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US Sugar Policy is Costing Consumers
An Extra $4 Billion Annually

The federal government's sugar policy aims to maintain incomes of sugar crop growers and processors through a combination of a price support program, controls on sugar sales by US producers, and import quotas that restrict supply and thereby raise sugar prices. The overall impact of these policies is to force consumers to pay more for sugar than is necessary – about $1.00 for every 5-pound bag. The extra expense to consumers and other sugar users amounts to more than $4 billion a year.

The cost that this government policy imposes on consumers has been studied numerous times over the decades. The conventional methodology is to measure the gap between what consumers or food manufacturers pay for sugar in the United States, and what they would pay for imported sugar in the absence of the support program. Historically, most analysts compared the price of raw cane sugar in the United States to the price that would be paid for raw sugar without the program, i.e. the world market price plus the cost of transportation to the United States (since world sugar prices are quoted at offshore locations). The additional money paid by consumers goes primarily to domestic producers, but some also goes to the foreign suppliers that hold the import quotas. Some studies also calculate the deadweight loss to the economy in terms of economic efficiency.

The most widely-publicized comprehensive study by a US government agency was in 2000 by what was then known as the General Accounting Office, subsequently rechristened as the Government Accountability Office.[1] The GAO study concluded that the sugar program cost retail consumers and other domestic sweetener users about $1.5 billion in 1996 and $1.9 billion in 1998. The net loss to the US economy attributable solely to the resulting economic inefficiencies was estimated via their econometric model at $532 million.

We have used the same price gap methodology as in the GAO study except that we have compared prices for refined sugar rather than raw sugar. Consumers and food manufacturers buy refined sugar, so the degree to which refined sugar prices have been pushed up is the better measure of consumer impact. The result, explained below, is that the consumer cost is now running in excess of $4 billion annually, as summarized in the following table:

Period October-September	Annual Consumption (million tons)	Price Difference (cents/lb)	Consumer Cost (billion)
2009/10	10.2	20.8	$4.24
2010/11	10.4	20.2	$4.19

[1] GAO, *Sugar Program: Supporting Sugar Prices Has Increased Users' Costs While Benefitting Producers,* GAO/RCED-00-126, June 2000.

USDA estimates sugar deliveries for food and beverage use in the 2010/11 marketing year at 11.1 million short tons, raw value. (The sugar marketing year is the same as the federal fiscal year.) A short ton is 2,000 pounds. It takes 1.07 pounds of raw sugar to produce a pound of refined sugar, so consumption of refined sugar is estimated at 10.4 million tons (= 11.1 million / 1.07).

The wholesale price of refined sugar in the United States is conventionally represented by the selling price of refined beet sugar at factories in the Midwest (the black line in the chart below). Coastal cane sugar refineries usually sell refined sugar at about the same price. The beet sugar price is published weekly by a trade publication (Food Business News or Milling & Baking News in alternate weeks) and is the price USDA publishes and uses for program management. The price of refined sugar on the world market is best represented by the London Daily Price quoted by the LIFFE exchange in London (the red line in the chart). The differential between the two has typically been 10-15 cents (the blue line). But since 2009 it has widened to the 20-35 cent range due to a more restrictive US import quota policy.
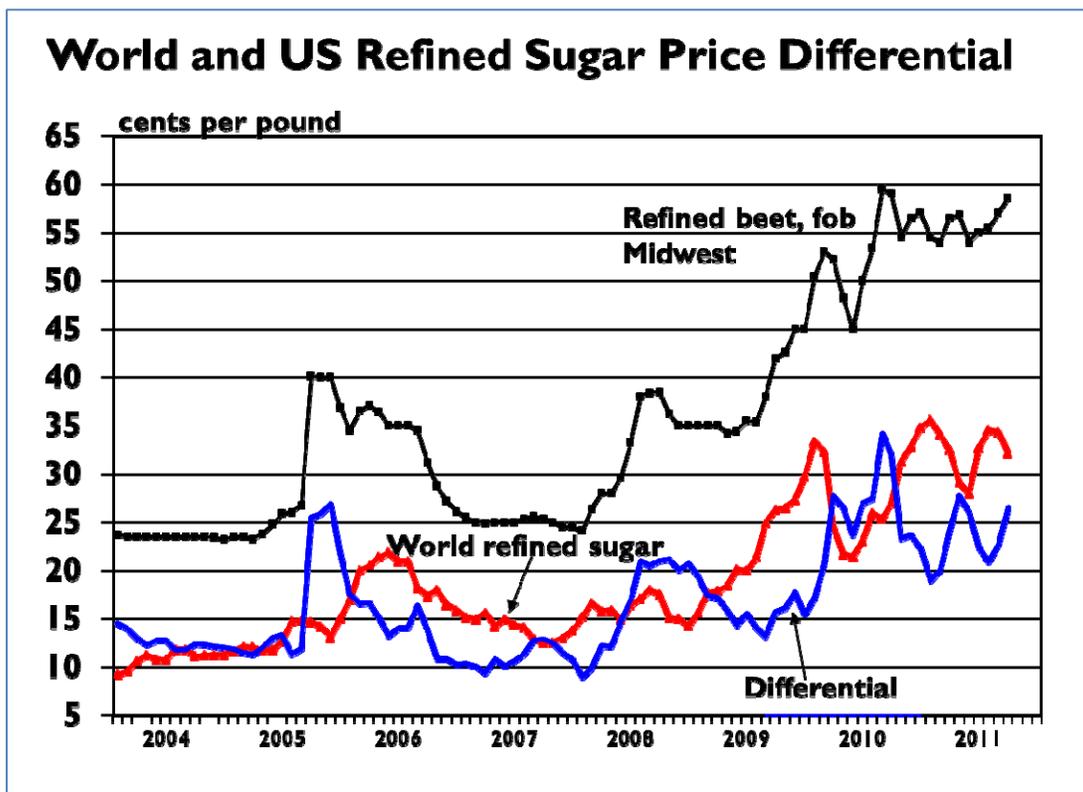
To adjust the London Daily Price to a US basis, one has to add about 3 cents per pound for the location differential. In the GAO price gap analysis, the model used by the analysts assumed that the world price of raw sugar would increase in the absence of the US sugar program because US sugar production was projected to be lower, and imports from the world market higher, if there were sugar policy reform. We have not made such an adjustment in our consumer cost calculation because US import needs from the world markeg have become such a small part of world sugar trade – about 2 million tons or less

than 4 percent of world trade that now exceeds 50 million tons. In the late 1990s, US imports were 6-7 percent of world trade. In addition, at current sugar prices, US domestic sugar production is quite profitable – refined sugar prices are more than double the US support price. It would also be quite profitable at the current world price, which is far above historic levels but which many analysts project to remain fairly high for the foreseeable future because of changes in energy and agricultural market dynamics. Therefore, under current conditions it does not seem very likely that US domestic production would decline much, even in the absence of the current US sugar program. Rather, US prices would tend to equilibrate around the world sugar price plus a transportation adjustment, and these prices likely would be adequate to maintain the US industry.

In the table below, we show our calculations of the consumer cost of US sugar policy for the last seven years, based on the gap between US and world refined sugar prices. For the five-year period from 2004/05 to 2008/09, the annual cost averaged $2.2 billion. The calculated cost to consumers jumped to $4.2 billion in 2009/10 and 2010/11, and is expected to be about the same in 2011/12, the marketing year that just began.

Calculation of Consumer Cost of US Sugar Policy									
			2004/05	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11
			cents per pound						
A	US wholesale price		25.6	36.0	25.7	29.9	35.9	50.3	55.8
B	World refined price		12.5	18.3	14.9	15.5	18.9	26.5	32.6
C	Transport cost		3.0	3.0	3.0	3.0	3.0	3.0	3.0
D	Delivered to US	B+C	15.5	21.3	17.9	18.5	21.9	29.5	35.6
E	Difference	A-D	10.2	14.7	7.8	11.3	14.0	20.8	20.2
			million short tons						
F	US consumption: raw		10.0	10.2	9.9	10.5	10.4	10.9	11.1
G	US consumption: refined	F/1.07	9.4	9.5	9.3	9.8	9.8	10.2	10.4
			million dollars						
H	Cost difference	E*20*G	$1,903	$2,791	$1,450	$2,220	$2,738	$4,242	$4,191

There are always lags between when quoted market prices change and when consumers actually feel these changes. This phenomenon is due to forward contracting. Food and beverage companies may contract for their raw material needs six months or a year or more ahead. So when the price of a raw material like sugar is rising, they will not have to immediately increase the prices of their products. But by the same token, when a raw material price is falling, they may not be able to reduce their product price immediately because they are still using more expensive raw materials contracted for earlier.

Over time, changes in ingredient costs, whether up or down, end up being passed on to consumers, just like changes in labor costs, energy costs, or costs for any other element that goes into manufacturing

and delivering the product. Therefore, the difference between actual prices reported for the United States and world market prices over time is a legitimate basis for estimating the consumer cost impact.

Further corroboration can be seen in the fact that US retail sugar prices reported by the Bureau of Labor Statistics in connection with the Consumer Price Index are at record levels – 70.1 cents per pound in August 2011, up more than 26 cents, or more than 60 percent, since 2005. That is more than $1.30 for every 5-pound bag of sugar.