

SUGAR POLICIES AND IMPLICATIONS: INTEGRATION INTO AN FTAA

Abstract

This paper addresses the current policy regimes toward sugar among Western Hemisphere countries, the sugar production and marketing situations under these policies, and the prospects for sugar trade liberalization under an FTAA. Achieving enhanced trade opportunities for sugar faces several conundrums. In the United States, which is the largest consuming market in the region, domestic producers have vigorously opposed any change to the support policies and import restrictions that sustain sugar prices well above levels in world markets. Yet there will continue to be pressure for change for sugar because the price support and quantitative import restrictions that have been the hallmarks of U.S. policy are becoming anomalous among its agricultural programs. Pressure for more market access is growing under NAFTA, possibly in the Doha Round WTO negotiations, and potentially under an FTAA, which could put further strain on the domestic support program.

It is not just in the United States that sugar is highly protected within the Western Hemisphere. Among other countries, there are wide divergences of production costs and the extent to which benefits are derived, or trade opportunities thwarted, by domestic policies or preferential access to foreign markets under the current sugar regimes. Any changes in sugar policy from the status quo toward more open trade will have significant distributional effects among FTAA countries as well as providing net efficiency and welfare gains.

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SUGAR POLICIES AND IMPLICATIONS: INTEGRATION INTO AN FTAA

This paper addresses the current policy regimes toward sugar among Western Hemisphere countries, the sugar production and marketing situations under these policies, and the prospects for sugar trade liberalization under an FTAA. The argument is presented that new policies will be required in many countries if sugar is to be included among commodities for which a regional free trade area results in less trade restrictions and reduced market distortions.

Achieving enhanced trade opportunities for sugar faces several conundrums. In the United States, which is the largest consuming market in the region, domestic producers have vigorously opposed any change to the support policies and import restrictions that sustain sugar prices well above levels in world markets. In farm policy legislation of 2002, the sugar industry succeeded in tightening the provisions of the U.S. regime, even though policies for most other supported crops have shifted away from high prices and supply controls, and towards replacing these market-intrusive instruments with direct government payments to farmers. There will continue to be pressure for change for sugar because the price support and quantitative import restrictions that have been the hallmarks of U.S. policy are becoming anomalous among its agricultural programs. Foreign access to the U.S. sugar market has been reduced dramatically during the past two decades to sustain the domestic support. Low-tariff foreign access is now constrained not to fall below minimum quantity guarantees negotiated under international agreements. Pressure for more market access is growing under NAFTA, possibly in the Doha Round WTO negotiations, and potentially under an FTAA, which could put further strain on the domestic support program.

It is not just in the United States that sugar is highly protected within the Western Hemisphere. Among other countries, there are wide divergences of production costs and the

extent to which benefits are derived, or trade opportunities thwarted, by domestic policies or preferential access to foreign markets under the current sugar regimes. Any changes in sugar policy from the status quo toward more open trade will have significant distributional effects among FTAA countries as well as providing net efficiency and welfare gains. Given the degree to which protection and support have been built into existing production localities and marketing channels, reform of sugar policies to enhance regional trade opportunities provides a classic illustration of the dual (distributional and net) effects of freer trade.

The organization of the paper follows from these observations. After reviewing the current situation with respect to sugar production, marketing and policies, the argument is presented for a new sugar regime region-wide. The new regimes would have as its basic principle the integration of the sugar market. Prices would be freed up within the region to allow the sugar market to respond to supply and demand with trade flows unimpeded by border restrictions. The FTAA objective would be to achieve elimination of trade barriers within an adjustment period of no more than ten or fifteen years. Several empirical studies evaluating the impact of such a regime change are reviewed.

The final section of the paper examines some transition, or possibly permanent, support policy options that would facilitate achievement of freer regional trade in sugar. It is argued that a shift toward direct payments to farmers may provide a useful adjustment mechanism. Such “cash out” policies were implemented in the United States in 2002 to replace high internal prices and domestic production quotas for peanuts with direct payments to peanut producers and quota holders. Compensation was not extended to foreign producers who had access to the U.S. peanut market, but the recent change in policy will make it easier for the United States to negotiate relaxation of its import barriers. The recent policy change for peanuts is examined, and prospects

for extending such changes to sugar producers adversely affected by freer regional trade within an FTAA are considered.

FTAA SUGAR PRODUCTION, CONSUMPTION AND TRADE

Five-year averages of production, consumption and trade of sugar by FTAA countries are shown in Table 1 for the period 1995/96 – 1999/2000. Brazil, the United States, Mexico, Colombia, Argentina and Guatemala are the largest sugar producers. Except for Guatemala, these countries are also large sugar consumers. Nine of the 28 countries are net sugar importers; the remaining countries are net exporters. Canada and the United States are the two largest importers. These two countries account for three-fourths of aggregate imports within the FTAA region, which total about 3,600 thousand metric tons raw sugar value. Brazil and Guatemala are the largest net exporters. Brazil alone accounts for exports of 7,770 thousand metric tons, more than double the total sugar imports within the FTAA region. When taken together, the FTAA countries are net exporters of 8,423 thousand metric tons of sugar.

Among the importing countries, domestic production of sugar is only a small share (less than 20 percent) of domestic consumption in Canada, Haiti, Surinam and Uruguay. Domestic production is a larger proportion of consumption (70 percent or more) in the United States, Chile, Ecuador, Peru and Venezuela. The United States produces both cane sugar (primarily in Florida and Louisiana) and beet sugar (in four geographic regions: the Upper Midwest, Great Lake, Great Plains and Far West). Beet sugar has recently accounted for somewhat more than one-half of total U.S. production. Since the late 1970s, high fructose corn sweeteners (HFCS) have displaced both cane and beet sugar as a source of about one-half of domestic U.S. caloric sweetener consumption. As this displacement has occurred, imports of sugar by the United States have fallen markedly from over 4 million metric tons in the mid 1970s to less than 2 million

metric tons in the late 1990s. Costs of sugar production vary widely among countries in the FTAA region. The best-known cost-of-production comparisons are constructed by LMC International (Haley, 2001). Costs among the importers tend to fall in the medium-to-high and high ranges, with U.S. production in Florida in the low-to-medium range.

Among the sugar exporting countries, the LMC International analysis suggests that Colombia, El Salvador, Guatemala, and Center-South Brazil are low-cost regional producers, while production costs in Costa Rica, Nicaragua, Bolivia, the coastal areas of Mexico and North-East Brazil are in the low-to-medium range. Brazil is the world's largest sugarcane producer and sugar exporter. It produces raw sugar in the Center-South region for as little as U.S. six cents per pound. Sugar production has increased in the Center-South and decreased in the North-East over the last ten years, with nearly 80 percent of Brazilian output now coming from the low-cost area. Brazil has invested heavily in ethanol fuel production based on sugarcane and half or more of its cane acreage is used for this purpose. Thus, policies affecting the blends of ethanol and gasoline used as automotive fuels (now 24 percent ethanol) affect Brazil's production of sugar for edible consumption, and its supply of sugar to the world market is relatively elastic compared to countries in which sugarcane goes entirely into sugar production. Schmitz, Seale and Buzzanell have investigated the effects of a hypothetical increase in the ethanol/gasoline blend ratio in Brazil from 20 percent to 26 percent. They conclude that such a policy change would reduce Brazil's sugar exports from 8 percent to as much as one-third and raise world sugar prices from 2 to 4 percent.

In contrast to Brazil, which exports nearly one-half of its sugar production, the third largest exporter in the region during 1995/96 – 1999/2000 was Mexico, which consumed over 85 percent of its sugar output domestically. Sugarcane is the fifth most important crop in Mexico

measured by cultivated acreage and up to one million people are employed full-time or part-time in the sugar sector. Yet with relatively high per-capita consumption, and demand increasing with population growth, Mexico was a net sugar importer during the early 1980s. It has had a somewhat troubled domestic sector marked by production of cane on small farms, relatively inefficient processing mills and extensive government intervention including state ownership of the mills (Chavas, Spreen and Greene). Mexico began to produce an exportable surplus of sugar during the late 1980s but again became a sugar importer in the early 1990s when the government-owned mills were privatized and import restrictions were eased. Mexico emerged as an exporter again later in the 1990s. This resulted from an increase of sugar production from an average of less than 3.5 million metric tons annually in the early 1990s to over 5 million metric tons by 2000. Increased production was due to investments in modernization of production and processing, aided by renewal of import restrictions in 1993, devaluation of the Mexican peso in 1994/95, and price-support guarantees in the domestic market at levels equivalent to the protected U.S. market. Many sugarcane mills accumulated substantial debts even as national production expanded. With low world prices for its sugar exports, except to the United States under preferential terms, the government again intervened in 2001 to take over nearly half of the sugarcane mills.

One market development that will affect the future balance between domestic sugar production and consumption in Mexico is the extent to which HFCS displaces sugar as a sweetener for industrial uses, as has occurred in the United States. HFCS utilization was negligible in Mexico before 1990 and remained below 100,000 metric tons in 1996. In 1997, imports of HFCS from the U.S. jumped to more than 200,000 metric tons and domestic production of nearly 350,000 metric tons emerged for the first time (USDA, June 2002). The

HFCS imports and domestic production added over 10 percent to the total Mexican sweetener supply. Availability of HFCS has subsequently been dampened by policy interventions (see discussion of NAFTA below) but the share of the market in Mexico that corn sweeteners will eventually hold has not been resolved. Unlike supported sugar prices, price of HFCS have moved up and down with world prices of corn and sugar. When world prices are low, HFCS becomes attractive as a sugar substitute.

An even more extreme contrast with Brazil among the FTAA sugar exporters arises in the Caribbean countries, which generally have high production costs. The Caribbean countries are net exporters of 303 thousand metric tons of sugar. This is a relatively small amount compared to regional totals but accounts for about one-third of Caribbean production. The high-cost Caribbean producers protect their domestic sugar markets and remain net exporters because of preferential treatment received in other protected markets, particularly in the United States and the European Union. Preferential access occurs under low-tariff, but limited-quantity, tariff-rate quotas (TRQs) agreed to under the WTO Agreement on Agriculture. For the Caribbean, TRQ access to the U.S. market totaled 226.2 thousand metric tons in 2001, nearly three-quarters of average Caribbean exports, as shown in Table 1. In contrast, the U.S. TRQ for Brazil (of 152.7 thousand metric tons) was less than 3 percent of its export quantity. This contrast foreshadows that any substantive change in sugar policy regimes will have significant differential impacts across FTAA countries.

SUGAR POLICIES OF THE UNITED STATES

To achieve integration of the regional sugar market with substantial reduction or elimination of existing trade barriers will require changes in policy both among importing countries and by some exporters. Of the two largest importers, Canada, with its limited domestic

sugar production, imposes few trade barriers on raw sugar imports. The United States produces most of its sugar internally and has long maintained domestic price supports and import restrictions. Herein, the focus is on four recent developments that have affected, or may soon influence, U.S. sugar policy. These are 1) the sugar provisions of the 1996 farm bill, the Federal Agriculture Improvement and Reform (FAIR) Act; 2) revisions to sugar policy in the 2002 farm bill, the Farm Security and Rural Investment Act (FSRIA); 3) agreements on sugar under NAFTA, along with ongoing disputes about the interpretation of those agreements; and 4) sugar commitments under the Uruguay Round WTO agreements and possible further commitments under the current Doha Round negotiations.

The 1996 U.S. FAIR Act

The basic policy features of the 1996 FAIR Act for exported crops such as wheat, feedgrains, rice and cotton included decoupling of direct government support payments from market prices and producers' planting decisions, elimination of annual acreage reduction (supply control) programs, and capping of price-support loan rates at what seemed, at the time, to be low levels. Yet even when it was enacted, the FAIR Act did not put U.S. farm policy on a new strategic path to reform.¹ The path Congress took in the FAIR Act was instead a familiar one of a heavily compensated cash out of farm programs. Still, it represented a step toward less market intervention in many farm support programs, and potentially increased pressure for reform in sugar as well.

¹ Orden, Paarlberg and Roe identify four reform strategies (cutout, squeeze out, cash out and buyout) depending on how fast the policy change occurs and whether or not past program beneficiaries receive compensation. The FAIR Act did not achieve a cutout, because permanent legislation was left in place and generous cash subsidies were provided to farmers in the short run. Just as clearly Congress was not advancing a squeeze out with the FAIR Act, because the generous new decoupled payments it authorized were much greater than expected, and so unencumbered by regulations and easy for farmers to obtain that voluntary program participation increased. The FAIR Act also failed to ensure a buyout of farm programs, because it maintained permanent legislation and a budget baseline for continued farm program spending.

The FAIR Act kept sugar price-support loan rates fixed nominally at 18 cents per pound for raw cane sugar and 22.9 cents per pound for refined beet sugar. For most supported crops other than sugar, cash payments made when market prices are below loan rates (primarily, loan deficiency payments (LDPs)) have replaced government commodity storage designed to keep market prices at higher levels. In contrast, the FAIR Act extended policies of allowing sugar processors to forfeit their output to the USDA Commodity Credit Corporation (CCC) under “non-recourse” loans. With such forfeitures, but not LDPs, as a policy instrument, the loan rates keep a floor under domestic market prices, so no immediate market liberalization was achieved. Small changes in the sugar program were made; in particular, a one-cent per pound forfeiture penalty was adopted and new provisions stipulated that if low-tariff TRQ sugar imports were to drop below 1.5 million tons, then CCC loans would revert to a “recourse” basis (that must be repaid). Recourse loans imply that domestic sugar prices would not be supported by the loan rate. The FAIR Act also ended previous authority for the USDA to impose domestic marketing allotments to limit supply and it eliminated the requirement that the sugar program operate to the extent possible at no net budget cost to the government, a change in legal status that technically created room for intrusive CCC expenditures or, in principle, for liberalizing direct payments. None of this was eminent at the time the FAIR Act became law. In 1995/96, agricultural prices were high and sugar imports were well in excess of the recourse loan trigger.

The 2002 U.S. FSRIA

Since 1996, much of the reform promise of the FAIR Act has dissipated. Low prices for farm commodities that emerged in 1997 and lasted through 2001 brought increased annual appropriations for farm income support, new crop insurance subsidies, and ad hoc disaster relief expenditures. In 2002, Congress passed the FSRIA, replacing the FAIR Act one year before it

was scheduled to expire. For exported commodities, the FSRIA extended the FAIR-Act decoupled payments and introduced additional counter-cyclical payments to be made on specified base acreage and yields when prices were below delineated “target price” levels. Planting flexibility was retained by farmers receiving payments and they were allowed to update their eligible base acreage (for both payments) and yields (for the counter-cyclical payments only). Most loan rates were also adjusted slightly upward and new crops became eligible for loan-rate support. Oilseeds became a base crop for payment purposes and the fiscal budget authorized for expenditures on agriculture rose substantially.²

For sugar, a policy crunch began in 2000 when domestic production plus the minimum imports to which the United States was committed internationally exceeded domestic consumption and private stock-building demand at the supported domestic prices. To sustain those prices, the CCC accumulated stocks and the USDA offered a “plow down” that exchanged CCC stockpiled sugar for destruction of some of the planted new sugar beet crop. The alternative adjustment mechanism of letting domestic sugar market prices fall below the loan rates was rejected by domestic producers. In the subsequent year, a payment-in-kind (PIK) program was initiated to trade CCC stockpiled sugar for reduced beet planting, thus avoiding having to plow down another growing crop. Supply pressure on the sugar market eased, lessening political pressure for reform.

In the 2002 FSRIA, domestic producers succeeded in tightening the provisions of the sugar support policies. The loan rates were retained at the levels of the 1996 FAIR Act. The forfeiture penalty was eliminated, marketing assessments (adopted previously to provide a small

² For detailed comparison of the 1996 FAIR Act and the 2002 FSRIA see ERS/USDA. A good summary of the main provisions of the FSRIA related to support programs, conservation and trade is provided by Westcott, Young and Price. Orden (2003) provides a political economy assessment of enactment of the 2002 farm bill and summarizes its main features.

amount of government revenue during a period of fiscal deficits) were ended, and interests rates on CCC loans were reduced, making the sugar program more lucrative for producers. More fundamentally, the new farm bill re-stipulated that the sugar program be operated to the extent possible at no net cost to the government. Authorization was continued for a PIK program and authority was restored to control supply through domestic marketing allotments if necessary, but only when annual sugar imports were below 1.5 million tons. The combination of the no-net-cost provision and constraint on use of domestic marketing allotments if imports exceeded the level set in the FSRIA was designed, in the words of the U.S. producers, to ensure that the USDA and U.S. trade representative stood “shoulder to shoulder” with the domestic industry in opposing loosening of import restrictions. Together these provisions tie the hands of trade policy negotiators: imports above 1.5 million tons can not be offset by restrictive domestic marketing allotments to sustain the supported price, while allowing imports to exceed this level would induce violation of the no-net-cost provision if CCC stockpiling were to result. Thus, the sugar program has to continue to be administered with tight import restraints, which sets the farm bill firmly against sugar trade liberalization.

NAFTA

The agricultural trade negotiations for NAFTA were contentious. At their conclusion in 1992, all agricultural commodities were included under the long-run goal of eliminating barriers to trade between Mexico and the United States, but not with Canada. Elimination of agricultural trade barriers was to be accomplished over adjustment periods up to fifteen years, with the most highly-protected commodities in each country subject to the longest planned phase-out of protection. Sugar producers in the United States formed one of the most vehement groups of NAFTA opponents, while support of the Florida congressional delegation became crucial to

passage of the required implementing legislation (Orden, 1996). Complex adjustment-period rules were first negotiated to delay the creation of a common market for sugar between Mexico and the United States. Then, as the trade agreement was brought to Congress by the new Clinton administration, the rules for sugar were revised in a “side letter” detailing adjustment-period commitments between the two countries. Three issues thus arise: those concerning the operative rules during the adjustment period to 2008, those with respect to the final agreement for bilateral elimination of sugar trade barriers; and those concerning whether the NAFTA commitments will be fully lived up to for the long-run elimination of agricultural trade barriers between the United States and Mexico.

Sweetener trade flows during the adjustment period have remained mired in conflict (Haley, 1999; Haley and Suarez). As Mexican output has increased under protection and support of its sugar sector, differences in interpretation have emerged about the commitments in NAFTA versus the side letter regarding low-tariff Mexican access to the U.S. market under a TRQ. Mexico has taken various trade-restrictive steps on corn sweeteners (including anti-dumping duties, taxes of soft drinks produced with HFCS, and imposition of TRQs), basically arguing that the U.S. has not complied with its NAFTA commitments on sugar access. The U.S. has argued that Mexican barriers to HFCS imports and usage are themselves violations of the NAFTA accords. Meanwhile, the high U.S. tariffs on over-quota sugar imports (outside of the TRQ) are falling for Mexico under NAFTA: from 16 cents/pound for raw sugar in 1994 to 7.56 cents/pound effective January 1, 2003, with further declines scheduled in following years and the over-quota tariffs to be eliminated completely in 2008. With low world sugar prices since 1998, and with the falling tariffs, over-quota imports from Mexico have become within the realm of feasibility. The Mexican government has imposed restraint toward authorizing such sales, but

over-quota imports are increasingly likely as the tariffs come down. In the interim, squabbling over the NAFTA provisions for bilateral sweetener trade continues to pit producers of U.S. corn sweeteners, seeking access to Mexico, against the U.S. sugar industry, seeking to restrain sugar imports, and the U.S. government against the government of Mexico. Rumors emerge regularly of a “deal” between the two countries that would set negotiated market access quantities for sugar and HFCS, but reaching a comprehensive bilateral agreement has been elusive.

While much of the U.S.-Mexico consultation and dispute over sugar has focused on short-term access questions, the common market that emerges in 2008 looms ever closer on the horizon. Once the tariff phase out is complete, NAFTA and the side letter contain no explicit trade restraints between Mexico and the United States for domestically-produced sugar or HFCS. In principle, if Mexican sugar production were to exceed domestic consumption at that time, the full excess could flow into the U.S. market. This inflow would butte up against the provisions of the 2002 U.S. farm bill, which is scheduled for renewal in 2007. Still, in 2003 it remains uncertain whether the full liberalization of agricultural trade written into NAFTA will be accomplished. As the final period of 15-year phase-in for liberalization of trade for the most sensitive commodities begins, cracks are appearing in the commitment to the envisioned elimination of all agricultural trade barriers.³

³ In an assessment of NAFTA in 1996, I concluded that the concessions made to various agricultural interest groups to secure passage of implementing legislation by Congress “raise the question of whether the agreement to allow unrestricted trade in sugar between Mexico and the Unites States after 15 years is ultimately credible” (Orden, 1996, p. 379). The agreement could unravel along with commitments on other sensitive commodities. In early 2003, in addition to the continued conflict over sugar and HFCS, Mexico had also negotiated a safeguard limiting U.S. poultry exports for six months and was raising the possibility of safeguards for dry beans and white corn, as well as limits on beef and pork. If each country retreats to allowing continued protection for its most sensitive commodities, the long-run liberalization will break down. Potential gains from trade will be lost and NAFTA will have failed to provide an example of full agricultural trade liberalization under a regional trade agreement.

The WTO Uruguay Round Agreements and Doha Round Negotiations

The multilateral Uruguay Round Agreement on Agriculture guaranteed only minimal market access to the most protected agricultural markets worldwide under low-tariff TRQs, together with limited commitments to expand this access and to reduce the high (usually prohibitive) over-quota tariffs through 2000. Sugar imports by the United States exceed the general TRQ minimum market-access guarantee of 5 percent of domestic consumption. The U.S. made a commitment instead to a minimum TRQ sugar import level of 1.256 million short tons raw value. At the time, U.S. imports exceeded this level, so the U.S. commitment was not viewed as a significant trade liberalization step. The Uruguay Round Agreement also prohibits introduction of new export subsidies. This precludes the United States from adopting a European Union type of regime, both importing sugar under high domestic prices to meet its Uruguay Round commitment and selling domestically-produced sugar at a lower world price with an export subsidy.⁴ Under the Uruguay Round Agreement, the U.S. over-quota tariff on raw sugar has declined from a base value of 18.08 cents per pound to 15.36 cents per pound. This remains a prohibitive tariff even when the world price of raw sugar falls to six or seven cents.

Unlike the U.S.-Mexico commitments in NAFTA, the Uruguay Round Agreement does not encompass a long-term schedule for full removal of agricultural trade barriers. Negotiations of further commitments to limit agricultural support and lower agricultural trade barriers are underway through the WTO Doha Round negotiations launched in November 2001. As long as over-quota tariffs are prohibitive, to effectively increase competition in the TRQ-protected markets requires more than an increase in the absolute quantities of trade subject to low duties—it requires that TRQs expand as a percentage of domestic consumption. Such increases

⁴ For evaluations of sugar policies worldwide see Schmitz, Spreen, Messina and Moss, and Organization for Economic Co-operation and Development.

in low-tariff TRQ access could put pressure on sugar support policies in the United States and other protected markets. For example, a 50-percent increase in the U.S. sugar TRQ would raise minimum imports to 1.884 million tons.

In July 2002, shortly after enacting the FSRIA with increased domestic subsidies and strengthened support for sugar, the United States tabled a proposal for new WTO multilateral commitments on agricultural trade. Only a small increase in TRQs (20 percent) was included in the U.S. proposal. However, the U.S. also proposed that all agricultural tariffs be reduced to no more than 25 percent within a five-year period, using the Swiss formula that brings higher tariffs down faster than low tariffs. The U.S. proposal would bring the bound tariff applied to U.S. sugar imports down dramatically—from 195 percent including special safeguards, to around 22 percent (Tsigas and Boughner). Such a dramatic tariff reduction, if enacted, would again butte up against the new U.S. farm bill.

SUGAR TRADE LIBERALIZATION UNDER AN FTAA

One conundrum facing sugar policy within the FTAA, as well as within the WTO, is the pending head-on confrontation between regional or multilateral trade reform proposals and the intransigence around existing policies that continues to be written into U.S. farm program legislation. While there is no certainty that sugar trade liberalization will be included in an FTAA, for the remainder of this chapter I will assert that such reform is a desirable policy outcome. On this basis, some of the likely impacts of reform are examined, adjustment programs that might facilitate reform are considered, and obstacles to and the feasibility of such an outcome are discussed.

Three positive objectives of FTAA sugar market liberalization can be highlighted. These are:

1. To create a sustainable long-run policy with greater market orientation, increased integration and more open trade;
2. To free up prices to allow the integrated market to clear and set stocks valuation in response to supply and demand;
3. To avoid out-dated and costly interventions either through government involvement in purchases, forfeitures, stockholding and stocks disposal, or through resort to government-managed domestic marketing allotments or production quotas.

The basic argument for open-market policies is that they are efficient and welfare-enhancing and are consistent with the overall objective of broad trade liberalization under an FTAA. Sugar is an essentially homogeneous commodity for which several low- and middle-income countries are low-cost producers. Thus, sugar is a prime candidate for policy reform to increase trade opportunities of developing countries—presumably developed countries would achieve compensating market-access gains in other areas under a full free trade agreement. The sugar policy reform issue is also complicated in an FTAA by the bifurcation among developing countries, with some countries being the beneficiaries of preferential market access under current policies and imposing domestic protection that would have to be reduced under a fully-implemented FTAA reform.

A number of empirical studies shed light on the likely impacts of sugar market liberalization. In one benchmark study, Borrell utilizes a detailed multilateral model delineating 24 countries/regions and seven classes of sweeteners to examine the long-run price, trade and welfare effects of full liberalization of world sugar markets. In his analysis, multilateral liberalization results in a 25-percent decline of the U.S. sugar price, while the world price rises by 38 percent. U.S. imports increase around 5 million metric tons annually with liberalization. Consumer gains are nearly \$1.2 billion for the United States, while U.S. producer surplus falls by

\$0.7 billion, leaving a net estimated gain of \$0.5 billion. Worldwide net gains are nearly \$5.0 billion.

Haley (1998) constructed a more detailed U.S. model with separate short-run (processing capacity fixed) or long-run (processing capacity adjustable) supply functions for nine domestic regions, a complex, three-stage demand structure for six types of industrial sweetener users, and a two-stage demand structure for non-industrial sweetener consumption. Foreign excess supply is compressed into an aggregated elastic upward-sloping function. For a unilateral liberalization by the United States, Haley also finds a domestic price decline of around 25 percent. His equations imply a fairly price-responsive (but still inelastic) demand structure. When the U.S. price falls, domestic production declines by 2.5 million tons (28 percent) in the long run. Demand expands nearly proportionately to the price decline, so imports rise by almost 5 million tons, causing the world price to nearly double. Haley estimates smaller consumer gains (\$0.67 billion) and total producer losses (\$0.64 billion) than does Borrell for multilateral liberalization. He notes that the demand structure specified is the most obvious difference between his study and those indicating larger distributional and net effects from changes in sugar policy.

A third modeling study of the economic effects of the U.S. sugar program was conducted by the GAO. The study utilizes a global sugar model from Iowa State University, augmented to include domestic supply linkages to the corn, HFCS and wheat markets, and to evaluate separate effects on domestic cane and beet producers, cane refiners, sugar beet processors, corn producers, and HFCS processors. The GAO estimates that the sugar program added \$1.5 billion in 1996 and \$1.9 billion in 1998 to the costs of domestic sweetener users and consumers, while cane and beet producers received benefits of about \$0.8 billion in 1996 and \$1.0 billion in 1998. For unilateral U.S. liberalization, this study finds that domestic raw and refined sugar prices fall

around 40 and 25 percent, respectively, while world prices rise 10 to 20 percent. With highly inelastic supply and demand assumptions, domestic harvested acreage falls by less than 5 percent, while imports rise by 1.1 to 1.6 million tons.

Two recent studies focus specifically on sugar trade liberalization within the FTAA region. Tsigas and Boughner utilize a modified Global Trade Analysis Project (GTAP) model to examine the effects of unilateral U.S. sugar trade liberalization with the Americas. Their model includes nine regions but aggregates Central America and the Caribbean, precluding examination of differential effects among low- and high-cost producers in these two areas. Tsigas and Boughner find that U.S. liberalization results in a decline in domestic sugar production, but the drop is moderated in their analysis by continuation of the U.S. loan rate support program. Wholesale U.S. consumer prices are not assumed to be supported in their model, and drop by 84 percent, with U.S. sugar imports doubling. Sugar exports to the U.S. increase for Mexico, Central American and the Caribbean, Brazil, and the rest-of-South America.

In a second paper evaluating FTAA sugar market liberalization, Haley (2002) uses USDA's baseline projection model—which incorporates details on the U.S. and Mexican sugar and corn sweetener sectors—to examine four alternative trade scenarios that might arise from FTAA negotiations. In two scenarios, the U.S. is assumed to offer larger TRQs to FTAA countries, either doubling or quadrupling access for sugar from within the region, while holding access from other parts of the world at constant levels. In the second two scenarios, the U.S. is assumed to allow unlimited zero-tariff market access to FTAA countries. Results are considered for the four-year period 2009-2012 under the assumption that Mexico has attained unlimited duty-free access to the U.S. market under NAFTA.

With FTAA sugar access expanded under TRQs, the U.S. can only maintain the baseline loan rate (at a net government cost) by utilizing a substantial PIK and accumulating CCC sugar stocks that mostly offset the increased imports. Sugar production in the U.S. falls nearly 10 percent with a doubling of the FTAA sugar TRQs and by nearly 25 percent with a quadrupling of FTAA imports. Sugar imports from Mexico are mostly unchanged as long as the U.S. loan rates are maintained. If, alternatively, the U.S. were to let loan rates fall to avoid CCC stock accumulations, Haley argues that U.S. market prices would drop during an adjustment period. This would force inefficient domestic sugar processing plants to close. Prices would rise again once those plants were out of business, as long as imports remain restricted by the new TRQ quantitative limits. In contrast, if the U.S. allows unlimited FTAA imports, then domestic prices are driven down to world price levels (plus a marketing margin). If the increased U.S. demand does not raise the benchmark world price (projected at nine cents per pound), then U.S. production falls so low “that one can not be assured that any U.S. sugar production would remain, save the production of niche sugars.” If increased U.S. demand were to raise the world price by two cents per pound, then U.S. production would also fall sharply (to one-third of the benchmark projection) but not be eliminated. Imports from Mexico also fall sharply under unlimited FTAA market access, since Mexico is not one of the lowest-cost producers in the region.

ADJUSTMENT ALTERNATIVES TO FACILITATE SUGAR MARKET REFORM

With possible FTAA reform of sugar markets having such substantial impacts, the question arises whether adverse impacts on producers can be moderated to facilitate a move toward trade liberalization. A variety of cash-out options can be constructed that make U.S. sugar policies more similar to those adopted for other supported crops. Herein, three possibilities

are considered: direct payments on all output, direct payments on a fixed volume of output, and fully decoupled payments. These three options parallel the historical development of the cash out that has occurred for other crops, and each moves sugar policy in that direction. The first two options retain loan rates at their levels under the FSRIA, but eliminate CCC forfeitures and instead provide LDP payments when market prices are lower. The third option goes further and eliminates payments tied explicitly to sugar production. This would entail lowering the sugar loan rates to levels below generally-expected market-clearing prices. The loan rate mechanism (with forfeitures) would then provide a “safety net” against extreme price volatility but would usually not provide an incentive-distorting price floor.⁵

A policy of direct payments of the difference between the market price and a specified loan rate support price provides an open-ended producer subsidy when payments are made on all output. The price-induced distortions to resource use, and the level of producer surplus in the sugar market are largely unchanged compared to the existing programs if the support prices are set at existing loan rate levels. The loan rate remains the incentive price for production, while the market clears at a lower price, reducing the consumer distortion of current policies. This is a “half shot” of reform, but allows consumption to increase and the market to clear, while producers continue to receive a supported price. Such reform would realign U.S. policy to accommodate any market pressures arising from existing international commitments for sugar

⁵ The economic costs of the U.S. sugar program have led to many earlier calls for policy alternatives, including calls specifically for a shift to direct payments—a “cash out.” Deficiency payments were one option examined by USDA at the behest of Congress when importation of Cuban sugar was barred in the early 1960s. Schmitz discusses deficiency payments as one alternative to import restrictions and Sturgiss, Field and Young argue that the United States could adopt less costly trade-neutral direct support policies. Krueger points out that sugar deficiency payments might have moderated the substitution of HFCS for sugar, then notes the irony of corn growers opposing a regime with such payments as creating “unfair competition.” For a short period in 1977, when the sugar program had not been renewed because of high world sugar prices, the United States fell back on permanent legislation authorizing deficiency payments, but thereafter import protection through duties and subsequent import quotas was enacted. Krueger describes an unsuccessful endorsement of deficiency payments by the Sugar Users Group in 1978, while Jabara and Valdes note that the Reagan administration was unable to attain congressional support to introduce

imports, and to accommodate international market-access negotiations in the WTO or FTAA.⁶ If border policies were unilaterally liberalized, while U.S. production remained at pre-liberalization levels because of the price supports for producers, the world price would rise less than with full unilateral trade liberalization. Using Haley's (1998) global equilibrium model, this effect would be for the world price to rise by about 3.5 cents/pound less. At the resulting lower world price, U.S. consumption (and hence imports) would increase by about 4 million tons (compared to an increase of imports around 5 million tons under his free trade scenario with reduced U.S. production).

Compared to a minimal cash out with guaranteed producer prices for all production, additional reform is achieved if direct payments are made only on a fixed quantity of output. If acreage and yield-enhancing decisions are separable, and if the direct payments are made on a "per acre" basis, then the payments still provide an incentive to keep acreage in production, but not to apply inputs or adopt new technology to raise yields at the margin. If the fixed level of output receiving the direct payment is the full amount of recent domestic supply, little production reform occurs initially, while consumer gains are achieved as above. Over time, if the quantity receiving support is restricted, less incentive is provided to expand production and processing capacity.

The most ambitious form of cash out would make fixed payments to sugar producers that are not linked to continued production, by providing FAIR-Act-style decoupled payments. With this full decoupling, production distortions would be reduced. The domestic market price would

a deficiency-payments policy in 1987. Opponents of the sugar support program have since turned without success to arguing mostly for the more radical cutout alternative of an end to the sugar program without compensation.

⁶ I have pointed out that a minimal cash-out proposal along this line need not involve any immediate change in U.S. border policies or import obligations. Thus such a cash-out reform need not be subject to the frequent producer complaint that unilateral reform would expose U.S. producers to competition from subsidized production abroad, in what they tend to call the "dump world market" (Orden, 2000).

be the incentive price determining output levels, and land and other resources would flow into their best uses. If border policies were liberalized along with provision of decoupled payments, the production and consumption outcomes would be nearly equivalent to a free trade scenario, while incomes of producers would be sustained.

It is less costly to maintain producer welfare with decoupled payments than with payments that retain production distortions. Using Haley's (1998) results, an expenditure of at the least \$770 million is required to maintain producer revenue at its base level from the existing program. In contrast, to maintain only the producer surplus of sugar producers at the level they achieve under the existing programs requires an expenditure of \$438 million.⁷ Thus, fully decoupled payments are a less costly cash-out policy than direct payments tied to production levels. Put another way, using Haley's model, payment in the long run of more than about one-half billion dollars would overcompensate current sugar producers if fully decoupled payments are the cash-out policy, while payments of even twice as much might under-compensate those producers if the cash-out expenditures are tied fully to the level of domestic output.⁸

For sugar trade liberalization in an FTAA, it is not just in the United States that production adjustments in the sugar sector would occur. Two other sugar importers (Barbados and Venezuela) and seven regional sugar exporters, including low-cost producers Colombia, Costa Rica, El Salvador and Guatemala and low-to-medium cost producers Mexico and Nicaragua) also have TRQs restrictions under the WTO Agreements, while both Brazil and Mexico are subject to limits on use of export subsidies (International Sugar Organization). The

⁷ Haley also calculates a loss to fructose producers of \$203 million, resulting in his total producer loss of \$0.64 billion.

⁸ Haley's base U.S. production under the sugar program is 8.96 million tons priced at \$370/ton, for revenue of \$3.30 billion. Under liberalization, output is priced at \$283/ton, which would be revenue of \$2.53 billion if the initial production level were maintained. But recall that with cash-out payments still tied to production the world price is lower than in Haley's liberalization scenario, thus deficiency payments based on the difference between the world

WTO bound tariff commitment levels are generally high throughout the region, as shown in Table 2. Bound tariffs are 20 percent or less only among three countries that are importers but do not produce much sugar domestically (Canada, Haiti, and Surinam). Low-cost exporter Brazil and a number of other exporters maintain bound tariffs around 35-40 percent, but low-cost exporter El Salvador has a bound tariff level of 70 percent, and Colombia and Guatemala over 100 percent. Tariffs are also 100 percent or more for most of the high-cost Caribbean exporters.

The cash out policies described above could also be applied in the other FTAA countries (importers and exporters) where the domestic and trade regime for sugar has provided high-levels of protection. However, few of these countries have utilized direct payments to support the incomes of producers of other crops, so initiating direct sugar payments as compensation for lower trade barriers would represent an even more dramatic departure from their agricultural sector policy regimes. Many governments would not have the fiscal resources to implement such compensation schemes without international financial assistance.

U.S. Peanut Program Reform in 2002: A Template for Sugar?

Sugar trade liberalization has been tossed around conceptually but tossed out politically in the United States and elsewhere for at least a half century. Can a case be made for an FTAA at the start of the twenty-first century that a nexus of policy constraints has emerged such that liberalization is, or is looming as, a viable policy option? Involved are issues such as how much posturing is incorporated in the industry position as reflected in the U.S. FSRIA of 2002? How much pressure will trade negotiators bring to bear against the existing sugar regime? What willingness is there in the industry to adapt to change—particularly if it includes cash-out compensation payments as described herein?

price and a target price would be higher; in my calculations based on Haley, by as much as \$625 million (\$70/ton x 8.96 million tons) making the cost of maintaining revenue as high as \$1.4 billion annually.

With respect to these questions, there is one aspect of the 2002 FSRIA that warrants additional comment. In the 2002 law, a long-established regime for edible peanuts comprised of domestic price supports well above world levels and quotas on the production eligible for the domestic market was scrapped in favor of direct cash payments. This change in policy may hold promise as a template for similar reform in sugar.

Under the older U.S. peanut support program, domestic quota holders received preferential prices for peanuts supplied to the domestic market for edible uses, compared to prices received for peanuts (known as “additional”) that went into processing (crushing into oil and meal) or were exported. TRQs restricted foreign access to the domestic edible market. Thus, the traditional peanut program created an income stream from higher prices reserved exclusive for those domestic and foreign producers and quota owners who had privileged access. Even domestic farmers without quotas were barred from producing peanuts for the domestic edible market but could produce peanuts as additional.

The 1996 FAIR Act included some changes in the peanut program. The loan rate for quota peanuts for the domestic edible market was lowered from \$678/ton to \$610/ton, a price escalator that had previously pushed loan rates up with rising production costs was eliminated, and geographical production restrictions were partially relaxed.⁹ A minimum national quota was also eliminated, which allowed USDA to set annual quota poundage eligible for the domestic market based on demand estimates. The annual effective quota poundage was subsequently reduced from 1.47 million tons for the 1995 crop year to 1.15 million tons in 1996 and averaged

⁹ The tight restriction on peanut production for the domestic edible market had only been relaxed slightly from the original supply control program of the 1930s through 2001. Until 1996, quota peanuts had to be grown in the county and state in which the quota had originally been assigned. Under the FAIR Act some quota could be transferred (leased or permanently sold) across county lines within a state. This reform was phased into effect, until a maximum 40% of the state’s quota was eligible to move across county lines. The largest shift of production has occurred in Texas, where nearly all of the allowed quota transfer has occurred from Central Texas to West Texas. Less transfers of quota across county lines occurred in other states.

1.24 million tons during 1996-2000, only 82 percent of the effective quota average of 1.52 million tons for the pre-FAIR years 1993-1995 (Chvosta, Rucker and Thurman). Despite the reduced quota, domestic peanut production remained nearly constant. The average national production for 1996-2000 was 1.82 million tons, or 99 percent of the average of 1.85 million tons for the years 1993-1995. As a result, under the FAIR Act peanut producers were selling a relatively smaller proportion of their output at a lower quota support price for domestic consumption, and a relatively higher proportion of their peanuts at much lower prices in the additional market.

One reason for the declining effective quota for the domestic edible market was the increased foreign access to the U.S. peanut market under international trade agreements to which the United States committed in the 1990s. Foreign access to the U.S. domestic market for peanuts increased from less than 4 percent of consumption prior to the 1993/94 marketing year to over 10 percent by the 1999/2000 marketing year due to market-access provisions of the WTO and NAFTA (Fletcher and Smith). Moreover, the tariff rate for peanuts is scheduled to decline to zero for Mexico in 2008 under NAFTA, so imports are likely to rise. Other foreign producers also had incentives to seek additional access in trade negotiations as long as the price in the U.S. domestic market remained above the price in world markets, as it had under the peanut quota program.

In these circumstances, fundamental changes to the peanut program were made in the 2002 FSRIA. The quota-based dual market structure was replaced with a support program of direct payments that includes three basic components similar to other crops: a much-reduced loan rate and related LDP payments if market prices fall below the loan-rate level, decoupled

direct payments, and counter-cyclical payments. In addition, peanut quota holders are compensated for their loss of quota rights with direct payments.

The new peanut program is lucrative for both former quota holders and for producers of peanuts once sold as additional. The cash out has an estimated cost of \$4 billion over ten years. Under the FSRIA, any producer of peanuts is eligible for a loan rate of \$355/ton on all current production. Those who qualify as an “historic producer” of quota or additional peanuts are also guaranteed a direct payment of \$36/ton and a target price under the counter-cyclical payment program of \$495/ton for the output from 85 percent of historic peanut acres and recent yields. Thus, for a traditional producer who continues to grow peanuts the minimum average revenue is \$474/ton on a level of production equal to recent output $((0.85)*(\$495) + (0.15)*\$355 = \$474)$. The traditional peanuts producers also attain planting flexibility. They can receive the direct payment and the counter-cyclical payments while growing another crop if that is deemed more profitable. If peanuts are grown, the new guaranteed revenue is much higher than received in the past by additional producers, who had only been eligible for a loan rate of less than \$200/ton. And for five years, the former quota holders attain an additional payment of \$220/ton. Thus, for the next five years the total guaranteed revenue is \$694/ton for a quota owner who continues to grow peanuts, compared to \$610 under the FAIR Act. After five years, guaranteed revenue for a former quota holder falls below the previous guarantee, but the quota buyout of \$220/ton for five years compares favorably with market prices for many sales of quota rights before the 2002 FSRIA was passed. Apparently these market prices included a discount for the possibility that the peanut quota program would not last forever.

There are a number of other political economy aspects to the cash out enacted for peanuts in the United States in 2002. Rising imports and the potential for further trade liberalization were

used as arguments to motivate the policy changes as necessary to “preserve the domestic industry.” The preservation argument was central—the intent of the new peanut support policy is to sustain the domestic industry not cause its demise. The future of the domestic industry can not be guaranteed under the FSRIA because farmers can shift out of peanut production under planting flexibility, whereas under the earlier quota system peanuts had to be grown to attain the high domestic price. But domestic producers are well compensated for lower market prices under the FSRIA and incentives for domestic peanut production are improved for the traditional growers of additional and new entrants. Consumers also benefit from lower market price and their gains should exceed the costs of the new program borne as taxpayers. In contrast, foreign producers who had attained TRQ access to the U.S. domestic market are disadvantaged by the change in policy. Unlike domestic producers, the foreign producers do not receive any payments as compensation for the lower U.S. domestic peanut prices. With lower prices, access to the U.S. market is of less value to foreign producers, but under the FSRIA the U.S. is better positioned to liberalize peanut trade. This positioning is quite in contrast to the sugar policies enacted in 2002.

Obstacles to U.S. Sugar Policy Reform

It is noteworthy that U.S. sugar producers did not endorse a cash-out reform similar to peanuts in 2002, instead opting to tighten restrictions under their traditional price support program. The sugar producers faced the same government budget context as peanut producers, and could have sought to have some of the new money Congress made available for agricultural support used for sugar payments. Sugar potentially faces even more pressure than peanuts from imports under NAFTA, the WTO or an FTAA. Sugar producers are widely held to be a more powerful lobby than peanut producers. Yet the sugar industry didn’t seek new cash-out payments under these circumstances. The industry clearly intends to hold on to its current support program

for some time. This is sobering for prospects for sugar trade liberalization under an FTAA, because liberalization is unlikely to occur without being accompanied by some type of cash-out compensation for sugar producers in the United States.

One reason the U.S. sugar producers did not endorse a cash out in 2002 lies in the domestic structure of the industry. Cane sugar is characterized by large production units, in Florida in particular, making payment limits per operating unit a political obstacle to adoption of direct support. Transparency is usually viewed as a desirable attribute of government policy, and direct cash payments are more transparent than the support delivered by maintaining high market prices. However, the transparency of direct payments are a liability to engineering a shift toward a cash out in the case of sugar. Turning support toward direct payments makes explicit the concentration of benefits from sugar policies. The sugar program benefits just 9,000 beet farmers, and 1,000 cane farmers. The large cane farms average nearly twenty times as much acreage as the average beet farm (over 3000 acres, versus less than 200) and two large corporations account for nearly 80 percent of the cane acreage in Florida. The concentration of benefits from the sugar program on these large entities provides reform advocates with a strong equity argument for change. But if direct payments are made proportional to output, and to both small and large producers without limitation, it detracts from the appeal of a cash out as that change. Hence, a stalemate prevails on sugar policy, which leaves large producers attaining the benefits of support through high consumer prices.

A second obstacle to engineering a cash out arises from federal budget rules. Programs with more political appeal than cashing out an archaic sugar policy continually make demands on the federal purse, and enthusiasm for tax cuts has not waned in the United States, even though budget deficits have re-emerged after a few years of surpluses. Congressional pay-as-you-go

rules are still in place. Under these rules, any proposal assessed to increase budget outlays has to be offset through other revenue increases or budget cuts. This limits the room for adopting direct payments to sugar producers.

The prospective short-term cost of a sugar cash out might not exceed those for the peanuts policy reforms enacted in 2002. For each penny of payments per pound of sugar under an LDP program, the cost is around \$180 million, assuming payments on recent levels of output. The PIK program reduced sugar beet acreage by about 6 percent in 2001, which all else constant reduces total domestic sugar production by about 3 percent. Instead of constraining supply, if market prices had been allowed to fall below the loan rate with compensating cash payments the program cost would have been from \$150 million to as high as \$1 billion, depending on the short-run price responsiveness (elasticity) of demand. Marketing allotments and PIK programs were anticipated being in use for at least several years in 2002, implying a cash out would prove costly over this time period, but not necessarily more costly than the policies enacted for peanuts. In the longer term, the cost of a sugar cash out could prove higher because of larger potential sugar imports, whereas the U.S. has been a net peanut exporter with its additional production, and is likely to be an exporter under the FSRIA peanut program. The long-term cost of a sugar cash out depends on uncertain supply and demand conditions in the future, as well as on future international trade agreements, and on the demand and supply responses to lower prices.

One argument that supporters of the current sugar program have used against reform has been that lowering sugar prices would result mainly in increased profits for large industrial sugar users, not lower prices for consumers. The argument is often brandished for rhetorical effect: it plays on an anti-corporate theme that has a constituency, and in the process neatly turns the argument away from the inequity of implicit taxation of consumers to benefit rich farmers and

sugar corporations. Reform advocates have responded with rhetoric of their own, primarily the counter-claim that sweetener-user industries are final-customer oriented and competitive. But even a competitive processing industry may benefit from reduced input costs. To the extent this occurs, it changes the distributional impacts of sugar policy reform compared to a simple consumer and producer surplus argument.

The most formidable obstacle to U.S. reform remains opposition from sugar producers and processors, who have been able to dominate the legislative outcomes, as shown in 2002. As long as the sugar industry views the existing program as advantageous, and exposure to direct payments as undesirable, it will continue to marshal arguments against reform: among these arguments, that the existing program provides market stability, that it has no budget cost, that liberalization by the United States would be unilateral disarmament in the face of European Union and other subsidies, that lower prices benefit industrial users not consumers, and so on. Reform advocates can counter such arguments, and a cash-out reform proposal is less abrasive than an abrupt “cutout” ending the sugar program without compensation, but there is little in the history of cash outs for other crops in the United States to suggest there will be movement along this path until at least some producers endorse such a change. Obstacles to enactment of direct compensation payments to sugar producers in other FTAA countries are also substantial.

CONCLUSION: IS FTAA SUGAR TRADE LIBERALIZATION POSSIBLE?

This paper has addressed the current policy regimes toward sugar among Western Hemisphere countries, the sugar production and marketing situations under these policies, and the prospects for sugar trade liberalization under an FTAA. While there is no certainty that sugar trade liberalization will be included in an FTAA, the argument is presented that such reform is a desirable policy outcome because it raises efficiency and is welfare-enhancing in a manner

consistent with the overall objective of broad FTAA trade liberalization. Sugar is an essentially homogeneous commodity for which several FTAA low-and middle-income countries are low-cost producers. The region has a net surplus of low-cost sugar output. Thus, sugar is a prime candidate for policy reform to increase trade opportunities of developing countries.

To accommodate trade liberalization, it is likely that some form of compensation payments will be required. Within the United States, where much of the adjustment to lower prices would occur, the fundamental reform of the peanut program in 2002 provides a possible template for sugar reform as well, although the costs could be higher for sugar with trade liberalization in the long run. The highly concentrated structure of sugar production in the southern United States also presents a political obstacle to devising a direct payments compensation scheme. Thus, achieving sugar market trade liberalization will take a significant commitment on the part of negotiating governments. Governments of other FTAA countries with protected sugar sectors will also face obstacles to implementing direct payments, but compensation mechanisms for high-cost producers in these countries may also need to be devised in order for sugar market liberalization to proceed. These compensation mechanisms should not lock in continued high-cost production, but compensation to offset distributional effects and allow net gains is consistent with the prescriptions of international trade theory.

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Table 9.1. Sugar production, consumption and Trade 1995/95 - 1999/2000 and U.S. TRQs 2001

Region/Country	Production	Domestic Consumption	Net Surplus Production	U.S. TRQ Allocation
1,000 metric tons, raw value				
North America				
Canada	128	1,230	-1,102	0.0
Mexico	4,989	4,300	689	113.0
United States	7,260	8,913	-1,653	0.0
Total	12,377	14,443	-2,066	113.0
Caribbean				
Barbados	58	17	42	7.4
Dominican Republic	514	305	210	185.3
Haiti	10	84	-74	7.3
Jamaica	215	125	89	11.6
St. Kitts and Nevis	21	4	17	7.3
Trinidad and Tobago	103	84	19	7.4
Total	921	619	303	226.3
Central America				
Belize	113	14	99	11.6
Costa Rica	361	205	156	15.8
El Salvador	418	219	200	27.4
Guatemala	1,560	438	1,121	50.5
Honduras	250	224	26	10.5
Nicaragua	349	181	168	22.1
Panama	168	99	69	30.5
Total	3,219	1,380	1,839	168.4
South America				
Argentina	1,644	1,421	223	45.3
Bolivia	295	228	67	8.4
Brazil	16,490	8,720	7,770	152.7
Chile	495	691	-196	0
Colombia	2,155	1,333	821	25.3
Ecuador	356	390	-34	11.6
Guyana	271	32	239	12.6
Paraguay	125	115	11	7.3
Peru	617	896	-279	43.2
Surinam	1	14	-13	0
Uruguay	20	110	-90	7.3
Venezuela	580	752	-172	0
Total	23,049	14,702	8,347	313.7
Other Countries (Total)				401.7
Grand Total	39,567	31,144	8,423	1,223.1
Source: USDA				

Table 9.2. Refined sugar tariff commitments under the WTO

Region/Country	<u>Local Currency per mt or %</u>		<u>Ad valorem basis %</u>		<u>Reduction</u>
	Base	Final	Base	Final	%
North America					
Canada	\$41.67 / mt	\$35.42 / mt	8	7	15.0
Mexico	173	156	173	156	9.8
United States	\$420.50 / mt	\$357.40 / mt	106	90	15.0
Caribbean					
Barbados	*	122	*	122	*
Dominican Republic	*	40	*	40	*
Haiti	45	16	45	16	64.4
Jamaica	*	100	*	100	*
St. Kitts and Nevis	170	130	170	130	23.5
Trinidad and Tobago	*	100	*	100	*
Central America					
Belize	*	110	*	110	*
Costa Rica	55	45	55	45	18.2
El Salvador	92	70	92	70	23.9
Guatemala	178	160	178	160	10.1
Honduras	*	35	*	35	*
Nicaragua	120	100	120	100	16.7
Panama	---	---	---	---	---
South America					
Argentina	*	35	*	35	*
Bolivia	*	40	*	40	*
Brazil	85	35	55	35	36.4
Chile	35	31.5	35	32	10.0
Colombia	130	117	130	117	10.0
Ecuador	*	50	*	50	*
Guyana	*	100	*	100	*
Paraguay	*	35	*	35	*
Peru	130	68	130	68	47.7
Surinam	*	20	*	20	*
Uruguay	60	35	60	35	41.7
Venezuela	117	105	117	105	10.3

Source: International Sugar Organization

* Countries committed to a maximum tariff rate.