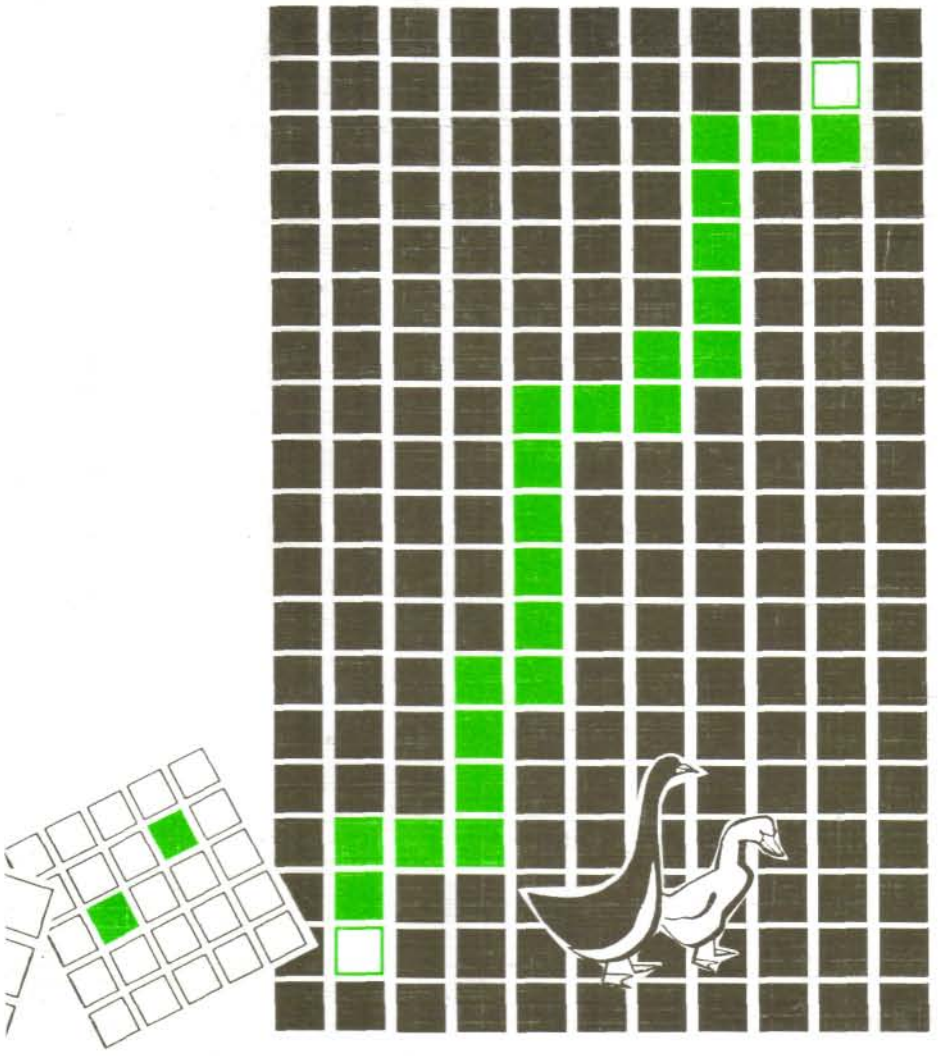
ISSN 1019 – 035 X

Farm & Business



Vol. 6, No.1, October 2003

The Journal of the Caribbean Agro-Economic Society

The United States Farm Security and Rural Investment Act of 2002: Implications for CARICOM Sugar Producers

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Abstract

Trading Issues: Future of Export Agriculture – Traditional and Non-traditional

Although the final version of the 2002 US Farm Bill, dubbed, The Farm Security Act of 2001, has not yet been agreed upon, on the basis of the versions submitted by the US House of Senate there are likely to be major changes to the US sugar program that will undoubtedly impact the Caribbean sugar producers. Such changes are aimed at bolstering the ailing US sugar program that is proving to be both difficult and expensive to administer in a manner that continues to provide stability to the US growers at minimum cost to the government treasury. Expanding domestic production, increasing imports and international commitments under the WTO and NAFTA have within recent years severely weakened the effectiveness of the Program and have wreaked havoc in the industry. Among the changes proposed are the following: (a) increasing the minimum level of sugar imports from 1.13 million metric tons (MMT) to 1.38; (b) providing the US Secretary of Agriculture with the discretion to adjust the loan rates; (c) requiring that the program be administered at no net cost to the Federal government; and (d) reinstating the marketing allotment for domestically grown sugar.

With the use of a modified version of a World Sugar Policy Simulation Model the impacts of these likely changes on US domestic consumption and production of sugar are analyzed and implications drawn fro the CARICON-US sugar quota holders.

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INTRODUCTION

The United States (US) sugar program, which supported the US sugar industry over the past two decades and provided a valuable source of income for CARICOM ("the region") sugar exporters, is now facing a major dilemma as it attempts to balance its domestic and trade policy. Specifically, the dilemma arises from the contradiction of trying to maintain relative high price support, which encourages domestic sugar production, while at the same time honoring its growing international sugar commitments. Moreover, the challenge is to achieve such a delicate balance in a manner that is WTO compliant, without overloading the sugar component of the aggregate measure of support (AMS), and to operate the Program at no or minimum cost to the Federal Government 13 million.

The Caribbean Community (CARICOM) sugar-producing countries - beneficiaries of the US support price -have been caught in the middle of this dilemma. Within the last few years they have witnessed a steady erosion of their total earnings from exports of sugar to the US market. While the price CARICOM producers receive in the US market remains fairly attractive compared with world market price, the amount of sugar that they are allowed to export to the US duty free at the relatively high US domestic price under the US sugar Tariff Rate Quota (TRQ)[3] has been reduced drastically. Between 1996 and 2001, US allocation of its TRQ to CARICOM, fell by almost 50%, from about 100 thousand metric tons (MT) to just around 52 thousand MT. In terms of earnings this meant a potential annual lost of income and valuable foreign exchange of US$24 million.

Although evidence of the contraction of this fairly lucrative[4] market for a portion of CARICOM surplus sugar can be traced to the late 1970s with the development and flourishing in the US of an alternative sugar substitute (high fructose corn syrups), recent events have hastened the process. Such events include an expansion in US domestic sugar production, and an increase in the US international sugar commitments under NAFTA and to a lesser extent the WTO. The present situation is such that the US is committed to importing a quantity of sugar in excess of its domestic requirements; since it produces about 90% of its domestic sugar needs but is obligated to import about 12% to15% of consumption. Moreover, the longer-term prospects for the US sugar industry are not encouraging. With the planned unification of the US-Mexican market and plans for the establishment of the Free Trade Area of the Americas, which includes Brazil, the largest sugar producing and exporting single country in the western hemisphere.

The noticeable erosion of this market opportunity for CARICOM's sugar exports comes at a time when the region needs all the support it can get since developments in its main sugar export market, the European

[3]Tariff Rate Quota (TRQ) is a two-tiered tariff for which the tariff rate charged depends on the volume of imports. Usually a zero or small tariff is charged on imports within the quota volume, and a prohibitive tariff is charged on imports in excess of the quota volume.

[4]Prices received in the US market are usually two to three times the world market price.

Union (EU) are far from encouraging. With the EU's policy (all-but-arms) to allow poorer countries increased access to its market, CARICOM producers are facing a major loss of market share for most of their traditional exports to the EU. In addition, due to the depreciation of the Euro, earnings from sugar exports to that market have declined noticeably. Moreover, with plans to deregulate the EU sugar program by 2007, CARICOM could be in for some hard times as they face increased competition from low-cost sugar producing countries such as Thailand, which will be able to export unlimited quantities of sugar to that market.

In light of the developments occurring in the EU sugar market, continued access to the US market at the relatively high and stable US domestic support price becomes extremely important to the region in maintaining the viability of their sugar industry. It is within this context therefore that this paper seeks to examine the prospects of this market opportunity for CARICOM sugar exporters. Specifically, the paper reviews recent developments within the US sugar market that have led to the current over supply in the US and the virtual disappearance of the US market for CARICOM sugar. In reviewing these developments we discuss current happenings in the US-Mexico sugar market that could have a direct bearing on CARICOM sugar exporters. Following this, we present a brief overview of the CARICOM sugar industry and discuss the relative importance of the US market as an outlet for a portion of CARICOM sugar exports. Next, we analyze the major changes to the US sugar program based on the changes made to the sugar provisions of the US federal farm policy, *The US Farm Security and Rural Investment Act of 2002 (2002 Farm Act)*, with a view to assessing their implications for US-CARICOM sugar quota holders. The paper then concludes with a few brief remarks.

THE US SUGAR PROGRAM

In brief, the US sugar program is designed to protect the incomes of US sugar interests, which include the growers and processors of sugarcane and sugar beets. The program accomplishes its objective indirectly by: (a) making available loans at minimum price levels to sugar processors, US18 cents per pound for raw cane sugar and US22.9 cents per pound for refined beet sugar; and (b) restricting sugar imports. The United States Department of Agriculture (USDA) operates the import quota (TRQ) in such a manner that only the quantity of sugar that is needed to meet the balance of domestic demand (US excess demand) is allowed to enter the country. Moreover, this amount is calculated to ensure that the US market price for sugar is above the loan rates, thus, allowing processors to sell their sugar at market price, pay off their loans, and avoid any loan forfeiture.[5] Consequently, the ability to limit the quantity of sugar imports is essential in determining the effectiveness of the domestic policy of price support and reducing the cost to the federal government. Stated differently, in the absence of the trade

[5]*Sugar loans are described as "non-recourse", meaning that at any time the market price is not favorable, the processor may forfeit sugar as collateral in lieu of repaying the loan and the government has no recourse but to accept the sugar as full payment.*

restriction policy, the domestic policy of price support would become ineffective or, at best, costly to implement.

The TRQ is allocated to 40 countries based on a representative period (1975-81) when trade between these countries and the US was relatively unrestricted. However, with the signing of the NAFTA agreement in 1994, additional allocations were made to Canada and Mexico,[6] with plans of establishing a single US-Mexican sugar market by the year 2008. Sugar that enters in amounts above each quota is subjected to a prohibitive tariff that declines over time; however, in the case of Mexico, the decline is accelerated to reach zero level by 2002 (see Schedules in Appendix 1.) The TRQ is used to satisfy the US market access commitment made under the WTO rules. This stipulates that the US would allow a minimum of 1.14 million metric tons (MMT) of foreign sugar to enter the country each year.

RECENT DEVELOPMENTS WITHIN THE US SUGAR MARKET

Expanding Domestic Production

Figure 1 shows the trends in US domestic production, consumption, total imports, and ending stocks, over the period FY 1991-2001. The Figure shows that over the period 1991-2001, US domestic sugar consumption grew at a modest rate of about 1.1% per annum, from 8.0 MMT to 9.2 MMT.

In comparison, sugar output grew at an annual rate of 2.2%, from 6.3 MMT in 1991 to 8.2 MMT in 2000, before falling to 7.9 MMT in 2001. Noticeable was the sharp upturn in sugar output, beginning in 1997 and continuing through year 2000. Several factors were responsible for the rise in this output, with the major one being area harvested. This increase was due to higher than expected returns to sugarcane cultivation, compared with other crops which compete with sugar for land use. Between 1996 and 2000, area planted in sugar beets and sugarcane increased from 553.85 thousand and 370.04 thousand hectares, respectively, to 633.6 and 386.23 thousand hectares (USDA, September). The switch in production patterns was facilitated by the increased planting flexibility under the 1996 Farm Bill coupled with depressed commodity prices of the alternative crops. In addition to expanded area, the growth in sugar output was due to higher yields from good weather and investments in improved factory and field technologies. Yields of sugar beets increased from 44.95 MT (metric tons) per hectares in 1996 to 52.36 in 2000, and those for sugarcane, increased from 80.03 to 86.94 MT per hectare. Over the same time period, there was also a slight increase in the sugar recovery ratio (tons of sugar to tons of sugarcane) in the factory from 12.03% to 12.16% (USDA, September). As a consequence of these trends, the share of domestic consumption of sugar attributed to domestic production increased from 78.4% in 1991 to 90.1% in 2000, the highest level in recent times.

The drop in sugar output in FY 2001 was due to government intervention, particularly the Sugar Payment-In-Kind (PIK) Program. This Program offered sugar beets and

[6]*The exact amount that Mexico is entitled to ship to the US duty free under the NAFTA agreement is still the subject of a trade dispute between the US and Mexico.*

sugarcane producers the option of diverting from production a portion of their crop in exchange for government-held sugar. As a consequence of the Program, 41.30 thousand hectares of sugar beets, the equivalent of approximately 300 thousand MT of beet sugar, was diverted in FY 2001 (USDA Fact Sheet).

Increasing International Sugar Commitments

Although total sugar imports (TRQ and Non-TRQ)[7] have been trending downward (Figure 1), from a high of 2.5 MMT in FY 1996 to 1.4 MMT in FY 2001, the proportion of the sugar imports which the US cannot prevent from entering the country had been increasing, due mainly to WTO and NAFTA commitments (Haley). As noted earlier, under the WTO the US is required to allow entry of a minimum of 1.14 MMT of raw sugar equivalent each year. To this must be added increased sugar imports from Canada and Mexico under the NAFTA provisions. Thus, the US found itself in a situation in which it could no longer support an increase in domestic sugar production by simply reducing imports, without breaking its commitments under WTO rules and NAFTA. To make matters worse, a considerable amount of additional sugar was entering the country from Canada, under the guise of a concoction known as "stuffed molasses" from which sugar was later recovered. In FY 2001, for example, sugar obtained from the import of "stuffed molasses" was estimated at 112.5 thousand MT (VanDriessche). However, because of a recent US Court of Appeals decision to ban the import of "stuffed molasses", sugar imports from this source have fallen substantially (USDA Fact Sheet).

Impact on the US Domestic Sugar Industry

The culmination of increased US sugar supply and the modest growth in consumption have caused the stocks-to-usage ratio to reach its highest level in recent times. Ending stocks, which have been more or less constant, increased from 1,371 thousand MT in 1991 to 2,013 in FY 2000, before falling slightly to 1,764 thousand MT in FY 2001. Over the same time frame, the end stocks-to-use ratio increased from 15.7% to a record 22.0% before falling to 18.7%. Hence, stocks-to-use ratios are well above the USDA trigger level of 15.7%.

As a result, the domestic sugar price began to decline in FY 1997, culminating with a noticeable drop in FY 2000 to levels not seen since FY 1979. Figure 2 shows the trends in US and world raw and refined sugar prices and illustrates the sharp downturn in both the domestic raw and refined sugar prices (current dollars) that occurred in FY 2000. For the first time since implementing the current sugar program, the domestic sugar prices for both raw and refined sugar fell below the loan rates, causing some growers to forfeit loans. Sugar beets and sugarcane processors forfeited about 800.4 thousand MT of sugar. Prices would have fallen further if the government

[7]*Non-TRQ sugar imports include imports under the combined Refined Sugar Re-export Program, sugar extracted from sugar syrups under HTS 17029040 and high-tier tariff imports from Mexico.*

has not intervened into the market in FY 2000. In addition, its Payment-in-Kind program purchased 118.8 thousand MT of sugar to support the domestic price. Hence, in FY 2000, the government acquired in excess of 900 thousand MT of sugar that was placed into storage at a cost of approximately US$16.1 million annually, (USDA Fact Sheet). The end result was that the total cost of administering the sugar program in FY 2000 was about US$141 million, or approximately 0.6% of the total Commodity Credit Corporation (CCC) farm budget for that year (Van Driessche). In addition, government incurred revenue losses of approximately $25 million from the suspension of the "marketing assessment cost" on the sale of domestic produced sugar.[8] Sugarcane and sugar beets producers also recorded lost income. Compared with the 1996 sugar prices, between 1997 and 2001, these producers lost an estimated $2,226 million in revenues ($545 million and $1,681 million, respectively). Hence, the sugar program, rather than operating at no or minimum cost to the government, as was the situation in the past, was costing the government both in terms of direct expenditures and lost revenue and was not being effective in stabilizing producer income.

The impact of the downward pressure on US sugar prices has resulted in the closure of several sugar beets and cane processing mills. Between 1996 and the present, 17 beet and cane processing facilities have closed or announced their closure. In addition, the nation's largest sugar refinery is in bankruptcy, while the nation's second largest sugar seller is attempting to sell its processing and refining operations (Van Driessche).

The data for FY 2001 show that due to government actions, prices have rebounded somewhat from their previous year's low. The 2001 average domestic prices are 21.07 and 22.11 cents a pound for raw and refined sugar price, respectively. For FY 2002, the production over the previous year, from 7.8 MMT to 7.5 MMT. The reduction is expected to come largely at the expense of sugar beets cultivation as cane sugar production is forecast to increase by about 3%. On the other hand, consumption is expected to increase only marginally, from 9.23 MMT to 9.28 MMT, or by half of a percent.

US - Mexico Sugar Developments

Before examining the changes made to the US sugar program, it is important to first discuss recent developments between the US and Mexico that will impact the US sugar industry and, by implication, the CARICOM sugar producers in the near future. The two issues of concern are: a) the on-going US-Mexico sugar trade dispute and; b) Mexico's over-quota sugar exports to the US.

US-Mexico Sugar Dispute - with respect to the US-Mexico sugar dispute, the ongoing debate centers on different interpretations by

[8]US sugar producers began paying a marketing assessment of one percent of the cane and beet loan rates in 1991, for the express purpose of helping to reduce the federal budget deficit. The 1996 Farm Bill had legislated that the fee should be increased to 1.375% of the loan rates. It has been estimated that over the period 1991-1999, $279 million was paid to the government (Van Driessche).

the US and Mexico, of the sugar trade agreement under NAFTA. Briefly, the difference in the interpretations lies in the US sticking to a "side letter agreement" which limits the amount of sugar Mexico can export to the US duty free as determined by a formula. This formula computes Mexico's sugar surplus as the difference between its sugar production less its consumption of sugar and HFCS. On the basis of this "side letter", beginning in FY 2001 and continuing to FY 2007, Mexico is entitled to ship its surplus sugar, up to a maximum of 250 thousand MT, duty free to the US Commencing October 31, 2008, all barriers would be removed and there would be a common sugar market between the US and Mexico.

On the other hand, Mexico is contending that because the sugar negotiations produced several versions of the "side letter" and there was no agreement on which was the final version, the "side letter" is invalid (Kornis). Consequently, Mexico is sticking with the original provisions of the NAFTA that would have entitled that country, since October 1, 2000, to ship all of its excess sugar (production of sugar less only the consumption of sugar) duty free to the US — some 500-600 thousand MT compared with the 116 thousand MT allocated by U.S. on the basis of the "side letter". The dispute is currently being addressed under the NAFTA Chapter 20-dispute settlement provision.

As a consequence of the US sticking to its "side letter agreement", Mexico restricted imports of US HFCS by contending that imports of HFCS from the US were being sold at less than fair value in the Mexican market and that such imports were threatening the Mexican sugar industry with material injury (Evans and Davis, Kornis). In 1998,[9] Mexico formally imposed anti-dumping duties ranging from $63.75 to $100.60 per MT on commercial product HFCS-42 and $55.37 to $175.50 per MT, payable to the regular 4% ad valorem duty (Kornis). This has severely restricted the growth in exports of HFCS from the US to Mexico. Between 1994 and 1998, exports of HFCS increased from 92.8 thousand MT to 218.4 thousand MT but fell to 202.0 thousand MT in 2001. Although the exact quantity of HFCS consumed by Mexico is not known, the USDA estimates a consumption level of about 500 thousand MT (USDA, May).

The HFCS market access dispute was referred to both the NAFTA and WTO Dispute Settlement Bodies. Both Dispute Settlement Bodies, on more than one hearing, found that the imposition of antidumping duties on HFCS from the US was inconsistent and that the Mexican government did not adequately consider all economic factors affecting its sugar industry that were pertinent in determining whether there was a threat of material injury to its sugar industry (USDA, May 2002, USDA, May 2001; FAS Report #MX0140; Kornis).

On account of the unfavorable rulings, the Mexican government announced two new measures to deal with HFCS imports

[9]*The US-Mexican dispute over HFCS actually began in January 1997 with the Mexican National Chamber of Sugar and Alcohol Industries alleging that the US was selling its HFCS in the Mexican market at less than fair value. Countervailing duties were placed on HFCS imports from June of that year.*

from the US. First, in January 2002, a 20% tax was placed on the sales of beverages containing HFCS. The tax had the immediate effect of reducing the competitiveness of products containing HFCS, causing many of the domestic beverage manufacturers to substitute domestically produced sugar for HFCS. However, in March the government announced the temporary lifting of the tax until September 2002.

Second, the Mexican government reclassified the US from NAFTA preferential trading partner to WTO Most Favored Nation, alleging that the US was not fulfilling its NAFTA obligations by allowing access of Mexico's excess sugar in the US market. Then in April 2002, the government established a new TRQ for US HFCS imports. In principle the HFCS in-quota amount would be set equal to the amount of sugar that the US is willing to allow to enter the US duty free. Thus, for the upcoming FY year October 2002 to September 2003, the in-quota amount is set at 148.0 thousand MT, in line with US calculation of Mexico's surplus sugar that can enter the US duty free. The in-quota tariff rate is set at 1.5%, while the over-quota tariff rate is set at a prohibitive 210%. In addition, in-quota import will require an import license, which will not be issued automatically (USDA, May 2002).

The main result of the above measure will be an increase in the amount of sweetener (corn syrup and sugar) available on the US domestic market. This, in turn, would have the effect of creating added downward pressure on the domestic prices of sweeteners.

Mexico's Over-quota Imports - the second issue that will impact the US sugar industry is the importation of over-quota sugar from Mexico. In addition to the in-quota duty free export of surplus sugar to the US, NAFTA provides for an additional amount of sugar to be exported from Mexico to the US in accordance with a declining high-tier tariff schedule (Appendix 1). In FY 2001 and 2002, Mexico was able to export approximately eight thousand MT and 40 thousand MT, respectively, of raw sugar to the US under this provision.

Beginning in January 2003, the over-quota tariff on raw and refined sugar exports from Mexico drops to 7.56 and 8.01 cents a pound, respectively. If the US domestic sugar prices were kept at approximately 21 cents a pound for raw sugars (assuming a loan rate of 18 cents a pound on raw sugar), and if one assumes a one-cent transportation cost on raw sugar imported into the US from Mexico, then as long as the world market price for raw sugar remains at or below 12 cents a pound (currently 7.3 cents a pound) the opportunity would exist for Mexico to ship all of its excess sugar to the US market. Moreover, when one considers that the three-year (1999-2001) and five-year (1997-2001) averages of the world market price of raw sugar were 8.1 and 9.3 cents a pound, respectively, the likelihood of this happening is very convincing. More importantly, this develop-ment would overshadow the current sugar disputes since Mexico would be able to export all of its surplus sugar to the US and there are no disputes surrounding the interpretation of this NAFTA provision. However, there is the possibility that the US could take legal action in the form of anti-dumping / countervailing duties against such exports.

Overview of CARICOM Sugar Industry

Although the CARICOM sugar industry has contracted significantly compared to previous years, it is still considered critical to the region's economies as it continues to provide high levels of employment for the population and is a major earner of foreign exchange. From a historical point of view, the region's sugar industry has been organized to supply the export market and continues to depend on this market for the major source of income earned. At present, exports account for as much as 85% of the region's total sugar production of close to 800 thousand metric tons. Further, this market has not expanded beyond the borders of the European Union and the United States in the main. Figure 3 illustrates this fact and shows the distribution of CARICOM sugar exports by major markets for year 2001.

Sugar Production and Export

Table I of Appendix 2 presents a profile of CARICOM sugar production for the period 1992-2001. Although the overall trend is upward, showing an increase of approximately 100 thousand MT over the period, production varied significantly during that time. Production of sugar peaked during the mid-1990's and again in 2000 only to fall to pre-1990's levels. Major contributions occurred in Barbados, Jamaica and Trinidad and Tobago while the other sugar producing countries generally remained constant, with the exception of Guyana which showed generally increasing trends.

Table 1 presents data on the US-CARICOM allocations under the US tariff rate quota (TRQ) and also shows the actual quantities exported to the United States between 1995 and 2001. As shown in the Table, US-CARICOM allocations decreased considerably, from approximately 100 thousand MT in 1996 to about 52 thousand MT in 2001, or by 47.1%. Despite the decrease in US-CARICOM quota, relative share of the total US TRQ fell only slightly from 4.6% in 1996 to 4.2% in 2001, indicating an across-the-board reduction in allocating the total quota among all the holders. With respect to actual quantities of sugar exported to the US the Table reveals that Barbados has consistently not been honoring its US sugar obligation. Exports from the other countries followed the general pattern of decline in-quota allocations. In years 2000 and 2001, both Jamaica and St. Kitts participated in a Certificate for Quota Eligibility (CQE) program offered by the US in which those countries were allowed to market their quota allocations on the world market, in lieu of shipping to the US, but received compensation for the difference in prices.

Exports of sugar to the EU (shown in Table 2) had a greater level of consistency for all exporting countries, in which both Guyana and Jamaica were the leading exporters. However, as can be seen in the Table, Jamaica exports never exceed an average 170,000 metric ton level, while in the case of Guyana, exports have consistently remained above 200,000 tons of sugar. Exports from Belize, on the other hand, remained above 50,000 MT, with the exception of 1995 and 2001. Exports from Barbados showed a generally increasing trend and peaked in 1999 and 2000.

Table II in Appendix 2 records the average prices received for sugar exported to the US, EU (including special preferential sugar), and the world market for the period 1995-2001, while Figure 4 illustrates the trend. Although normal prices on the EU market are generally higher than prices received for US sugar exports and world market sugar, the overall trend has been a declining one, with only the US sugar price remaining more or less constant. The SPS sugar price has declined drastically, falling from an average of $566 per MT in 1996 to just below $400 per MT in 2001, below that of the US. The steep decline in EU prices is due mainly to the depreciation of the Euro. Price on the world market has exhibited the declining trend but recovered somewhat in years 2000 and 2001.

Given the overall trend in production and exports it is clearly evident that income derived from sugar sales has been declining, which has raised concern for the visibility of sugar as an industry receiving massive support from the State in nearly all of the countries (Figure 5). The loss of sugar earnings and market shares come at a time when many of the CARICOM countries are undertaking massive investments to streamline their sugar industries to make it more efficient. Guyana, for example, is undertaking a major restructuring of the sugar industry with a view to expanding production and increasing its processing capacity. The industry in Trinidad and Tobago is set to also undergo major restructuring based on a model that would further diversify and integrate the industry into the wider economy. Restructuring exercises are also underway in St. Kitts and Jamaica has plans to invest US$90 million following investment of US$124 million over the past four years (Caribbean Update, May 2002).

Over the years the industry's performance has been plagued with a number of problems. These include unfavorable weather conditions; factory shutdowns resulting in unharvested cane; generally poor sugar conversion ratio tons sugar/tons cane (TS/TC); outdated technological processes; increasing costs of production; no clear policy with respect to sugar; and labor problems.

All the research done so far indicates that Caribbean sugar is among the highest cost in the world. It appears that these costs can only be reduced if productivity were to increase considerably both at processing and sugar cultivation. Data made available during the conduct of research for the paper indicate that, compared to ACP countries, Caribbean cane yield per hectare was among the lowest, just averaging 50 MT per hectare. Cane producers in Africa were averaging over 82 MT per hectare. Low productivity, high cost of production, and decreasing market prices combined, spells disaster and signals some urgency on the part of industry planner. The situation is further exacerbated with the recent developments in the US sugar program discussed earlier. Given the workings of the new sugar provisions, it is likely that this market opportunity will disappear or be reduced in the future. Consequently, more CARICOM sugar will be forced on the world market, and with production increases in major producing countries, it is likely that world market prices will fall even further and

thus force CARICOM producers to become more efficient.

Relative Importance of the US Sugar Market to CARICOM Exporters

Although earnings from the US market are considerably smaller than from the EU (Figure 5), the former is still considered by CARICOM sugar producers/exporters to be a viable and lucrative alternative to the world market. Moreover, in light of previous discussions and the situation in which the CARICOM sugar producing countries are finding themselves — increased investment debts but loss of market share in the EU market and declining sugar earnings — retaining access to the US market becomes much more important. Table 4 gives an indication of the additional earnings CARICOM sugar exporters receive from selling in the US compared to selling the same quantities on the world market. As can be gleaned from the information contained in the Table, the difference in earnings could be as much as twice that earned from selling on the world market.

It is within this context that the US sugar quota becomes important in helping to offset losses sustained by selling on the world market.

2002 Farm Act — Sugar Provisions

On May 13, 2002, the US President signed into law the Farm Security and Rural Investment Act of 2002 (2002 Farm Act). This Act establishes US federal farm policy for the next several years and, among other things, contains the main provisions governing the operation of the US sugar program. It takes effect later this year and governs the period FYs 2003-2007. In light of the situation facing the US sugar industry, there were calls by both proponents and opponents of the US sugar program for changes to be made to the way in which the program is administered. While opponents called for scrapping the program altogether, proponents wanted the program to be strengthened so that it would achieve its objective of stabilizing and protecting the income of the growers/processors. Accordingly, several changes have been made to the sugar provisions aimed at providing a set of tools that would allow the program to achieve the following three broad objectives: (a) honoring US international sugar commitments; (b) reducing the burden on domestic sugar producers and; (c) operating at no or minimum cost to the Federal government (taxpayers). The main changes to the sugar provisions are: (a) requiring the sugar program to operate at no-net cost to the Federal Government; (b) an effective increase in the size of the TRQ; (c) terminating the marketing assessment fees; (d) eliminating the loan forfeiture penalty and; (e) reducing the interest rate on sugar loans. Below we discuss these changes in greater detail and examine their potential impacts on the US sugar industry and, by implication, the CARICOM quota holders.[10]

[10] *Although the discussions pertain to CARICOM quota holders, much of what is being said is also true for the other quota holders.*

IMPLICATIONS FOR CARICOM QUOTA HOLDERS OF CHANGES TO 2002 FARM ACT

The potential impacts that the changes made to the sugar provisions of the 2002 Farm Act can have on the CARICOM quota holders can be analyzed from the perspective of the effects such changes are likely to engender in the US sugar market, in particular the potential changes in the US domestic price, domestic demand, and supply situations. In general, since the US market is currently characterized with an over supply of sugar, any change in the sugar provisions that has the potential to promote domestic sugar production (supply) and/or increase the supply of non-quota sugar is likely to have unfavorable consequences for CARICOM quota holders, and vice versa.

No net cost to the Federal Government - The most far-reaching change made to the existing sugar provisions is the requirement that, to the maximum extent possible, the US sugar program should operate at no cost to the Federal Government. This implies that the USDA must operate the sugar program in such a way that the market price remains above the level that would cause processors to forfeit their loans to the Commodity Credit Corporation (CCC), which would result in costs to the Federal Government. In essence, this provision provides a guaranteed market price for the producers and removes any market uncertainty that the existing program introduced.

To enable the USDA to achieve this objective, the Farm Act makes provision for the use of two possible mechanisms: (a) Payment-in-Kind (PIK) and; (b) Marketing allotment for sugar. With regard to the Payment-in-Kind provision, the Act authorizes the USDA to accept bids from sugar processors for sugar in CCC inventory in exchange for reduced sugar production. The USDA can therefore make payments to processors on behalf of the growers to either not cultivate sugarcane/beets or plow under crops already planted. The government PIK program therefore is an essential part of the strategy to restrict the domestic supply of sugar to ensure that domestic sugar prices remain above the forfeiting levels.

The second mechanism to help prevent the processors from forfeiting loans (i.e., maintaining domestic target price) is the establishment of flexible marketing allotments for sugar. Specifically, this provision states that whenever the total quantity of sugar imported (in-quota plus over-quota imports) is less than 1.38 MMT, the USDA is authorized to limit the amount of domestically-produced sugar that raw cane mills and beet refiners can sell. Thus, the USDA, after calculating the quantity of domestic sugar needed to achieve the target price — taking into consideration import commitments, opening and closing stocks — would allocate this amount to the various US production regions on the basis of a formula. Interestingly, the call for the use of inventory management mechanism had the full support of the US sugar producers, notwithstanding that such a provision would mean that the US Government would gain more control over the US sugar market (Van Driessche).

In terms of the likely impact of this (no net cost) provision, since the main intent is to reduce the domestic US supply of sugar, i.e., to shift the supply curve to the left so as to

maintain domestic price, at best the implications are positive for CARICOM quota holders. This is so since the action of restricting the US domestic supply, implies that CARICOM quota holders would be able to at least maintain their current quota and continue to reap the benefits of the relatively higher US domestic market price. However, closer examination of the provision gives cause for the following concerns: (a) given the relatively high guaranteed domestic price that this provision would engender in the US, it would need to be determined if this would cause US producers of other commodities to shift some of their production away from other commodities to sugarcane/beet, defeating efforts to limit domestic supply and; (b) the marketing allotment tool can only be employed when the total US sugar imports is below 1.38 MMT.

Regarding the first issue, as pointed out in an earlier section dealing with developments in the US sugar industry, a prime reason for the current over supply was the shift from the cultivation of other commodities to sugarcane/beet in response to the relative higher profitability of the latter. In the absence of any restriction on domestic sugar production (assuming imports above the threshold level) and with forecast weak commodity prices, the 2002 Farm Act, by guaranteeing producers a minimum price, will provide an even greater incentive for domestic producers to shift some of their cultivation to sugarcane/beets. If this were the case, then US domestic sugar supply could increase, due to this provision, rather than decrease and, depending on the extent of the increase, could end up costing the US Government a considerable amount to maintain domestic price. In such a situation the US might have no other alternative than to resort to unpalatable options. Such options include: (1) further reducing quotas in an attempt to boost domestic price and reduce Federal expenses; (2) expanding the current practice of issuing Certificates of Quota Eligibility (CQE); and (3) auctioning quotas. Regarding the first option, since the US is already committed to Mexico under NAFTA, any attempt to reduce quotas would first have to ensure that obligations to Mexico are satisfied. This implies an across-the- board reduction of residual quota after accounting for sugar imports from Mexico. CARICOM sugar exporters could therefore see a further reduction in their quota allocation. The second option is to expand the practice of issuing Certificates of Quota Eligibility as discussed earlier. While this practice would of itself be favorable to CARICOM quota holders, it has two potential drawbacks: first, it would be administered at a cost to the Federal government and depending on the volume of sugar could become a cause of concern; and second, there is the possibility that the practice could be challenged as being inconsistent with the WTO provisions, since it could be viewed as subsidizing sugar sold on the world market—hence trade distorting. This arises from the fact that the sugar that is not exported to the US will be sold on the world market and given the thinness of this market, it has the potential to further depress world market prices. The third option, auctioning the quotas, is one that is highly favored among many US policy makers (Skully, 1998). The justification put forward for this approach is that it would provide additional revenue for

the US and would facilitate greater efficiency. The disadvantage is that it would rob countries such as those making up CARICOM sugar exporter that are medium to high cost producers, of quota rent, which plays a crucial role in maintaining the viability of their sugar industries. Thus, although the intent of the no-cost provision appears favorable in practice, it could worsen the situation for CARICOM quota holders.

Increase in TRQ - Another change made to the current sugar provisions was to effectively increase the TRQ from 1.14 MMT to 1.38 MMT. The main purpose of the increase is to accommodate the anticipated increase in sugar exports from Mexico under NAFTA. As stated earlier, from FY 2001 and continuing to FY 2007, Mexico is entitled to ship its surplus sugar, up to a maximum of 250 thousand MT, duty free to the US in accordance with the "side letter agreement". While the increase in-quota would be sufficient to accommodate this maximum, it would be insufficient if the original NAFTA provisions hold or if Mexico takes advantage of market access provisions and ships large quantities of over-quota sugar as discussed earlier.

As a consequence, CARICOM sugar quota holders can therefore hardly expect to benefit from the increased quota. Moreover, should the latter situation take effect, whereby Mexico ships substantial quantities of over-quota sugar to the US in addition to its in-quota amount, there is the likelihood that CARICOM exporters could witness a further erosion of their quota, since existing quotas would have to be reassigned to ensure that the domestic market price remains at a level that would cause the sugar program to operate at no, or minimum, cost to taxpayers. Countries, such as Barbados, which have not used their quotas, would be among the first to lose their quotas. The 2002 Farm Act specifically states that the US Trade Representative (USTR) may reallocate unused quota to qualified quota holders (USDA, May 2002).

Terminating the marketing assessment - Under the previous existing Farm Act, US sugar processors had to pay a fee of about a quarter of a cent (and about a third of a cent in the case of beet sugar refiners) on each pound of sugar produced for the purpose of helping to reduce the federal budget. On average, this costs sugar producers about $40 million per annum. The 2002 Farm Act terminates this assessment, thereby increasing the relative returns to the sugar producer. Assuming all other factors remain the same, the impact of this provision would be an increase in the relative profitability of the growers/processors and should encourage domestic production. Given the current over supply situation that plagues the US sugar market, the potential of this provision to stimulate domestic sugar production implies unfavorable consequences for CARICOM quota holders.

Eliminating the loan forfeiture penalty - Under the previous regime, cane processors paid a penalty of $0.01 ($0.0107 in the case of beet processors) on each pound of sugar forfeited to the government. Thus, although the loan rate is set at an average of 18 cents a pound in the case of raw sugar because of the penalty that had to be paid whenever the sugar was forfeited, the effective loan rate was 17 cents a pound (See Table 5). The 2002 Farm Act eliminates the requirement to

pay the penalty, hence increasing the effective loan rate from 17 to 18 cents a pound. The effective increase in the loan rate further implies an increase in the domestic target price (the price that must be maintained in the domestic market to prevent the processors from forfeiting their loans which would cause the sugar program to operate at a cost to tax payers). Barring any restrictions on the amount of sugar which can be produced, the increase in the US guaranteed price will have the effect of stimulating domestic production, reducing the need for sugar imports.

Reducing the interest rate on sugar loans - The 2002 Farm Act also reduces the interest rate that borrowers had to pay on their loan by one percentage point. This therefore reduces the cost burden on the processors by making the cost of credit relatively cheaper. The reduced cost should have a positive impact on domestic production (outward shift in domestic supply), assuming other factors remain the same. Again, assuming all other factors remain the same, the impact of this provision will be to stimulate an increase in domestic sugar production, further obviating the need for quota sugar.

CONCLUDING REMARKS

Both the US and CARICOM sugar programs face major dilemmas. The dilemma in the US program stems from a policy aimed at maintaining a relatively high domestic sugar price, which encourages domestic production, while satisfying its increasing international sugar commitments. The sugar program as provided by the 2002 US Farm Act attempts to address this dilemma by providing the USDA with a set of policy tools that are supposed to enable it to bring its domestic and trade policies in concert. However, while the proposed mechanisms will provide greater flexibility to the administration in addressing the dilemma in the near term, it does not appear that they will be sufficient to address the problem in the medium to long term. Pressure is mounting for the US to liberalize its sugar market in the context of finalizing arrangement for a Free Trade Area of the Americas in 2005. Brazil, one of the most efficient sugar-producing countries in the world and the largest single country sugar exporter, is a major player in the FTAA negotiation and is refusing to discuss opening its markets to US exports without the US opening its market for sugar.

In the case of CARICOM, the dilemma arises because, even though the US-CARICOM sugar quota has been reduced considerably in recent years, the US market still provides a viable alternative to selling on the world market. And, although theoretically the region could benefit somewhat from the higher world prices resulting from the opening up of the US sugar market, despite undertaking substantial investments to modernize and stream-line its sugar industry, the region is still a relatively high-cost producer, requiring high preferential market prices to remain viable. Hence continued access to the protected US sugar market is important to maintaining the viability of the region's sugar industry, especially when consideration is given to developments occurring in CARICOM's main export market, the EU, where the region is facing

prospects of loss of preferential market access and market share and considerable reduction in export earnings.

While the potential impacts on CARICOM quota holders of the changes made to the sugar provisions of the 2002 US Farm Act are not straightforward, there is a strong likelihood that such changes could result in further reduction of quotas and, at worst, a complete loss of quotas if the US decides to move to a system of auctioning the quotas. In such situations the region will be forced to dispose of an even greater quantity of its sugar on the world market at prices that are well below its cost of production and those of even the most efficient sugar producing countries.

The future of CARICOM sugar industry rests therefore on two factors: (i) its ability to constantly supply high quality sugar and (ii) lowering production cost. This is important if it is to become competitive in the market place. The stage is now set for severe restructuring and rationalizing of CARICOM's sugar industry. Several alternatives present themselves:

(i) Expansion of refining capacity to satisfy regional domestic needs and exports where possible.

(ii) Further product diversification to bring on stream new commercial sugar-cane/sugar-based products, many of which have been identified as technically feasible but not commercially viable.

(iii) Further integrate the sugar industry to explore linkages on a regional basis, especially in processing and refining.

Whether the above approach will be sufficient to save an industry that was once the main supplier of sugar to the world is left to be seen; however, it is clear that the industry is in for some rough times.

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Table 1: CARICOM TRQ Sugar Allocation and Actual Quantity Shipped, FY 1995-02, (MTRV)

	1996		1997		1998		1999		2000		2001	
	Allocation	Quantity Shipped	Allocation	Quantity Shipped	Allocation	Quantity Shipped	Allocation	Quantity Shipped	Allocation	Quantity Shipped	Allocation	Quantity Shipped
Barbados	11,092	0	10,234	0	0	7,055	6,832	0	6,642	0	6,642	0
Belize	22,095	22,096	20,107	20,200	15,112	15,133	10,736	10,736	10,437	10,437	10,437	10,437
Guyana	24,105	24,105	21,935	22,127	16,486	16,514	11,712	11,712	11,386	11,386	11,386	11,386
Jamaica	22,095	22,095	20,107	19,883	15,112	14,971	10,736	10,580	10,437	CQE	10,437	CQE
St. Kitts/Nevis	6,539	3,690	6,539	6,504	6,539	6,521	6,539	0	6,539	CQE	6,539	CQE
Trinidad-Tobago	14,061	14,061	12,795	12,762	9,616	9,862	6,832	6,531	6,642	6,642	6,642	6,642
CARICOM	99,988	86,048	91,717	81,477	62,865	70,056	53,389	39,559	52,084	28,465	52,084	28,465
Total TRQ	2,174,237	2,079,511	2,107,536	2,051,486	1,613,923	1,561,741	1,181,825	1,130,041	1,162,024	983,234	1,252,387	1,212,886
Share (%)	4.60	4.14	4.35	3.97	3.90	4.49	4.52	3.50	4.48	2.90	4.16	2.35

Source: USDA Economic Research Service Sugar and Sweeteners Situation and Outlook May 2002)

Table 2. CARICOM-EU Sugar Quotas, Actual Quantity Exported, 1996-2001

	1996	1997	1998	1999	2000	2001
Barbados	55,766	54,540	46,563	47,095	54,701	48,923
Belize	53,231	51,390	50,558	53,030	55,735	45,350
Guyana	226,403	219,807	203,358	201,882	228,548	210,979
Jamaica	156,989	150,138	151,549	166,349	169,042	157,132
St. Kitts/Nevis	6,574	19,943	15,819	17,178	17,243	21,610
Trinidad-Tobago	50,183	56,001	47,304	57,259	76,250	50,800
Total	549,146	551,819	515,151	542,793	601,519	534,794
EU Protocol	449,433	449,433	449,433	449,433	449,433	449,433
EU SPS	99,713	102,386	65,718	93,360	152,086	85,361

Source: Compiled by author s information obtained from Jamaica Cane Products Sales Limited and USDA Economic Research Service.

Table 3. Estimates of Average Cost of Production

Country/Region	Cost of Production US/MT
Caribbean	538
Africa	340
Pacific	266
ACP (average)	374
US (average)	350
Ten lowest cost producers	272

Table 4. Potential Earnings* from Sugar Exports to US and World Markets

	Unit	1996	1997	1998	1999	2000	2001
US-CARICOM Quota Allocation	'000 MT	100.00	91.71	62.87	53.39	52.08	52.08
Potential Earning in US Market	US$ millions	46.79	40.63	30.17	25.95	22.66	22.66
Potential Earning in US Market	US$ millions	27.28	23.55	14.94	8.29	8.63	11.23
Difference (Quota Rent)	US$ millions	19.52	17.08	15.24	17.66	14.03	11.43

** Earnings based on US-CARICOM quota allocation and not on actual exports to US.*

Source: Compiled by authors from information obtained from the Jamaica Cane Products Sales Limited and USDA Economic Research Service, 2002

Table 5. Calculation of US Average Effective Loan Rate and Target Price for Raw Sugar

Raw Cane Sugar	Old Farm Act (cents/lb)	New Farm Act (cents/lb)
Loan rate	18.08	18.08
Less forfeiture penalty	1.00	0.00
Effective loan rate	17.08	18.08
Plus costs of loan redemption and marketing		
- Interest expense	0.91	0.54
- Transportation costs	1.41	1.41
- Location discounts	0.20	0.20
Target Price	19.60	20.23

Source: Compiled by authors based on information obtained from Sugar and Sweeteners Situation and Outlook.

APPENDIX 1. Mexico's High-Tier Sugar Tariffs

Year	Mexico		Most Countries	
	Raw Sugar	Refined Sugar	Raw Sugar	Refined Sugar
	----------cents per pound----------			
1995	15.20	16.11	17.62	18.60
1996	14.80	15.69	17.17	18.12
1997	14.40	15.26	16.72	17.65
1998	14.00	14.84	16.27	17.17
1999	13.60	14.42	15.82	16.69
2000	12.09	12.81	15.36	16.21
2001	10.58	11.21	15.36	16.21
2002	9.07	9.61	15.36	16.21
2003	7.56	8.01	15.36	16.21
2004	6.04	6.41	15.36	16.21
2005	4.53	4.81	15.36	16.21
2006	3.02	3.20	15.36	16.21
2007	1.51	1.60	15.36	16.21
2008	0.00	0.00	15.36	16.21

Source: Evans and Davis, 2000.

APPENDIX 2. Table I. CARICOM Sugar Production, 1992-2001 (MTRV)

Year	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Barbados	53,958	48,446	51,903	38,474	59,114	64,613	47,971	53,197	58,373	49,796
Belize	105,071	105,259	110,695	110,508	114,066	129,612	123,892	122,050	128,050	110,432
Guyana	167,388	254,798	254,236	264,579	261,550	287,721	284,157	264,518	336,081	286,790
Jamaica	223,463	223,979	220,350	211,539	237,943	236,510	186,133	204,188	216,387	204,478
St. Kitts/ Nevis	20,482	21,659	19,980	19,961	20,573	31,374	25,061	18,022	18,340	22,845
Trinidad	113,866	107,936	127,315	117,017	115,610	119,903	80,235	91,915	114,366	90,578
CARICOM	684,228	762,077	784,479	762,078	808,856	869,733	747,449	753,890	871,597	764,919

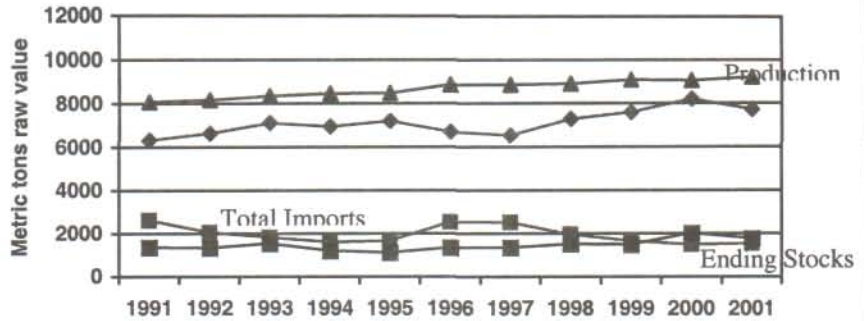
Source: Jamaica Cane Products Sales Limited.

APPENDIX 2. Table II. Average Annual Prices Received in Selected Markets, 1995-2001, (US$/MT)

	1995	1996	1997	1998	1999	2000	2001
US	446	468	443	480	486	435	435
EU (Protocol)	686	686	647	565	560	503	466
EU (SpecialPreferential)		566	497	469	463	417	385
World Market	*305*	*273*	*257*	*238*	*155*	*166*	*216*

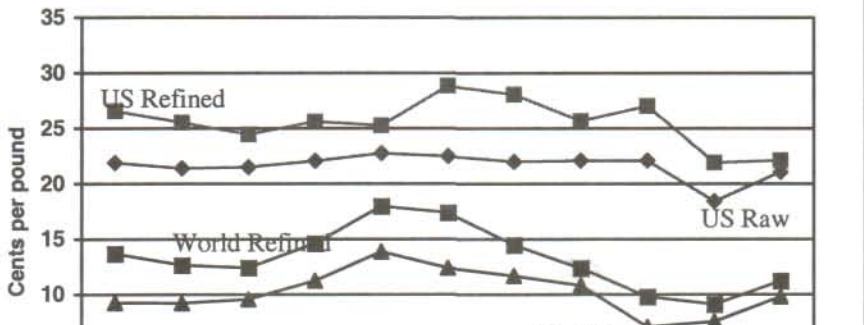
Source: Jamaica Cane Products Sales Limited.

Fig. 1. U.S. Production, Imports, Consumption, and Ending Stocks of Sugar, FY 1991-2001



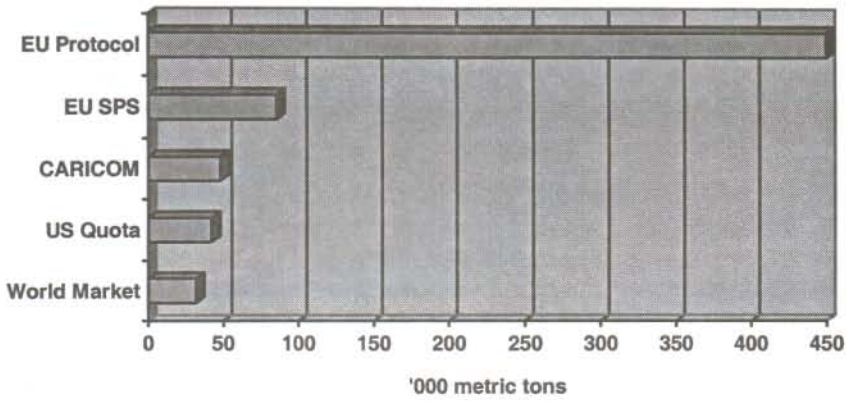
Source: USDA, Economic Research Service, Sugar and Sweeteners Situation and Outlook, May 2002.

Fig. 2. U.S and world raw and refined sugar prices, FY 1991-2000



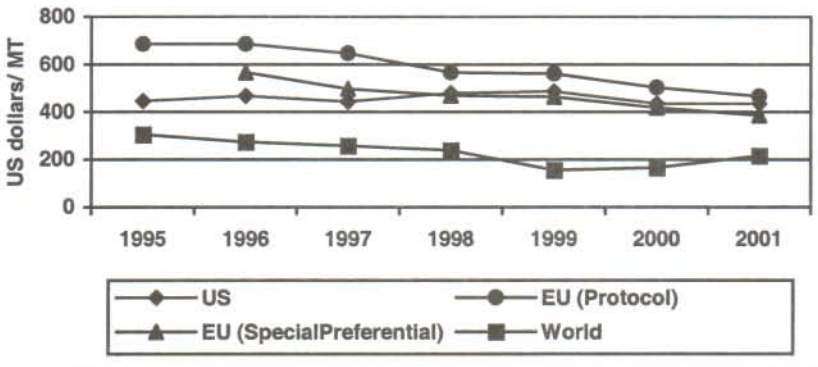
Source: USDA, Economic Research Service, Sugar and Sweeteners Situation and Outlook, May 2002.

Fig. 3. Breakdown of CARICOM's sugar exports by major markets



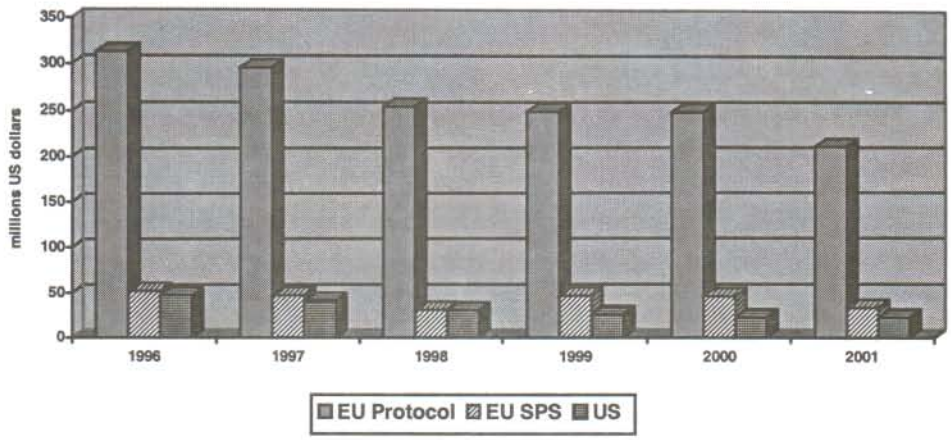
Source: Compiled by authors information obtained from Jamaica Cane Products Sales Limited and USDA, Economic Research Service, Sugar and Sweeteners Situation and Outlook, May 2002.

Fig. 4. Trends in Average Annual Sugar Prices in Selected Markets, 1995-2001



Source: Compiled by authors from information obtained from Jamaica Cane Products Sales Limited and USDA Economic Research Service.

Fig. 5. Trends in Average Earnings from Sugar Exports to EU and US Preferential Markets, 1996-2001



Source: Compiled by authors from information obtained from Jamaica Cane Products, 2002