Sugar Market Developments and Policy Issues

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Summary

The sugar program, as reauthorized by the 2008 farm bill (P.L. 110-246), is designed to guarantee that growers and processors of sugar beets and sugarcane receive a minimum price. To do this, the U.S. Department of Agriculture (USDA) limits the amount of domestically produced sugar that processors can sell under “marketing allotments” and restricts imports. These decisions to control supply are aimed at keeping market prices above support levels, so that USDA can operate the sugar program at “no cost” to the U.S. Treasury. Separately, trade law authorizes the Secretary of Agriculture to allow additional imports if the domestic sugar supply is not adequate to meet domestic demand at reasonable prices.

The United States is the fifth-largest consumer of sugar in the world. Consumption in food has increased in recent years, reflecting population growth and a shift back to sugar from corn syrup, an alternative and cheaper sweetener. Adverse weather significantly reduced beet sugar output in FY2009 and contributed to tight sugar supplies as FY2010 began. USDA projects a continued tight outlook at the end of FY2010 and also for FY2011, with ending stocks relative to demand at the low end of the range compared to earlier this decade. Reflecting this, the raw sugar futures price and the refined beet sugar spot price in April 2010 were 43% higher than year-ago levels. These prices were considerably above their support levels and 10-year market averages.

Since early 2009, food manufacturers that use sugar have called on USDA to allow for additional sugar imports to head off sugar “shortages” and to restore supplies to more normal levels. Sugar crop growers and their processors maintain that the domestic market is adequately supplied, with the processing of the 2009 crops now complete. Though these contrasting views spotlight the issue of sugar availability, the debate has more to do with the future level of the price of sugar. Sugar processors seek to maintain their advantage in negotiating higher sales prices with users. Sugar users want lower refined sugar prices that are closer to the historical average.

The debate over additional sugar imports centers around a provision in the 2008 farm bill that prescribes USDA's authority in administering the import quotas established to meet U.S. commitments under the World Trade Organization. It requires USDA at the beginning of each fiscal year to set the quotas for raw sugar and refined sugar at the minimum levels laid out in this obligation. The Secretary of Agriculture, however, is directed to increase imports before April 1 of any year if there is an “emergency shortage of sugar” due to war or a natural disaster. Sugar users have argued since summer 2009 that circumstances warranted additional imports before April 1. Processors urged USDA to wait until the supply picture became clearer. On April 23, 2010, USDA announced an increase in the raw sugar import quota. Over the last year, Members of Congress have weighed in to USDA in support of each side’s position.

Differing estimates of U.S. sugar use for food have implications for USDA’s management of the sugar program—in particular for import quota decisions. Some analysts view USDA’s projection of FY2010 sugar use as too low. They argue that available data suggest consumption of sugar for food is actually higher, and that additional imports are needed.

Free trade in sweeteners with Mexico now introduces considerable uncertainty as to how much sugar Mexico might export in any year to the U.S. market. This, in turn, complicates USDA's effort to administer the sugar program. Sugar processors advocate increased coordination between the U.S. and Mexican governments on sugar policies. Sugar users oppose their “managed-trade proposal,” arguing that it would result in inadequate domestic supplies and hurt U.S. jobs.
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Recent Developments

On April 23, 2010, the U.S. Department of Agriculture (USDA), after determining that additional supplies of raw cane sugar are required in the U.S. market, announced a 200,000 short ton (ST) increase in the FY2010 raw sugar import quota. Manufacturers of sugar-containing food products welcomed the news, but signaled that they will press USDA to again quickly raise the quota to avoid a sugar shortage later this year. Sugar producers responded that USDA's decision “shows that the Farm Bill is operating as intended and gives USDA the time and the tools it needs to ensure adequate supplies.”

On March 23, 2010, the Office of the U.S. Trade Representative (USTR) announced the reallocation of shares of the FY2010 raw sugar TRQ from countries unable to fill the amount of their allocations (i.e., what they can export to the United States) to countries able to do so. This action is intended to increase the amount of imported sugar supplied to U.S. cane refiners by more than 90,000 short tons, without changing the FY2010 raw sugar TRQ that limits the overall import quantity that can enter. Of the 40 countries with shares of this TRQ, 25 will be able to ship additional amounts.

Background on the Sugar Program

Governments of every sugar-producing nation intervene to protect their domestic industries from fluctuating world market prices. Such intervention is necessary, it is argued, because both sugar cane and sugar beets must be processed soon after harvest using costly processing machinery. When farmers significantly reduce production because of low prices, a cane or beet processing plant typically shuts down, usually never to reopen. This close link between production and capital-intensive processing makes price stability important to industry survival.

The United States has a long history of protection and support for its sugar industry. The Sugar Acts of 1934, 1937, and 1948 required the U.S. Department of Agriculture (USDA) to estimate domestic sugar consumption and divide this market by assigning quotas to U.S. growers and foreign countries. These acts also authorized payments to growers when needed as an incentive to limit production and levied excise taxes on sugar processed and refined in the United States. This type of sugar program expired in 1974. For the next seven years, the U.S. market was relatively open to foreign sugar imports, with mandatory price support provided only in 1977 and 1978, and discretionary support in 1979. Congress reinstated mandatory price support for sugar in the Agriculture and Food Act of 1981 and the Food Security Act of 1985. Subsequently, the 1990 farm bill, the 1993 budget reconciliation bill, and the 1996, 2002, and 2008 farm bills extended sugar program authority with some changes. Current law authorizes the sugar program through the 2012 crops for sugar beets and sugarcane.

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Even with price protection available to producers, the United States historically has not produced enough sugar to satisfy domestic demand and thus continues to be a net sugar importer. Prior to the early 1980s, domestic sugar growers supplied roughly 55% of the U.S. sugar market. This share has grown over the last 25 years, reflecting the price protection provided by the sugar program. As high-fructose corn syrup (HFCS) displaced sugar in the United States during the early 1980s, and domestic sugar production increased later in that decade, foreign suppliers absorbed the entire adjustment and saw their share of the U.S. market decline significantly.

U.S. sugar policy maintains domestic sugar prices above the world market price, and is structured to protect the domestic sugar-producing sector (sugar beet and sugarcane producers, and the processors of their crops) and to ensure a sufficient supply. During the last decade (FY2000-FY2009), the U.S. raw sugar domestic futures price averaged 21.0 cents per pound (¢/lb.), compared to the world raw sugar futures price of 10.8¢/lb. Because of the price differential, U.S. consumers and manufacturers of foods and beverages pay more for sugar than they would if imports were allowed to enter without any restriction. Various studies show that over the last 15 years, U.S. sugar users paid between $400 million and $1.9 billion more for sugar annually. These “cost to user” estimates vary widely, and largely reflect the extent of the difference between the higher U.S. price and the lower world price for sugar in the time period examined, and the differing assumptions and methodologies that analysts use to develop such estimates.

The sugar program differs from the grains, rice, peanut, and cotton programs in that USDA makes no direct payments to beet and cane growers and processors. With this structure, taxpayers do not directly support the program through federal government outlays. This fact is highlighted as a positive feature by the sugar production sector and program supporters. The program’s support level and import protection, however, keep the U.S. sugar price above the price of sugar traded internationally, and constitute an indirect subsidy to the production sector by way of higher prices paid by U.S. sugar users (food and beverage manufacturers) and household consumers. Program opponents frequently refer to this subsidy component to argue for changes to U.S. sugar policy.

Main Features of U.S. Sugar Policy

U.S. sugar policy uses three tools to ensure that domestic growers and sugar processors receive a minimum price for their sugar. First, statutorily set loan rates determine the support level that processors, and in turn producers, are guaranteed to receive for raw cane and refined beet sugar. Second, “marketing allotments” limit the amount of domestically produced sugar that processors can sell, and now ensure that the domestic sugar production sector supplies at least 85% of U.S. food and beverage demand for sugar. Third, import quotas restrict the amount of foreign sugar allowed to enter the U.S. market. USDA decisions in administering allotments and quotas are intended to balance available sugar supply (i.e., domestic output plus imports) with U.S. food demand for sugar so that market prices do not fall below effective support levels. The 2008 farm bill (P.L. 110-246, Subtitle D of Title I) further requires USDA to operate the sugar program on a “no-cost” basis (i.e., to result in no federal government outlays). It is administered by the Farm Service Agency. Each tool is described below, with a discussion of what the 2008 farm bill requires and what USDA has announced in exercising its authorities for the FY2009 and FY2010 sugar programs.3

3 For background, see CRS Report RL34103, Sugar Policy and the 2008 Farm Bill, by Remy Jurenas.
Price Support Loans

USDA extends “non-recourse” price support loans to processors of sugarcane and sugar beets rather than directly to the farmers who harvest these crops. Loans are available only to processors who agree to pay growers for deliveries of sugar beets and sugarcane at USDA-set minimum payment levels. Their “non-recourse” feature means that a processor can exercise the legal right to hand over sugar it initially offered USDA as collateral for the loan to meet its repayment obligation, if the market price is below the effective support level when the loan comes due. These loans at times can be attractive to sugar processors as a source of short-term credit at below-prime interest rates.

Loan Rates

The 2008 farm bill increases sugar loan rates by 4% to 5% in stages through FY2012. For the 2009 sugarcane and sugar beet crops that are harvested and processed during FY2010, the national average loan rate is 18.25¢/lb. for raw cane sugar, and 23.45¢/lb. for refined beet sugar. The loan rate increase is the first since 1985 for raw cane sugar and 1992 for refined beet sugar. The rate for beet sugar is statutorily set higher than for raw sugar because the former is available immediately after processing in white refined form, ready for industrial food and beverage use and for human consumption. By contrast, raw cane sugar must go through a second stage of processing at a cane refinery to be converted into white refined sugar. To reflect differences in marketing costs among production areas, USDA adjusts these national loan rates on a regional basis.

Effective Support Levels

Sugar loan rates alone do not serve as the guaranteed price floor for domestically produced sugar. In practice, USDA’s aim is to support raw cane and refined beet sugar at higher price levels that take into account those costs that a processor incurs in taking out a price support loan and in marketing sugar to a first purchaser. During FY2009, the effective support level for raw cane sugar was 19.81¢/lb. in Louisiana and Texas, and about 20.6¢/lb. in Florida and Hawaii. These were based on each state’s price support level, plus an amount to cover a processor’s cost to transport raw cane sugar to a cane refinery, plus the interest paid on any price support loan taken out, plus location discounts. For refined beet sugar, effective support across six beet-producing regions ranged from about 23¢/lb. to about 26¢/lb. The support level was based upon the regional loan rate, plus specified marketing costs, plus interest paid on a price support loan, plus a cash discount. For FY2010, effective support levels are about the same.

To ensure that market prices do not fall below these “effective” price support levels, USDA limits the amount of sugar that can be marketed by administering marketing allotments and import quotas (i.e., limiting supply). A loan forfeiture (turning over sugar pledged as loan collateral to

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4 This is a type of loan where processors pledge a commodity as collateral to obtain a loan from USDA’s Commodity Credit Corporation (CCC) at a commodity-specific, per-unit loan rate. The borrower may repay the loan, with interest, within a specified period and regain control of the commodity. Alternatively, the commodity can be forfeited to the CCC with no penalty if market prices fall below support levels at the end of the term. The U.S. government takes no recourse beyond accepting the commodity as full settlement of the loan.

USDA) occurs if a processor concludes that the domestic market price when the loan comes due is below the “effective” sugar support level for his state or region. In other words, this is the price that would discourage a processor from “forfeiting” sugar placed under loan to USDA. It is this level—not the loan rate—that represents the minimum level of program benefits that sugar crop growers and processors expect to receive.

Market prices in the last half of FY2009 (the first year that the 2008 farm bill-authorized sugar program was in effect), and to date in FY2010, have remained significantly above loan forfeiture levels. Though the domestic raw cane sugar futures price skirted around the loan forfeiture range for much of the first half of the FY2009, prices began to rise in April 2009 once it became clear that USDA would not increase raw cane sugar imports (Figure 1). By contrast, refined beet sugar prices were considerably above loan forfeiture levels during all of FY2009, and continue to be so in FY2010. Prices began to rise in August 2009 once USDA signaled that there would be no increase in the import quota for refined sugar before September 30 (Figure 2). For more discussion on sugar prices, see “Price Developments,” below.

**Figure 1. Raw Cane Sugar Futures Prices Were Well Above Loan Forfeiture Range in First Half of 2009/2010 Marketing Year**

![Graph showing raw cane sugar futures prices above loan forfeiture range](source)

**Source:** USDA, Economic Research Service, for price data; USDA, Farm Service Agency, for FY2009 loan forfeiture range.

**Note:** Raw cane sugar market price is the average futures price for the nearby month contract for #16, traded in New York City on the Intercontinental Exchange (ICE).

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6 The sugar marketing year (October to September) is the same as the fiscal year.

7 Various explanations for low raw sugar and high refined beet prices during FY2009 were offered. Some pointed out that continued imports of raw-sugar-equivalent product from Mexico that needed additional refining kept downward pressure on the U.S. raw cane sugar futures price. Others noted that the loss of the production capacity (10% of the refined sugar consumed in the United States) associated with Imperial Sugar's cane sugar refinery facility, located in Savannah, Georgia, which suffered an explosion in February 2008, reduced U.S. demand for raw cane sugar—its primary feedstock—and kept the raw cane sugar price lower than might be the case otherwise. Higher-than-average refined sugar prices are also attributed to the loss of refined product that this refinery would normally have supplied.
Marketing Allotments

In the 2002 farm bill, the domestic production sector accepted mandatory limits on the amount of sugar that processors can sell—known as marketing allotments—in return for the assurance of price protection. The sector viewed allotments as a way to try to capture any growth in U.S. sugar demand, and assumed that the then-U.S. sugar import quota commitments would continue without change through the end of the 2002 farm bill (September 30, 2008). However, concerned that their market share would decline as sugar imports increase under various free trade agreements (in particular from Mexico beginning in 2008), sugar producers and processors secured a significant change in the 2008 farm bill on how the national marketing allotment is to be determined. USDA is now required each year to set an “overall allotment quantity” (OAQ)—the amount of sugar that all processors combined can sell—that is not less than 85% of estimated U.S. sugar consumption for food. This provision guarantees a minimum 85% market share for the domestic sector, and is intended to ensure that imports do not displace the ability of U.S. sugar processors to sell more of their output in each successive year, to the extent that there is growth in U.S. demand for sugar.

This change removed discretionary authority that USDA previously exercised, when it weighed four specified factors in determining the OAQ, or the amount of domestic sugar allowed to be marketed. Then, sugar processors and food manufacturers (i.e., users of sugar) weighed in to influence USDA’s decision-making process on this issue. Each group differed in how USDA should define “reasonable” ending stocks—a key determinant of the level of domestic sugar prices in the last quarter of the marketing year (July to September) when price support loans come due. Sugar processors favored a smaller OAQ, seeking to benefit from sugar prices well above effective support levels. Food manufacturers advocated a larger OAQ, hoping that year-end prices
would end up lower, and close to loan forfeiture levels. With USDA now only required to set the OAQ at not less than 85% of projected sugar food use, interest group focus has turned toward influencing USDA decisions on import quotas, where its discretionary authority is now considerably prescribed (see “2008 Farm Bill Sugar TRQ Provision,” below).

The 2008 farm bill continues to split the OAQ between the beet and cane sectors using 54.35% and 45.65% shares, respectively. Additional rules specify how each sector’s allotment is to be allocated (i.e., distributed) to each sugar crop processing firm. Once USDA makes detailed calculations using specified criteria, each firm can sell only as much sugar as stated in its allocation notification received from USDA. Sugar produced and held in inventory in excess of a firm’s allocation must be held off the market (referred to as “blocked stocks”). However, if a beet or cane processing firm is not able to fill its sugar allocation, USDA can reassign the sum of all such “shortfalls” to raw cane sugar imports.

For FY2009, USDA set the final OAQ at 9.235 million short tons (ST), raw value\(^8\)—equal to 85% of U.S. food consumption of sugar as estimated in August 2009. Because this quantity was 11% higher than what all firms reported they had available to market (production from processing the 2008 crops, plus stocks held in inventory), USDA formally assigned a shortfall of 1.0 million ST to imports of raw cane sugar.\(^9\) A large portion of the sugar imported from Mexico can be viewed as having covered this shortfall. For FY2010, USDA set the initial OAQ above the minimum—at 9.235 million ST, or 91% of its September 2009 estimate of food sugar consumption for the year.\(^10\) Because raw cane and beet sugar output then was projected to be 13% below the announced OAQ, USDA expected domestic processors again to sell all of their production. The Department also noted that since raw cane sugar output “is expected to fall significantly short of its allotment,” this shortfall will be reassigned to imports later in FY2010.\(^11\)

On April 23, 2010, USDA formally acknowledged that additional supplies of raw cane sugar are required in the U.S. market, and reassigned to imports 200,000 ST of the unfilled cane sector allotment.\(^12\) Because of the uncertainties in forecasting each beet processor’s FY2010 production (particularly the amount of sugar that could be processed in September if the sugar beet harvest starts early), USDA subsequently announced that no beet sugar allotment will be reassigned to imports at this time.\(^13\)

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\(^8\) One short ton equals 2,000 pounds. Raw value refers to the conversion of refined sugar into an equivalent that can be used alongside raw cane sugar.


Import Quotas

The United States imports sugar to cover the balance of the demand that the U.S. production sector cannot supply. In FY2009, imports accounted for 26% of the sugar consumed domestically for food. In FY2010, imports are projected to cover about 21% of U.S. food use. USDA, however, restricts the quantity of foreign sugar allowed to enter for refining and/or direct sale to manufacturers for domestic food and beverage use. Tariff-rate quotas (TRQs) are used to restrict sugar imports to the extent needed to meet U.S. sugar program objectives. In other words, they serve to ensure that the amounts allowed to enter do not depress the domestic market price to below effective support levels, and that USDA as a result does not acquire sugar due to processors’ loan forfeitures (i.e., that USDA is able to meet the “no-cost” requirement). Quota amounts are laid out in U.S. market access commitments made under World Trade Organization (WTO) rules and under bilateral free trade agreements (FTAs).

The U.S. market access commitment made under WTO rules means that a minimum of 1.256 million ST of foreign sugar must be allowed to enter the U.S. market each year. Although the WTO commitment sets this minimum level, the Secretary of Agriculture has authority to allow additional amounts of sugar to enter if “domestic supplies of sugars may be inadequate to meet domestic demand at reasonable prices.” The U.S. Trade Representative (USTR) allocates the announced raw cane sugar TRQ among 40 eligible countries. The much smaller refined sugar TRQ is allocated first to Canada and Mexico, with the balance reserved for the rest of the world on a first-come, first-served basis (Table 1).

In a significant policy change, the 2008 farm bill requires USDA to set the WTO sugar TRQ commitments at the minimum levels at the beginning of the quota (i.e., marketing) year, lays out the factors to be considered to increase quota imports if there is an emergency sugar shortage before April 1 of each year, details what import actions USDA can take before and after April 1, and prescribes the mix of raw versus refined sugar allowed to enter, depending upon which half of the year such entries occur (see “2008 Farm Bill Sugar TRQ Provision”).

Effective January 1, 2008, the end of the North American Free Trade Agreement’s (NAFTA) transition period to free trade, Mexico no longer faces any tariff or quantitative limit on the amount of sugar that can be exported to the U.S. market. With this opening, imports have fluctuated considerably from year to year (almost 700,000 ST in FY2008, 1.4 million ST in FY2009, and 540,000 ST projected in FY2010; see Table 1). The doubling of Mexican exports in FY2009 over FY2008 was largely in response to higher prices for refined sugar in the U.S. market than mills could receive in Mexico. See “Free Trade under NAFTA” for discussion of implications of this year’s Mexican exports on FY2010 U.S. supply and prices.

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14 A TRQ combines two policy instruments used to restrict imports: quotas and tariffs. The quota component works together with a specified tariff level to provide the desired degree of import protection. Imports entering under the quota portion of a TRQ are usually subject to a lower, or sometimes a zero, tariff rate. This “in-quota” amount represents the minimum that a country has committed to allow to enter under multilateral or other trade agreements. Imports above the quota’s quantitative threshold (referred to as “above-quota”) face a much higher (usually prohibitive) tariff.


Table 1. U.S. Market Access Quota Commitments for Sugar Imports
(short tons, raw value)

<table>
<thead>
<tr>
<th>Trade Agreement &amp; Quota Subcategory</th>
<th>2008a</th>
<th>2009a</th>
<th>2010a</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>WTO TRQ</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Raw Cane Sugarb</td>
<td>1,231,497</td>
<td>1,231,497</td>
<td>1,431,497c</td>
</tr>
<tr>
<td>Refined Sugard</td>
<td>394,250a</td>
<td>104,251</td>
<td>99,251</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td>1,625,747</td>
<td>1,335,748</td>
<td>1,530,748</td>
</tr>
<tr>
<td><strong>Mexico/NAFTA</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sugarf</td>
<td>694,000</td>
<td>1,402,000</td>
<td>540,000</td>
</tr>
<tr>
<td><strong>DR-CAFTA TRQ</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sugar &amp; Sugar Goods</td>
<td>98,591</td>
<td>119,557</td>
<td>119,163</td>
</tr>
<tr>
<td>Specialty Sugarg</td>
<td>—</td>
<td>2,205</td>
<td>2,205</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td>98,591</td>
<td>121,761</td>
<td>121,368</td>
</tr>
<tr>
<td><strong>Peru FTA TRQ</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sugar &amp; Sugar Goodsg</td>
<td>—</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Specialty Sugarh</td>
<td>—</td>
<td>2,205</td>
<td>2,205</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>2,418,338</td>
<td>2,861,714</td>
<td>2,194,320</td>
</tr>
</tbody>
</table>


*Notes:* In this table, quantities specified in trade agreements are converted into English units (i.e., metric tons to short tons). One metric ton equals 1.10231125 short tons (2,000 pounds). All TRQs above reflect duty-free access for the quantities shown, except for three countries under the WTO raw cane sugar TRQ and several countries under the WTO refined sugar TRQ. See Figure 11 for a graphic overview of actual sugar imports under various trade agreements.

a. Fiscal year for WTO and Mexico/NAFTA; calendar year for DR-CAFTA and Peru FTA.
b. Announced at minimum commitment level (equal to 1,117,195 metric tons (MT)) for each year shown.
c. For FY2010, USDA increased the minimum commitment level by 200,000 ST on April 23, 2010.
d. Minimum commitment is 22,000 MT (or 24,251 ST), but USDA each year has allowed additional entry for specialty sugars to meet demand by the rapidly expanding organic food sector (on average about 75,000 ST annually).
e. USDA increased the refined sugar TRQ late in FY2008 by 272,155 MT (300,000 ST) in response to a tight market resulting from the loss of refining capacity at one cane sugar refinery and a reduction in expected sugar beet output from the 2008 crop.
f. Under NAFTA, Mexico received access to export unlimited amounts of sugar duty-free to the U.S. market, beginning on January 1, 2008. Quantities shown are recorded U.S. imports for FY2008 and FY2009, and USDA-estimated imports for FY2010. Current year (FY2010) imports from Mexico are subject to change to reflect evolving market conditions in both the U.S. and Mexican sweetener markets (see "Free Trade under NAFTA").
g. Available only to Costa Rica, beginning January 1, 2009.
h. Under the agreement’s terms (which took effect on February 1, 2009), Peru can use its preferential sugar TRQ only if it shows a sugar trade surplus. Since USTR calculated that this was not the case in 2007 and in 2008, Peru did not have additional access under this FTA in 2009, nor will it in 2010.
Under other bilateral FTAs, the United States has committed to allow entry to additional sugar imports from partners that already receive allocations under the U.S. WTO raw cane sugar TRQ. The most significant is the preferential access granted under the Dominican Republic-Central American FTA (DR-CAFTA) to Costa Rica, Dominican Republic, El Salvador, Guatemala, Honduras, and Nicaragua. In 2010, five of these countries are eligible to ship up to an additional 121,000 ST of sugar to the U.S. market (Table 1). Their preferential quotas combined will increase on average almost 3% per year, and total almost 169,000 ST in 2020 (year 15 of the agreement). Thereafter, quotas in the aggregate will increase by 1.7% (2,910 ST) annually in perpetuity. Though other FTAs grant other country partners formal access for their sugar to the U.S. market, actual exports will be minimal because these partners are not expected to show that they have a surplus in their sugar trade with the rest of the world.17

Under all trade agreements, the amount of sugar that enters under the “in-quota” portion of the TRQ is subject to a zero or small duty.18 “Above quota” imports (no longer applicable to Mexico under NAFTA) are subject to a prohibitive tariff (in FY2008, the equivalent of 86% on raw cane sugar and 76% on refined sugar), which effectively keeps out additional foreign sugar.

Sugar Market Developments

The policy debate will continue to revolve around how USDA should implement available authorities to either maintain sugar import quotas at already announced levels or raise them to increase available supplies. Because either alternative would affect market prices, the following reviews U.S. sugar use, supply, and prices in light of historical experience.

Food Use

The United States is the fifth-largest user of sugar for food in the world, consuming an estimated 10.5 million ST in FY2009. While total sugar use declined during the first half of the last decade, in recent years deliveries to food/beverage manufacturers and consumers have trended upward (Figure 3). The increase in sugar demanded reflects population growth, food and beverage manufacturers’ substitution of sugar for high-fructose corn syrup (HFCS) in response to changing consumer perceptions of HFCS, and consumers’ shift towards diet drinks and bottled waters away from corn-sweetened soft drinks. As a result, the decline in HFCS use has been offset largely by an increase in total sugar use.

In calendar 2008, sugar alone accounted for about 41% of total U.S. sweetener consumption, up from 38% in 1999. This share includes the amount of sugar estimated to be present in net imports of sugar-containing products. HFCS and other corn sweeteners’ share of domestic sweetener use stood at 40.5%, down from 46% a decade earlier.19

17 Congress has not yet considered the FTAs with Panama and Colombia, which, if approved, would grant additional access for each country’s sugar into the U.S. market.

18 A most favored nation tariff of 0.66¢ per pound is imposed only on imports of raw cane sugar from three countries that ship against their allocation of the WTO raw cane sugar TRQ (Argentina, Australia, and Brazil).

19 Derived by CRS from USDA, ERS, Sugar and Sweeteners Outlook, “U.S. Sweetener Demand,” June 2, 2009, p. 14, as accessed at http://www.ers.usda.gov/Publications/SSS/2009/SSS255.pdf. Other corn sweeteners consumed are dextrose and glucose syrup. Other caloric sweeteners are pure honey and edible syrups. High-intensity artificial sweeteners accounted for almost 18% of all sweetener use, up from just above a 15% share a decade earlier.
Analysts differ over the FY2010 outlook for U.S. sugar food use. This key factor has implications for the policy decisions that USDA might make this year. If the available domestic supply appears to be tracking close to meeting USDA-projected domestic food demand for sugar, outside pressure on USDA to increase imports may recede. However, if sugar use trends higher than now projected, USDA would face continued calls to allow for additional imports.

For FY2010 compared to FY2009, USDA initially projected that food use of sugar would fall by almost 340,000 ST (-3.25%), to 10.14 million ST. This outlook assumed there would be a reversal this year of what happened in the last two years (when direct consumption imports—primarily refined sugar—increased to substitute primarily for HFCS use, and as a result, boosted total sugar use). During FY2008 and FY2009, imports had increased in response to USDA's August 2008 decision to temporarily allow additional shipments under the refined sugar TRQ, and as Mexican sugar mills significantly increased refined sugar shipments to the U.S. market, in large part to take advantage of higher U.S. prices. However, for FY2010 USDA projected that refined sugar imports from Mexico for direct consumption would be lower than in FY2009, and that entries under the raw and refined sugar TRQs will be capped by the announced access levels laid out in U.S. WTO commitments (top of Table 1). As a result, USDA expected HFCS deliveries to increase to recapture the market share lost to sugar in the previous two years.

USDA in fall 2009 acknowledged some uncertainty, however, about the extent to which HFCS use might increase during FY2010 at the expense of sugar. Consumer preferences may not "change sufficiently to accept HFCS in products that had [already] made the switch to sugar." USDA also noted that HFCS use will depend much on how far corn refiners go to “aggressively
market their product to recapture [the market share] lost to sugar.”

Reflecting this uncertainty, USDA admitted that its FY2010 sugar use projection may be at the low end of a range.

Other analyses project that FY2010 food use will be higher than last year. One estimates that sugar deliveries for food will instead increase by almost 100,000 ST (+0.8%) over FY2009 use, to slightly more than 10.5 million ST. This view takes into account the pace of sugar deliveries for food consumption to date (October 2009 through March 2010), which USDA reports are 2.4% higher compared to the same six-month period in FY2009. Another analysis posits that USDA data estimates could support a range of food-use estimates well above USDA’s initial projection for FY2010. Use could range from 10.5 to 11.0 million ST, according to this analysis.

More recently, citing the “recent strong pace to date” of sugar deliveries for food, USDA raised its FY2010 estimate to 10.3 million ST and projected FY2011 use at the same level.

Significance of Sugar Ending Stocks

USDA projected in early summer 2009 that U.S. sugar stocks relative to domestic food consumption would be much lower than usual at the end of both the FY2009 and FY2010 marketing years. This prompted calls by industrial sugar users for USDA to quickly allow for additional imports to head off sugar “shortages.” Since there is a close correlation between ending stocks and the price of refined sugar in the last few months of a marketing year, their call for additional imports reflected more of a concern that domestic prices would quickly spiral much higher unless USDA took quick action.

During the marketing year, U.S. sugar stocks reach their lowest level in September. At that time, the sugar beet harvest begins in the Red River Valley straddling Minnesota and North Dakota, and in Michigan—the two main beet sugar producing regions in the country—followed by other beet-producing states. As factories process the harvested-and-then-stored sugar beets from late fall through early spring, the supply of refined sugar increases. Similarly, from November through late winter, sugarcane is cut and processed in Florida and Louisiana (where 90% of U.S. raw cane sugar is produced), further adding to available sugar supply.

USDA estimates FY2009 ending stocks at 1.5 million ST, above the 1.33 million ST recorded at the close of FY2005 in the aftermath of Hurricane Katrina, which shut down two cane sugar refineries in New Orleans. For FY2010, ending stocks are estimated at 1.23 million ST, or 73% of the average ending stock level recorded in the six-year period (FY2003 to FY2008) covered by the 2002 farm bill. In looking ahead to FY2011, USDA projects sugar stocks at the end of next year at 844,000 ST.

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20 In other words, if corn refiners price their HFCS at a substantial discount to refined sugar, they could regain some of their market share.
22 Promar International, *North American Sweetener Report*, March 2010, pp. 5-6, and April 2010, p. 2. This firm provides consulting services to food and agribusiness firms, including those that use sugar and other sweeteners.
26 Ibid. This reflects USDA’s May 2010 projection that the U.S. sugar supply in FY2011 declines 3.3% from FY2010. (continued...)
Figure 4. Monthly U.S. Sugar Stocks
(six-year average compared to selected recent marketing years)

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However, Figure 4 presents only part of the story, in that nominal ending stocks do not capture the impact of the growth in domestic food/beverage demand for sugar on the supply available at the end of recent marketing years, and in turn, its impact on market prices. The “stocks-to-use ratio” takes both supply and demand into account, measuring the relationship between sugar stocks at the end of the marketing year to the total amount of sugar consumed during that year. Market participants view this ratio as a reasonably credible indicator of what the future price of sugar might be. In general, a higher ending stocks-to-use ratio suggests lower sugar prices in the future; conversely, a lower ratio implies higher prices later on.

In implementing the sugar marketing allotment provisions of the 2002 farm bill, USDA stated that its estimate of reasonable ending stocks will be set “at a level expected to preclude sugar loan collateral forfeitures” (i.e., to ensure that sugar market prices were above effective price support levels so that the statutory directive to operate the sugar program at no cost to the U.S. Treasury was met). While USDA did not use an explicit stocks-to-use ratio to meet this objective, observers frequently noted that it was around 15%. During the six years covered by the 2002 farm bill, this outlook is based on lower beginning stocks, little change in imports from Mexico, and the requirement that all other imports initially equal the U.S. minimum sugar TRQ commitment under the WTO, even though beet sugar production and raw sugar output in Florida and Texas are expected to be higher. USDA also assumes that sugar use will be the same as in FY2010.

bill, ending stock-to-use ratios ranged from a low of 12.6% in FY2005 to a high of 18.7% in FY2004. This ratio averaged 16.1% on an annual basis during this period (Figure 5).

**Figure 5. U.S. Sugar Ending Stocks, and Stock-to-Use Ratios**
(FY2002 to FY2011 projected)

To implement the 2008 farm bill provisions, USDA initially signaled that a sugar ending stocks-to-use ratio of about 14.5% is “the level [it] normally considers necessary to provide for a balanced domestic sugar market” and not likely to result in loan forfeitures.28 A change in USDA's thinking, however, is suggested in its long-term baseline outlook for the U.S. sugar sector. Its projections assume that policymakers, taking into account the 2008 farm bill’s sugar and energy provisions and increased reliance on sugar imports from Mexico to cover U.S. food demand, can meet these objectives by aiming for a 13.5% stocks-to-use ratio.29

For FY2009, lower beet production, the temporary loss of one cane refinery due to an explosion, and USDA’s decision not to increase the import quota resulted in an ending stocks-to-use ratio of 13.9%. For FY2010, USDA’s May 2010 supply and demand projections point toward an ending stocks-to-use ratio of 11.6% (Figure 5), the lowest since 1974/1975.30

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28 Federal Register, p. 15359 (see footnote 35 for link). CRS derived this ratio using the parameters that the Farm Service Agency spelled out in the “Background” section published in this final rule.


Some sugar users have expressed concern that sugar may be scarce in the July-September 2010 period. Also, some beet sugar processors have withdrawn from the market. They report that sales to users against individual accounts “were running ahead on their withdrawals and were expected to reach the end of their commitments” before new crop sugar becomes available in early fall.31

**Price Developments**

USDA estimates of tight domestic sugar supplies for year-end FY2009, and a similarly tight supply outlook for FY2010, contributed to a run-up in the prices of both raw cane sugar and refined sugar from mid-2009 through early 2010. Prices began to rise in early August 2009 when a top USDA official signaled that USDA would not “for now” increase the sugar import TRQ before September 30, the end of the marketing year. Two subsequent developments pushed prices higher—the official’s confirmation on August 23 that there will be no quota increase in FY2009, and USDA’s announcement on September 25 that only the minimum quantities of sugar as spelled out in the U.S. TRQ commitment under the WTO will be allowed entry in FY2010.

**U.S. Raw Cane Futures Prices**

In reaction to these decisions, from July 2009 to February 2010, the U.S. raw cane sugar futures price rose from a monthly average of 23.0¢/lb. to 40.0¢/lb., a 74% increase. The raw sugar futures price has since fallen back to average 31.0¢/lb. in April 2010. To place it in perspective, the 10-year (FY2000-FY2009) average futures price for raw cane sugar was 21.0¢/lb. (Figure 6).

**Figure 6. U.S. Raw Cane Sugar Futures Price Compared to 10-Year Average**

(monthly, July 2005 to April 2010)

![Graph of U.S. Raw Cane Sugar Futures Price Compared to 10-Year Average](image)

**Source:** USDA, Economic Research Service, “Sugar and Sweeteners Briefing Room” Yearbook Tables, table 4; 10-year average price derived by CRS.

**Note:** U.S. raw sugar price is the average monthly price for the nearby month #16 futures contract, traded in New York City on the Intercontinental Exchange (ICE).

Relationship Between Domestic and World Raw Sugar Futures Prices

Although U.S. sugar policy is structured to completely isolate the impact of lower world sugar prices on domestic sugar prices (by limiting imports), this can change whenever the world raw cane sugar price climbs above the U.S. effective raw sugar support level. This happened during the second half of 2009 and early 2010, when drought caused by weak monsoon rains in India and slow harvesting caused by heavy rains in Brazil—both major players in world sugar trade—reduced available global sugar supplies and propelled world sugar prices to a level not seen for almost three decades. As countries scrambled to secure limited sugar stocks, the world raw cane sugar price (futures #11, traded in New York) soared to the highest level since January 1981, climbing above 30.0¢/lb. on February 1, 2010. Since the United States must compete with other countries to cover its sugar import needs, U.S. cane refiners also faced paying a premium to secure the foreign sugar that enters under quota. This price premium manifested itself in the continued rise through late fall 2009 and early winter 2010 in the U.S. raw cane sugar futures price (#16) as the world futures price rose (Figure 7). In other words, U.S. cane refiners had to pay a higher price to entice foreign exporters to ship sugar to the U.S. market against their quota allocations rather than to other country markets. A cane refiner—to cover the cost of processing raw sugar into the refined product plus secure a profit—then adds a margin to the price paid for raw cane sugar in setting a wholesale refined sugar price. As the U.S. raw cane sugar futures price (#16) tracked the rising world raw sugar price (#11) through early 2010, U.S. wholesale refined sugar prices followed suit (Figure 8).

**Figure 7. World and U.S. Raw Sugar Prices**

(monthly, July 2005 to April 2010)

![Graph showing world and U.S. raw sugar prices from July 2005 to April 2010.](source)

**Source:** USDA, Economic Research Service, “Sugar and Sweeteners Briefing Room” Yearbook Tables, tables 3 and 4.

**Note:** Prices shown are for spot #11 (world) and futures #16 (U.S.), traded in New York City on the Intercontinental Exchange (ICE).
Since late February 2010, reports that sugar production in Brazil and India are expected to improve have contributed to a quick drop in the world raw sugar price. Raw sugar futures prices in the first week of May 2010 were below 15¢/lb., less than half of the high price recorded three months earlier. This decline has been reflected in a corresponding drop in the U.S. raw sugar futures price, and to a lesser extent, in a fall in the U.S. wholesale refined sugar price quoted by processors (Figure 8). With the world sugar price since early April 2010 falling below the U.S. effective raw sugar support level (about 20¢/lb.), this development will no longer be a factor in influencing U.S. raw sugar futures price levels. One result is that the domestic refined sugar price will increasingly reflect market participants’ outlook for U.S. supply and demand (see “Price Setting and Outlook,” below).

**Domestic Refined Sugar Wholesale Prices**

During the same July 2009 to February 2010 period, the U.S. wholesale refined beet sugar price for spot sales rose from a monthly average of 35.4¢/lb. to 53.0¢/lb., a 50% increase. The quoted price of refined sugar has since retreated, and averaged 49.0¢/lb. in April (Figure 9). The last time spot refined sugar prices significantly increased was in September 2005, after Hurricane Katrina put two cane refineries in New Orleans out of commission for a few months. Then, refined sugar prices rose 48% from an average 27¢/lb. (August 2005) to 40¢/lb. in September, where they remained for two months until beginning to decline in December 2005. In comparison, the 10-year (FY2000-FY2009) average wholesale price for refined beet sugar was 27.3¢/lb. (Figure 9).
Retail Sugar Prices

About one-quarter of the sugar used as food in the United States is purchased at the retail price by households in consumer-sized packages at supermarkets and grocery stores. Most of the remaining sugar is consumed as an ingredient in sugar-containing products sold by food and beverage manufacturing firms. These firms pay the wholesale price for sugar, which represents one cost component along with the price paid for each other ingredient used to produce a food product. Since the sugar content varies from product to product, an increase in the wholesale refined sugar price, if passed on by manufacturers, may mean that consumers pay more for some products at the retail level. However, price declines over the past year in several other agricultural commodities purchased by food manufacturers and used with sugar in baked goods, for example, may have offset increased sugar costs, and resulted in little change in the retail price of some sugar-containing products.

In recent years, the retail price of refined sugar has lagged behind changes in the wholesale price, and since early 2008, has increased at a slower rate than the rise in the wholesale price. During FY2009, the retail price averaged 56.0¢/lb., compared to the 10-year average (FY2000-FY2009) of 46.5¢/lb. Since late 2009, however, the rise in the wholesale price paid by supermarkets among other retailers has partially been passed on to households and reflected in the retail price that consumers paid for sugar. In March 2010, the per-pound price averaged 63.6¢, the highest in nominal terms since December 1974 (Figure 10).
Price Setting and Outlook

Since there is no futures market for refined sugar in the United States, common practice is for sugar processors and industrial sugar users to negotiate contracts that detail the sales price for specific quantities of refined sugar to be delivered at specified future points in time. Because these contracts frequently are negotiated far in advance (covering shipments up to more than a year into the future), sellers and buyers weigh what the following factors portend for future price levels. Before agreeing on price, both sides take into account projections of future U.S. sugar supply and demand, particularly ending stock levels; expectations about what USDA might decide with respect to sugar import quota levels; implications of future raw cane sugar prices as signaled by price quotes in the futures market; the nature of existing commercial relationships; and market intelligence on the quantity of refined sugar expected to enter from Mexico. During these negotiations, each sugar processor seeks to sell, at the highest possible price, much of the sugar it is permitted to under its marketing allotment to minimize what is held in inventory at the end of the year. Similarly, each user aims to line up guaranteed deliveries of sugar at the lowest price possible to cover its needs over time. Anecdotal reports suggest that a large portion of the sugar delivered each year is marketed on this basis.

The pricing agreed upon between sugar processors and industrial sugar users for near-term sales of refined beet sugar serves as a reasonable proxy for what refined sugar prices might be in the next few months. As of early May 2010, most beet and cane processors were offering sugar for shipment during the balance of FY2010 at 45¢/lb. to 49¢/lb. Sales for delivery in bags within 30 days and through September in bulk occurred at 41¢/lb. to 41½¢/lb. and 44¢/lb to 45¢/lb. Longer term, processors are offering sugar for 2011 at 38¢/lb. to 40¢/lb., for 2012 at 36¢/lb. to 38¢/lb.,


Note: Retail refined price (U.S. city average, all sizes) is for all refined sugar, irrespective of whether processed from sugar beets or raw cane sugar.
and for some of 2013 at 34¢/lb. to 36¢/lb.\textsuperscript{32} During April, sellers and buyers reportedly discussed
and signed some multi-year contracts at these prices. Interest in covering sugar needs over a
multi-year period reportedly reflects decisions by food manufacturers to switch from corn
sweeteners to sugar for some of their food products and their desire to lock in future shipments at
prices lower than the higher levels recorded in early 2010.\textsuperscript{33} Market participants will continue to
monitor and base their decisions on which way U.S. raw cane futures prices (#16) trend—the
primary indicator for what might be seen in future wholesale refined beet sugar price levels.

**Issues**

Sugar users continue to press their case for USDA to increase sugar imports, arguing that action is
needed to restore supplies to more normal levels. They also have proposed that USDA and USTR
administer the sugar import quota in ways that maximize the amount of foreign sugar that
actually enters the U.S. market each year. Sugar processors maintain that the domestic market is
adequately supplied now that the harvesting and processing of the 2009 crops is completed.
Although these contrasting views focus more on the availability of sugar in the current year, the
underlying issue driving the debate is more about the level of the price of sugar. Sugar processors
seek to maintain their advantage in negotiating sales prices with users. Food and beverage firms
want prices for refined sugar that are lower and closer to the historical average. Members of
Congress have weighed in with letters to USDA in support of each side’s position.

U.S. sweetener trade with Mexico—now free in both directions—continues to be watched
carefully because of its impact on U.S. sugar supplies and prices. The uncertainty that USDA
faces in projecting how much sugar from Mexico might enter the U.S. market has implications
for how it manage U.S. sugar policy. To address this, sugar processors advocate increased
coordination between the U.S. and Mexican governments on sugar policies.

**2008 Farm Bill Sugar TRQ Provision**

One new provision prescribes USDA’s authority in administering the sugar TRQs established to
meet U.S. WTO trade commitments.\textsuperscript{34} It requires USDA to set at the beginning of each marketing
year (October 1) the quotas for raw cane sugar and refined sugar at the minimum WTO levels
(i.e., 1,255,747 short tons (ST)). It also lays out the steps to be followed to increase imports in
case there is a sugar shortage. The details differ, depending upon when in the year the Secretary
of Agriculture exercises this authority.

In the event of an “emergency shortage of sugar” caused by a war, flood, hurricane, or other
natural disaster, or other similar event as determined by the Secretary, during the first half of the
marketing year (October 1 to March 31), USDA must take action to increase the supply of sugar.
One action that can be taken is to increase the raw cane sugar TRQ to compensate for insufficient
domestic cane and beet sugar output. If this step still leaves a sugar shortage, and the sale of
domestic sugar “has been maximized” and U.S. raw cane sugar refining capacity also “has been
maximized,” the Secretary may increase the refined sugar TRQ.


\textsuperscript{34} Section 1403(j) of P.L. 110-246, the 2008 farm bill; 7 U.S.C. 1359kk.
In the second half of the marketing year (April 1 to September 30), if a sugar shortage still exists and the marketing of domestic sugar has been maximized, the Secretary can only increase the raw cane sugar TRQ. USDA is required to ensure that any increase in imports under this authority “will not threaten to result in” a fall in domestic sugar prices below loan forfeiture levels.

In issuing the sugar program regulations to implement the 2008 farm bill changes, USDA did not define this provision’s key terms (e.g., “other similar event as determined by the Secretary”) or give any details indicating the circumstances under which an increase in sugar imports under this policy change would be implemented.

This provision removed considerable discretionary authority that USDA previously exercised in making sugar TRQ decisions on import quantities and on the timing of entry by sugar type (raw cane versus refined). As now structured, USDA is directed to ensure that most imports enter in the form of raw cane sugar rather than refined sugar. The sugar industry sought this provision to reduce the considerable uncertainty associated with how much sugar actually enters from Mexico under NAFTA, and what portion enters as refined sugar. Since most cane refineries are now a key part of vertically integrated firms owned by raw sugar processors and/or sugarcane producers, the 2008 farm bill’s TRQ directive ensures that cane refineries (which process raw sugar into refined sugar) in an emergency situation can receive enough raw sugar in order to more fully utilize their operating capacity. Further, limiting the entry of refined sugar only when there is an emergency sugar shortage enhances the competitive position of domestic beet sugar refiners (and by extension, cane refiners) in securing the best possible price from purchasers.

**Implications of the Timing of a TRQ Decision**

When USDA in late September 2009 set the FY2010 raw and refined sugar import quotas at the minimum WTO-commitment levels, it acknowledged that the U.S. market “will require additional supplies of sugar.” It stated plans to “closely monitor stocks, consumption, imports, and all sugar market and program variables on an ongoing basis.” Of these factors, the uncertainty surrounding how much sugar might be exported to the U.S. market by Mexican mills is the most significant (see “Sugar Imports from Mexico”).

In the seven months since USDA announced the FY2010 sugar TRQs, USDA has raised its supply projection for the year by almost 450,000 ST (or 4.0%). Lower beet sugar output due to harvesting problems in freezing conditions and lower sugar content is expected to be more than offset by increased raw cane sugar output in Louisiana and additional imports under the sugar TRQ increase announced on April 23, 2010. Taking into account USDA’s revised estimate for FY2010 and FY2011 sugar food use, USDA projects low ending stocks compared to historical experience for this year and next (Figure 5).

A significant factor influencing negotiations between sugar processors and industrial sugar users on the sales price for product to be delivered over the next 6- to 18-month period was whether or not USDA would increase the sugar TRQ, and in turn the timing of that decision. If USDA did intend to increase the import quota, a delay in making a decision (because of the uncertainty

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Sugar Market Developments and Policy Issues

raised) strengthened the hand of processors as they negotiated prices for sugar that users sought to secure in the short term and beyond. Expecting that USDA would not decide until April 2010, some sellers raised price offers or contracted sales at higher prices from users seeking sugar to cover immediate needs. To illustrate, spot prices for the near-term delivery of refined sugar stood at 48¢/lb. in mid-January 2010, compared to 35¢/lb. one year earlier. However, most buyers reportedly were reluctant to contract on a longer-term basis.37

If USDA does announce another TRQ increase, the impact of the additional imports on increased supply and prices in subsequent months will depend on the size of the increase. The focus will be on how much the announced increase covers the difference between projected ending stocks and what supply would be needed to conclude FY2010 with a 13.5% to 14.5% stocks-to-use ratio—the range of an informal benchmark that USDA appears to be working with (see “Significance of Sugar Ending Stocks” for explanation). At present, applying these ratios would imply additional imports ranging from about 200,000 ST to 300,000 ST. This assumes there is no additional increase in imports from Mexico beyond what USDA already projects and that USDA’s May 2010 increase in its domestic food use estimate remains unchanged. However, if higher estimates of sugar food use are considered, additional sugar supplies (i.e., imports) would be required to meet the range of USDA stocks-to-use ratios cited above. With additional imports, prices could fall some, but the extent of the drop would depend on the amount that actually enters against the announced quota and on how quickly raw sugar is imported and refined.

Sugar Users Call for Import Increase

Sugar users, beginning in March 2009, have made repeated requests for USDA to increase import quotas for raw and refined sugar in order to head off a shortage in the domestic sugar supply. Pointing out that USDA projections showed historically low ending-stock levels for FY2009 and an even lower level for FY2010, the Sweetener Users Association (SUA) urged that quick action be taken to head off the potential for market disruptions, particularly should a hurricane occur. It argued this was necessary because of the lead time required to purchase, ship, and refine raw sugar before refined sugar actually becomes available to users.

In late October 2009, the SUA called upon USDA to “responsibly manage the sugar program by announcing a significant increase in raw and refined sugar import quotas in coming weeks.” It argued that even with the 2008 farm bill TRQ provision, the Secretary of Agriculture “still has ample and clear cut authority to increase TRQs at any time” by how he defines “emergency” and by using a sugar tariff headnote that gives him authority to increase imports if he concludes the U.S. sugar supply “may be inadequate to meet domestic demand at reasonable prices” (see footnote 15). Noting that the highest refined sugar prices in over 25 years do not represent “reasonable prices” under any normal understanding of that term, the SUA stated that the headnote’s “condition for a TRQ increase would appear clearly to be met.” Further, it contended that “there would be ample scope within the farm bill language itself to consider” the outlook of record-low FY2010 ending stocks as constituting an “emergency shortage” and sufficient to announce an import quota increase. Referring to the stocks-to-use ratio as the best guide to follow to determine how much to increase the quota, the SUA argues current market conditions warrant a 1.0 to 1.2 million ST increase in the raw and refined sugar TRQs (for imports from countries eligible to export against their shares of the WTO import quota commitment). Its report concludes

that “[f]ailure to act in a timely manner risks locking in high sugar costs for consumers and for food and beverage manufacturers for another year.”

Food manufacturers of sugar-containing products welcomed USDA’s April 23, 2010, announcement of a 200,000 ST increase in this year’s raw cane sugar import quota, and signaled that they will press USDA to again quickly raise the quota to avoid a sugar shortage later this year. In a letter to USDA’s Undersecretary, SUA’s chairman recommended that USDA “immediately increase raw and refined sugar TRQs by up to 800,000 ST” in light of “continuing strong deliveries and the need to increase stocks, not only for” the rest of FY2010 but also for next year (see “Food Use” and “Significance of Sugar Ending Stocks” for background). He argued, in contrast to USDA’s current assessment of demand, that the current strong refined sugar prices reflect the marketplace’s belief that “sugar supplies are tight and demand is relatively strong.”

Sugar Producers View Supplies as Adequate

Just before the FY2010 marketing year began, producers and processors maintained that there is plenty of sugar for sale and that with harvests underway, the domestic market “will remain adequately supplied for the foreseeable future.” Representing sugar crop farmers and processors, the American Sugar Alliance (ASA) noted that “USDA projects a sugar surplus again this crop year.” It applauded the decision to set sugar import quotas at their minimum levels, stating that this follows the congressional intent of the TRQ provision included in the 2008 farm bill. ASA again noted that this authority serves the purpose of taking “the guesswork out of TRQ decisions” and ensures that USDA makes them “with the best market information available.” Since the supply and demand outlook is more certain by the middle of the marketing year, ASA continued to advocate that USDA wait until April 1, 2010, or even later, before making any decision on whether to allow increased imports. The sugar production sector acknowledges that adherence to this directive contributed to the strong prices that beet and cane refiners have received this year. One beet refining executive commented that if this “recent price recovery can be sustained, producers might be able to improve [their] returns over past years, reinvest, continue to improve efficiency and stay in business.”

Reacting to USDA’s April 23 import quota announcement, the ASA stated that its decision “shows that the Farm Bill is operating as intended and gives USDA the time and the tools it needs to ensure adequate supplies.”

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41 Greeley Tribune [Colorado], “Western Sugar CEO Critical of USDA Sugar Reporting,” February 24, 2010.
Sugar Imports from Mexico

Free Trade under NAFTA

Unrestricted imports of sugar from Mexico since January 1, 2008, have introduced considerable uncertainty into USDA’s efforts to manage the sugar program to ensure that market prices stay above effective support levels (i.e., that sugar processors have no incentive to forfeit on their loans if prices are lower). Since then, Mexico’s share of U.S. sugar imports has fluctuated widely—from 34% in FY2008 to 51% in FY2009 to an estimated 25% in FY2010 (Figure 11). While sugar imports under U.S. trade commitments to the WTO and FTA trading partners have been stable and predictable over the last few years, estimates of entries from Mexico can change substantially during a year’s time. For example, as market conditions changed during FY2009, USDA increased its estimate of imports from Mexico by 2½ times, from an initial 550,000 ST projection early in the year to 1.4 million ST at the end. Similarly, in FY2010 to date, USDA import projections have ranged from an initial 165,000 ST to a high of 760,000 ST to its current 540,000 ST estimate.

![Figure 11. Mexico’s Share of U.S. Sugar Imports for Food Has Fluctuated (FY2007 to FY2011 projected)](chart)

Record sugar imports from Mexico in FY2009 were prompted by two major factors. Faced with the need to generate cash to meet financial obligations to cane growers and suppliers, Mexican sugar mills resorted to selling sugar in the U.S. market, even at times when U.S. prices were lower than in Mexico. More important, from late spring 2008 through early summer 2009, Mexican mills took advantage of the higher U.S. refined sugar price to significantly increase sales of refined sugar to the U.S. market. As the price in both markets converged in late summer 2009, Mexican sales to the United States began to decline (Figure 12).
Sugar Market Developments and Policy Issues

Figure 12. U.S. Imports of Refined Sugar from Mexico Have Increased When U.S. Price is Higher than Mexican Price
(FY2008 to April 2010)


Notes: Imports of refinado (refined sugar) from Mexico are estimates based upon mode of entry (containers, railcars, or trucks)—likely to end-users rather than to U.S. cane refineries—as recorded by U.S. Customs and Border Protection, and converted from metric to short tons. U.S. wholesale price is for refined beet sugar, Midwest markets, as published by Milling and Baking News. Mexican wholesale price is for bulk quantities of refinado quoted in Mexico City and reported by “Servicio Nacional de Informacion de Mercados (SNIIM-ECONOMICA),” and converted from pesos to U.S. dollars by ERS using exchange rates published by the Board of Governors of the Federal Reserve System.

For FY2010, USDA projects 540,000 ST in sugar imports from Mexico, about one-third of the previous year’s level. This represents 28% of expected total U.S. sugar imports for food use (Figure 11). While still a sizable amount, the expected lower import level is due to the significant drawdown in Mexican sugar stocks during FY2009 (when a large portion was exported to the U.S. market). Also, as Mexico’s sugarcane harvest season draws to a close, reports indicate that this year’s sugar output could be up to 10% below last year’s, meaning Mexico will have less available to export to the U.S. market. Both developments are behind the February 9, 2010, announcement by Mexico’s government to allow imports of almost 300,000 ST to rebuild low inventories and dampen prices. Even with this decision, USDA projects that Mexican stocks at the end of FY2010 will still be about half of recent historical experience.

Four factors could alter the amount of Mexican sugar that flows north. They introduce elements of uncertainty into USDA’s efforts to project sugar imports from Mexico. First, the gap between Mexican and U.S. refined sugar prices will continue to influence the volume of shipments. If U.S. prices are above Mexican levels, Mexican mills have an incentive to ship sugar to the United States. Conversely, if Mexican prices stay above the U.S. price level, Mexican sellers can be expected to meet the demand found in the then-more-profitable Mexican sugar market. Second,
irrespective of the relationship between Mexican and U.S. sugar prices, some Mexican mills still may ship sugar north to maintain the commercial trading relationships they have already developed and to generate dollars needed to cover their financial obligations. Third, U.S. exports of high-fructose corn syrup (HFCS)—a competitive sweetener—to Mexico, priced lower than Mexican-produced sugar, could displace some of the Mexican-produced sugar now used by that country’s soft-drink manufacturing sector. This substitution occurred in the United States in the early 1980s, when cheaper HFCS almost completely substituted for the more expensive sugar that the U.S. soft drink sector had historically used. With the significant rise in the Mexican sugar price during 2009 and its continued high level in 2010, demand for HFCS is expected to nearly double in Mexico. Much of this demand is being met by a substantial increase in HFCS imports from the United States, where sales of, and prices for, HFCS are reportedly noticeably weak. To the extent that HFCS displaces sugar in Mexico’s soft drink sector, any resulting surplus of Mexican sugar would have an incentive to move north to the U.S. market, particularly if U.S. refined sugar prices are higher than those in Mexico. Fourth, the Mexican government may take steps to rebuild domestic sugar stocks (e.g., license exports to the U.S. market, or announce another import quota).

“Substitution” and Governments’ Coordination of Sugar Policies

U.S. policymakers and U.S. sugar industry officials claim that Mexico is “substituting” lower-priced imported sugar to cover its domestic sugar needs. They point out that during 2009, Mexican mills exported much more sugar than expected to the U.S. market—a development that contributed to a fall in Mexican sugar stocks to below normal levels. In turn, the Mexican government substantially increased imports in order to avert shortages and to reduce the prices paid by users and consumers. Some Members of Congress have called for this “loophole” in NAFTA to be addressed. This practice, they contend, makes it very difficult for USDA to manage sugar policy, which in turn affects projections of U.S. sugar supply and the outlook for U.S. prices.

These statements were made against the backdrop of the Mexican government’s sudden recognition in early August 2009 that there would not be sufficient stocks of sugar on hand to cover the country’s needs before sugar from the next sugarcane crop becomes available in December 2009. To rebuild very low stock levels, the government announced temporary sugar import quotas to allow for the entry of 550,000 metric tons (MT) by year-end 2009.

The “loophole” refers to a provision negotiated in the more recent FTAs (e.g., with Chile, Morocco, the DR-CAFTA countries, and Peru) but not included in the NAFTA text negotiated

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43 U.S. HFCS exports to Mexico in the first five months of FY2010 (October to February) were almost three times higher than during the same period in FY2009 (358,000 ST compared to 120,000 ST).
45 Mexico’s sugar output, though trending upward, does vary from year to year, depending upon weather and growing conditions. Mexican government policy also is to hold three months worth of sugar stocks in reserve and to allow sugar imports when needed to meet demand and lower prices. Also, U.S. sugar processors are now free to export sugar to Mexico to take advantage of the occasional higher prices there.
more than 15 years ago with Mexico. The newer provision limits the preferential (i.e., duty-free and quota) access each FTA partner has to the U.S. market only to its net sugar trade surplus. This surplus is each country’s volume of exports to the world, minus the volume of its imports from the world, of sugar and specified sugar-containing products, with adjustments for its sweetener trade with the United States, in the most recent year. If exports are greater than imports, the FTA partner’s access to the U.S. market is limited to this surplus or to the U.S. quota commitment set in the FTA for the year, whichever is lower.

Acknowledging that formal efforts to address the “loophole” would reopen the controversial issue of renegotiating NAFTA, parts of the U.S. and Mexican sugar production sectors late in 2009 presented to their respective governments a detailed framework for coordinating both countries’ sugar policies to address the “substitution” issue. The most significant recommendation would have both governments cooperate when they determine (1) that a sugar shortage exists in the combined U.S.-Mexican sugar markets, and (2) the amount of “non-NAFTA” imports required to eliminate that shortage. Another would have both countries modify their sugar re-export programs so that sugar-containing products manufactured with lower-cost world (i.e., “non-NAFTA”) sugar in the United States and Mexico are exported only to outside the two-country region. Other recommendations call for both governments to consult at least every three months to review data on both countries’ sugar markets; to establish a permanent joint sugar commission to coordinate national sugar policies, monitor implementation of the framework’s objectives, and handle any disputes that may arise under the framework; to consult about the likely impact of future trade agreements on how their sugar programs work; and to work together to improve the collection and publication of reliable data on each country’s sugar supply and use, including mandatory and enforceable reporting requirements for sugar producers.46

U.S. sugar producers state that these recommendations can be put into place without making any changes to NAFTA, do not require any legislation, and maintain “an open NAFTA market” by not restricting the flow of sugar between Mexico and the United States. They also note that this proposal was structured so as not to affect other U.S. commodities that view Mexico as a major market, including corn sweeteners. U.S. sugar users, however, argue that this proposal would change how NAFTA operates, since both governments “would not be able to independently operate their sugar programs.” Further, they characterize the recommendations as interfering with Mexico’s right under NAFTA to meet its needs with unlimited imports and for its sugar mills to ship all of their available sugar to the U.S. market.47

In late February 2010, a top USDA official announced that the Mexican government was drafting a response to this industry proposal. Once a draft is received, he said, USDA will review it and present it to the sugar industry for comment.48


Reallocation of Country Sugar Quota Allocations

The sugar TRQ that reflects the U.S. WTO commitment to allow most raw cane imports to enter duty-free is allocated to 40 countries. Each country’s allocation, or share, is based on its level of historical shipments to the U.S. market from 1975 to 1981—a period when free access for foreign sugar existed (i.e., no import quota was in place). Since then, the sugar industry in some of these countries has either collapsed or contracted to the point that sugar is no longer produced, or is not produced in quantities sufficient to generate a surplus for export. The amount of foreign raw sugar that is eligible to enter each year, but that has not done so (referred to as the quota “shortfall”), has increased in recent years. To illustrate, the FY2009 shortfall of 220,000 ST represented 17.8% of the announced 1.231 million ST TRQ, up considerably from the FY2005 shortfall of 30,000 ST (or 2.5% of the TRQ announced that year).

Because of these shortfalls, the Sweetener Users Association (SUA) has proposed that the Obama Administration take steps to reduce their impact. The SUA argues that these measures can be put into place under existing statutory authority already available to the Secretary of Agriculture and/or the U.S. Trade Representative. A paper submitted with SUA’s request proposes five options for how the sugar TRQ can be administered differently.49 First, certificates of quota eligibility (CQEs)50 would be tradable among country quota holders after July 1. This would allow a quota holder with unused quota to sell the right to fill it to another quota holder. Trading would be limited through September 30 in order to prevent price manipulation. Second, one year’s quota shortfall would carry over to the next year, and be distributed among all quota holders in a way that each holder’s share of the total quota is unchanged. Third, CQEs would be tradable at the end of the fiscal year (September 30), with sugar required to enter the U.S. market before January 1. Such sugar would not be considered part of the new year’s quota. Fourth, quota holders would be allowed to permanently sell their share to other countries. This would apply to those countries that have “completely or largely failed to fill their quotas during three of the past five fiscal years.” Fifth, refined sugar would be allowed to enter under the raw sugar TRQ when the price difference between the two is “unusually high.” Stating that a difference of 5¢/lb. is normal, the SUA proposes that imports of refined sugar be allowed when “prices exceeded this normal spread by a certain margin for a predetermined period of time.”

A group of developing country sugar exporters—the International Sugar Trade Coalition—opposes these proposals. This group argues that the best way to address shortfalls that result in a U.S. sugar shortage would be to raise the global raw sugar TRQ and not change the way the quotas are administered. Further, it notes that moving away from how quota shortfalls have historically been reallocated “could invite a WTO challenge from quota holders who may be left out.”51 This method of reallocating quota shortfalls, though used infrequently, was last exercised in March 2010, when USTR reallocated 90,000 short tons to 25 countries that USDA determined were able to ship more sugar to the U.S. market.

49 “Options for Reducing Shortfalls in U.S. Sugar Imports under Tariff Rate Quotas,” January 2010, as accessed at Inside U.S. Trade’s World Trade Online.
50 A CQE is a document issued by USDA to a country that receives an allocation of the raw sugar TRQ. It specifies the quantity of, and sometimes the timing of when, exporters in that country can ship sugar to the United States at the applicable in-quota duty rate. This document, used by USDA and Customs to monitor and control raw sugar imports, must be presented at the border for such sugar to enter at a zero or low tariff rate.
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