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U.S. SUGAR INDUSTRY: STATUS AND CHALLENGES

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With the right policy in place, the U.S. sugar market has regained some balance, producer prices have recovered from historic lows, and an increasingly efficient domestic sugar-producing industry is positioning itself to face a new host of challenges. These challenges include:

- Reducing costs even further, to cope with declining real prices for sugar.
- Protecting domestic sugar consumption, which is on an alarmingly and not well-understood decline.
- Achieving a level playing field, free from government intervention, for fair competition with foreign producers; meanwhile, preventing subsidized foreign sugar from swamping the U.S. market before genuine free trade in sugar can be achieved.

This paper provides views on how the U.S. sugar industry has coped with declining real prices for its product; on why the current supply management approach to U.S. policy is the best for American taxpayers and sugar producers and consumers; and on the major challenges that lie ahead.

1996 Farm Bill and 1999-2001 Sugar Price Disaster

American sugar producers had been coping with flat nominal prices for sugar throughout the 1980's and 1990's, a particularly painful process during periods of high inflation (*Charts 1,2*). The overall rate of inflation since 1985, the last time there was an increase on the sugar support price, has been 67%.

Flat nominal prices would have been an appealing alternative during 1999 - 2001, when prices plummeted to historic lows.

The seeds of sugar's catastrophic price drop were sown in the 1996 Farm Bill. That legislation:

1. Removed acreage limitations on program crops;
2. Decoupled government payments to farmers from production – effectively enabling farmers to collect support on crops they had grown historically, but not necessarily currently. (Sugar farmers receive no payments and have not since the 1970's.)
3. Suspended the Secretary of Agriculture's authority to impose sugar marketing allotments – limits on the amount of sugar processors may sell, based on the government's assessment of market conditions.

Elimination of marketing allotments left the Secretary with only one tool to manage U.S. sugar policy and attempt to avoid oversupply, low prices, and sugar loan forfeitures: the tariff-rate import quota (TRQ). The TRQ, though, is a woefully blunt tool. Commitments made to 40 countries under the World Trade Organization (WTO) and to Mexico under the NAFTA prevent reduction of the TRQ much below 1.5 million short tons, about 15 percent of U.S. consumption.

The 1996 Farm Bill provisions had several consequences:

1. Supplies of most U.S. commodities rose in excess of demand growth and prices fell.
2. Farmers collected income supports from the government to compensate for the low prices for program crops other than sugar, including burgeoning amounts of emergency assistance, based on historical production. Without this help, many farmers would have gone out of business. In regions where they could, some farmers shifted acreage into sugarbeets and sugarcane.
3. With the increased beet and cane acreage and excellent yields, the result of technological advances and good weather, sugar production rose in 1998 and 1999. USDA could not reduce the TRQ sufficiently to offset the increased production; sugar prices plummeted to 22 year lows in 1999 and 2000, well below loan repayment levels; and sugar producers forfeited large quantities of sugar to the government for the first time in history.

Increasing Efficiency, Concentration, Vertical Integration

To cope with declining real prices for their product, American sugar farmers have made extraordinary adjustments. Just since 1996, 19 sugarbeet or cane processing mills have closed – more a fourth of all the mills operating in 1996 (*Chart 3*). Some areas have exited the sugar business – portions of Hawaii cane and California beets; all of Texas beets – other areas, such as Louisiana cane, have concentrated production at the most efficient mills.

Farmers desperate to ensure that facilities will survive to process their sugarbeets and raw cane sugar into refined sugar, and to maximize the value added for their product, have integrated vertically at a dizzying pace. As recently as 1999, 37% of the refined sugar sold in the United States was grower owned. Currently the grower-owned share of U.S. refined sugar sales nearly double that, at 72% -- the cane share has grown from 14% to 59%; the beet share from 65% to 89% (*Charts 4-6*).

Independent beet processing and cane refining companies that despaired of low refined sugar prices, and sought to sell, found no independent buyers. Beet and cane growers, fearing that all their investment in growing sugarbeets and growing and processing sugarcane would be lost, organized cooperatively to purchase the facilities.

Growers have leveraged themselves mightily to purchase institutions such as Western beet processing and Domino cane refining. With their farm and families' economic survival on the line, growers' interest in maintaining a stable U.S. sugar market is greater than ever.

2002 Farm Bill and Sugar Price Recovery

Though U.S. sugar production dropped sharply in 2000 and 2001, a consequence of low prices, reduced acreage, and mill closures, the U.S. sugar market remained oversupplied, with the government owning large quantities of sugar. Congress, in its wisdom, restored marketing allotment authority to the

Secretary of Agriculture in the 2002 Farm Bill, which passed into law last May and went into effect October 1, 2002.

The new Farm Bill mandates no-cost operation of a non-recourse loan program, by avoiding sugar loan forfeitures. (Sugar processors can satisfy non-recourse loans either by paying off the loan, plus interest, or by forfeiting their sugar to the government.) Restoration of the marketing allotments tool far better enables the Secretary to balance supply and demand, maintain market prices above forfeiture levels, and ensure no-cost policy operation.

Allotments are on unless triggered off. Allotments are lifted when imports of sugar for domestic food use exceed 1.532 million short tons – the WTO minimum of 1.256 million tons, plus up to 276,000 tons from Mexico under the NAFTA.

The trigger amount includes not only the sugar TRQ, but also imports of “non-program” sugar – sugar imported in blends or products which have no commercial use, but from which sugar is extracted for domestic food sales. The Administration is, thus, under pressure to control these TRQ circumvention products. Further increases in the minimum TRQ, through trade negotiations, could trigger off marketing allotments, or force an increase in the import trigger level.

In anticipation of marketing allotments, which went into effect last October 1, producer prices rebounded from near forfeiture levels during the latter half of 2002. USDA’s dramatic increase in the overall allotment quantity on January 10, 2003, did, however, quell the price rally and reduced prices, though fortunately not down to forfeiture danger levels (*Charts 7, 8*).

Price Ceiling, But Not a Floor

Sugar price behavior in 1999-2000, with prices falling so far below forfeiture levels, sadly reinforced the fact that the sugar loan program functions as a price ceiling, but *not* as a floor.

Only the 10% of sugar production that was forfeited achieved the intended price floor; much of the 2000 crop was sold at much lower prices. USDA purchased significant quantities of refined beet sugar for as little as 17 cents per pound in 2000, despite a beet sugar loan rate of 22.95 cents per pound. Processors are limited in how much sugar they can forfeit, because of limited storage (processors must store the sugar they forfeit) and because of forward contract commitments to customers.

When prices rise, on the other hand, the government increases supplies, through increases in the TRQ or, more recently, the overall allotment quantity. The increases in foreign or domestic supplies effectively cap the price rise.

Supply Management: The Right Choice for the U.S. Sugar Market

The 1996 Farm Bill, in its “Freedom to Farm” philosophy, removed supply management provisions for the program crops and replaced past deficiency payments (the difference between the loan rate and a target price) with marketing loan payments and income support payments, decoupled from production, that were to be phased down. Sugar farmers lost marketing allotments *and* were saddled with marketing-assessment and forfeiture-penalty fees, but were not eligible for payments of any kind.

Though the architects of Freedom to Farm expected program-crop production to rise, they expected the increased output to be absorbed by rising demand, particularly for exports. Exports would be fueled by

low U.S. prices (facilitated by marketing loan payments that make farmers indifferent to market price drops) and by trade liberalization such as the NAFTA (initiated in 1994) and the Uruguay Round Agreement on Agriculture (URAA, initiated in 1995). The government, meanwhile, would phase itself out of the American agricultural marketplace.

The actual outcome, of course, was quite to the contrary.

Exports did not rise, but rather fell (*Chart 9*). Slow foreign economic growth, a strong dollar, and lack of compliance with trade agreements were major factors. Foreign exporting countries were not willing to surrender. Importing countries were not willing to open their markets. Foreign export subsidies and monopolistic trading practices continued; many import tariffs rose, rather than fell, and new barriers were created. Mexico's behavior toward imports of U.S. corn and corn sweetener is a prime example.

U.S. commodity prices plummeted and farm income would have plummeted, too, had it not been for an unprecedented infusion of government aid. The share of U.S. farm income coming from direct government payments shot up from 13% in 1996 to about half in recent years (*Charts 10, 11*).

Though wholesale sugar prices fell to 22-year lows, and USDA outlays for commodity programs exploded from less than \$5 billion 1996 to a record of more than \$32 billion 2000, American sugar farmers received no payments whatsoever. This helps to explain the many beet and cane mill closures and the distress sales of beet processing and cane refining plants.

The cost to the government from sugar loan forfeitures in 2000 has been offset by past marketing-assessment and forfeiture-penalty fees paid to the government by sugar producers, and by past and current sales of government-owned sugar back onto the market, at prices substantially higher than the forfeiture values. In fact, U.S. sugar policy has been a net revenue raiser for the U.S. Treasury, of \$24 million, during a period, 1991-2004, when total USDA outlays for all commodities is exceeding \$195 billion (*Chart 12*).

U.S. Sugar Policy: Anachronistic or Timely?

Sugar is the only major commodity in the 2002 Farm Bill that retains supply management provisions. (Marketing orders remain in place for milk and for 32 horticultural products.) Some might refer to sugar's position as outdated.

The rest of agriculture is enjoying unlimited production options and is betting on expanded exports to absorb that production. Until new markets open, the rest of agriculture is also relying on massive amounts of government income transfers to keep it, and the U.S. rural economy, from collapsing under the strain of oversupply and low commodity prices.

Foreign economic growth remains sluggish and the dollar has slid somewhat, but remains strong. Despite valiant U.S. efforts in a growing number of trade negotiating arenas, new foreign markets have not opened. Indeed, key openings expected from past agreements – China, the EU, Mexico, for example – have yet to materialize. The post-Uruguay WTO round was years delayed in starting and is still likely years away from fruition. Unfortunately, U.S. agriculture still cannot rely on export growth.

Meanwhile, the federal budget surplus that fueled the bailout of American agriculture is gone. The public's patience with large transfers to farmers during a period of mounting budget deficits is being strained.

All modern industry uses supply management to match its output with demand. Should agriculture be so different? Absent demand growth and unlimited public funds for income transfers, doesn't some degree of supply management make sense for all of U.S. agriculture?

American sugar farmers earn all their returns from the market, receive no payments from the government, and store surpluses at their own expense to stabilize the market. U.S. sugar policy, delivering supply-demand balance, stable prices, and inexpensive sugar to consumers (*see below*), at no cost to U.S. taxpayers, might well be regarded as a model for the rest of U.S. commodity policy, rather than as an anachronism.

U.S. Sugar Policy: Benefits to American Consumers

American sugar farmers have long touted the fact that U.S. retail refined sugar prices have been remarkably stable, varying insignificantly since the early 1990's, and are remarkably low relative to sugar prices abroad.

We are pleased today to release the results of a new global survey of retail sugar prices, conducted independently by the renowned English commodities research firm, LMC International. LMC surveyed retail refined sugar prices in 49 countries, accounting for approximately 80% of world sugar consumption ("*Retail Prices of Sugar Around the World in 2002*," LMC International Ltd, Oxford, England, February 2003.)

LMC has found U.S. consumers in 2002 paid 42 cents per pound of refined sugar, 22% less than the 54-cent weighted average of other developed countries. This represents a savings to U.S. consumers of \$2.4 billion per year, relative to foreign developed-country prices (*Charts 13, 14*).

Taking varying income levels into account, LMC also found that sugar is more affordable in the United States than virtually anywhere else in the world.

- In terms of minutes of work to purchase a pound of sugar, the United States is third lowest of the 45 countries LMC studied, both developed and developing. The U.S. figure of less than two minutes is below "free-market" Australia and Canada, less than half the developed-country average, only a third of the world average, and 70% below Brazil. Only in Norway and Singapore is sugar more affordable (*Chart 15*).
- In terms of expenditures on sugar as a percent of per capita income, the United States is the lowest in the world – less than half the world and developed-country averages (*Chart 16*). In their sweetener and sweetened product purchases, American consumers also benefit from the availability of low-priced, U.S.-made corn sweetener.

It is also worth noting that U.S. retail sugar prices could have, and probably should have, been lower still. U.S. grocery chains chose not to pass along to consumers, but rather retain as increased profits, their savings on sharply lower wholesale refined sugar prices over past the several years.

Relative to 1996, average wholesale refined sugar prices – the prices producers receive for the bulk and bagged sugar they sell to food manufacturers and grocery chains – were down 8.5% in 1999, 28.8% in 2000, 20.2% in 2001, and 11.7 % in 2002. Yet retail refined prices never reflected that drop and never

declined appreciably during that period. In fact, retail sugar prices actually rose while wholesale prices were falling. Retail sugar prices hit a 21-year high in April 2002.

For all of 2002, retail sugar prices averaged 3% higher than in 1996, though producer prices were down 12% for the same period. Huge losses for sugar farmers; big profits for the grocery chains.

Likewise, retail prices for sweetened products did not reflect the declining cost of the sugar input. Consumer prices for candy, ice cream, cereal, cookies, cakes, and other baked goods rose 7-24% percent from 1996 to 2002, while wholesale refined sugar prices were in the doldrums. The same relationship holds up over time. Since 1990, producer prices are down 14%, but retail sugar prices are up 1% and sweetened-product prices are up 28-44% (*Charts 17, 18*).

We do not object to food manufacturers and retailers from taking advantage of lower costs for sugar and other agricultural inputs to increase their profit margins. We do object to the claims made by these corporations, and any U.S. sugar policy critics, who lobby for lower sugar prices in order to “help consumers.” As the figures inarguably demonstrate, lower producer prices for sugar help food manufacturer and retailer profits, but do not help consumers.

U.S. Sugar Policy: Challenges

Though the right U.S. sugar policy is in place, the future economic viability of American sugar farmers is far from ensured. A host of challenges lie ahead, including continued cost reductions, protecting consumption, and trade issues.

The Cost-Reduction Challenge

American sugar producers who have survived nearly two decades of declining nominal and real prices have done so by reducing their costs of production.

Relative to their foreign competition, American sugar producers are among the most efficient. Their costs of production are below the world average, and their rank among sugar-producing countries has improved steadily. LMC International ranks U.S. sugar producers 28th lowest cost of 102 countries – a ranking all the more impressive because most of these countries are developing nations, with labor and environmental standards, and costs, that are a fraction of the United States’. Furthermore, the U.S. rank has improved steadily over the past two decades (*“The LMC Worldwide Survey of Sugar and HFCS Production Costs: 2000 Report,”* LMC International, Oxford, England, December 2000.)

American producers have achieved extraordinary cost reductions by improving sugar yields in the field and the factory, by technological, labor-reducing advances, and by vertical integration to eliminate middlemen and maximize efficiencies. Yields of beet sugar per harvested acre are up 20% since the early 1980’s and mainland cane sugar yields are up 30%, reflecting larger tonnage of beets and cane in the field, higher sugar content in the beets and cane, and increased efficiency at extracting the sugar in the factory (*Chart 19*). Hawaii cane sugar yields per acre have improved about 10% since the early 1980’s. With its two-year crop, Hawaii’s yields are about triple the mainland U.S. average and, even on an annualized basis, are the highest in the world.

Achieving further efficiency gains is critical because producer prices are unlikely to rise. But additional cost reductions will be increasingly difficult. By agreeing to marketing allotments to manage a no-cost U.S. sugar policy, American sugar producers effectively gave up their ability to plan to increase

production and maximize efficiencies of scale. Modest increases in production are still possible, but cannot exceed the rate of consumption growth, less future concessions to foreign exporters to the U.S. market.

Future cost reductions will hinge on continued investment for technological gains in the field and factory – investment that, in turn, will hinge on the prospect of the continued market stability that U.S. sugar policy is designed to provide.

The Consumption Challenge

After the U.S. beverage industry completed its conversion from sugar to corn sweeteners in the mid-1980's, sugar consumption rose steadily. From 1987 to 2000, the average annual increase was 160,000 tons. In 2001, however, there was no significant increase; consumption fell in 2002 and is expected to be down again this year. For 2001-03, the average annual *decrease* in sugar consumption amounts to 131,000 tons (*Chart 20*).

The lost sales are a terrible strain on sugar producers struggling to survive. Furthermore, with domestic marketing allotments and mandated minimum levels of imports, it's U.S., not foreign, producers who must absorb the cost of the reduced marketings. And, declining consumption makes it that much more difficult to accommodate foreign producers clamoring for increased access to the U.S. market in the trade negotiation arena.

The reasons for this extremely disturbing decline in demand are not yet clear. Apparently, a combination of factors is at play. Chief among these are slower growth in U.S. per capita income, shifting dietary preferences, and increased imports of sugar-containing products.

We are working with USDA analysts to pinpoint the economic sources of the consumption decline and with scientific experts at the Sugar Association to address the dietary issues. The challenge is daunting, but we are optimistic consumption will resume its long-term rate of growth next year.

Trade Policy Challenges: Near-Term

For sugar, the interrelationship between domestic and trade policy is no less profound than that for export crops, and probably even more so.

The Administration's ability to administer marketing allotments and a no-cost sugar policy hinges on its ability to prevent circumvention of the U.S. sugar import quota and to cope with foreign countries' efforts to achieve greater access to the U.S. market through WTO, bilateral, and regional trade negotiations.

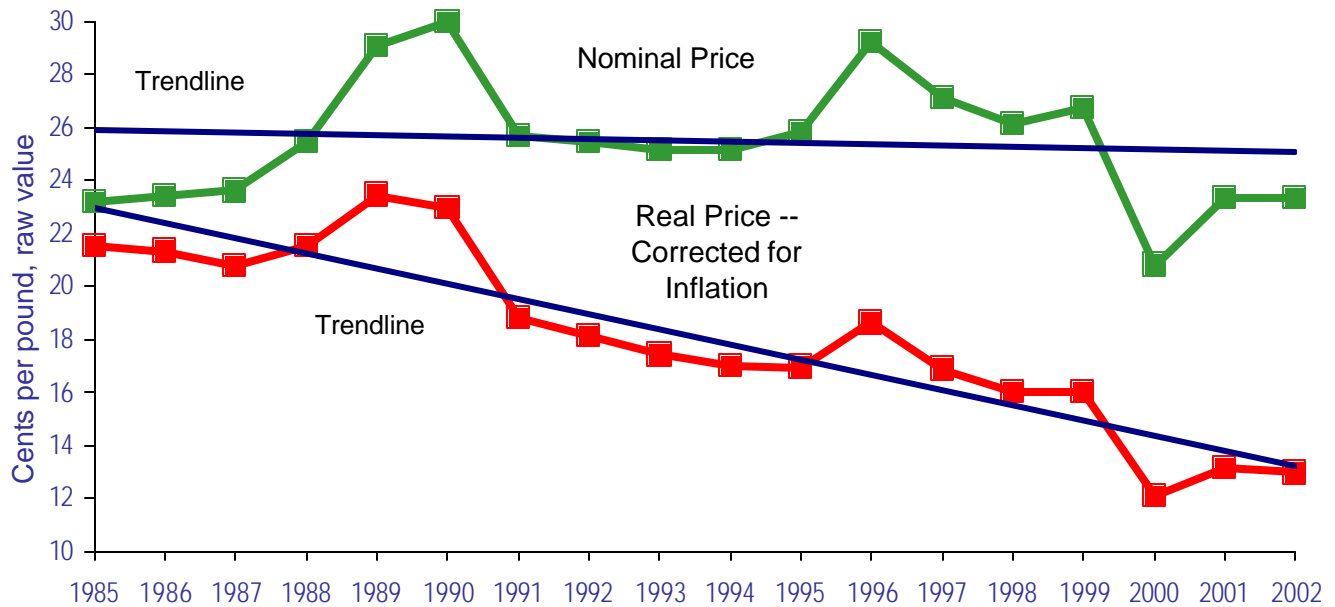
Previous speakers addressed these trade policy challenges in detail – NAFTA and import-quota circumvention in the near term; WTO, bilateral, and regional trade negotiations in the longer term.

Conclusion

The U.S. sugar industry has made tremendous strides in reaffirming its position as one of the most technologically advanced and cost efficient in the world. Its future hinges on its ability to continue to reduce costs and preserve its domestic market. The challenges are formidable, but the industry appears well positioned to address them.

Chart 1

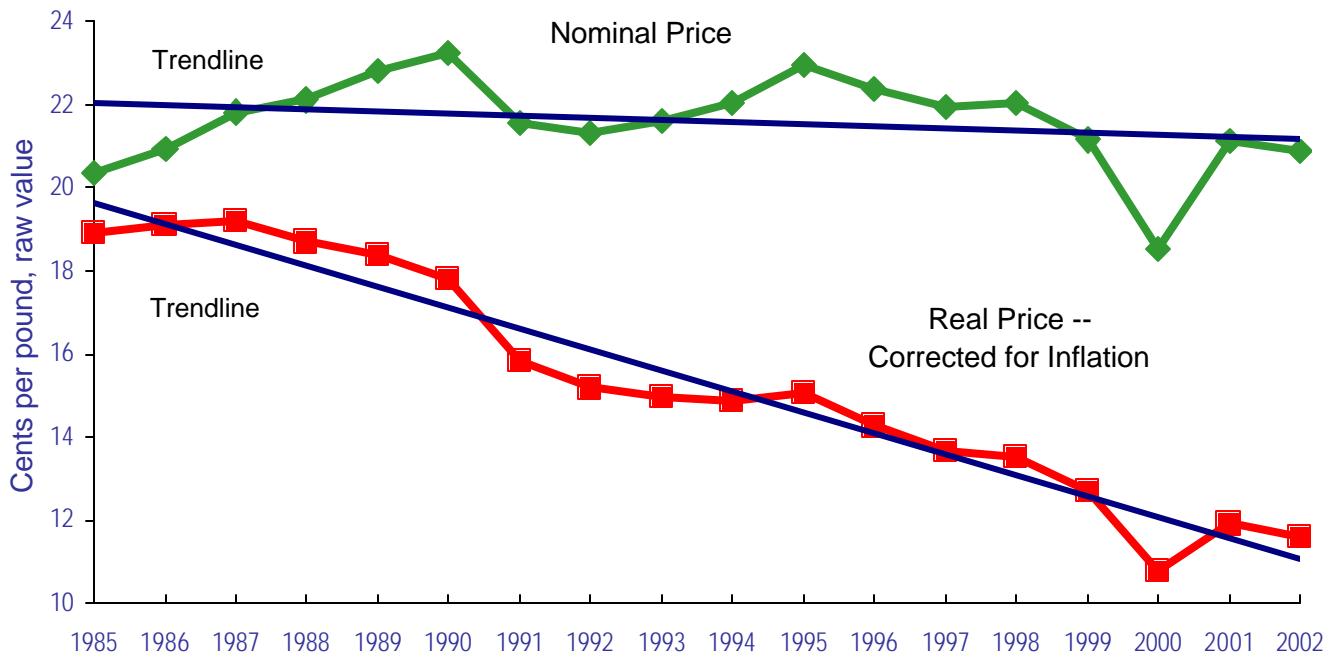
U.S Wholesale Refined Sugar Prices, Nominal and Real, 1985-2002



Data sources: USDA, BLS. Wholesale refined beet sugar, Midwest markets. Annual averages, 1985-2002, adjusted by CPI-U.

Chart 2

U.S. Raw Sugar Prices, Nominal and Real, 1985-2002



Data Sources: USDA, BLS. Price delivered New York, duty-fee paid. Annual averages, 1985-2002, adjusted by CPI-U.

Chart 3

19 PERMANENT SUGAR MILL CLOSURES SINCE 1996

BEET CLOSURES

Spreckels Sugar, Manteca
California, 1996

Holly Sugar, Hamilton City
California, 1996

Western Sugar, Mitchell
Nebraska, 1996

Great Lakes Sugar, Fremont
Ohio, 1996

Holly Sugar, Hereford
Texas, 1998

Holly Sugar, Tracy
California, 2000

Holly Sugar, Woodland
California, 2000

Western Sugar, Bayard
Nebraska, 2002

CANE CLOSURES

Ka'u Agribusiness
Hawaii, 1996

Waialua Sugar
Hawaii, 1996

McBryde Sugar
Hawaii, 1996

Breaux Bridge Sugar
Louisiana, 1998

Pioneer Mill Company
Hawaii, 1999

Talisman Sugar Company
Florida, 1999

Amfac Sugar, Kekaha
Hawaii, 2000

Amfac Sugar, Lihue
Hawaii, 2000

Hawaiian Commercial & Sugar, Paia
Hawaii, 2000

Evan Hall Sugar Cooperative
Louisiana, 2001

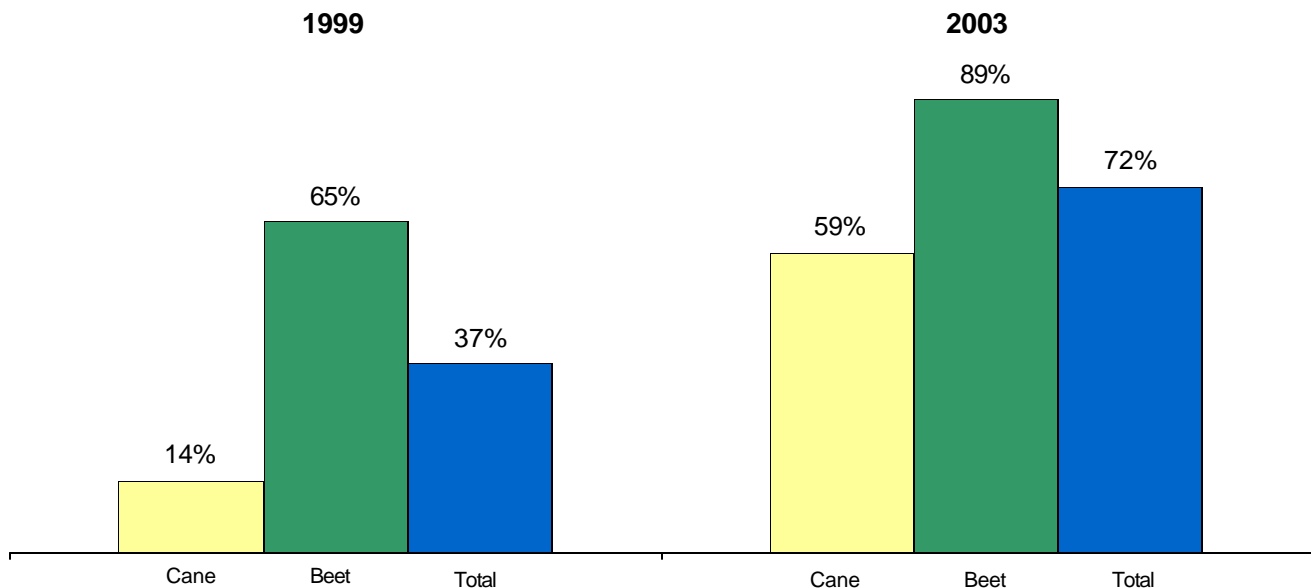
Caldwell Sugars Cooperative
Louisiana, 2001

*In 2003, 27 beet and 25 cane mills remain

Chart 4

U.S. Refined Sugar Sellers: Grower-Owned Share Doubles in Four Years

(% of production capacity)



Source: Production capacity estimates from McKeaney-Favell Company, Inc. American Sugar Alliance, February 2003.

Chart 5

U.S. Refined Sugar Sellers: 1999
(Grower Owned in Italics)

Cane Refineries (# of plants)	Annual Production Capacity*	Share of Cane or Beet Total	Share of U.S. Total
	-Thousand short tons -	-%-	-%-
Imperial (3)	2,070	33%	19%
Domino (3)	1,903	31%	17%
C & H	800	13%	7%
<i>U.S. Sugar/United Sugars</i>	<i>625</i>	<i>10%</i>	<i>6%</i>
Refined Sugars	535	9%	5%
<i>Florida Crystals</i>	<i>250</i>	<i>4%</i>	<i>2%</i>
Cane Total	6,183		56%
% Grower Owned	14%		
Beet Processors			
(# of plants)			
<i>United Sugars¹ (7)</i>	<i>2,125</i>	<i>43%</i>	<i>19%</i>
<i>Amalgamated (4)</i>	<i>950</i>	<i>19%</i>	<i>9%</i>
Western (6)	500	10%	4%
Michigan (4)	350	7%	3%
Holly (WY,CO) (3)	400	8%	4%
Holly Spreckels (CA) (2)	305	6%	3%
Monitor	180	4%	2%
<i>Pacific Northwest</i>	<i>125</i>	<i>3%</i>	<i>1%</i>
Beet Total	4,935		44%
% Grower Owned	65%		
U.S. Total	11,118		
% Grower Owned	37%		

1) American Crystal, Minn-Dak, Southern Minnesota

* Source: McKeany -Flavell Company, Inc.

American Sugar Alliance, June 2002

Chart 6

U.S. Refined Sugar Sellers: 2003
(Grower Owned in Italics)

Cane Refineries (# of plants)	Annual Production Capacity*	Share of Cane or Beet Total	Share of U.S. Total
	-Thousand short tons -	-%-	-%-
<i>The American Sugar Refining Company¹ (5)</i>	<i>2,715</i>	<i>40%</i>	<i>22%</i>
Imperial (2)	1,600	33%	19%
C & H	800	14%	8%
<i>U.S. Sugar/United Sugars</i>	<i>700</i>	<i>12%</i>	<i>7%</i>
Cane Total	5,815		57%
% Grower Owned	59%		
Beet Processors			
(# of plants)			
<i>United Sugars² (7)</i>	<i>1,925</i>	<i>44%</i>	<i>19%</i>
<i>Snake River Growers/Amalgamated (4)</i>	<i>950</i>	<i>22%</i>	<i>9%</i>
<i>Rocky Mountain Sugar Growers/Western (6)</i>	<i>500</i>	<i>11%</i>	<i>5%</i>
<i>Southern Minnesota/Cargill Michigan (4)</i>	<i>360</i>	<i>8%</i>	<i>4%</i>
<i>Michigan (4)</i>	<i>305</i>	<i>7%</i>	<i>3%</i>
Imperial/Spreckels (2)	305	7%	3%
Monitor	180	4%	2%
<i>Washington Sugar Companys³ Wyoming</i>	<i>100</i>	<i>2%</i>	<i>1%</i>
<i>Wyoming</i>	<i>90</i>	<i>2%</i>	<i>1%</i>
Beet Total	4,355		43%
% Grower Owned	89%		
U.S. Total	10,170		
% Grower Owned	72%		

1) Formerly Domino Sugar, Refined Sugar Inc., and Florida Crystals; Cooperatively owned by Florida Crystals and the Sugar Cane Growers Cooperative of Florida.

2) American Crystal and Minn-Dak; American Crystal purchased Sidney, Torrington, & Hereford plants from Imperial in 2002 and is leasing Torrington to Western; Hereford is not operating.

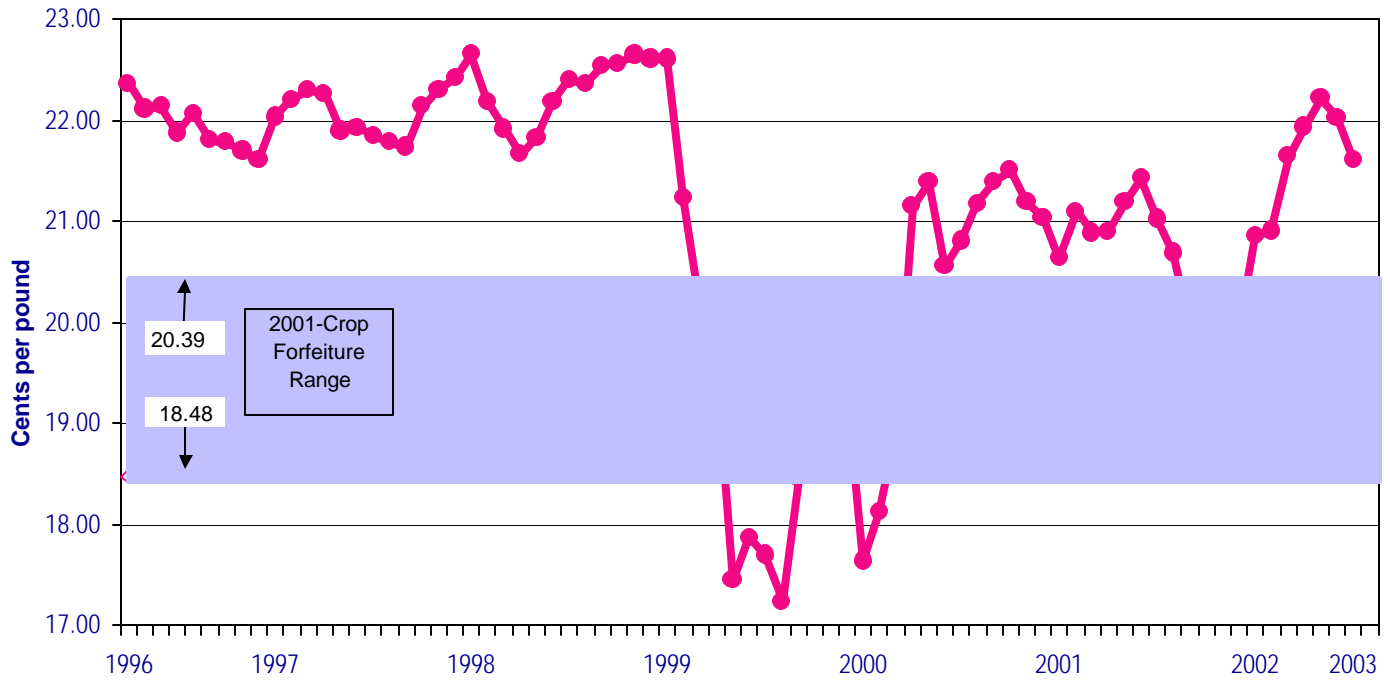
3) Formerly Pacific Northwest; Did not operate in 2002/03

* Source: McKeaney-Flavell Company, Inc.

American Sugar Alliance, February 2003.

Chart 7

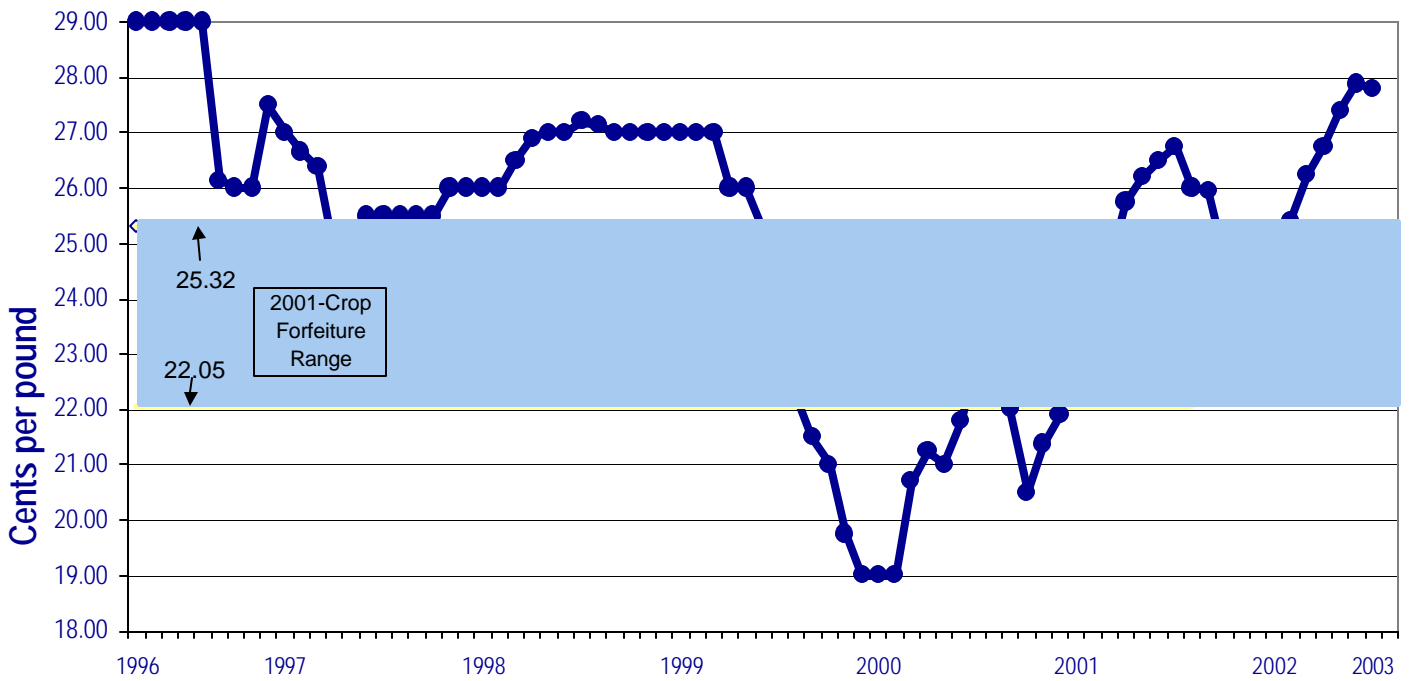
U.S. Raw Cane Sugar Prices Since Start of 1996 Farm Bill



Source: USDA. Raw cane sugar, nearby #14 contract, delivered New York. Monthly average prices October 1996 - January 2003.

Chart 8

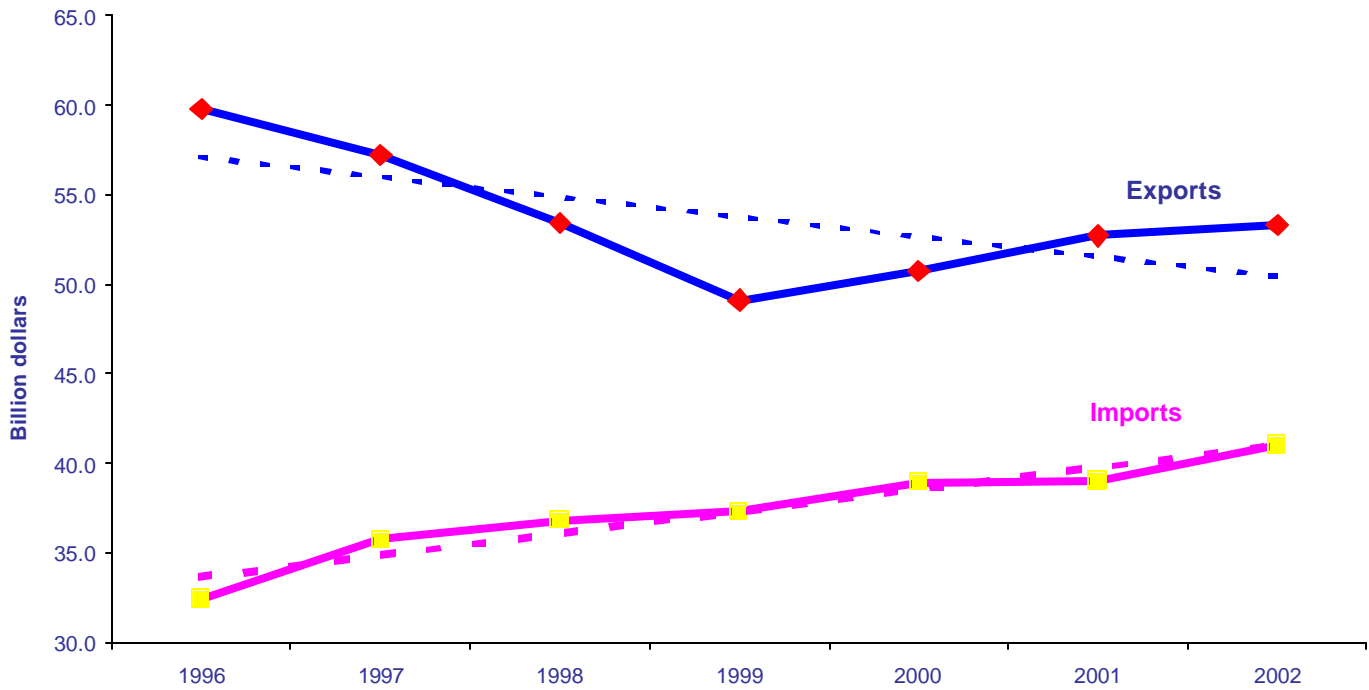
U.S. Wholesale Refined Beet Sugar Prices Since Start of 1996 Farm Bill



Source: USDA. Wholesale refined beet sugar, Midwest markets. Monthly average prices October 1996 - January 2003.

Chart 9

Since Start of 1996 Farm Bill: U.S. Agricultural Exports Declining, Imports Rising

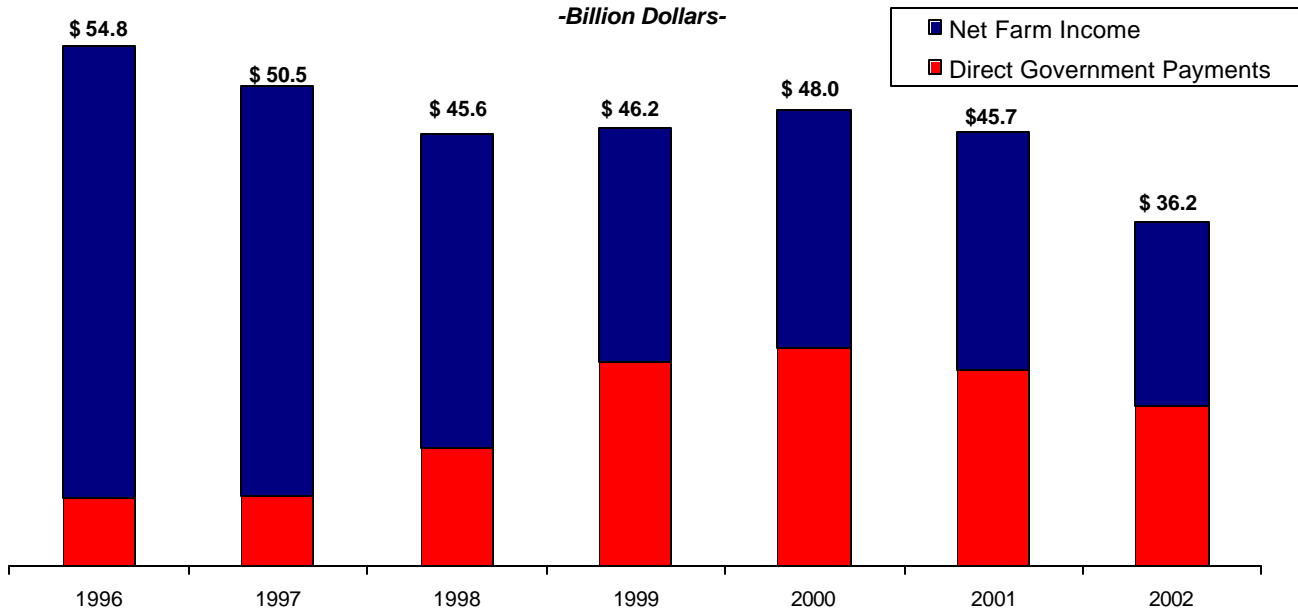


Data source: USDA/ERS, fiscal year data. Linear trendlines. January 2003.

Chart 10

U.S. Net Farm Income: Increasing Share from Government Since 1996

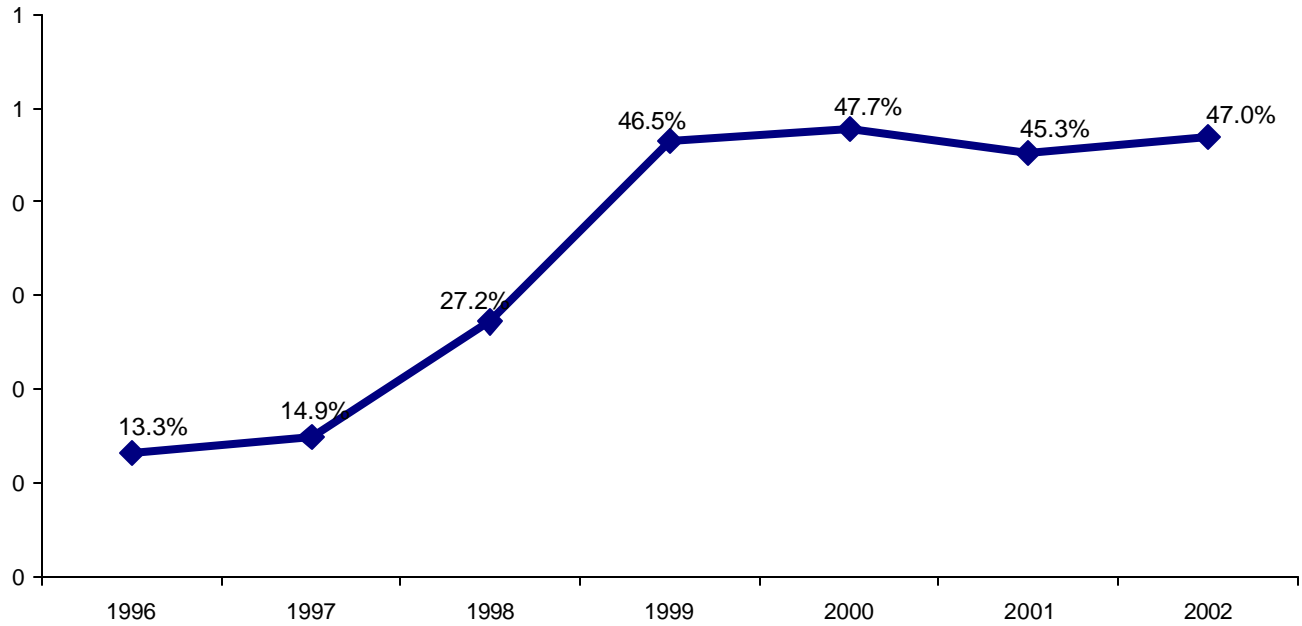
-Billion Dollars-



Source: USDA, February 2003.

Chart 11

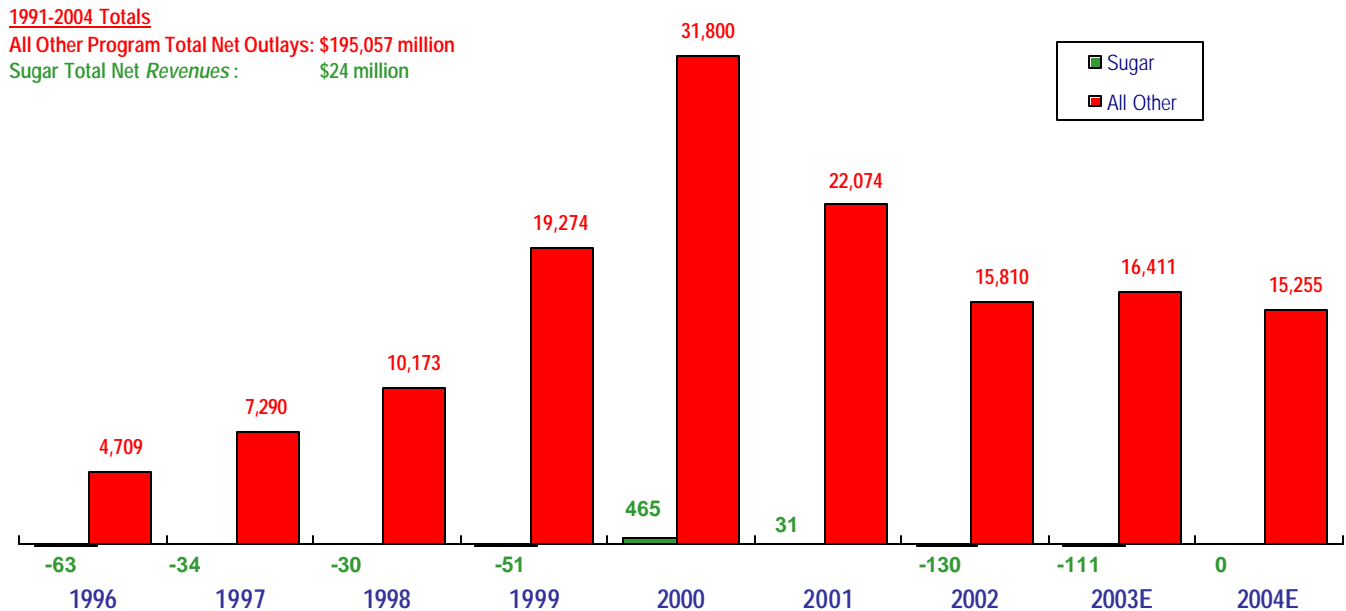
Direct-Government-Payment Share of U.S. Net Farm Income: Sharp Rise Since 1996



Source: USDA, February 2003.

Chart 12

Government Net Outlays for Sugar and All Other Commodity Programs, 1996-2004 - Million dollars -



Data source: USDA/FSA, 2/3/03; All commodities net outlays 1991-95: \$52.2 billion. Sugar: 1991-99 -- revenues from sugar marketing assessment tax (1991-95 revenues: \$101 million); 2000-01 -- value of sugar forfeited to, or purchased by, government, plus storage costs; 2002-03 -- revenues from sale of CCC sugar onto market at a profit.

Chart 13

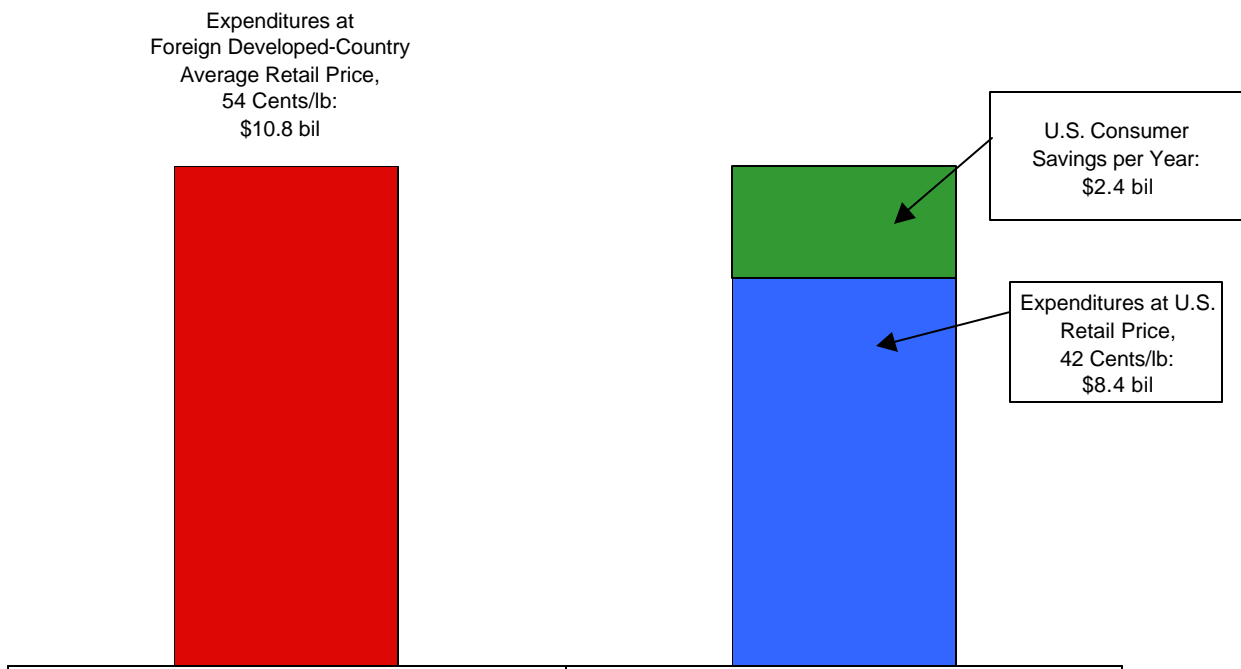
Developed Countries' Retail Sugar Prices: USA 22% Below Average



Source: LMC International Ltd., Oxford, England, February 2003; 2002 prices.
"Other Developed Countries" represents the weighted average of 21 foreign developed countries.

Chart 14

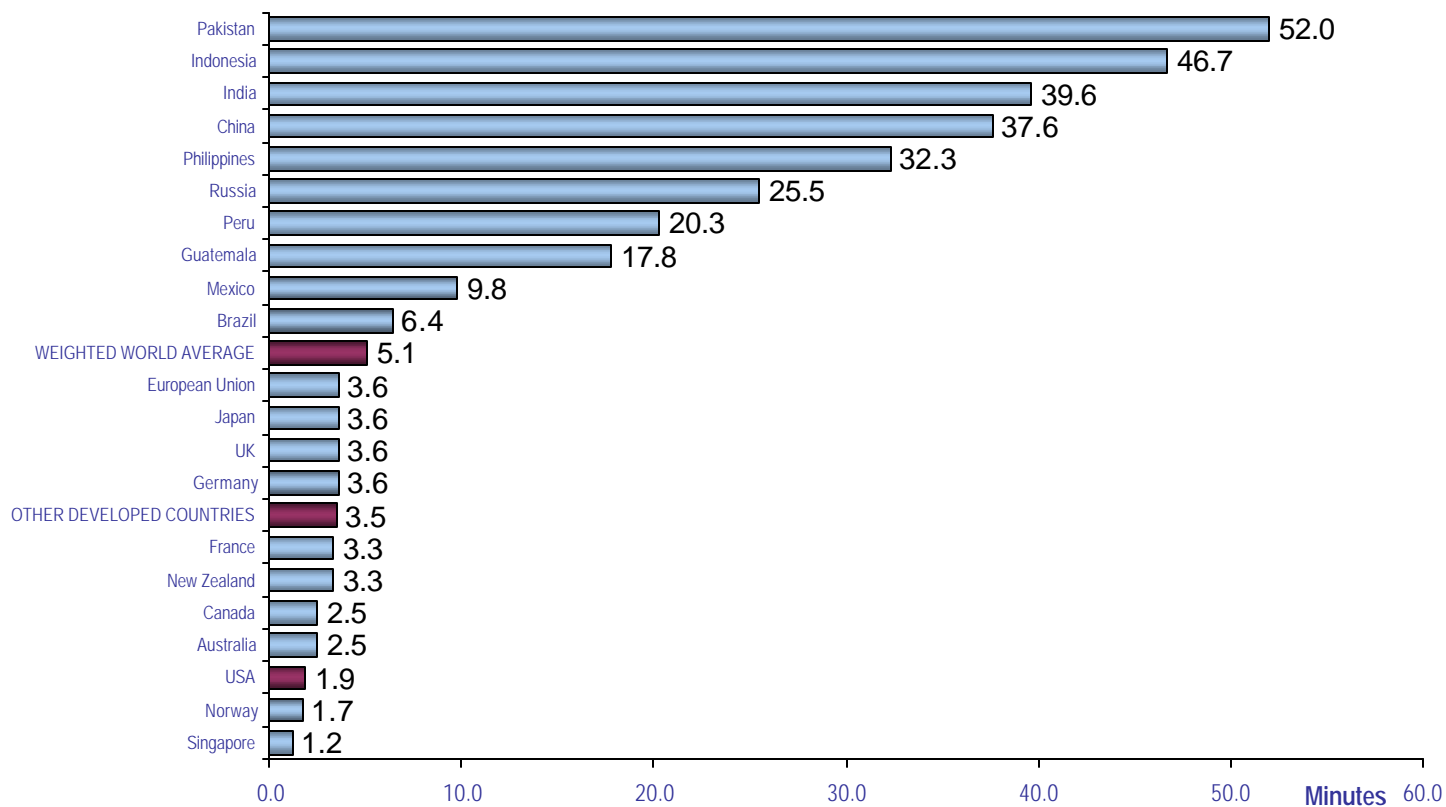
U.S. Sugar Consumption: Consumer Expenditures \$2.4 Billion Lower than at Developed Country Average Price, 2002



Data source: "Retail Prices of Sugar Around the World in 2002," LMC International Ltd., Oxford, England, February 2003. Weighted average of 21 foreign developed countries. Assumes U.S. sugar consumption of 10 million short tons.

Chart 15

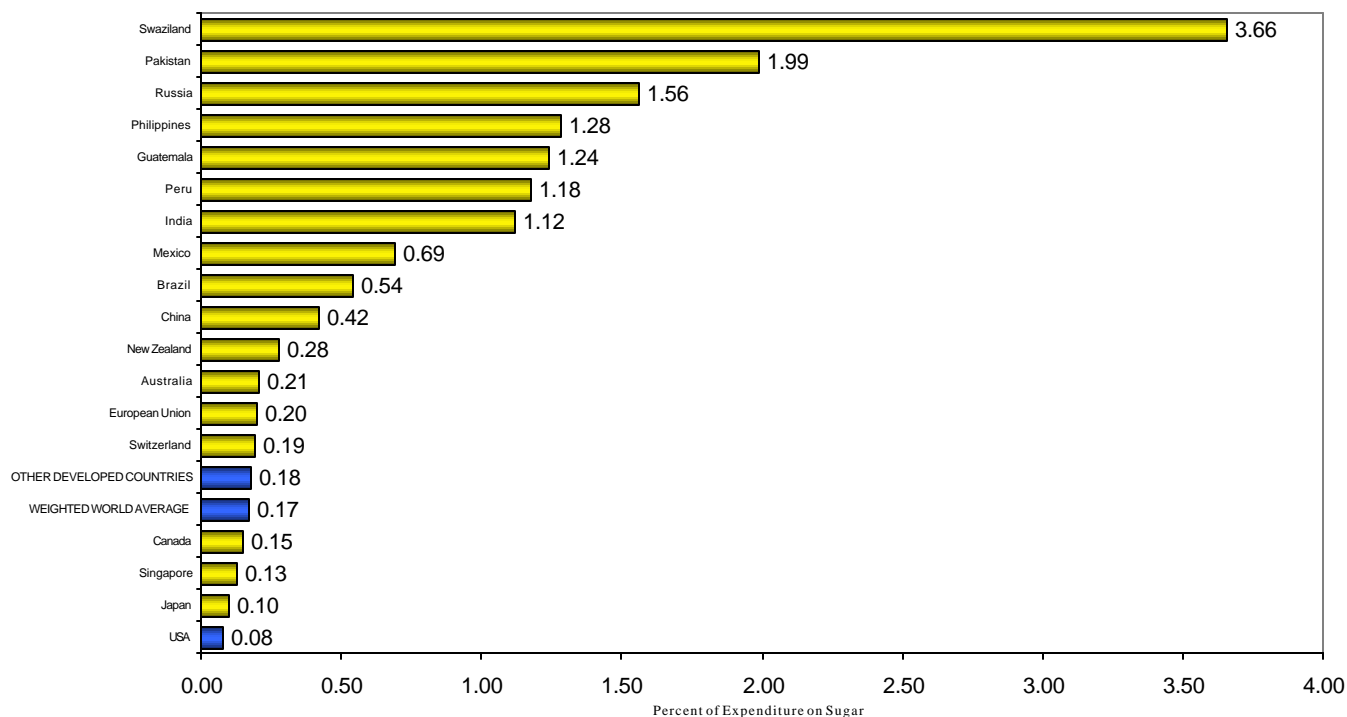
Minutes of Work Required to Buy One Pound of Sugar: USA Third Lowest in World



Source: LMC International Ltd., Oxford, England, February 2003. Study of 49 countries, accounting for approximately 80% of global sugar consumption; 2002 prices. Highest in survey: Zimbabwe, 502 minutes. Based on 2002 World Bank per capita GNP data. *OTHER DEVELOPED COUNTRIES* represents the weighted average of 21 foreign developed countries.

Chart 16

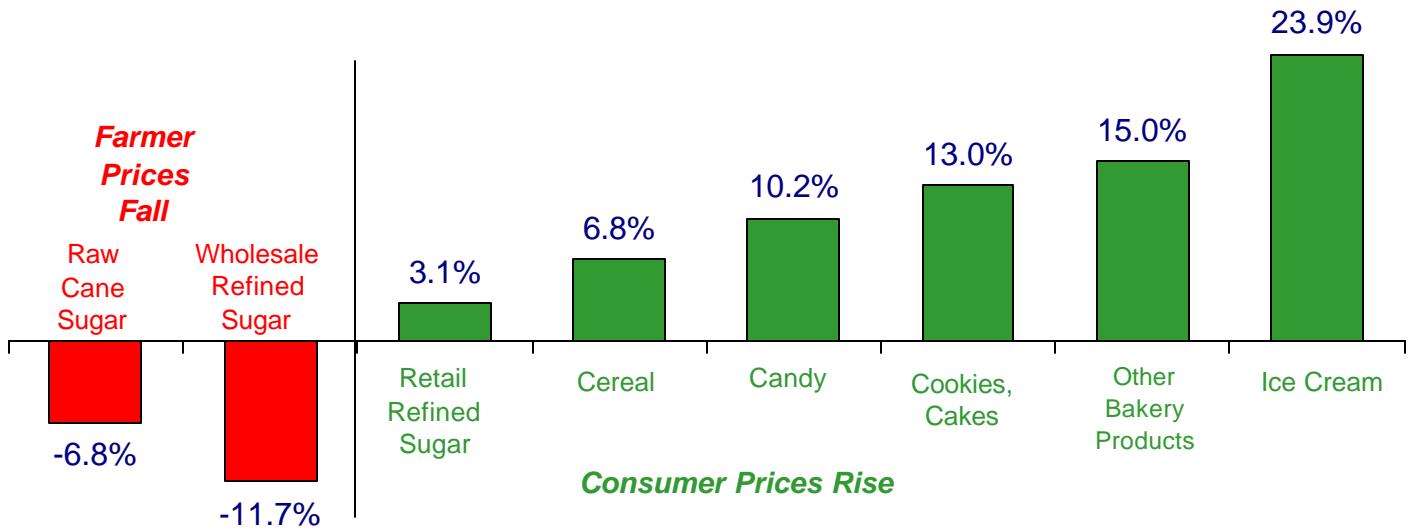
Expenditure on Sugar as % of per capita GNP: USA Lowest in World



Source: LMC International Ltd., Oxford, England, February 2003. Highest in survey: Zimbabwe, 18.49%. Based on 2002 World Bank per capita GNP data. *OTHER DEVELOPED COUNTRIES* represents the weighted average of 21 foreign developed countries.

Chart 17

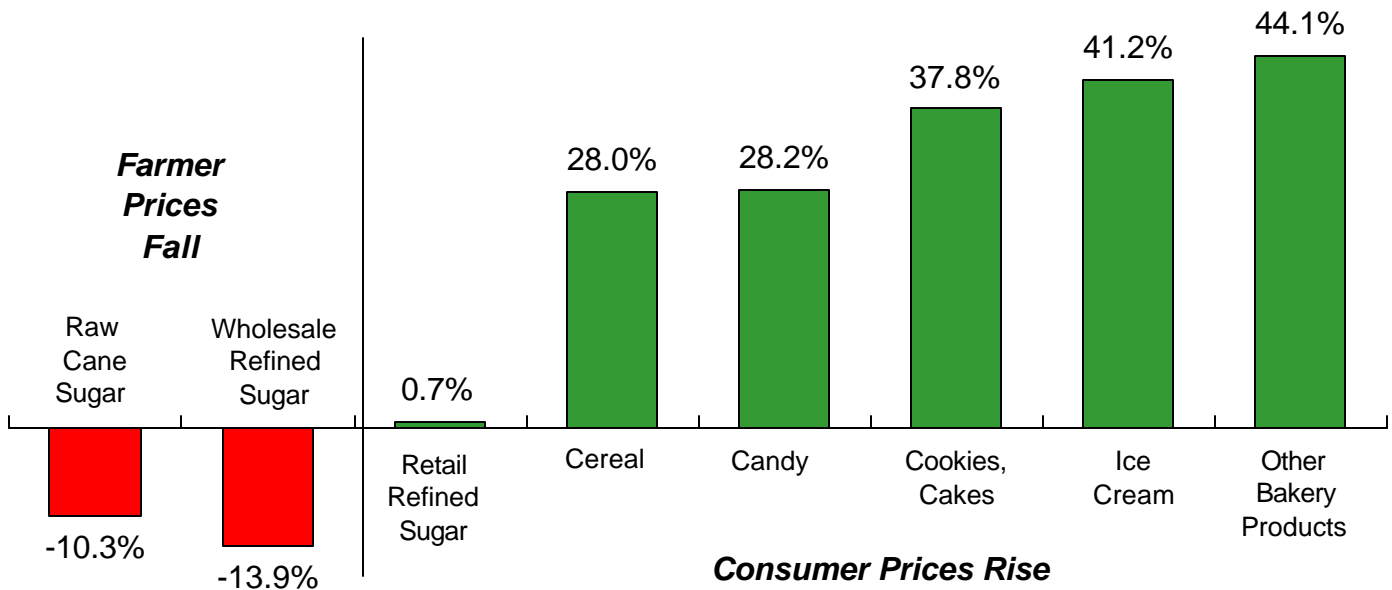
**From 1996 through 2002:
Farmer Prices for Sugar Fall,
Consumer Prices for Sugar and Sweetened Products Rise***



*2002 annual average price compared with 1996. Raw cane: Duty-free paid, New York. Wholesale refined beet: Midwest markets. Retail prices: BLS indices. Data source: USDA.

Chart 18

**From 1990 through 2002:
Farmer Prices for Sugar Fall,
Consumer Prices for Sugar and Sweetened Products Rise***



*2002 annual average price compared with 1990. Raw cane: duty-free paid, New York. Wholesale refined beet sugar: Midwest markets. Retail prices: Bureau of Labor Statistics consumer price indices. Data source: USDA.

Chart 19

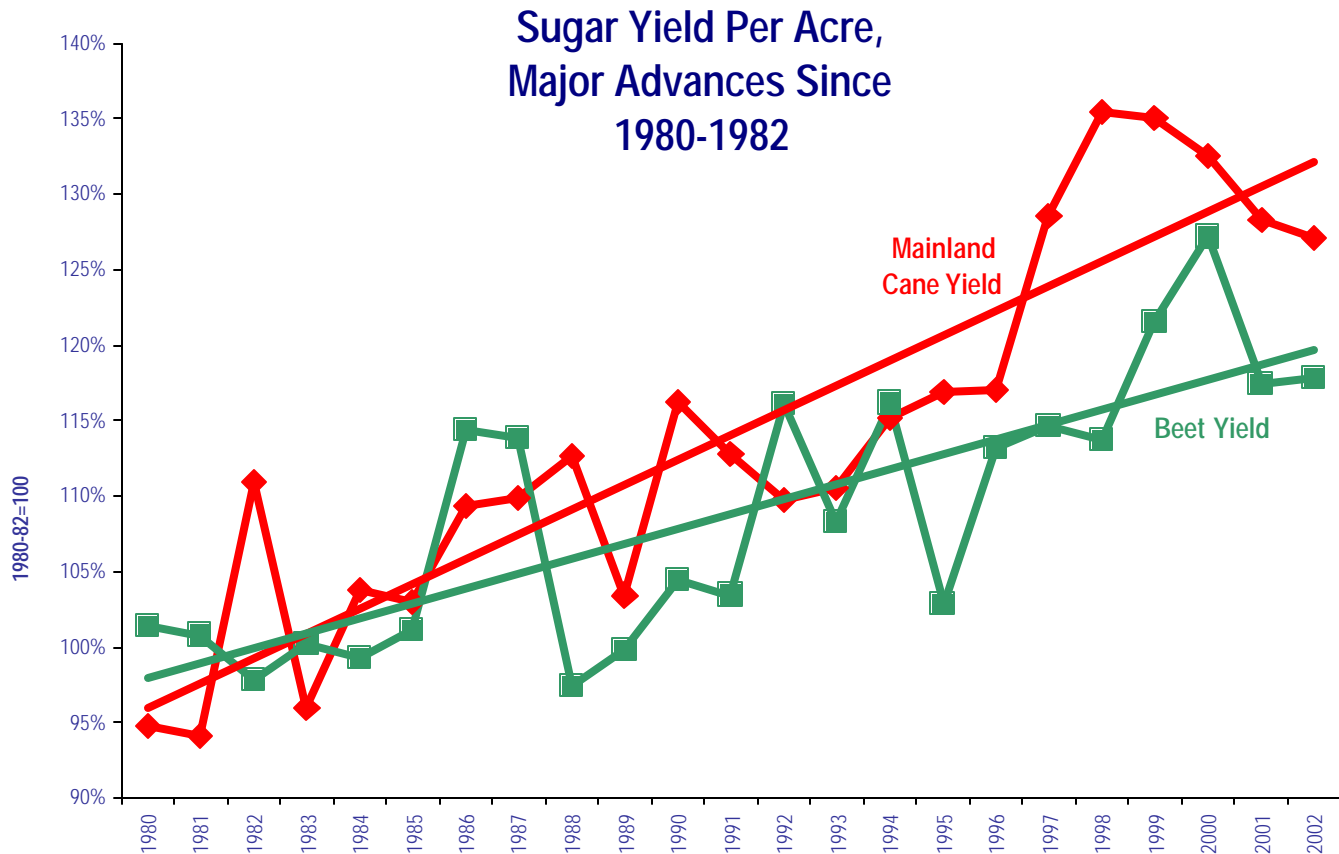


Chart 20

U.S. Sugar Deliveries for Domestic Food Use: Change from Previous Year, Fiscal 1987-2003

- Thousand short tons -

