



## **CRS Report for Congress**

# **Ethanol Imports and the Caribbean Basin Initiative**

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### **Summary**

Fuel ethanol consumption has grown significantly in the past several years, and it will continue to grow with the establishment of a renewable fuel standard (RFS) in the Energy Policy Act of 2005 (P.L. 109-58) and the expansion of that RFS in the Energy Independence and Security Act of 2007 (P.L. 110-140). This standard requires U.S. transportation fuels to contain a minimum amount of renewable fuel, including ethanol.

Most of the U.S. market is supplied by domestic refiners producing ethanol from American corn. However, imports play a small but growing role in the U.S. market. One reason for the relatively small role is a 2.5% ad valorem tariff and (more significantly) a 54-cent-per-gallon added duty on imported ethanol. These duties offset an economic incentive of 51 cents per gallon for the use of ethanol in gasoline. However, to promote development and stability in the Caribbean region and Central America, the Caribbean Basin Initiative (CBI) allows the imports of most products, including ethanol, duty-free. While many of these products are produced in CBI countries, ethanol entering the United States under the CBI is generally produced elsewhere and reprocessed in CBI countries for export to the United States. The U.S.-Central America Free Trade Agreement (CAFTA) would maintain this duty-free treatment and set specific allocations for imports from Costa Rica and El Salvador. Duty-free treatment of CBI ethanol has raised concerns, especially as the market for ethanol has the potential for dramatic expansion under P.L. 109-58 and P.L. 110-140.

In the United States, fuel ethanol is largely domestically produced. A value-added product of agricultural commodities, mainly corn, it is used as a gasoline additive and as an alternative to gasoline. To promote its use, ethanol-blended gasoline is granted a significant tax incentive. However, this incentive does not recognize point of origin, and there is a duty on most imported fuel ethanol to offset the exemption. But a limited amount of ethanol may be imported under the Caribbean Basin Initiative (CBI) duty-free, even if most of the steps in the production process were completed in other countries. This duty-free import of ethanol has raised concerns, especially as U.S. demand for ethanol has been growing. Further, duty-free imports from these countries, especially

Costa Rica and El Salvador, have played a role in the development of the U.S.-Central America Free Trade Agreement (CAFTA).

## Fuel Ethanol

Ethanol is an alcohol fuel produced from the fermentation of simple sugars.<sup>1</sup> Most ethanol in the United States is produced from corn. In other countries, sugarcane or other plants are common feedstocks. In the United States, the increased demand for corn leads to higher revenues for U.S. corn farmers. Ethanol is usually blended in gasoline (a mixture called “gasohol”) to increase octane, improve combustion, and extend gasoline stocks. Currently, about 3% to 5% of total U.S. gasoline demand is actually met by ethanol, and roughly half of U.S. gasoline contains some ethanol.

U.S. ethanol is generally produced and consumed in the Midwest, close to where the corn feedstock is produced. The main steps to ethanol production are as follows:

- The feedstock (e.g., corn) is processed to separate fermentable sugars.
- Yeast is added to ferment the sugars.
- The resulting alcohol is distilled.
- Finally, the distilled alcohol is dehydrated to remove any remaining water.

This final step — dehydration — is at the heart of the issue over ethanol imports from the CBI, as discussed below.

## Ethanol Imports

According to the United States International Trade Commission, the majority of all fuel ethanol imports to the United States came through CBI countries between 1999 and 2003 (see **Figure 1**).<sup>2</sup> In 2004, imports from Brazil to the United States grew dramatically, but in 2005, CBI imports again represented more than half of all U.S. ethanol imports. With an increase in ethanol demand in 2006 due to voluntary elimination of MTBE — a competitor for ethanol in gasoline blending — imports grew dramatically, roughly quadrupling imports in any previous year.<sup>3</sup> Most of this increase was in direct imports from Brazil. Historically, imports have played a relatively small role in the U.S. ethanol market. Total ethanol consumption in 2005 was approximately 3.9 billion gallons, whereas imports totaled 135 million gallons, or about 4%. Imports from the CBI totaled approximately 2.6%. In 2006, total imports represented roughly 13% of the 5.0 billion gallons consumed in 2006; ethanol from CBI countries represented

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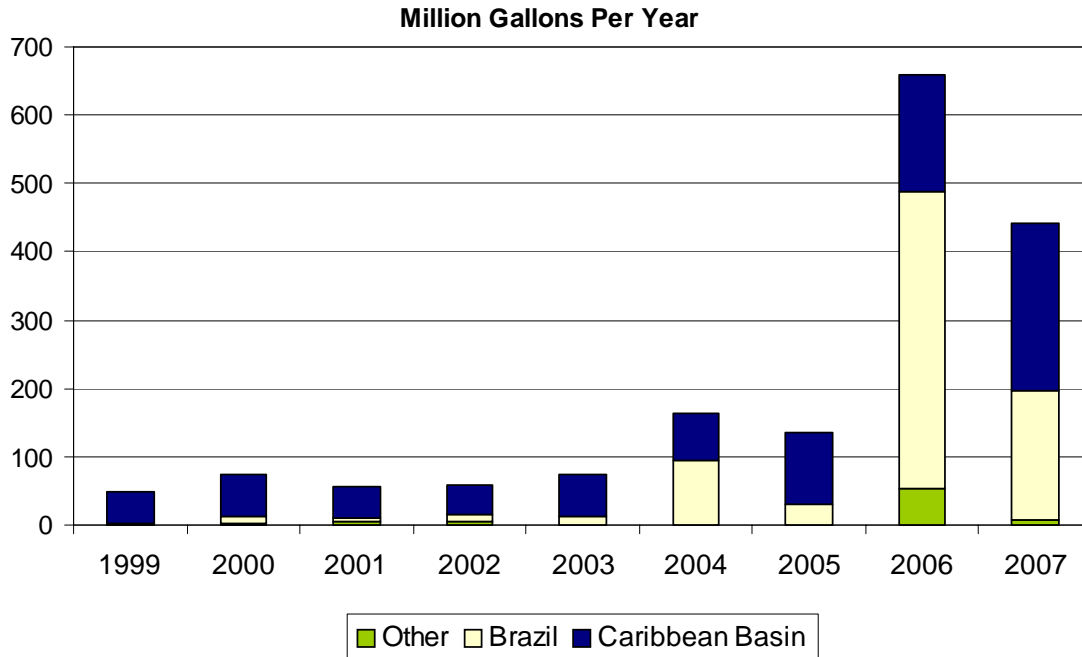
<sup>1</sup> For more information on ethanol, see CRS Report RL30369, *Fuel Ethanol: Background and Public Policy Issues*, by Brent D. Yacobucci.

<sup>2</sup> It should be noted that between 1999 and 2003, Saudi Arabia was the largest exporter to the United States of ethanol. However, this ethanol is synthetic (produced from fossil fuels) and does not qualify for the tax incentives for ethanol-blended fuel. Therefore, ethanol from Saudi Arabia is used as an industrial feedstock and is subject to different tariff treatment than fuel ethanol.

<sup>3</sup> For more information on the MTBE phaseout, see CRS Report RL31361, *“Boutique Fuels” and Reformulated Gasoline: Harmonization of Fuel Standards*, by Brent D. Yacobucci.

roughly 3.4%. In 2007, total imports represented roughly 6% of U.S. consumption (6.8 billion gallons); ethanol from CBI countries represented roughly 3.6%.

**Figure 1. Annual Ethanol Imports to the United States**



**Source:** U.S. International Trade Commission (USITC), *Interactive Tariff and Trade DataWeb*, at [http://dataweb.usitc.gov], accessed March 9, 2006, and USITC, *U.S. Imports of Fuel Ethanol, by Source 1996-2007*, updated February 2008.

One reason for limited imports — even though, in some cases, production costs for ethanol in foreign countries are significantly lower than in the United States — is a most-favored-nation tariff of 2.5% and an added duty of 54 cents per gallon.<sup>4</sup> In many cases, this tariff negates lower production costs in other countries. For example, by some estimates, Brazilian production costs have been roughly 50% lower than in the United States.<sup>5</sup> A key motivation for the establishment of the tariff was to offset a tax incentive for ethanol-blended gasoline (“gasohol”).<sup>6</sup> This incentive is currently valued at 51 cents per gallon of pure ethanol used in blending. Unless imports enter the United States duty-free, the tariff effectively negates the incentive for those imports. With U.S. wholesale ethanol prices ranging from roughly \$1.50 to \$2.50 per gallon for most of the time between January 2006 to March 2008, the tariff has presented a significant barrier to

<sup>4</sup> Technically, the tariff is 14.27 cents per liter, which is equal to 54 cents per gallon.

<sup>5</sup> “NCGA’s Adams Addresses World Energy Crisis at ACE Meeting,” *NCGA News*, August 16, 2004; Kevin Diaz, “Cargill Takes Heat Over Ethanol Import Plan,” *Star Tribune*, July 2, 2004.

<sup>6</sup> U.S. General Accounting Office, *Fuel Ethanol: Imports from Caribbean Basin Initiative Countries*, April 1989. For more information on the excise tax exemption, see CRS Report 98-435, *Alcohol Fuels Tax Incentives*, by Salvatore Lazzari.

imports.<sup>7</sup> However, during the voluntary phaseout of MTBE, there was a significant spike in wholesale prices between April 2006 and September 2006, with wholesale prices nearing \$6.00 per gallon in some markets during the summer of 2006.<sup>8</sup> This runup in prices significantly improved the profitability of importing ethanol, regardless of the duty.

## Ethanol and the CBI

As Congress noted in the Customs and Trade Act of 1990, the Caribbean Basin Initiative (CBI) was established in 1983 to promote “a stable political and economic climate in the Caribbean region.”<sup>9</sup> As part of the initiative, duty-free status is granted to a large array of products from beneficiary countries, including fuel ethanol under certain conditions. If produced from at least 50% local feedstocks (e.g., ethanol produced from sugarcane grown in the CBI beneficiary countries), ethanol may be imported duty-free.<sup>10</sup> If the local feedstock content is lower, limitations apply on the quantity of duty-free ethanol. Nevertheless, up to 7% of the U.S. market may be supplied duty-free by CBI ethanol containing no local feedstock.<sup>11</sup> In this case, hydrous (“wet”) ethanol produced in other countries, historically Brazil or European countries, can be shipped to a dehydration plant in a CBI country for reprocessing.<sup>12</sup> After the ethanol is dehydrated, it is imported duty-free into the United States. Currently, imports of dehydrated ethanol under the CBI are far below the 7% cap (approximately 3% in 2006). For 2006, the cap was about 270 million gallons,<sup>13</sup> whereas about 170 million gallons were imported under the CBI in that year.<sup>14</sup>

Dehydration plants are currently operating in Jamaica, Costa Rica, El Salvador, Trinidad and Tobago, and the U.S. Virgin Islands.<sup>15</sup> Jamaica and Costa Rica were the two largest exporters of fuel ethanol to the United States from 1999 to 2003. (In 2004 and 2006, direct imports from Brazil exceeded imports from all other countries combined.)<sup>16</sup>

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<sup>7</sup> Chemical Week Associates, “Octane Week Price Report,” *Octane Week*, various issues, January 2006 to March 2006, and Chicago Board of Trade, *Ethanol Derivatives, updated through January, 2008*, Chicago, February 13, 2008.

<sup>8</sup> Chicago Board of Trade, *op. cit.*

<sup>9</sup> P.L. 101-382, §202; 19 U.S.C. 2701 note: congressional findings.

<sup>10</sup> P.L. 99-514, §423; 19 U.S.C. 2703 note: ethyl alcohol and mixtures thereof for fuel use.

<sup>11</sup> *Ibid.*

<sup>12</sup> U.S. House of Representatives, Committee on Ways and Means, *Hearing on Fuel Ethanol Imports from Caribbean Basin Initiative Countries*, April 25, 1989.

<sup>13</sup> *69 Federal Register 76956.*

<sup>14</sup> The quota for a given year is calculated based on 7% of U.S. consumption in the preceding year. Therefore, as U.S. consumption is growing, the quota represents somewhat less than 7% of total U.S. consumption in that year.

<sup>15</sup> Petrojam, Ltd., *Petrojam Ethanol Limited - Alcohol Sources*. U.S. International Trade Commission (USITC), *U.S. Imports of Fuel Ethanol, by Source 1996-2007*, February, 2008

<sup>16</sup> USITC, *Interactive Tariff and Trade DataWeb*, at [<http://dataweb.usitc.gov>]. March 9, 2006.

Despite criticisms in the United States, new dehydration facilities began production in Trinidad and Tobago in 2005<sup>17</sup> and the U.S. Virgin Islands in 2007.

Duty-free ethanol imports have also played a role in discussions regarding the U.S.-Central America Free Trade Agreement (CAFTA).<sup>18</sup> Under this agreement signed by the Bush Administration and the participating countries, specific allocations (of the 7% duty-free cap for CBI ethanol) are set aside for Costa Rica and El Salvador. These allocations effectively limit the amount of fuel that other CBI countries can import duty-free. Costa Rica's allocation is 31 million gallons per year, while El Salvador was granted an initial allocation of approximately 6.6 million gallons per year, increasing by roughly 1.3 million gallons in each subsequent year. However, El Salvador's allocation may not exceed 10% of the total CBI allocation (or 0.7% of the U.S. market). The agreement was signed on May 28, 2004. Congress approved the agreement in 2005, and implementing legislation was signed by President Bush on August 2, 2005 (P.L. 109-53). As both countries exceeded their allocations in 2005, 2006, and 2007, the ultimate effects of the allocations is unclear.

## Growing U.S. Ethanol Market

The U.S. ethanol market has grown dramatically over the past several years. Between 1990 and 2007, U.S. ethanol consumption increased from about 900 million gallons per year to 6.8 billion gallons per year. Much of this growth has resulted from Clean Air Act requirements that gasoline in areas with the worst ozone pollution contain an oxygenate, such as ethanol, and the establishment of a renewable fuel standard (RFS) in the Energy Policy Act of 2005 (P.L. 109-58). The RFS required that gasoline sold in the United States contain a renewable fuel, such as ethanol. The mandate required 4.0 billion gallons of renewable fuel in 2006, increasing to 7.5 billion gallons in 2012. The Energy Independence and Security Act of 2007 (P.L. 110-140) expanded the RFS to 9.0 billion gallons in 2008, increasing to 36 billion gallons in 2022. In addition, the expanded RFS specifically requires the use of an increasing amount of "advanced biofuels" — biofuels produced from feedstocks other than corn starch (including sugar cane ethanol). While domestic producers anticipate greater demand for their product under the RFS, they are also concerned that duty-free ethanol imports through the CBI could dramatically increase, to their detriment.

## Duty Drawback

In addition to the concerns over imports of duty-free ethanol from CBI countries, there is growing concern that a large portion of ethanol otherwise subject to the duties is being imported duty-free through a "manufacturing drawback."<sup>19</sup> If a manufacturer imports an intermediate product then exports the finished product or a similar product,

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<sup>17</sup> This project has received particular scrutiny from some critics because its construction was financed through a loan insured by the U.S. Export-Import Bank.

<sup>18</sup> For more information on CAFTA, see CRS Report RL31870, *The Dominican Republic-Central America-United States Free Trade Agreement (CAFTA-DR)*, by J. F. Hornbeck.

<sup>19</sup> For more information on drawbacks, see U.S. Customs Service, *Drawback: A Refund for Certain Exports*, Washington, February 2002.

that manufacturer may be eligible for a refund (drawback) of up to 99% of the duties paid. There are special provisions for the production of petroleum derivatives.<sup>20</sup> In the case of fuel ethanol, the imported ethanol is used as a blending component in gasoline, and jet fuel (considered a like commodity) is exported to qualify for the drawback.<sup>21</sup> Some critics estimate that as much as 75% or more of the duties were eligible for the drawback in 2006. Therefore, critics question the effectiveness of the ethanol duties and the CBI exemption.

## **Congressional Action**

Some Members of Congress have expressed concern over duty-free imports of dehydrated ethanol that originates in Brazil or other countries. Therefore, there is growing interest from some Members of Congress to eliminate the CBI exemption and/or modify the manufacturing drawback for petroleum products.

Although some stakeholders are concerned over increased ethanol imports and their effect on the U.S. industry, others believe that tariffs on imported ethanol should be eliminated entirely. They argue that increased use of ethanol, regardless of its origin, would further displace gasoline consumption. They also argue that inexpensive imported ethanol would help mitigate any fuel price increases from the renewable fuels standard.

## **Conclusion**

With growing demand for ethanol, there is increased interest in foreign imports. Because ethanol from CBI countries is granted duty-free status, there is the possibility that imports of dehydrated ethanol will grow because of this avenue provided in the law. While CBI countries have not yet reached their quota for ethanol refined in other countries and dehydrated in the Caribbean, CBI imports have increased over the past few years, and may exceed the quota in future years. CBI imports have the potential to increase significantly over the next few years, especially as the domestic market grows under the renewable fuels standard. In addition, the manufacturing drawback could provide another avenue for duty-free ethanol imports directly from Brazil and other countries.

Low-cost ethanol imports could have an advantage over domestically produced ethanol, which could affect the U.S. ethanol industry and American corn growers. However, the U.S. ethanol industry has grown significantly in the past several years, and will likely continue to grow regardless of the level of imports.

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<sup>20</sup> 19 U.S.C. 1313(p).

<sup>21</sup> Peter Rhode, "Senate Finance May Take Up Drawback Loophole As Part Of Energy Bill," *EnergyWashington Week*, April 18, 2007.