. corn-based ethanol runs around $1.03 per gallon.50 What contributes to this competitive advantage is the subtropical location of Brazil. Generally, subtropical locations offer longer farming seasons and lower labor costs. Additionally, corn-based ethanol uses more energy in the conversion process, mainly because of the extra energy used to extract sugar for distillation from the grain.51

These differences in the degree of safety and efficient production based on the raw material of ethanol have contributed to an increase in the likelihood of growth in international trade. The comparative advantages of subtropical countries in ethanol production have resulted in the growth of investments, especially in developing countries.52 Nevertheless, developed countries, like the United States, are determined to secure a pivotal position in ethanol’s international landscape and to significantly increase the production and consumption of the fuel.

D. Ethanol International Landscape

Today, the United States and Brazil are the main producers of ethanol in the world; together they comprise about eighty-eight percent of the global production.53 In 2007, the United States was responsible for fifty percent of the world ethanol production, followed by Brazil with thirty-eight percent and the European Union (EU) with four percent.54 Although biofuel international trade represents only ten percent of the world supply,55 (with Brazil being

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49. FACTBOX, supra note 21.


51. Jacobs, supra note 43.

52. See Development, The WTO and Biofuels, supra note 26, at 666.


54. Id. The EU produced 570.3 millions of gallons in 2007. Id.

55. FAO Report, supra note 12, ¶ 6.
responsible for five percent), the international demand is likely to increase due to countries meeting environmental obligations and record-high oil prices.\textsuperscript{56}

In a rather conservative growth estimate, the International Energy Agency (IEA) projects the world road-transport fuel demand to increase from its current 1–2 percent to 3.3 percent by 2015 and 5.9 percent by 2030.\textsuperscript{57} The EU has already issued the mandate directing its Member states to have 5.75 percent of their total transportation fuel comprised of biofuel by 2010.\textsuperscript{58} Japan has already passed a law requiring a three percent addition of ethanol to the gasoline in its transportation fuels, representing a demand of 1.8 billion liters of ethanol,\textsuperscript{59} and requiring this addition to reach ten percent by 2010.\textsuperscript{60} In Sweden, the second largest consumer of ethanol in Europe, the number of vehicles capable of running on E85\textsuperscript{61} fuels has doubled and the government is now working on the bill that would prohibit the use of vehicles moved only by fossil-fuel by 2015.\textsuperscript{62}

The United States government strived for 7.5 billion gallons of biofuel consumption by 2012.\textsuperscript{63} In 2007, the United States imported only seven percent of ethanol to fulfill the domestic demand.\textsuperscript{64} To keep on supplying its growing internal market and to become a major independent exporter of biofuel, the United States passed the \textit{Energy and Independence Security Act of 2007} that calls for production of thirteen billion gallons of biofuel by 2010, double the 2007 supply, and eventually thirty-six billion gallons by 2022.\textsuperscript{65} In order to secure its ambitious goals of becoming an independent major player in the biofuel world scenery, the United States has adopted protectionist measures in

\textsuperscript{56} See id. ¶ 8; Development, \textit{The WTO and Biofuels}, supra note 26, at 665.

\textsuperscript{57} FAO Report, \textit{supra} note 12, ¶ 8.


the form of subsidies and tariffs that have introduced market distortions, maintained inefficient technologies, and hindered international trade. Furthermore, such measures are likely to run afoul with international trade agreements.

III. ECONOMIC ANALYSIS OF THE U.S. TARIFF ON ETHANOL

The 2007 Farm Bill, *inter alia*, extended the tariff on imported ethanol maintained subsidies to domestic ethanol producers. The law extended the fifty-four cents per gallon tariff on imported ethanol through the end of the calendar year 2010. In addition, every gallon of ethanol, whether domestic or imported, is now entitled to a forty-five cent subsidy which is down from fifty-one cents.

The economic concept of free trade contends that tariffs restrict trade, competition and fail to maximize consumer welfare as domestic prices are artificially prevented from falling. On the other side of the spectrum, protectionists advocate imposition of tariffs claiming that it helps protect newly founded industries by giving them time to grow and become competitive in the international economy. In the United States, the great majority of economists appear to favor free trade policies.

A 2006 survey on American economists revealed that over eighty-seven percent "[a]gree that the United States should eliminate remaining tariffs and other barriers to trade." The domestic effects in a tariff-imposing country are higher prices for the protected commodity and shift of comparative advantage resources. The higher prices are a direct shortcoming of the tariff because it artificially raises the price of imports. A higher price for the imported commodity would shift the consumption to other domestic substitutes—in this case the U.S. corn-based ethanol. This would draw more resources to the production of the corn-based ethanol, which is presumably ranked lower in the

71. See id. at 85, 108.
73. Id.
74. KREININ, *supra* note 70, at 93.
75. Id.
76. Id.
order of comparative advantage to imported ethanol (otherwise the tariff would not be necessary) and result in a loss in efficiency for the economy as a whole.\textsuperscript{77}

In addition, tariffs result in lower real income in the world as a whole because the volume of trade is lower than it would have been under free-trade conditions.\textsuperscript{78} "The exporting nations lose because of both the reduction in the volume of trade and the deterioration in the terms of trade."\textsuperscript{79} The importing nation, however, would only lose if the reduction in volume trade were lower than any gain due to the improvement in the terms in which it trades.\textsuperscript{80} Yet, even if the importing nation receives net gains in real income due to the tariff imposition, the real income of the world as a whole is invariably reduced.\textsuperscript{81}

Proponents of protectionist tariffs rest their claim on several arguments, namely the so-called infant-industry argument, improvement of trade, and increase in employment.\textsuperscript{82} The infant-industry argument asserts that newly established large-scale domestic industry should be protected with the imposition of protective tariffs in order for it to grow to optimum size, and to be competitive in the international market.\textsuperscript{83} This argument is valid only if there is a serious threat of "market failure" absent the government protection, otherwise the industry could develop under free-market conditions with private funds instead (presuming that the industry will eventually become competitive).\textsuperscript{84} In addition, the argument is for a "temporary protection."\textsuperscript{85} Finally, the theory is complex to apply in practice because of the difficulty in accurately ascertaining when an industry reaches its optimum point and the intrinsic difficulty of lifting a tariff once it has been imposed, all leading to periods of inefficiencies.\textsuperscript{86}

Other proponents of tariffs argue that they can increase real income in the tariff-imposing nation.\textsuperscript{87} This argument, however, only applies to large players in the international market and "assumes that other countries would not retaliate."\textsuperscript{88} "Tariffs may also be used to increase employment."\textsuperscript{89} However,
fiscal, monetary, or exchange-rate policies are considered more effective and efficient measures to tackle unemployment.\textsuperscript{90}

In sum, the U.S. tariff on imported ethanol does not make economic sense unless it is proven that the corn-based ethanol industry would definitely fail if the tariff was lifted and the tariff is only a temporary measure. Nonetheless, with the increased recognition that import protection is generally harmful, several developed and developing countries have created a multilateral forum to foster free trade among nations. The forum is called the World Trade Organization (WTO).

IV. THE WTO AND THE DISPUTE SETTLEMENT BODY

Since its inception in 1995, the WTO has contributed tremendously to the development of global trade.\textsuperscript{91} Substituting the General Agreement on Tariffs and Trade (GATT), the WTO was intended to crystallize the international desire for free, predictable, and smooth trade among nations.\textsuperscript{92} In order to ensure a more secure and predictable trading system, the WTO formalized a Dispute Settlement Body (DSB), which is responsible for the duties previously undertaken by the GATT General Council and aims at providing a rules-based system under which countries resolve their trade issues according to the international agreements.\textsuperscript{93}

The DSB consists of all WTO members, but delegates its review power to Panels and the Appellate Body when a dispute is formally established.\textsuperscript{94} The dispute settlement mechanism prioritizes settlement by mandating a consultation period among the parties before a Panel can be established.\textsuperscript{95} If consultation is unsuccessful, the complaining party can request a Panel decision.\textsuperscript{96} During the panel stage, the parties would present their case and stipulate the facts before the panelists.\textsuperscript{97} Unless there is a consensus among all WTO members against the Panel's final decision, the Panel report becomes

\textsuperscript{90} Id. at 108–09.
\textsuperscript{94} Id.
\textsuperscript{95} Id.
\textsuperscript{96} Id.
\textsuperscript{97} Id.
Each party can appeal the Panel's decision on questions of law. The Appellate Body can "uphold, modify, or reverse" the original Panel's decision. Following the final decision, the losing party can either comply with the Panel ruling or defy the WTO and face sanctions from the winning party and the third parties involved.

The formalization of a dispute system mechanism among WTO members has also served to give developing countries a voice in the international trade arena. Despite the sour cost of these types of litigations, the number of developing countries raising legal actions at the WTO has increased dramatically since its inception in 1995. Between 1995 and 2001, about one-third of WTO disputes involved developing countries as complainants. In the span of 2005 to 2007, close to half of the WTO disputes were initiated by developing countries.

Brazil has been the most active developing country complainant in the WTO dispute resolution system. The South American country is renowned in the international arena for its constant attacks on developed countries' agricultural subsidies and protectionist tariffs. Brazil argues that developed countries, by granting enormous agricultural subsidies and placing high tariffs on certain imports, artificially distort the world price for the commodities and consequently harm developing countries' opportunity to prosper in international trade.

Recently, an Appellate Body affirmed a major Panel decision ruling for Brazil against the U.S. cotton subsidy program. Because other U.S. crops, such as corn, soybeans, and rice, are subsidized under the same legislation as cotton, parallel arguments can be made to tumble the U.S. subsidies for each of

98. WTO Settling Disputes, supra note 93.
99. Id.
100. Id.
101. Id.
103. See id.
104. WTO, Dispute Settlement: Find dispute cases, http://www.wto.org/english/tratop_e/dispu_e/find_dispu_cases_e (last visited October 23, 2008) (choose year 2005, 2006, 2007; under member, select "as complainant"). A total of 45 disputes were raised in this span—with twenty by developing countries.
105. WTO, Dispute Settlement: Disputes by country, available at http://www.wto.org/english/tratop_e/dispu_e/dispu_by_country_e.htm (last visited October 22, 2008). As of October 2008, 408 disputes were initiated in the DSB and Brazil alone have filed 23 complaints.
these sectors. With an eye on the corn sector, the raw material for the U.S.
ethanol, Brazil along with Canada and several other third-party complainants
have already challenged other U.S. government farm supporting programs in the
WTO. Although claims against other U.S. farm programs may be more
difficult to prove due to the possible smaller impact of corn and soybean in
world prices, the "conviction" of the U.S. cotton subsidy programs will most
likely serve as a key precedent for the complainant's challenge.

A. The Creation of a Precedent on Agriculture Subsidies

In United States–Subsidies on Upland Cotton (Cotton), Brazil alleged that
several U.S. farm programs tailored to the cotton sector violated the Agreement
on Subsidies and Countervailing Measures (ASCM) and the Agreement on
Agriculture (AA). Brazil alleged, among others arguments, that the U.S.
subsidies for the cotton sector were responsible for the artificial cotton price
suppression in the global market, and hence, the U.S. program violated Articles
5 and 6.3 of the ASCM. Brazil challenged the U.S. programs under two farm
bills including the marketing loan payments, user-marketing (Step-2)
payments, marketing loss assistance payments (MLA), and counter-cyclical
payments (CCP). A brief explanation of these programs is warranted.

The marketing loan program provides interim financing to eligible
producers to prevent forfeiture on farm loans. The interim loan effectively
serves to enable farmers to store their harvest crops as collateral instead of
selling at harvest time when crop prices are lower, and sell it when prices are
more favorable to repay the loan. The repayment is the "lower of the
adjusted world market price and the loan rate plus interest." [114] "When the

107. See Acceptance by the United States of the Request to Join Consultations, United
States–Domestic Support and Export Credit Guarantees for Agricultural Products, WT/DS365/12 (Aug. 21,
2007). The delegation of the United States informed the DSB that it had accepted the requests of Argentina,
Australia, Brazil, the European Communities, Guatemala, Nicaragua, Thailand, and Uruguay to join the
consultation. Id.

108. Chad E. Hart, Agricultural Situation Spotlight: How the Brazil–U.S. Cotton Dispute Could

109. Panel Report, United States–Subsidies on Upland Cotton, ¶¶ 3.1–3.2, WT/DS267/R (Sep. 8,
2004) [hereinafter Cotton].

110. Id. ¶ 3.1(vii).


112. See Cotton, supra note 109, ¶ 3.1.

113. Id. ¶ 7.204.

114. Id.

115. Id. ¶ 7.207.
adjusted world market price is lower than the loan rate, the producer repays at less than the loan rate and the difference is referred to as a 'marketing loan gain.'"\(^{116}\) Thus, the marketing loan program effectively compensates producers for a low world market price for their specific commodity.

The Step-2 program rewarded eligible domestic users and exporters of eligible cotton with marketing certificates or cash payments when certain market conditions existed.\(^{117}\) In this case, if the U.S. cotton price exceeded the world cotton price, U.S. buyers were refunded the extra cost of buying the domestic cotton.\(^{118}\) Thus, the Step-2 effectively served to diminish the demand of imported cotton into the United States.

The MLA was a program designed to provide supplementary assistance to producers in order to make up for losses sustained because of the low commodity prices.\(^{119}\) The MLA payments were intended to supplement funds distributed in other programs.\(^{120}\) The payments were made proportionally to previous payments from other farm programs.\(^{121}\)

Finally, the CCP provided financial support to farmers based on historical acreage of cotton planted in the past, notwithstanding what the farmer currently grows.\(^{122}\) The distribution of funds depended upon the current prices of commodities.\(^{123}\) Whenever the effective price of cotton fell below the target price, fixed at 72.4 cents per pound, the CCP payments reached the producers.\(^{124}\) In short, the CCP program ensured producers a floor price for their cotton regardless of the natural fluctuation of market prices.

The Panel decided that all of the above U.S. programs were subsidies within the definition of ASCM Articles 1 and 2.\(^{125}\) In addition, the Panel ruled that these subsidies caused "serious prejudice" to Brazil, and hence violated Article 6.3 of the ASCM.\(^{126}\) Following a United States appeal, the Appellate Body affirmed the "serious prejudice" claim as to all challenged U.S. farm programs mentioned above.\(^{127}\)

\(^{116}\) Id.
\(^{117}\) Cotton, supra note 109, ¶ 7.209.
\(^{118}\) Id. ¶ 7.210.
\(^{119}\) Id. ¶ 7.216.
\(^{120}\) Id. ¶ 7.217.
\(^{121}\) Id.
\(^{122}\) Cotton, supra note 109, ¶ 7.223.
\(^{123}\) Id. ¶ 7.225.
\(^{124}\) Id.
\(^{125}\) Id. ¶¶ 7.1154–55.
\(^{126}\) Id. ¶ 8.1(g)(i).
\(^{127}\) Appellate Body Report, supra note 106, ¶ 6.
Besides giving the claimants an important victory over the U.S. subsidies on upland cotton, this decision set out a key precedent for future litigations. In *Cotton*, the Panel provided a clear framework for a nation to prevail on a "serious prejudice" claim. Last year, in *United States–Domestic Support and Export Credit Guarantees for Agricultural Products*, Brazil challenged the United States on other farm programs existent under the same legislation challenged in *Cotton*. Although Brazil has not directly challenged the U.S. ethanol subsidy program, such a challenge may be possible since the *Harmonized System of Tariff Classification* classifies ethanol as an agricultural product. This means that the discipline on subsidies set forward in the AA and ASCM would apply to U.S. ethanol. Hence, an analysis of the framework set out in *Cotton* may shed light on possible arguments and results in an eventual direct challenge against the U.S. ethanol subsidy program.

**B. The Framework and Application**

For a nation to prevail on a "serious prejudice" claim in a WTO dispute, the Panel must first find that the challenged measures or programs meet the subsidy definition of Article 1 and 2 of the ASCM. Later, the Panel must conclude that those subsidies caused "serious prejudice to the interest of another Member," in accordance with ASCM Article 6.3. If it is found that the claimant party suffered "serious prejudice," then the Panel will rule that the respondent violated Article 5 of the ASCM and finalize the claim.

Article 1 of the ASCM defines subsidy as a "financial contribution by a government . . . within the territory of a Member" that confers a "benefit." The contributions can be in the form of direct payments, such as grants and loans, forgone or not collected government revenue, such as tax credits, or "goods or services other than general infrastructure . . . ." In *Cotton*, the

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130. *Id.*
132. *Id.* at 233 ("No member should cause through the use of any subsidy referred to in paragraphs 1 and 2 of Article 1, adverse effects to the interests of other Members, i.e.: . . . serious prejudice to the interest of another Member.").
133. *Id.* at 229.
134. *Id.*
Panel reasoned that the marketing loan program, Step-2, MLA, and CCP were governmental financial contributions that conferred a benefit because they placed "[t]he recipient in a better position that the recipient otherwise would have been in the market place." The Panel further noted that there is no need to quantify the amount of financial benefit conferred, but simply show it exists.

In a challenge against the U.S. ethanol subsidy program, it is plausible to believe that the Panel will find that the U.S. forty-five cents tax credit per gallon of ethanol is a subsidy in accordance with Article 1 of the ASCM. First, it is important to remember that ethanol is treated as an agricultural product, and hence it is subject to the ASCM. Second, the ethanol tax credit is a government financial contribution in the form of "forgone or not collected" revenue. Finally, it is arguable that the recipients of the financial contribution are conferred a benefit, because they are placed in a better position than they otherwise would have been in the market place. Nevertheless, the United States may claim that the tax credit is applied to any gallon of ethanol, be it domestic or imported; therefore, it is also being indirectly distributed to businesses outside the United States. However, as Article 1 requires that the financial contribution is made "within the territory of a Member," it is likely that the U.S. tax credit on ethanol would qualify as a subsidy, regardless of its provenance, since it is being awarded within the United States only.

Article 2 of the ASCM requires the subsidy to be "[s]pecific to an enterprise or industry or group of enterprises or industries . . . within the jurisdiction of the granting authority" in order to be actionable. The Article also lists several principles to follow in order to determine whether the subsidy is "specific." In Cotton, Brazil successfully argued that because the challenged measures were not widely available throughout the United States, some were not even available to the agricultural sector, and the subsidies were specific within the meaning of Article 2. The United States consented to this

136. See id. ¶ 7.1119.
137. FAO Report, supra note 12, at 11.
138. See ASCM Agreement, supra note 131, at art. 1.1(a)(1)(ii) (subsidies are defined as, among others, "government revenue that is otherwise due [but] is foregone or not collected (e.g. fiscal incentives such as tax credits)").
139. See Food, Conservation, and Energy Act of 2008, supra note 2, § 15331 (stating in effect that the tax credit for ethanol applies to domestic and imported ethanol).
140. ASCM Agreement, supra note 131, at 229.
141. Id. at art. 2.1, 230.
142. Id. at art. 2.1(a)–(c), 230.
143. Cotton, supra note 109, ¶¶ 7.1122, 7.1151.
argument, except for the MLA program, which the United States alleged is available to the entire agricultural sector. The Panel discarded the U.S. argument saying that the term "specific," as other plain words of Article 2, "[i]s a general concept and the breadth or narrowness of specificity is not susceptible to rigid quantitative definition." The Cotton Panel finally concluded that all challenged U.S. subsidies met the specificity requirement.

Based upon the WTO's broad interpretation of the term "specific" in Article 2 of the ASCM, the United States' tax credit program for ethanol is likely to be deemed a specific subsidy. The forty-five cents tax credit is set to apply for gallons of ethanol produced in or imported to the United States. This effectively makes the legislation valid to a specific enterprise, namely producers and users of ethanol within the U.S. territory. Considering Cotton, it seems plausible to believe that the United States will not contest a possible specificity allegation.

Article 6.3 of the ASCM provides four scenarios in which "serious prejudice" may arise. Precisely, Article 6.3(a) prescribes that serious prejudice occurs when "[t]he effect of the subsidy is to displace or impede the imports of a like product of another Member into the market of the subsidizing member." Even though the Cotton Panel did not tackle Article 6.3(a) to reach its conclusion, the Panel in Indonesia-Certain Measures Affecting the Automobile Industry (Autos) shed some light in the interpretation of key concepts of the Article. The Panel in Autos explored the meaning of "displacement" and "impedance" and considered that "[a] complainant [is not required to] demonstrate a decline in sales in order to demonstrate displacement or impedance . . . . Displacement relates to a situation where sales volume has declined, while impedance relates to a situation where sales which otherwise would have occurred were impeded." Therefore, the issue is whether market share and sales data of the specific product provide a view that, but for the respondents' subsidies the sales of the claimant's product, would have been greater than they were.

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144. Id. ¶ 7.1125–1126.
145. Id. ¶ 7.1142.
146. Id. ¶ 7.1154.
148. ASCM Agreement, supra note 131, at art. 6.3, 234.
149. Id. at art. 6.3(a), 234.
151. Id.
152. See id.
Similar to Cotton, in a direct challenge against the U.S. ethanol subsidy program, Brazil would bear the burden of proof to show a correlation between the U.S. tax credits on ethanol and a reduction of Brazilian’s ethanol market share or sales. Usually the evidences used are complex econometric models that demonstrate the parties’ assertion. Although such models are confidential during the dispute resolution, a simple market share analysis shows a decrease in Brazil’s market share of ethanol production in comparison with the U.S. market share from the inception of the tax credit program. The U.S. tax credit program for ethanol came into effect on January 1, 2005. In 2004, Brazil produced eleven percent more ethanol than the United States did. In 2005, Brazil’s production of ethanol vis-à-vis the United States fell to minus one percent. In 2006, it was minus eight percent, and finally in 2007, it reached minus twenty-three percent. Additionally, Brazil was the world’s number one producer of ethanol in 2004, holding thirty-seven percent of total production. Since 2005, the year in which the tax credit took effect, the United States became the world leader, producing fifty percent of the world’s ethanol in 2007. Therefore, it appears likely that Brazil can show a correlation between the U.S. credit tax program for ethanol and Brazil’s reduction in ethanol market share.

Furthermore, Brazil will have to prove that the United States’ subsidies were the cause in fact of its lost market share. At this point, the United States would argue that external factors, such as world demand and natural increase in domestic consumption, and consequently production, drove the increase in the U.S. market share. Yet, it is important to note that the Panel in Cotton acknowledged that other factors might have affected prices of cotton in the world market, but even so, the Panel decided that the sole causal link existed between the U.S. subsidies and the significant world price suppression. Therefore, the United States would need to come with strong, persuasive evidence to demonstrate that the U.S. subsidies were the cause in fact of Brazil’s lost market share.
reasons to prove a weak link between the U.S. tax credit on ethanol and the reduction of Brazil’s ethanol market share.

Although this is a brief analysis of a complex claim, the assessment at least indicates the fragility of the legality of the U.S. farm subsidies, specifically the ethanol tax credits. In the meantime, Brazil has arduously tried to settle the dispute pertinent to the U.S. ethanol subsidies and tariff diplomatically. In March of 2007, President George W. Bush visited Brazilian ethanol facilities and with Brazilian President Luis Inacio Lula da Silva signed a memorandum of understanding about cooperation in the biofuel area. Nevertheless, the Presidents did not discuss, at least publicly, the subsidies and tariff related to ethanol.

The focus has turned to the so-called Doha Round of negotiations. The developing countries criticize the developed countries for halting the Doha Round negotiations by not letting go of the subsidies and tariffs on agriculture products. The United States, for instance, refuses to include ethanol in the Doha Round negotiations. Brazil, on the other hand, finds the United States’ resistance unfair. Despite the friction, the Doha Round appears to be a promising forum to resolve the current dispute over the U.S. ethanol subsidy and tariff in a less confronting manner.

V. DOHA ROUND AS AN ALTERNATIVE FORUM

The WTO administers the multilateral trading system which functions to ensure “that trade flows as smoothly, predictably, and freely as possible.” “The system was developed through a series of trade negotiations, or rounds, held under GATT.” The current WTO rules and agreements are the result of

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163. The President’s News Conference with President Luiz Inacio Lula da Silva of Brazil in Sao Paulo, 43 WEEKLY COMP. PRES. DOC. 290, 290 (2007).

164. See id. at 289.


167. US, EU Block Brazilian Attempt to Slash Biofuel Tariffs at WTO, supra note 162.

168. WTO IN BRIEF, supra note 91, at 1.

169. Id. at 3.
such negotiations between Members. Although ambassadors and heads of delegations frequently meet to discuss the agreements, the top decisions come from the Ministerial Conference Body, which meets at least once every two years.

The current sets of rules are the outcome of the work of the 1986–1994 Ministerial Conference started in Uruguay, also called the Uruguay Round of negotiations. The Uruguay Round resulted in major revisions of the original GATT, including the formalization of the DSB and the creation of the WTO. Besides creating and improving agreements for trade in goods, the Uruguay Round “[c]reated new rules for dealing with trade in services, relevant aspects of intellectual property, dispute settlement, and trade policy reviews.” The final version of the decisions taken comprises over 30,000 pages consisting of sixty agreements and separate commitments made by individual Members.

The 2001 Fourth Ministerial Conference in Doha, Qatar, set out the Doha Round that is currently under negotiations. In its establishment, the WTO Members committed themselves, inter alia, “[t]o [engage] [in] comprehensive negotiations aimed at: substantial improvements in market access; reductions of, with a view to phasing out, all forms of export subsidies; and substantial reductions in trade-distorting domestic support.” In addition, the Members agreed “[t]o negotiate reduction or, as appropriate, elimination of tariff and non-tariff barriers to environmental goods and services.” Based on these goals, it seems clear that the Doha Round is an appropriate forum to resolve the issue revolving the U.S. subsidies and tariff on ethanol. However, the United States has blocked Brazil’s attempt to slash biofuel tariff at the WTO.

Allowing ethanol to be part of the Doha agenda is beneficial in several ways. First, it would unclog the already thwarted seven year round of negotiations. The Doha Round has been marked with fierce disagreements, mainly between developing and developed nations on agriculture subsidies. Developing countries argue that they have acquiesced too much to the developed countries’ demands in the past Rounds and are unwilling to approve

170. Id. at 4.
171. Id. at 7.
172. Id. at 4.
173. WTO IN BRIEF, supra note 91, at 3.
174. Id. at 4.
175. Id.
177. Id. ¶ 31(iii).
178. US, EU Block Brazilian Attempt to Slash Biofuel Tariffs at WTO, supra note 162.
179. Id.
agricultural subsidies being distributed in the developed nations.\textsuperscript{180} However, developed nations rebut this by noting that developing countries are not properly enforcing negotiated agreements within their territory, especially those related to intellectual property and services.\textsuperscript{181} Thus, the inclusion of ethanol in the talks, a requirement that has been fiercely pushed by Brazil,\textsuperscript{182} could break the current impasse by signaling the developed nations’ willingness to meet the developing countries’ request. Consequently, this would motivate their enforcement of past agreements.

Second, including the ethanol in the trade talks would be a more diplomatic approach to deal with the subsidies and tariffs issue than having a panel confrontation on the DSB. Having ethanol on the Doha agenda would allow time for the ambassadors and delegates to negotiate a strategy to reduce, and perhaps eventually eliminate, the subsidies and tariffs that impact ethanol trade in the global arena in accordance with the spirit of the WTO. A decision from the DSB, however, would be a guilty/non-guilty answer with possible imposition of harsh sanctions that can contribute to a disturbing result in world trade. Furthermore, the legal analysis of the U.S. subsidies on ethanol has already pointed to a possible violation of the ASCM (see Part IV.B. supra). Therefore, bringing ethanol to the table can avoid the need of a legal review and bring it to the diplomatic spirit emphasized in the WTO.

Finally, including ethanol in the Doha Round could help re-establish the U.S. reputation as a “free trader.” The United States was among the founders of the multilateral trading system that emphasized the need for freer trade among nations. However, the adoption of multi-billion dollar subsidies on agriculture and the imposition of protective tariffs serve to put into question the legitimacy of the United States true intent in regards to the free trade aspired in the past. It makes little sense to engage in foreign-aid programs and then proceed to offset the aid by imposing import duties. Allowing ethanol in the talks would show to the global community the United States’ willingness to concede to a delicate issue in a global forum of trade negotiations.

In sum, the Doha Round of negotiations is an appropriate forum for the hot ethanol subsidies and tariffs issue. By conceding on the ethanol, the United States would contribute to unclog the thwarted Doha Round, resolve the issue in a diplomatic manner, and signal to the global community that the developed


countries are willing to cooperate with important requests from the developing countries in the negotiations. This would only strengthen the role of the WTO spirit of free trade by its major founder and contributor, namely the United States.

VI. CONCLUSION

Tariffs and subsidies symbolizing protectionist trade has long been a constituent part of every nation’s political life. However, such policies usually benefit a powerful minority at the expense of broader public interests. In addition, protectionist measures go against the spirit of global trading norms so emphasized by the WTO founders, including the United States.

The Brazilian sugar-cane-based ethanol is currently cheaper, “greener,” and less influential on the current upward pressure of food prices as compared to the U.S. corn-based ethanol. A lift in the tariff would promptly increase the use of this more efficient biofuel in the United States, possibly leading to an immediate reduction in the skyrocketed gas prices. In addition, it would shift back the corn production to fulfill the demand for the commodity, which should lead to a downward pressure in the price of corn, edible oil, poultry, and meat. In other words, corn, as food, should be directed to food-consumption. Sugar-cane, as a mere juicy grass, should be used for biofuel.

Classic economics shows that tariffs do not serve to maximize consumer welfare. In support of this view, the great majority of U.S. economists believe that the U.S. tariff on imported ethanol should be lifted. Additionally, the U.S. subsidies on ethanol production are likely to violate international agreements and, consequently, fail judicial scrutiny in a possible challenge at the WTO. Furthermore, a leading nation like the United States should serve as an example for the developed nations and keep the spirit of free trade at international rounds of negotiations with the inclusion of ethanol in the Doha Round agenda. In any forum, however, the conclusion about the U.S. tariff and subsidies on ethanol appears the same: it should be lifted.

183. Yahoo Brazil, supra note 13.