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The Effect of CAFTA-DR and CBI on Ethanol Production and Trade

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Abstract

Given U.S. government mandates and subsidies, ethanol production has grown significantly since 2000. Most of the ethanol used in the US is from domestically produced corn, however the US has been importing relatively small amounts of sugar based ethanol from countries in South and Central America and the Caribbean over the past few years. The key reason why the import of ethanol has played a minor role in the US market is a tariff on imported ethanol. Under Caribbean Basin Initiative (CBI), ethanol that is produced in the CBI and CAFTA-DR countries can be imported duty free into the US. Therefore several countries have set up dehydration plants in the CBI and CAFTA-DR countries to convert hydrous ethanol ("wet ethanol") from Brazil into dehydrated ethanol, which is then exported duty-free to the US. This study examines the effects that CAFTA-DR might have on the ethanol production and economies of the CAFTA-DR and CBI countries.

Keywords: CAFTA-DR, CBI, ethanol production, trade, Caribbean

The CAFTA-DR Treaty

The 2005 treaty makes permanent the trade benefits of the Caribbean Basin

Initiative-CBI which are trade programs negotiated individually with twenty-four countries since the early 1980s and expanded in 2002 with the U.S. Caribbean Basin Partnership Act [1]. The six CAFTA-DR nations are Costa Rica, Guatemala, Honduras, Dominican Republic, El Salvador and Nicaragua. The purpose of the trade treaty was to facilitate economic development and export diversification in that region by providing duty-free access to the U.S. market for most goods (Kose 2005). The CAFTA-DR treaty makes these provisions permanent for the six nations involved which would otherwise have expired in 2008. Also, the treaty was viewed as important because some consider this treaty the first step to FTAA-the Free trade area of the Americas which would expand the free trade area to the Andean Countries (Salazar 2001) [2].

The small Caribbean nations included in the recent CAFTA-DR treaty have the potential to become significant players in the U.S. ethanol market. The incentive is their tariff status-exemption from the 54 cents a gallon U.S. tariff on imported ethanol. Further, the treaty gave these nations duty-free access equal to 7% of the U.S. ethanol market (Etter 2007a). These provisions, going back to the original trade agreements negotiated in 1983 by the Reagan administration, were permanently extended under the new CAFTA-DR treaty.

Currently, this trade preference is worth \$600 million. As the U.S. ethanol market grows, so will the volume of Caribbean exports. This year the 7% preference allows these nations to export almost 350 million gallons of dehydrated ethanol to the U.S. duty free. By 2008 this is estimated to grow to 420 million gallons. President Bush's long run national goal is to increase the amount of alternative fuel from the 6 billion gallons level in 2006 to 35 billion gallons of alternative fuels. If this goal is met, the 7% rule would amount to 2.5 billion gallons of ethanol from CAFTA-DR and CBI countries. However, the CAFTA-DR and CBI countries do not currently produce ethanol from Caribbean sugar cane, but merely reprocess Brazilian sugar based ethanol.

This paper examines the U.S. ethanol market and issues dealing with its growth and profitability, and the potential opportunities this provides to the CAFTA-DR and CARICOM/CBI nations. The productive capacity of these nations to produce ethanol from regionally grown sugar is examined.

The U.S. Ethanol Market

In 2006 geo-political tensions, environmental concerns, and surging oil prices focused the political process on "energy independence" and renewable energy. A powerful

coalition of environmental groups, automakers, the agricultural industry, energy independence proponents and Wall Street aligned their interest (Thornton 2006). The umbrella of high crude oil prices, as high as \$75 by the summer of 2006 compared to \$17 a barrel in 1999, galvanized the push into alternative fuels.

Corn based ethanol is currently the most-proven U.S. technology and has been around along time. Government ethanol subsidies actually began in the 1970s when oil prices were \$20 per barrel. Despite current high crude prices, the ethanol market continues to receive government subsidies at various levels. Farmers get corn crop subsidies, gasoline refiners who add ethanol to their product can claim a 51-cent-per-gallon tax credit which totals about \$2.5 billion a year. US auto producers earn extra credit toward their government fuel economy standards when they sell cars that can run on 85% ethanol and only 15% gasoline or E-85. Finally, a tariff of 54 cents a gallon supports domestic corn based ethanol by restricting ethanol imports from Brazil.

Prior to the 2006 events, ethanol received a major government boost with the Energy Policy Act of 2005 which included provisions referred to as the Renewable Fuel Standard (RFS) mandating an increased blend of ethanol in gasoline. RFS called for ethanol use to rise from four billion

gallons in 2005 to a level of 7.5 billion gallons in 2012. Current capacity was already being used up to meet previous government mandates which forced the use of ethanol additives to replace MTBE, a fuel emission-reducing additive, viewed as an environmental hazard. Finally, total consumption of gasoline in the U.S. is expected to rise by more than 10 percent from current levels of about 140 billion gallons annually to almost 155 billion gallons by 2012 according to Department of Energy forecasts. The 5 percent RFS goal for ethanol from expected consumption of gasoline amounts to 7.5 billion gallons annual (WSJ 2006)

With these incentives and conditions, U.S. ethanol capacity expanded to 4.8 billion gallons per year in 2006 from 1.5 billion in 2000. At that time there were 101 operational plants, 41 new facilities and expansions taking place, and another 100 were in the planning stages. With construction costs at about \$75 million, that would amount to about a \$10.5 billion investment going into ethanol. This additional investment is expected to increase ethanol capacity to 7 billion by mid 2007 and production should surpass the government goal by 2008, four years earlier than mandated (Thornton 2006).

Ethanol Profitability

By mid 2006 the wholesale price of ethanol was just under \$3 (up from \$2 a year earlier) and almost reached \$4.00 by late summer 2006. With production costs of ethanol in the range of \$1 to \$1.30, and government subsidies of 51 cents per gallon-ethanol profits were very high. Prices for the main production commodity, corn feedstock, held near the bottom of their historic range of \$1.50 to \$2.75 per bushel due to good harvests. Each bushel of corn yields about 2.8 gallons of ethanol. This resulted in record "crush" spreads between corn and ethanol prices-a measure of ethanol plant profitability. The spread increased from less than 50 cents to about \$3.10 per gallon by late summer of 2006 yielding a profit margin of about 50% for ethanol plants resulting in record investments in ethanol refining. New ethanol plants could theoretically pay for themselves in only one year-if you could get them into production fast enough (WSJ 2006/2007).

Of course corn feed stock prices and the price of crude could easily change this picture. Corn prices began a steady rise through out 2006 and by early 2007 corn prices on the Chicago Board of Trade for future delivery had more than doubled from the previous year to over \$4 per bushel – levels not seen in over a decade. Food prices quickly rose for both domestic and foreign buyers of U.S. corn based products (Malkin

2007) [3] . Responding to these incentives, farmers expanded corn planting by 19 percent to almost 93 million acres in the 2007 planting season; a harvest level not seen since World War II. Corn prices did stabilize but rose above the \$4.00 level late in 2007.

In addition, the price of crude oil and gasoline affects ethanol prices. A large and persistent drop in crude oil prices and therefore gasoline prices could significantly impact ethanol spreads and profitability. By the mid-fall of 2007, crude oil prices were at a surprising \$90 range which supported ethanol demand (WSJ 2006/2007).

Therefore, the spread between the sales of ethanol, whose price is closely tied to that of gasoline prices and the corn prices, has been squeezed. In the second half of 2006, falling crude prices and rising corn feed stock prices squeezed the profit margins. By December 2007, the spread had been virtually reduced to zero and ethanol production was not profitable except for government subsidies to production (Hahn 2007). While some domestic U.S. opposition by agricultural processing industries and other corn users was developing, the 2007 Energy Bill increased mandates for alternative energy and boosts corn based ethanol. The new legislation, passed in December of 2007, mandates 36 billion gallons by 2022. While 21 billion is required to come from cellulosic ethanol, which is

still not a viable technology, this suggests a significant future increase in corn based ethanol from the current levels (Caterinicchia 2007).

whether Brazilian ethanol and imports in general could provide a short term solution to the current U.S. energy gap [5].

Ethanol from Sugar: The Brazil's Alternative-Fuel Strategy

Brazil began its national ethanol program in 1975 when high crude oil prices harmed its economy as 90 percent of its fuel consumption was dependent on imported oil (Reel 2006). Currently, Brazil is the most efficient global ethanol producer, and until recently the world largest producer. Their sugar-cane production resources and know-how allows Brazilian firms to produce ethanol for as little as 80-cents a gallon which is about half the cost of U.S. corn based ethanol producers [4]. However, the 54 cents a gallon tariff and shipping costs generally eliminates the competitive cost advantage. Yet when U.S. ethanol prices spike, like in the summer of 2006, Brazilian producers export larger quantities to the U.S. despite the tariff.

Brazil currently provides about 5 percent of the U.S. ethanol supply, but the tariff, designed to protect U.S. farmers, makes large scale trade in this commodity unlikely. Some argue that importing more Brazil ethanol could be an important step to reduce U.S. dependency on imported oil. However, the immediate issue is

CAFTA-DR's New Role in Ethanol

Under the CAFTA-DR treaty agreement, products must be "substantially transformed" in the Caribbean Basin countries, if they don't originate there, to escape the U.S. tariff. "Dehydration" meets the U.S. treaty requirements for that product. The current production process is based on sugar cane grown in Brazil and processed into "wet" ethanol which is at least 5% water. This product is shipped to a Caribbean country where it is dehydrated to contain less than 1% water. The ethanol is then shipped to the U.S. where a gasoline refinery treats the product (with a poison to make it undrinkable) and blends it with gasoline and ships the product by rail or truck to the final retail establishment (Paggi 2005).

Therefore, firms in the CAFTA-DR and CBI nations merely serve as middlemen in the production process: local companies import Brazil ethanol, dehydrate the ethanol and ship it to U.S. refiners who add gasoline. Given these incentives, investors are lining up to build ethanol processing plants in the Caribbean Basin countries. U.S.

and other venture capitalists are currently in various stages of developing plants in Trinidad, Jamaica, Haiti, Guyana, the Dominican Republic and Aruba. It is estimated that the region is heading to a capacity of 397 million gallons of ethanol this year, which exceeds the current duty free cap for the first time (Etter 2007a).

Yet the ethanol business is very volatile and profits are not guaranteed due to big swings in energy markets. Key market determinants are ethanol prices in the U.S. and ethanol prices in Brazil, the two major world producers and consumers of ethanol. If demand for ethanol is strong in Brazil, less is exported and prices are too high for Caribbean dehydrators to make a profit. On the other hand, if U.S. prices are high enough, Brazil producers could bypass the Caribbean step and ship directly to the U.S. despite the tariff. Dehydration plants in the region might not be able to get sufficient wet supply from Brazil under these circumstances. Producers in the region can only profit by learning how to lock in prices of "wet" ethanol in Brazil when it is cheap, and looking for export opportunities when the prices of dehydrated ethanol is high.

These pricing issues remain the critical component of profitability. For example: in 2004 ethanol averaged about \$1 a gallon in Brazil, and over \$2 in the U.S. for dehydrated fuel. In

2006 Brazilian ethanol export prices surged to \$1.60 a gallon due to growing domestic demand for flex-fuel cars, and simultaneously U.S. prices dropped to under \$2 a gallon due to substantial increases U.S. ethanol production. This squeezed profitability and production of firms in the Caribbean. Such price volatility is a potentially serious impediment to a viable long run ethanol industry in the region (Paggi 2005).

The Caribbean Sugar Cane Industry: The critical component for long run success?

Due to years of neglect and low investment, the Caribbean sugar cane industry is antiquated in most of the Caribbean and they are unable to produce sugar cane competitively in their own lands. It would seem that ultimately, Caribbean producers should increase ethanol from regionally grown sugar cane to profitably supply the U.S. market and expanding to other markets. Yet few Caribbean nations are currently able to use their own sugar production to satisfy the demand for ethanol. For example, the governments of Trinidad, St. Kitts and Barbados have decided that investment is not worthwhile due to limited land resources being diverted into tourism and retirement real estate and other uses. In the Dominican Republic and El Salvador, land resources lie idle

and have the potential to reconvert to sugar cane production to process into ethanol. Even with booming ethanol demand, the official belief is that limited land resources do not justify investments to modernizing the sugar cane industry (Etter 2007a). However, these policies could become more supportive to the interests of sugar given the ever increasing mandates in the U.S. for alternative fuels and ethanol.

To take advantage of the growing opportunity that their tax exempt status confers, regional governments need to create incentives for investments to revive the Caribbean sugar industry. In addition, sugar cane investors and farmers need to be assured that ethanol demand has a secure future. One approach is to mandate that gasoline be blended with ethanol in local markets in order to create a regional market for ethanol.

As a final note, the U.S. sugar industry has been subsidized and protected with import quotas, tariffs and loan programs that effectively set minimum prices. Domestic U.S. sugar prices are about twice the world price to the continuous dismay of domestic sugar using industries. This high price, together with limited land resources devoted to sugar production, effectively eliminates U.S. production of sugar based ethanol. U.S. farm-state lawmakers and lobbyists would like to close what they

see as the CAFTA-DR loop-hole by eliminating the tariff exemption for the region claiming that it harms U.S. farmers [6]. On the other hand, there are also groups lobbying for the general elimination of all tariffs on imported ethanol which would also eliminate the Caribbean advantage [7]. Therefore, the tax induced incentive for ethanol processing and production in the region is uncertain in the long run [8].

An Empirical Analysis of the Sugar Cane Potential in CAFTA-DR and CARICOM/CBI Countries

Before countries in the Caribbean and Central America adopt the process of producing ethanol from sugar cane it is important to know what the potential gross receipts would be for these countries. This study attempts to estimate these gross receipts for ethanol production. The assumptions that are made in this study are that all the Caribbean and Central America countries have the knowledge and technology to produce ethanol from sugar cane, and that all these countries possessed ethanol processing plants. Because of the scarcity of production data for sugar cane and ethanol production in the Caribbean and the Central America countries, conversion ratios from the United States Department of Agriculture (USDA 2006) were used to convert sugar cane in ethanol.

According to the data, one ton of sugar cane could produce 19.5 gallons of ethanol. The gross receipts for different production scenarios were estimated and are given in table 1 to 6.

Tables 1 and 2, give the available arable land area, the hectares of sugar cane harvested, percent of arable land used for sugar cane, the sugar cane yield and quantity of sugar cane produced in the CARICOM/CBI and CAFTA-DR countries for 2005. The two highest sugar cane producers in the CARICOM/CBI were Guyana and Jamaica. The percent of arable land that was used for the sugar cane production in these two countries were, 10.2 % for Guyana and 22.4 % for Jamaica, indicating that these countries had the potential to expand their sugar cane production. For the CAFTA-DR countries, Guatemala and Honduras were the leading sugar cane producers. Only 13.2 % of the arable land was used for sugar cane production in Guatemala, and 7.1 % of the arable land in Honduras was used for the sugar cane production. Both countries had the potential to expand their sugar cane production.

Tables 3 and 4, give the potential quantity of ethanol that could be produced based on the 2005 sugar cane production and the potential ethanol gross receipts that both the CARICOM/CBI and CAFTA-DR countries could earned, at assumed different ethanol prices. Using the

price of \$2.50/gallon of ethanol, Guyana had a potential to earn 146 million dollars in gross receipts while Jamaica could earn 96 million dollars in gross receipts from ethanol. Within the CAFTA-DR, Guatemala could potentially earn 839 million dollars in gross receipts from producing ethanol, while Honduras could earn 265 million dollars in gross receipts. Tables 5 and 6 give the potential gross receipts these countries could earn if they increase the area of sugar cane harvested by 10%, 20%, 30%, 40% and 50%.

Therefore, this data indicates that abundant land resources are available to produce sugar and suggests that ethanol production based on regionally grown sugar could be a major source of income for the region. Future research should examine the profitability of sugar production in the region and its potential effect on regional income and employment.

Summary:

The CAFTA-DR and CARICOM/CBI nations have been provided with an opportunity to export sugar based ethanol to the U.S. since they are exempt of ethanol tariffs by CAFTA-DR and CBI treaty provisions. Currently, they merely serve as middle men in the production process by importing Brazil ethanol, modifying it and shipping it to the U.S. The CAFTA-DR and CBI treaty allows

these nations duty-free access to 7% of the U.S. ethanol market. With recently passed legislation, this market has been mandated to expand from current levels to 36 billion gallons by 2022. This provides the CAFTA-DR and CARICOM/CBI members an opportunity to ship over 2.5 million gallons of ethanol to the U.S. It would appear that sufficient land resources

are available and could be utilized to produce ethanol from regionally grown sugar cane. If the CAFTA-DR and CARICOM/CBI nations can make the necessary investments to modernize their relatively small and inefficient sugar cane industry, they could become major players in the global ethanol market. This has potential for economic development in the region.

Table 1: Arable Land, Sugar Cane Harvested and Sugar Cane Yield for some of the CARICOM/CBI Countries In 2005

	Available Arable land	Sugar Cane harvested	Percent of Arable land use for Sugar Cane	Sugar Cane Yield	Sugar Cane Produced
	(in 1000 ha)	(in 1000 ha)	%	ton/ha	Ton
Bahamas	8	2.25	28.1	25	55,500.1
Barbados	16	7.27	45.4	49	352,669.9
Belize	70	23.89	34.1	44	1,055,529.5
Dominica	5	0.22	4.4	20	4,400.0
Grenada	2	0.16	8.0	45	7,200.0
Guyana	480	49.00	10.2	61	3,000,000.5
Haiti	780	8.49	1.1	63	531,650.6
Jamaica	174	39.00	22.4	51	1,978,973.1
Saint Kitts and Nevis	7	1.80	25.7	56	100,000.1
Saint Vincent/Grenadines	7	0.81	11.6	25	20,250.0
Suriname	58	3.00	5.2	40	120,000.0
Trinidad and Tobago	75	20.71	27.6	45	926,816.0

Source: Food and Agriculture Organization (FAO)

Table 2: Arable Land, Sugar Cane Harvested and Sugar Cane Yield for some of the CAFTA-DR Countries, and for Brazil and the USA in 2005

	Available Arable land	Sugar Cane harvested	Percent of Arable land use for Sugar Cane	Sugar Cane Yield in	Sugar Cane Produced
	(in 1000 ha)	(in 1000 ha)	%	ton/ha	ton
Costa Rica	225	48.00	21.3	81	3,878,390.4
Dominican Republic	1,096	85.11	7.8	57	4,858,138.4
El Salvador	660	54.27	8.2	67	3,630,831.2
Guatemala	1,440	190.00	13.2	91	17,218,750.0
Honduras	1,068	75.85	7.1	72	5,434,091.2
Nicaragua	1,925	46.35	2.4	82	3,816,324.6
Brazil	59,000	5793.62	9.8	74	427,078,436.4
United States of America	176,672	373.45	0.2	76	28,507,305.8

Source: Food and Agriculture Organization (FAO)

Table 3: Potential Ethanol Production and Gross Receipts for CARICOM/CBI countries when the price of Ethanol Change

	Million of gallons of ethanol	Change in the price of ethanol			
		\$1.50/gallon	\$2.00/gallon	\$2.50/gallon	\$3.00/gallon
		Potential Ethanol Gross Receipts (millions \$)			
Bahamas	1.08	1.62	2.16	2.71	3.25
Barbados	6.88	10.32	13.75	17.19	20.63
Belize	20.58	30.87	41.17	51.46	61.75
Dominica	0.09	0.13	0.17	0.21	0.26
Grenada	0.14	0.21	0.28	0.35	0.42
Guyana	58.50	87.75	117.00	146.25	175.50
Haiti	10.37	15.55	20.73	25.92	31.10
Jamaica	38.59	57.88	77.18	96.47	115.77

Saint Kitts	1.95	2.93	3.90	4.88	5.85
Saint Vincent	0.39	0.59	0.79	0.99	1.18
Suriname	2.34	3.51	4.68	5.85	7.02
T & T	18.07	27.11	36.15	45.18	54.22

Table 4: Potential Ethanol Production and Gross Receipts for CAFTA-DR Countries when the Price of Ethanol Change

		Change in the price of ethanol			
		\$1.50/gallon	\$2.00/gallon	\$2.50/gallon	\$3.00/gallon
	Million gallons of ethanol	Potential Ethanol Gross Receipts (millions \$)			
Costa Rica	75.63	113.44	151.26	189.07	226.89
Dominican Republic	94.73	142.10	189.47	236.83	284.20
El Salvador	70.80	106.20	141.60	177.00	212.40
Guatemala	335.77	503.65	671.53	839.41	1,007.30
Honduras	105.96	158.95	211.93	264.91	317.89
Nicaragua	74.42	111.63	148.84	186.05	223.25

Table 5: Potential Ethanol Gross Receipts for CARICOM/CBI Countries when Acreage of Sugar Cane Harvested Change

		Increment of Hectare of Sugar cane harvested					
		0%	10%	20%	30%	40%	50%
		Potential Ethanol Gross Receipts (millions \$)					
Bahamas	2.71	2.98	3.25	3.52	3.79	4.06	
Barbados	17.19	18.91	20.63	22.35	24.07	25.79	
Belize	51.46	56.60	61.75	66.89	72.04	77.19	
Dominica	0.21	0.24	0.26	0.28	0.30	0.32	
Grenada	0.35	0.39	0.42	0.46	0.49	0.53	
Guyana	146.25	160.88	175.50	190.13	204.75	219.38	
Haiti	25.92	28.51	31.10	33.69	36.29	38.88	

Jamaica	96.47	106.12	115.77	125.42	135.06	144.71
Saint Kitts	4.88	5.36	5.85	6.34	6.83	7.31
Saint Vincent	0.99	1.09	1.18	1.28	1.38	1.48
Suriname	5.85	6.44	7.02	7.61	8.19	8.78
T & T	45.18	49.70	54.22	58.74	63.26	67.77

Table 6: Potential Ethanol Gross Receipts for CAFTA-DR Countries when Acreage of Sugar Cane Harvested Change

	Increment of Hectare of Sugar cane harvested					
	0%	10%	20%	30%	40%	50%
	Potential Ethanol Gross Receipts (millions \$)					
Costa Rica	189.07	207.98	226.89	245.79	264.70	283.61
Dominican Republic	236.83	260.52	284.20	307.88	331.57	355.25
El Salvador	177.00	194.70	212.40	230.10	247.80	265.50
Guatemala	839.41	923.36	1,007.30	1,091.24	1,175.18	1,259.12
Honduras	264.91	291.40	317.89	344.39	370.88	397.37
Nicaragua	186.05	204.65	223.25	241.86	260.46	279.07

End Notes:

1. These countries are Antigua and Barbuda, Aruba, Bahamas, Barbados, Belize, British Virgin Islands, Costa Rica, Dominica, Dominican Republic, El Salvador, Grenada, Guyana, Haiti, Honduras, Jamaica, Montserrat, Netherlands Antilles, Nicaragua, Panama, St. Kitts and Nevis, St. Lucia, St. Vincent and the Grenadines, Trinidad and Tobago.
2. CAFTA-DR eliminates tariffs on more than \$35 billion in annual trade between the U.S. and these six nations which represent the 13th largest U.S. trading group. Trade between CAFTA-DR countries and U.S. showed strong growth over the last decade. From 1995 to 2004 U.S. merchandise exports to region have increased 74% reaching \$15.7 billion in the last year. U.S. Agricultural exports to region increase 56% from \$1.09 billion to \$1.71 billion over the same time period. U.S. merchandise imports from region grew 91% during this period to \$17.7 billion and Ag imports grew 23% from \$2.01 to \$2.47 billion.
3. A early example was the agricultural shock in Mexico which depends on the U.S. for about 25% of its corn supplies. The price of corn based tortillas which is a food staple for that nation's low income households rose about 40% in the previous three months to 35-45 cents a pound. Workers earning the minimum wage of \$4 a day could, at current prices, spend a third of their earnings on tortillas for their families. Most analysts point to the spike in U.S. corn prices due to ethanol demand. (Malkin 2007)
4. The most favorable comparison is the relative efficiency and environmental effects of corn-based versus sugar cane ethanol. Corn-based ethanol yields only about 15 to 25 percent more fuel than the fossil fuels used to produce it. Industry studies from Brazil claim that sugar-based ethanol yield almost 830 percent more fuel. This is an amazing difference and has been well reported. These relative efficiencies also result in reduced carbon dioxide and greenhouse gases. Brazil sugar plants and the cane industry have been experimenting in genetically bred sugar that yields more fuel. While everyone agrees that ethanol's future does not reside either in corn or sugar, but in the cellulosic ethanol, Brazil seems to have current leadership given their longer involvement with ethanol. The U.S. is initiating major R&D subsidies in biomass alternatives at this time. (USDA 2006)
5. Given current production technology, the evidence suggests

that it is unreasonable to assume that corn based ethanol is a realistic solution to the energy needs. First it would take the entire corn crop to satisfy just 12% of gasoline consumption leaving no corn to feed humans and animals. Secondly, rising corn demand would send corn prices soaring as we observed in the early months of 2007. Therefore, there cannot be enough corn for corn based ethanol to grow from being a fuel additive into a large-scale substitute for fossil fuel. In addition the competition between fuel and food, together with harvest conditions, will play itself out in much higher corn prices. Great for growers, not for consumers. Finally, higher corn prices would squeeze profit margins for ethanol producers requiring either substantially higher crude prices or enhanced government subsidies (Alpert 2006, Beck 2007, Etter 2007b).

6. It should be mentioned, that the Representative Collin C. Peterson (Democrat-Minnesota) is soon to become the new Chair of the House Agricultural Committee. His home district is the single largest sugar beet district in the U.S.
7. In 2007, as has happen repeatedly in the past, there is some discussion of replacing the supply controls with a direct subsidy

payment to growers to protect farm income. This would shift the subsidy cost burden of approximately \$1.3 billion from consumers to tax payers. Sugar producers general opposed any change in the status quo since direct subsidies would not only raise WTO concerns but also create an even greater perception of "corporate welfare" for producers.

8. A coalition of U.S. and Brazilian ethanol interested formed a coalition called the Inter-American Ethanol Commission to lobby for the elimination of the ethanol tariff. President Bush's brother and former Florida Governor, Jeb Bush is leading member of this coalition. In early 2007 President Bush visited Brazil to promote the coalition encouraging ethanol production and use. Congress is under some pressure to drop the ethanol tariff to encourage imports. (WSJ, 2007)

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