

The Sugar Program: Description and Debate ¹

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This is part of the Sugar Policy series, which discusses policy issues facing the U.S. sweetener industry in general and Florida's sweetener industry in particular. The objective of this article is to describe how the sugar program works and summarize the current debate.

The U.S. Sugar Program

Sugar is one of several commodities protected in the Farm Bill. Some are supported through loan programs, target prices, and deficiency payments along with export enhancement programs or through marketing loans and acreage restrictions. Others have loan programs or guaranteed minimum prices without production or acreage controls.

The sugar program is an example of the latter. It consists of a loan program and a market stabilization price (MSP) without production or acreage controls. The loan rate is the legislated price per pound at which processors can obtain financing from the government by committing raw cane sugar as collateral. The MSP is determined as the sum of the

loan rate plus interest charged on the loan, a freight charge, and a small marketing incentive. There are no acreage or production restraints, although they have been established in some years. Import quotas and tariffs are the main policy instruments utilized to comply with the provision that the program has to operate at "no cost" to the federal government (this was later changed) as they can be reduced in times of excess supplies or increased when supplies are short and sugar prices surpass the MSP's objective. The President received the authority to establish quotas from the Tariff Schedules of the United States.

The no-cost provision was eliminated in subsequent legislation. Sugar processors could forfeit sugar to the government but have to pay a penalty, the latter being a little bit higher for beet than for cane processors.

After the 1996 legislation, loans became recourse and nonrecourse. Loans are recourse when the tariff rate quota (TRQ) on sugar imports is at 1.5 million tons or below. When the TRQ exceeds 1.5 million tons, loans become nonrecourse. [A recourse loan

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means that the USDA can demand repayment of the loan at maturity, regardless of the price of sugar. In contrast, nonrecourse loans require that the government accepts the sugar when the loan matures in lieu of loan repayment in cash, at the option of the processor.] Minimum payments are required only when the Commodity Credit Corporation (CCC) offers nonrecourse loans. Whether loans are recourse or nonrecourse depends upon the amount of the quota (an administrative decision) and not on the actual amount of sugar imports (a market decision).

The Sugar Program Debate

Sugar has been one of the most controversial commodities of U.S. agricultural policy because many groups are affected by U.S. sugar policy. They include sugar producers and processors, users of sugar and products containing sugar, taxpayers, foreign suppliers of raw and refined sugar, manufacturers of sugar-containing products, cane sugar refiners, sugar brokers and traders, employees of sugar processing and refining firms, corn farmers, and corn sweetener manufacturers. It is very difficult for a consensus to emerge with such an array of conflicting interests. The issues being debated are even more difficult to summarize in the available space, but the following includes a few of the most important ones.

Cost to Consumers

Critics of the sugar program have estimated this cost by simply measuring the difference between the U.S. No. 14 price and the world No. 11 price, multiplied by domestic consumption. A new study has given this issue a new perspective by challenging previous claims of consumer costs of up to \$3 billion a year. Schmitz and Christian (1990) show that the different estimates vary with the assumptions made, which include the quota price premium, the degree of substitution into corn sweeteners, and foreign excess supply price elasticities. The high cost estimates were based on the low prices prevailing in 1984 and 1985. Different assumptions provide estimates of the cost of the domestic sugar program as low as \$203 million. This result is also subject to debate due to the volatility of world sugar prices. In summary, different assumptions produce conflicting results and

the current debate concerning the magnitude of the net cost to consumers is expected to continue.

Distribution of Benefits

Mehra has stated that "the benefits [of the sugar program] are concentrated among fewer than 10,000 sugar growers" (1989, p. 7). Schmitz and Christian (1990) agree that "several large sugar producers receive, in percentage terms, larger benefits than do others. For example, sugar producers in the Red River Valley have much smaller acreages than cane producers in Florida" (p. 9). However, they state that the previous estimate of \$250,000 per farmer by the U.S. Department of Commerce is overexaggerated since their study estimated an annual figure of \$40,000 per producer, which would be lower when using the world prices prevalent in the early part of the 1990s.

Protection of Inefficient Producers and Processors

The argument that the program protects inefficient producers and processors is not valid. On the production side, the number of sugarcane farms (Barry, et al. 1990) and beet sugar farms (Hoff, 1984) have both declined. At the same time, average area harvested per sugar beet and sugarcane farm has increased, which may indicate a movement towards more efficient operations.

On the processing side, the number of sugarcane factories and beet sugar factories have also declined. During the same time period, the average daily slicing capacity of beet sugar factories and raw sugar production per ton of beets sliced have increased. In addition, average daily milling capacity of cane sugar factories and raw sugar production per ton of cane milled have also increased. Moreover, combined production and processing costs of domestic beet and cane sugar are reasonably competitive with world sugar producers.

Negative Impact on Trading Partners

The Caribbean Basin Initiative (CBI) was launched in 1982 to foster democracy and development in the countries of the region. Since import quotas were the main policy instrument that

enabled the operation of the sugar program at no cost to the government, the Caribbean countries experienced a quota reduction of more than 75 percent from 1984 to 1988.

The conflicting goals of the CBI and the U.S. sugar program are obvious. It is in the best interest of the United States to provide assistance to these countries and, at the same time, protect the domestic sugar industry until there is free trade. In the meantime, there will be a pressing need to find solutions to reconcile these conflicting goals.

Alternative Sweeteners

Critics of the sugar program argue that it speeded up the development of alternative sweeteners and is responsible for large-scale conversions to high fructose corn syrup (HFCS). The fact is that HFCS can be produced substantially cheaper than sugar and research into new sweetener technologies will continue regardless of the sugar program.

References

Barry, Robert D., Luigi Angelo, Peter J. Buzzanell, and Fred Gray. (1990). Sugar: Background for 1990 farm legislation. Staff Report No. AGES 9006, Economic Research Service, U.S. Department of Agriculture, Washington, D.C. (February).

Hammer, Thomas A. (1989) Re: The author responds. *Choices* (First Quarter): 45.

Hoff, F.L. (1984). Sugar: Background for 1985 farm legislation. Agriculture Information Bulletin No. 478, Economic Research Service, U.S. Department of Agriculture, Washington, D.C. (September).

Mehra, Rekha. (1989). Winners and losers in the U.S. sugar program. *Resources* (Winter): 5-7.

Schmitz, Andrew and Douglas Christian. (1990). U.S. sugar. Paper presented at the U.S. State Department Conference on Sugar Markets in the 1990s, Washington, D.C. (May 23).