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PROSPECTS FOR SUGAR USE

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There are few people in this room who, when asked to characterize the past 20 years in the sugar side of the U.S. sweetener business, would not use words like "traumatic," "troubled," "difficult," and so forth. As participants in or analysts of the industry it is easy to focus on long-term trend lines that seem ready to fall off the page and not notice that the reality over the past five or six years shows an industry that has made remarkable strides. While the sugar market is indeed "mature," it is also growing at better than twice the rate of population -- a success story many would envy.

Today I am going to talk in as much length as my 10 minute allocation permits about:

- the trends in sugar consumption over the past two decades,
- the reasons for thinking that the recent past has actually been relatively comfortable for sugar producers and refiners -- at least compared to the 1970s and early 1980s,
- the sales segments where the trends are positive and those where sugar's market share has eroded,
- why deliveries are growing in some sectors, and finally
- what lies ahead.

Slide 1: Beet and Cane Sugar Deliveries

In 1971 total sugar deliveries on a refined basis topped 10.6 million short tons and were still rising. By 1981 deliveries were only 9.1 mst. A decade later deliveries of refined sugar had fallen another million tons. The problem was high fructose corn syrup. The remedy favored by the domestic sugar industry and ultimately written into law was to maintain price

support levels but to cut imports of cane sugar. Consequently, over this 20 year period beet sugar output rose in total and its relative importance to the domestic sugar economy increased.

Slide 2: Sugar Deliveries by Form

For a good part of that twenty years the people with the ear to ear grins were corn wet millers. Their business went from being a commodity processing backwater to a high tech success story with a devoted following among Wall Street analysts. All thanks to some enzymes, a couple of big price surges and a price umbrella held high and steady by the domestic sugar program. By 1991 high fructose corn syrup had stolen away virtually all liquid sugar sales.

Slide 3: Sugar Deliveries by Type of Use

Liquid sugar was and is an industrial ingredient, so of course the impact was felt most heavily there. Other forces -- changes in attitudes about sugar, in lifestyles and demographics effectively capped non-industrial deliveries.

Slide 4: Sugar Deliveries for Food and Beverage Use

But snap shots taken at ten year intervals tend to obscure the good news about the past six or seven years. Since 1986, sugar deliveries for food and beverage use have been climbing at better than a 2 percent annual rate. The abrupt reversal of field in 1985/86 should not have surprised anyone. The technical limits of HFCS market penetration were well known and much discussed. The current trend is less easily explained and its duration is anybody's guess. We will come back to that question at the end of my presentation, however.

Slide 5: Sweetener Ingredient Purchases by the Beverage

Let's look briefly at the most important demand sectors to learn where the growth in deliveries has been coming from and to see what insight it gives us about how sustainable that 2 percent rate is for the future. We start with the easy one: beverages. By and large we are talking here about the soft drink industry, but the data also include deliveries to brewers and distillers and for dry beverage mixes. For those who missed it, this is where HFCS mugged sugar. The beverage segment today is virtually a sugar-free zone. Sugar deliveries to bottlers, which had been about 2.5 mst, practically disappeared in less than 10 years. At the same time, all sweetener deliveries for beverage use almost doubled. The initial beneficiary was HFCS. But now, in beverage applications, high intensity sweeteners (HIS) account for roughly 10 times the sweetening power of sugar (on a sucrose equivalent basis). Many would argue that today the market battle lines in the beverage sector are drawn between HFCS and intense sweeteners.

Slide 6: Sweetener Ingredient Purchases by Ice Cream and Dairy Producers

Sweetener use in the dairy complex, which consists of ice cream, ice milk, frozen confections, yoghurt, and the like, has grown significantly during the last two decades. If you stacked all the bars in this chart on top of one another you would see that deliveries rose 44 percent between 1971 and 1991. But sugar producers didn't get to participate in the growth. After bottoming out in 1983 at around 385 tst, sugar deliveries to this segment have stabilized at just over 400 tst annually.

Slide 7: Sweetener Ingredient Purchases by Bakery and Cereal Producers

Sugar producers have benefitted from the rapid growth in consumption of bakery products during the last ten years. The increase has not been as great as for HFCS, which went from about 250 tst, dry basis, in 1971 to around 875 tst last year. Nevertheless, the rise from 1.3 mst in 1981 to 1.8 mst in 1991 has been one of the positive developments for sugar marketers.

Slide 8: Sweetener Deliveries to the Confectionery Industry

Finally, we come to confectionery -- the most rapidly growing area of industrial sugar use. Since 1981 sugar use by candy makers has increased at an annual rate of 2.87 percent. Compared with sales of other sweeteners to confectioners this has been positively explosive growth. As this slide shows, corn syrup, the second category by volume of deliveries, was just about static during the same period. Why the increase for sugar? Low cocoa prices and fierce competition between manufacturers in the last few years have played a role. But standards of identity and the functional characteristics of sugar have also been important. In many confectionery uses you just can't replace sugar, either because currently available substitutes aren't as good or because the regulations won't permit it.

Slide 9: Share of Total Sugar Deliveries Accounted for by Non-industrial Users

So far we have focused on industrial use. But as the size of the sugar market shrank in the early 1980's the relative importance of non-industrial sales to wholesalers, jobbers, retail grocers, and chain stores grew in importance. In 1980 those markets accounted for just 34 percent of deliveries. Today they hover around 45 percent of sales volume. This is what the data say. I will talk about whether this is a wholly accurate view in just a moment.

Slide 10: Sugar Deliveries for Non-industrial Use, 1980-1991

This slide shows trends in non-industrial deliveries to the wholesale trade and to retail outlets over the past decade. While deliveries to wholesalers and jobbers have trended upward, retail grocer and chain store deliveries have been on the decline. This is partly a function of

choosing 1980 as a beginning point. High prices in the first year of the series appear to have influenced the delivery patterns to the two groups in different ways. Choosing 1981 as a base year yields a less positive growth rate for wholesalers (0.5 percent) and eliminates the negative slope of the trend for retail deliveries.

Slide 11: Sugar Deliveries for Non-industrial Use 1988-1991

But if we zoom in on the past four years an entirely different picture emerges. Now we find deliveries to grocers and chains growing at a very respectable rate and the wholesale/jobber trade dead in the water. As I looked at these figures I had to wonder why the refiners and processors we talk to are always complaining about how terrible the retail market is. No one ever seems to mention strong deliveries of branded or private label sugar.

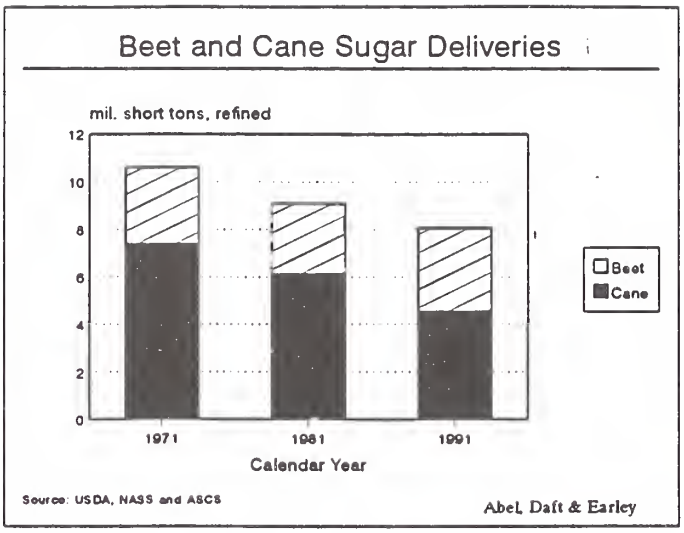
Slide 12: Annual Average Change in Sugar Deliveries By Segment, 1986-91

This chart helps explain why. In the bottom half of the figure, you can see that on average deliveries to chains and retail grocers have been rising faster than 2 percent a year since 1986. But deliveries in consumer-size packages have been falling by more than 2 percent a year. Even if we make a generous allowance for repacking by wholesalers and jobbers, the pattern is perplexing. I think the explanation for this apparent contradiction lies in the way deliveries for chain store manufacturing are reported. After surveying a group of refiners and processors and talking to the people who actually fill out USDA's forms, it looks like several companies, but not all, assign any delivery to a retail chain to the non-industrial category, even if it is a bulk shipment to a manufacturing facility that will turn out ice cream or cookies. As a result deliveries for industrial use are probably understated in the USDA figures. The dairy segment may actually be experiencing positive growth. And sugar deliveries for baking, which is an increasingly important chain store activity (in-store and at central locations), may be growing as rapidly as the confectionery segment.

I will conclude by emphasizing again a point alluded to in my introduction. No matter how you cut it, the past five years have been a period of strong growth in deliveries. The last bar on this chart shows population rising at less than 1 percent a year. But deliveries, both industrial and non-industrial, have exceeded 2 percent a year. Margins may not always have been ideal, but efficient producers are enjoying a measure of success.

One could argue that the reason for the growth in deliveries is to be found in the lower prices that have prevailed in the market during most of this period. Others have suggested that increasing immigration from countries where high sugar consumption is the norm may be fuelling the growth. Another possibility is that demographics -- the baby boom echo, for example -- may be a contributing factor. Let's take the safe way out and say that it is some of each.

Will it continue? I think so, because I think the sugar industry is intent on holding down costs and remaining efficient and because industrial users have neither adequate substitutes for sugar in many applications nor the urgent incentive in the form of impending price increases to pursue expensive alternatives. This is an uneasy stability -- a truce, if you will -- that could crumble under technological or political pressure, but for the next few years I believe we can expect continued vigorous growth in sugar deliveries.


Beet and Cane Sugar Deliveries
mil. short tons, refined
12
10
8
6
4
2
0
1971
1981
1991
Calendar Year
Beet
Cane
Source: USDA, NASS and ASCS
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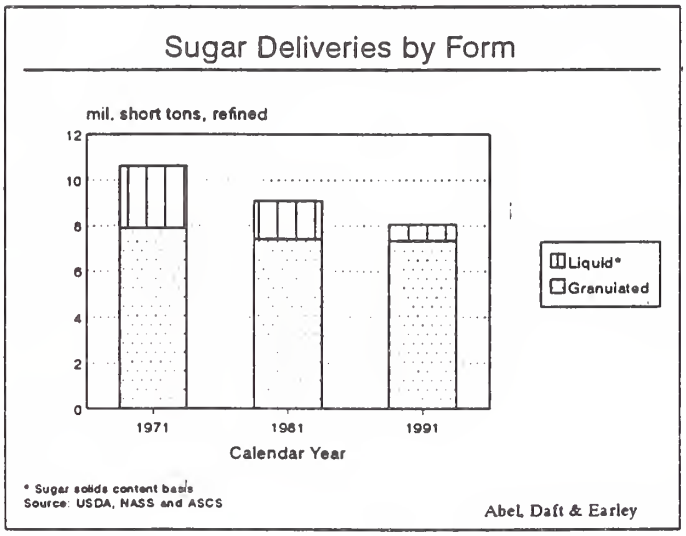
Sugar Deliveries by Form
mil. short tons, refined
12
10
8
6
4
2
0
1971
1981
1991
Calendar Year
Liquid*
Granulated
* Sugar solids content basis
Source: USDA, NASS and ASCS
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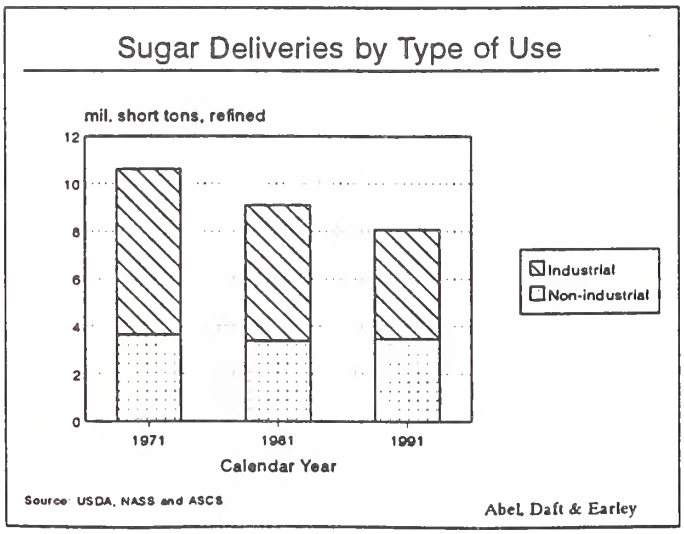
Sugar Deliveries by Type of Use
mil. short tons, refined
12
10
8
6
4
2
0
1971
1981
1991
Calendar Year
Industrial
Non-industrial
Source: USDA, NASS and ASCS
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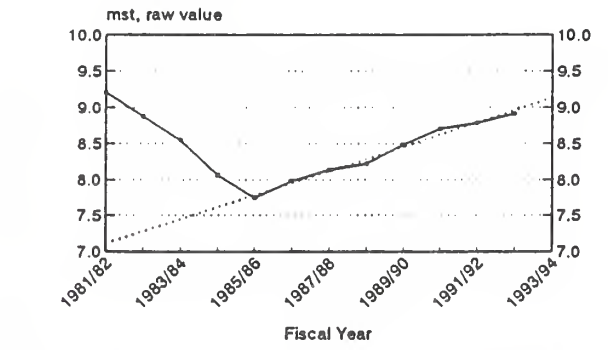
Sugar Deliveries For Food and Beverage Use



Source: USDA, ERS

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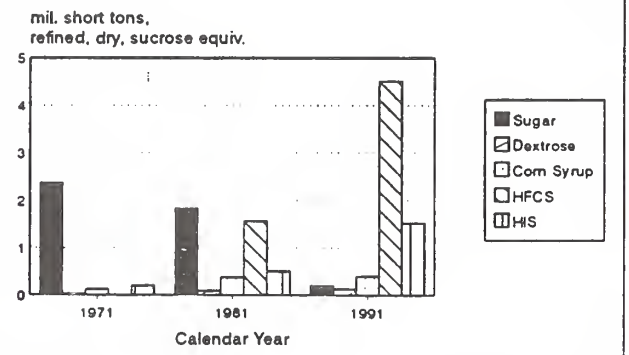
Sweetener Ingredient Purchases By The Beverage Industry



Source: USDA, ERS

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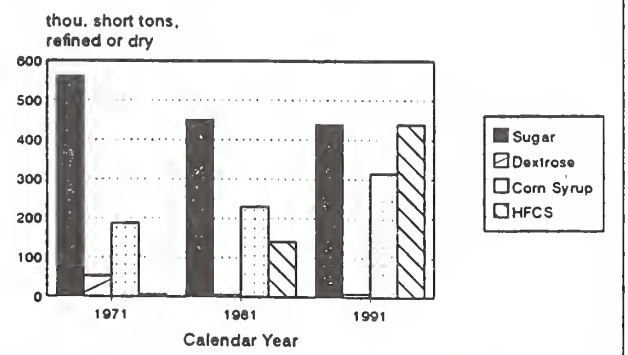
Sweetener Ingredient Purchases By Ice Cream and Dairy Producers



Source: USDA, ERS

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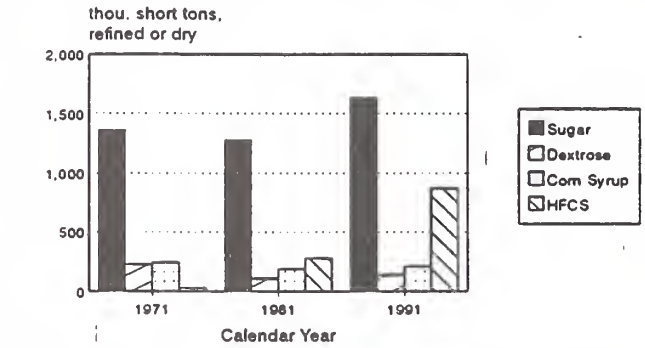
Sweetener Ingredient Purchases By Bakery and Cereal Producers



Source: USDA, ERS

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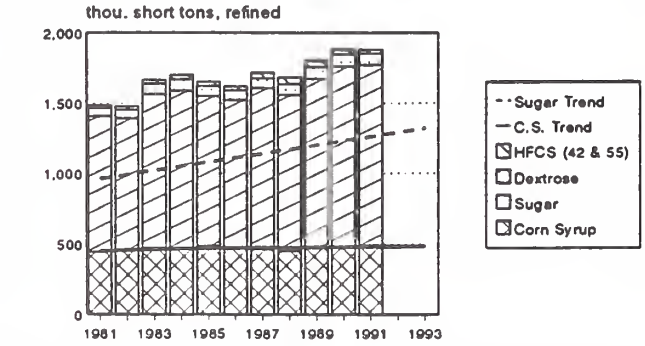
Sweetener Deliveries to The Confectionery Industry



Source: USDA, ERS

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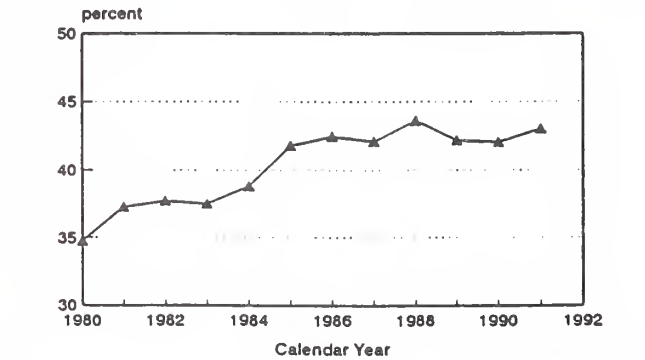
Share of Total Sugar Deliveries Accounted for by Non-Industrial Users



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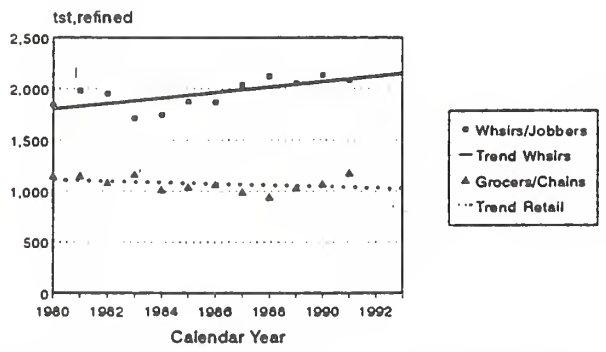
Sugar Deliveries For Non-Industrial Use 1980-1991



Source: USDA, NASS and ASCS

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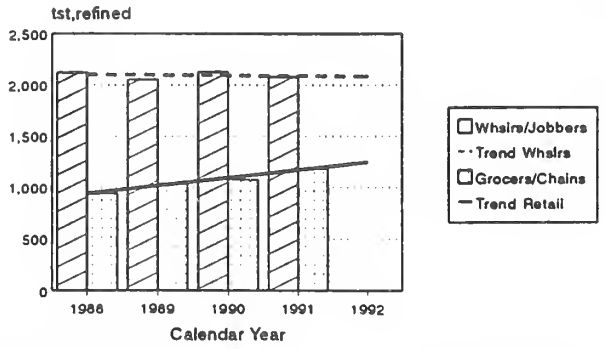
Sugar Deliveries For Non-Industrial Use 1988-1991



Source USDA, NASS and ASCS

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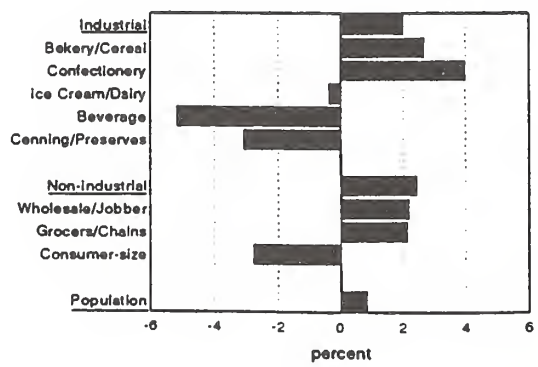
Annual Average Change in Sugar Deliveries By Segment, 1986-91



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