

## Mexico Overview

Mexico has been a significant producer, consumer, and exporter of sugar. Figure M1 shows trends and relationships between these variables since 1960. Sugar production has been steadily growing since 1960. Yearly production growth averaged 66,000 metric tons (mt) from 1960-74, and it averaged 81,000 mt per year from 1975-89. Since 1990, average yearly growth has grown even more – 115,000 mt per year.

Sweetener consumption growth has been strong since 1960. The growth was especially robust from 1960 to 1980. Between 1960 and 1964 per capita consumption averaged 27.54 kg per year. During the next 5-year interval it rose to 31.29 kg and then to 35.15 kg during 1970-74. Since 1990, the average per capita rate has been at about 45 kg and above per year. Starting in 1997 consumption of high fructose corn syrup (HFCS) has advanced and replaced sugar on a one-to-one basis, especially in carbonated beverages. Average HFCS consumption grew from 4 kg in 1997 to just under 6 kg in 2002. Although Mexican Government policy actions have limited HFCS consumption growth since 2002, the 2006 HFCS per capita level is projected at over 5 kg.

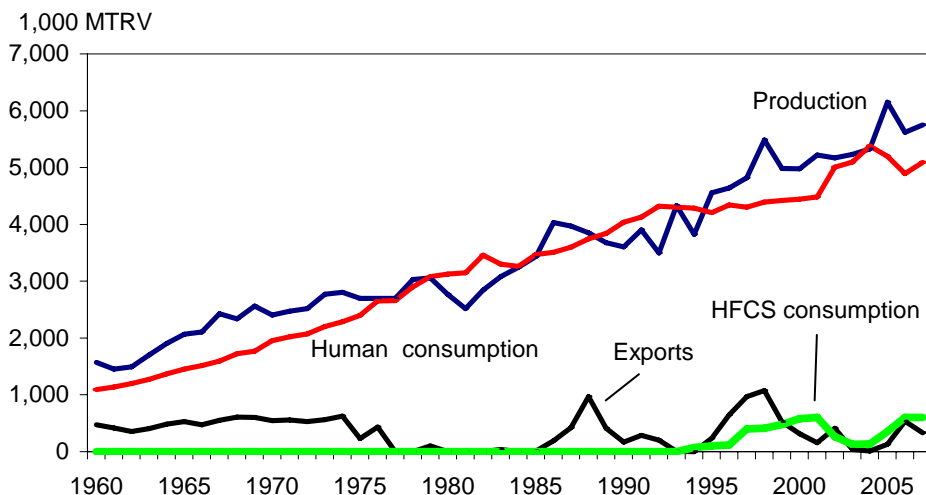
Mexico's sugar exports averaged just below 500,000 mt from 1960 to 1976. Exports fell off as consumption growth outpaced production growth from 1977 to around 1995. Since 1995 sugar productivity has increased--spurring production, and HFCS has cut into sugar consumption, making more sugar available for export. Future export potential is dependent on both these trends.

### *Sugar Production in Mexico*

Over the last 6 years, sugarcane area harvested has averaged just short of 620,000 hectares (table M1). This area is about 50 percent more than the equivalent sugarcane area in the United States. Sugarcane production has averaged 44.964

Figure M-1

### **Sugar and HFCS in Mexico--production, human consumption, and exports, 1960-2005**



Source: PSD database, Foreign Agricultural Service, USDA.

million mt, and sugar has averaged 5.038 million mt. Sugar yield is calculated at 8.15 mt per hectare. Converting to raw value terms, the sugar yield is 8.64 metric ton, raw value (MTRV) per hectare, which is about 94 percent of the corresponding U.S. cane sugar yield. Of total area harvested in 2003/04, 39.2 percent of sugarcane area is irrigated (table M2). In the United States, the comparable irrigated cane area is 50.8 percent (most U.S. area except that in Louisiana), and comparable beet area is 34.5 percent (U.S. Western States).

There are 58 sugarcane mills in Mexico that produce sugar from November through May/June. Two main types of sugar are produced in Mexico (table M3). The largest, comprising about two-thirds of production, is a high polarity raw sugar called *estandar*. The other is *refinado* sugar which is produced at 14 of the mills. (Unlike the United States, there is no independent sugar refining industry -- sugar enters the market straight from the mill.) In Mexico, sugar statistics are usually reported in terms of actual weight, referred to as *tel quel*, or sometimes converted in an *estandar* basis. This custom contrasts with that of the United States, where sugar is measured in terms of raw value.

In 2003/04 there were 157,918 farms producing sugarcane (table M4). The average size of a sugarcane farm was small at 3.88 hectares. In the United States, average sugarcane farm size would be 415 hectares, and average sugarbeet farm size would be 110 hectares. Figure M2 shows the proportion of sugarcane farms by area size. As can be seen, almost 43 percent of all farms were below 2 hectares, and 78 percent were below 5 hectares. Figure M3 shows sugarcane area proportions by farm size classification. Farms below 2 hectares produce about 15 percent of national production, and farms below 5 acres produce about 46 percent of the production. Farms larger than 15 hectares, although small in number (2.2 percent of the total) produce 16.5 percent of production.

Sugar is produced in six regions in Mexico (fig. M4). The largest producing area is the Gulf region. There are 25 factories--most are located in the State of Veracruz but there are three in Oaxaca and four in Tabasco. Production over the last 6 years has averaged 2.182 million mt (table M1), or 42 percent of national production (fig. M5). Factories in this region supply about 57 percent of all refined sugar. Farm size is right at the national average, and only 14.5 percent of area is irrigated. Sugarcane mills in the Gulf produced 61 percent of all ethanol in Mexico--36.4 million liters out of 59.3 million liters nationally. All ethanol was produced from molasses.

The second largest producing area is the Pacific region, where about 22 percent of sugar is produced. There are 12 factories currently in operation--six in Jalisco, three in Michoacan, two in Nayarit, and one in Colima. Farm size is below the average (3.05 hectares), but about 65 percent of all area is irrigated. Because of the irrigation, sugarcane yields are higher than the national average (86.1 mt per hectare versus 74.2 mt per hectare).

The third largest area is the Northeast region. There are eight factories: four in San Luis Potosi, two in Tamaulipas, and two in northern Veracruz. About 56 percent of all area is irrigated but sugarcane yields are close in value to those in the Gulf region. In the South region, five factories are scattered across four States: Chiapas (2), Campeche, Oaxaca, Quintana Roo, and Tabasco. Irrigated area is less the national average. Although the Central region only supplies about 7 percent of national production, sugarcane yields are very high at 113.8 mt per hectare, mainly

Table M-1--Mexico: Sugarcane, area harvested, sugar, by region, 2000-2005

Region/No. of mills		2000	2001	2002	2003	2004	2005	Average 2000-05
<b>Central - 4</b>								
Cane harvested	Tons	2,870,257	2,731,800	2,887,668	2,705,484	3,026,327	3,229,706	2,908,540
Area harvested	Has.	26,091	24,299	26,723	25,280	26,589	27,665	26,108
Cane yield	Tn/ha	110.01	112.42	108.06	107.02	113.82	116.74	111.40
Sugar production	Tons	338,786	315,847	334,042	321,786	360,356	393,861	344,113
Sugar yield	Tn/ha	12.98	13.00	12.50	12.73	13.55	14.24	13.18
<b>Gulf - 25</b>								
Cane harvested	Tons	18,471,494	19,917,358	18,544,866	18,497,910	19,741,735	22,292,107	18,577,578
Area harvested	Has.	281,259	273,682	278,842	275,238	289,470	304,295	283,798
Cane yield	Tn/ha	65.67	72.78	66.51	67.21	68.20	73.26	68.98
Sugar production	Tons	2,045,583	2,191,153	2,127,733	2,053,115	2,177,328	2,498,047	2,182,160
Sugar yield	Tn/ha	7.27	8.01	7.63	7.46	7.52	8.21	7.69
<b>Northeast - 8</b>								
Cane harvested	Tons	6,665,243	6,879,874	7,188,924	7,400,104	7,253,412	9,542,032	7,488,265
Area harvested	Has.	118,549	116,883	123,128	120,427	104,662	127,991	118,607
Cane yield	Tn/ha	56.22	58.86	58.39	61.45	69.30	74.55	63.14
Sugar production	Tons	767,272	747,466	828,146	826,038	772,141	1,070,114	835,196
Sugar yield	Tn/ha	6.47	6.39	6.73	6.86	7.38	8.36	7.04
<b>Northwest - 3</b>								
Cane harvested	Tons	1,951,370	2,133,959	1,662,767	1,913,564	1,769,732	1,257,460	1,781,475
Area harvested	Has.	23,048	22,256	19,894	22,101	23,246	22,688	22,206
Cane yield	Tn/ha	84.67	95.88	83.58	86.58	76.13	55.42	80.23
Sugar production	Tons	173,662	194,280	151,674	183,647	163,684	112,623	163,262
Sugar yield	Tn/ha	7.53	8.73	7.62	8.31	7.04	4.96	7.35
<b>Pacific - 12</b>								
Cane harvested	Tons	8,519,992	8,964,461	8,530,275	9,240,574	9,491,642	10,232,129	9,163,179
Area harvested	Has.	116,842	110,559	106,392	106,422	110,209	113,635	110,677
Cane yield	Tn/ha	72.92	81.08	80.18	86.83	86.12	90.04	82.79
Sugar production	Tons	971,435	1,071,287	1,006,570	1,103,376	1,114,910	1,237,508	1,084,181
Sugar yield	Tn/ha	8.31	9.69	9.46	10.37	10.12	10.89	9.80
<b>South - 6</b>								
Cane harvested	Tons	3,622,679	3,851,204	4,089,140	4,190,601	4,178,994	4,339,209	4,045,305
Area harvested	Has.	53,551	54,840	55,139	57,639	58,178	60,141	56,581
Cane yield	Tn/ha	67.65	70.23	74.16	72.70	71.83	72.15	71.50
Sugar production	Tons	399,296	403,596	424,228	439,613	435,657	473,021	429,235
Sugar yield	Tn/ha	7.46	7.36	7.69	7.63	7.49	7.87	7.59
<b>Mexico - 58</b>								
Cane harvested	Tons	42,101,035	44,478,656	42,903,640	43,948,237	45,461,842	50,892,643	44,964,342
Area harvested	Has.	619,340	602,519	610,118	607,107	612,354	656,415	617,976
Cane yield	Tn/ha	67.98	73.82	70.32	72.39	74.24	77.53	72.76
Sugar production	Tons	4,696,034	4,923,629	4,872,393	4,927,575	5,024,076	5,785,174	5,038,147
Sugar yield	Tn/ha	7.58	8.17	7.99	8.12	8.20	8.81	8.15

Source: Coaazucar.

Table M-2--Mexico: Irrigated and non-irrigated sugarcane area, by region, 2003/04

Region	No. of Mills	Irrigated			Non-irrigated			Total		
		Hectares	Tons	Ton/ha	Hectares	Tons	Ton/ha	Hectares	Tons	Ton/ha
Central	4	26,589	3,026,327	113.82	0	0	--	26,589	3,026,327	113.82
Gulf	25	41,962	3,853,589	91.84	247,508	15,888,146	64.19	289,470	19,741,735	68.20
Northeast	8	58,399	4,321,087	73.99	46,263	2,932,325	63.38	104,662	7,253,412	69.30
Northwest	3	23,246	1,769,732	76.13	0	0	--	23,246	1,769,732	76.13
Pacific	12	71,421	6,624,990	92.76	38,788	2,861,059	73.76	110,209	9,486,049	86.07
South	6	18,179	1,606,039	88.35	40,005	2,572,955	64.32	58,184	4,178,994	71.82
Mexico	58	239,796	21,201,764	88.42	372,564	24,254,485	65.10	612,360	45,456,249	74.23

Source: Coaazucar.

Table M-3--Mexico: Sugarcane, sugar by type, molasses, and ethanol production, by region and form of ownership, 2004/05

Region	Sugarcane production	Sugar	Refined	Estandar	Mascabado	Molasses	Molasses yield per cane tonnage	Molasses for ethanol	Ethanol	Ethanol yield (molasses)
Central	3,229,706	393,861	135,740	258,121	0	123,643	38.3	1,565	302,087	193.0
Gulf	22,292,107	2,509,312	1,102,243	1,406,193	875	802,273	36.0	164,167	36,370,256	221.5
Northeast	9,542,032	1,070,114	314,211	755,903	0	350,874	36.8	43,198	9,839,996	227.8
Northwest	1,257,460	112,623	48,127	64,496	0	47,821	38.0	0	0	0.0
Pacific	10,232,129	1,237,508	342,695	894,812	0	405,107	39.6	23,961	5,437,342	226.9
South	4,339,209	473,021	0	472,030	1,007	164,579	37.9	37,115	7,366,965	198.5
Mexico	50,892,643	5,796,439	1,943,016	3,851,555	1,882	1,894,297	37.2	270,006	59,316,646	219.7

Source: Coaazucar.

Table M-4--Mexico: Farm and size distribution by area, by region, 2003/04

Region	No. of Mills	0 < 2 ha		2 < 5 ha		5 < 10 ha		10 < 15 ha		> 15 ha		Total	
		farms	hectares	farms	hectares	farms	hectares	farms	hectares	farms	hectares	farms	hectares
Central	4	12,839	15,536	2,499	7,458	339	2,166	42	481	36	948	15,755	26,589
Gulf	25	30,394	41,401	28,107	94,257	12,248	82,607	2,362	28,160	1,539	43,045	74,650	289,470
Northeast	8	2,932	3,974	6,155	20,796	5,141	34,758	975	11,018	1,140	34,116	16,343	104,662
Northwest	3	283	421	1,222	4,834	1,509	11,586	200	2,224	67	4,181	3,281	23,246
Pacific	12	16,663	21,433	14,647	49,417	4,254	27,834	435	5,338	190	6,187	36,189	110,209
South	6	4,154	6,460	4,258	14,911	2,226	16,887	605	7,498	457	12,428	11,700	58,184
Mexico	58	67,265	89,225	56,888	191,673	25,717	175,838	4,619	54,719	3,429	100,905	157,918	612,360

Source: Coaazucar.

Figure M4

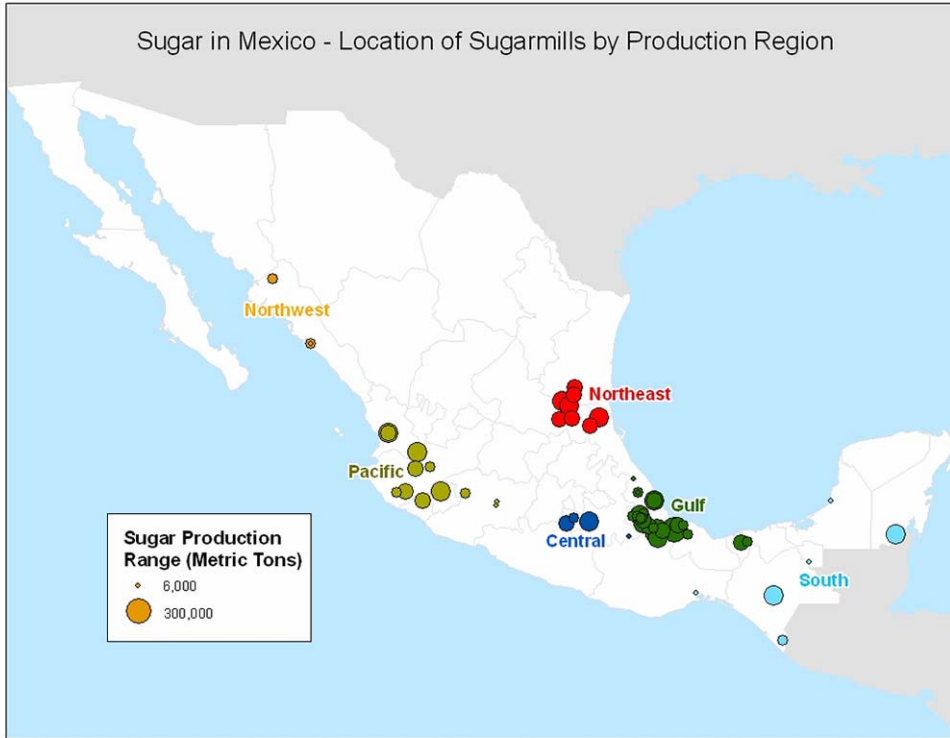
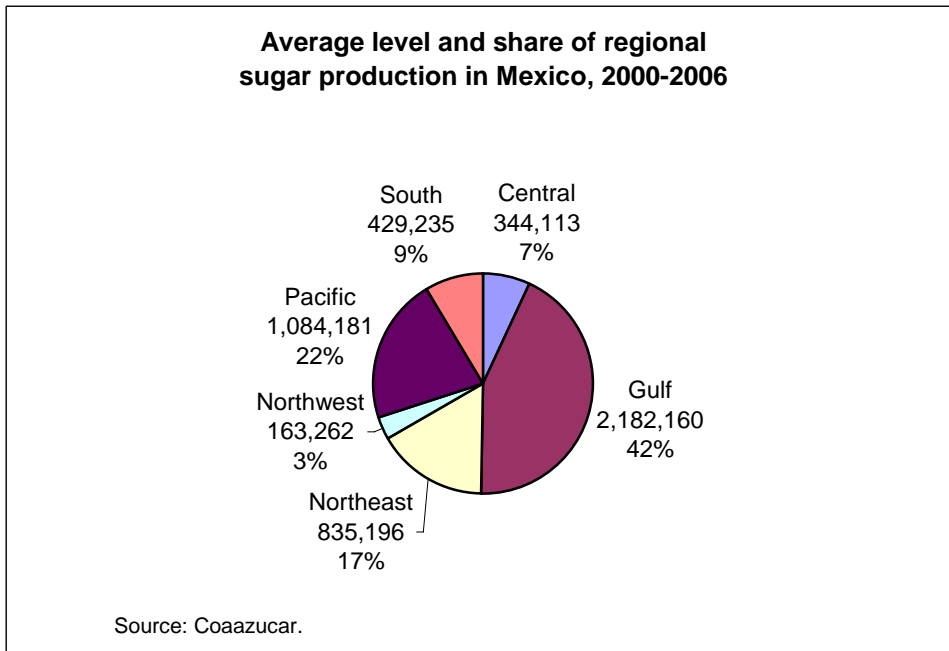


Figure M5



because all area is irrigated. The Central region comprises four factories in Puebla (2) and Morelos (2). Average farm size is smallest of all regions – 1.69 hectares. The remaining region is the Northwest, with three factories in Sinoloa. All area is irrigated, and average farm size is the largest of all regions at 7.09 hectares, but sugarcane yields are only around the national average.

Table M5 shows regional and national sugarcane costs of production and net returns from growing sugarcane. Total costs per hectare are spread out across the regions, with the lowest costs in the Gulf and the highest in the Central region. Certainly the degree of irrigation is a major factor in regional cost differentiation. Net returns are shown in the last set of columns and are also illustrated in figure M6. In spite of the high per-hectare cost, the Central region has the highest net return, as one might expect with their very high sugarcane yields. Returns are good in all regions except the Northwest area. There cultivation costs are much higher than any other region, with little to show regarding high sugarcane yields.

### ***Production, Management, and Sugar Policy***

Since the early 1990s Mexico's "Cane Decree" has formally identified the nation's sugarcane sector as one of national importance. The Decree was put into effect in May. The Decree formalized the idea that the planting, cultivation, harvest, and sugarcane processing were in the public interest. The Decree has regulated relations between sugar mill owners and sugarcane producers. Most importantly, the Decree has defined a system of owner payments for sugarcane in which the price of sugarcane was determined by a set formula and that sugarcane growers were entitled to 57 percent of the revenue from sugar sales, with no permitted adjustment to individual growers on the basis of the quality of the cane that they supply. Although the Mexican Government tried to invalidate the Decree in 2005, the Mexican Congress created a new Sugar Law that included most of the principles the old sugar legislation used to regulate the sugar sector.

Table M6 shows reference prices, the growers' value of sugarcane, costs of production, and the return to national cane production. Returns are high and relatively constant in the range between 35- and 42-percent. Peso returns are more difficult to examine because the peso has not retained its value since 1992. The lower panel of the table shows real values denominated in calendar year (CY) 2000 pesos. Figure M7 shows the real sugar reference price and its real decline over time. Figure M8, on the other hand, shows the real unit value of sugarcane to the grower and its relatively constant value over time. Although the KARBE coefficient is the technical offset to the declining real price, the KARBE itself is not easily explained. Another way to view the effect of increased productivity in Mexican sugar production is to examine the trend in the amount of sugarcane necessary to produce one ton of sugar (fig. M9). As can be seen, the trend is clearly downward, indicating the increased productivity in the sector and the offset to real declining prices.

Sugar policy became even more explicit in September 2001 when the Mexican Government expropriated 27 out of 60 of Mexico's functioning sugar mills. These mills had been owned by companies that faced large and largely unpayable debts. Nine of the mills were owned by the Grupo Azucarero Escorpion (CAZE) whose debt was estimated at US\$878 million. Six mills were owned by Grupo Santos with a debt of US\$200 million; six more were owned by Grupo Azucarero Mexico (GAM) with a debt of US\$30 million; and four mills were owned by Grupo

Table M-5--Mexico: Sugarcane costs of production, revenue, and net return, by region, 2003/04

Region	Sector	No. of Mills	Area (Ha)	Cultivation costs		Harvest costs			Total costs			Revenue		Net return	
				(Mil. Pesos)	Pesos/ha	(Mil. Pesos)	Pesos/ha	(Mil. Pesos)	Pesos/ha	Dollars/ha 1/	(Mil. Pesos)	(Mil. Pesos)	Pesos/ha	Dollars/ha 1/	
Central	Total	4	26,589	222.4	8,366	376.0	14,142	598.5	22,508	1,999	1,129.9	531.4	19,987	1,776	
Gulf	Total	25	289,470	1,431.4	4,945	2,578.6	8,908	4,010.0	13,853	1,231	6,567.7	2,557.7	8,836	785	
Northeast	Total	8	104,662	803.9	7,681	857.6	8,194	1,661.5	15,875	1,410	2,619.3	957.7	9,151	813	
Northwest	Total	3	23,246	280.5	12,066	157.5	6,774	438.0	18,840	1,674	494.4	56.4	2,426	216	
Pacific	Total	12	110,209	908.3	8,241	1,059.4	9,613	1,967.7	17,854	1,586	3,402.6	1,435.0	13,021	1,157	
South	Total	6	58,184	332.0	5,707	472.7	8,125	804.8	13,831	1,229	1,308.4	503.7	8,656	769	
Mexico	Total	58	612,360	3,979	6,497	5,501.9	8,985	9,480.4	15,482	1,375	15,522.3	6,041.9	9,867	876	

Source: Coaazucar.

1/ Exchange rate (Pesos/Dollar)=11.257.

Table M-6--Determinants of returns to Mexican sugarcane producers

Year	Wholesale	Reference	Grower share	Grower value	Recoverable	Grower value	Cost of cane	Return to cane	Return to cane
	price index	price	of reference	per ton	sugar proportion	sugarcane	production	production	production - percent
	(2000=100)	-peso/mt-	price	-peso/mt- 1/	(KARBE) 2/	-----	Pesos per mt	-----	of cane value
Nominal prices									
1991/92	27.44	1,428	0.54	771	98.64	68.3	68.3	22.9	33.6
1992/93	29.78	1,567	0.54	846	108.54	68.3	68.3	38.5	56.4
1993/94	31.56	1,692	0.54	914	111.43	101.8	68.3	42.1	41.3
1994/95	40.12	1,945	0.55	1,070	113.44	121.4	68.3	53.1	43.7
1995/96	56.24	2,650	0.56	1,484	115.89	172.0	103.8	68.2	39.6
1996/97	67.65	3,339	0.57	1,903	113.85	216.7	128.6	88.1	40.7
1997/98	77.69	3,631	0.57	2,070	114.31	236.6	141.1	95.5	40.3
1998/99	90.66	3,739	0.57	2,131	114.06	243.1	161.3	81.8	33.7
1999/00	98.21	4,295	0.57	2,448	117.65	288.1	182.4	105.6	36.7
2000/01	104.15	4,428	0.57	2,524	118.18	298.3	184.9	113.4	38.0
2001/02	108.42	4,561	0.57	2,600	119.61	311.0	188.7	122.3	39.3
2002/03	116.70	4,767	0.57	2,717	119.51	324.7	203.1	121.6	37.4
2003/04	126.78	5,188	0.57	4/ 2,978	118.80	353.8	216.1	137.7	38.9
2004/05	134.20	5,760	0.57	3,283	119.76	393.2	NA	NA	NA
Real calendar year 2000 pesos									
1991/92	27.44	5,202	0.54	2,809	98.64	248.9	248.9	83.6	33.6
1992/93	29.78	5,263	0.54	2,842	108.54	229.4	229.4	129.4	56.4
1993/94	31.56	5,362	0.54	2,895	111.43	322.6	216.5	133.3	41.3
1994/95	40.12	4,849	0.55	2,667	113.44	302.5	170.3	132.3	43.7
1995/96	56.24	4,712	0.56	2,639	115.89	305.8	184.6	121.2	39.6
1996/97	67.65	4,936	0.57	2,814	113.85	320.3	190.1	130.3	40.7
1997/98	77.69	4,674	0.57	2,664	114.31	304.5	181.7	122.9	40.3
1998/99	90.66	4,124	0.57	2,351	114.06	268.1	177.9	90.3	33.7
1999/00	98.21	4,374	0.57	2,493	117.65	293.3	185.8	107.6	36.7
2000/01	104.15	4,252	0.57	2,424	118.18	286.4	177.6	108.9	38.0
2001/02	108.42	4,207	0.57	2,398	119.61	286.8	174.0	112.8	39.3
2002/03	116.70	4,084	0.57	2,328	119.51	278.2	174.0	104.2	37.4
2003/04	126.78	4,092	0.57	4/ 2,349	118.80	279.1	170.5	108.6	38.9
2004/05	134.20	4,292	0.57	2,447	119.76	293.0	NA	NA	NA

Source: Coaazucar.

1/ Grower value of sugar = (grower share of reference price)\*(reference price)

2/ KARBE = kilograma de azucar recuperable base estandar

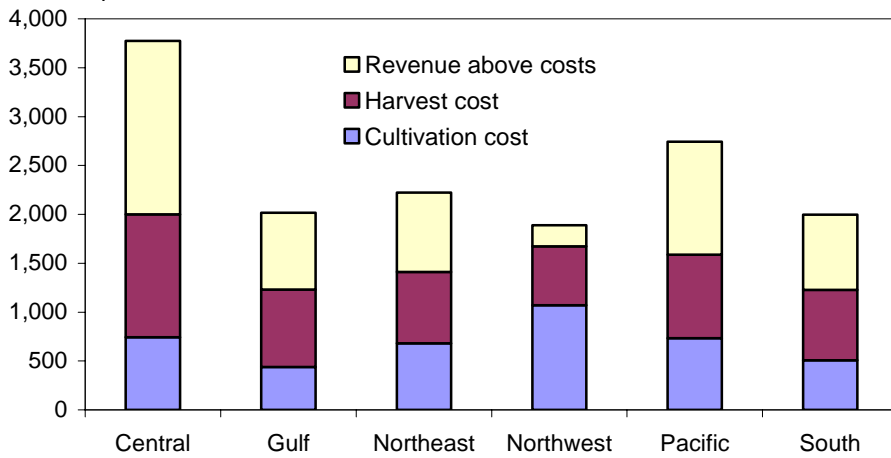
3/ Grower value sugarcane= .001\*KARBE\*(grower value of sugar)

4/ Plus an additional 21.07 (nominal) pesos per metric ton of sugar for the 2003/04 season

NA = not available

Figure M-6  
**Mexico sugarcane revenue and costs, per hectare, by region, 2003/04**

Dollars per hectare



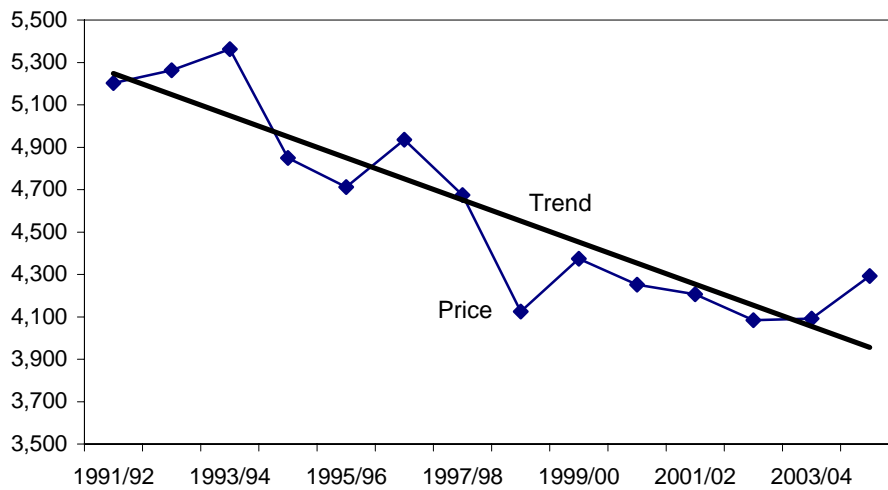
Exchange rate = 11.257peso/dollar

Source: Coaazucar.

Figure M-7

**Real sugar reference price in Mexico**

CY 2000 pesos/mt



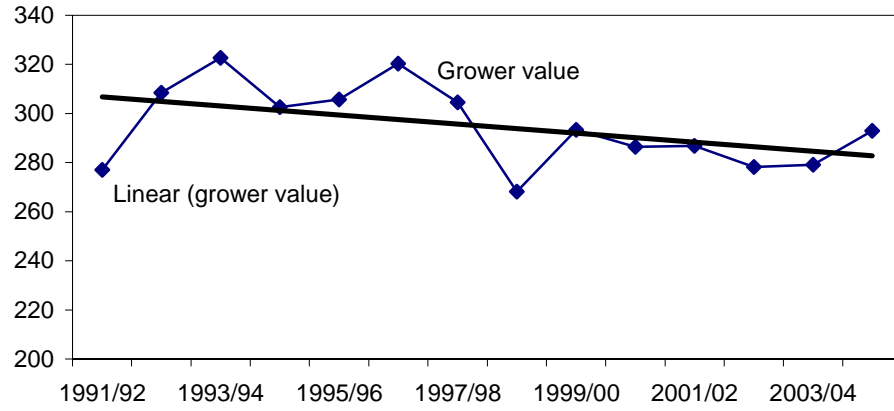
Source: Coaazucar.



Figure M-8

**Real unit value of sugarcane to the grower in Mexico**

CY 2000 real pesos/mt

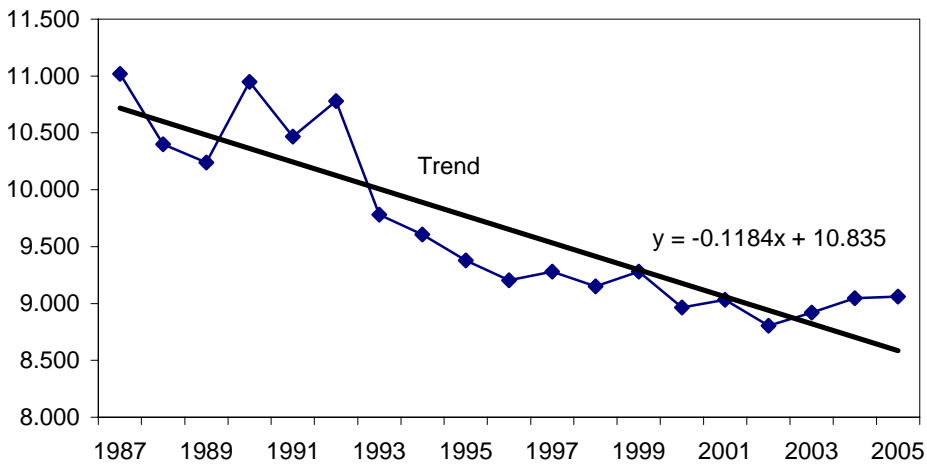


Source: Coaazucar.

Figure M-9

**Mexico: Tonnage of sugarcane needed to produce 1 ton of sugar, 1987-2005**

Metric tons



Source: Coaazucar.

Machado with a debt of US\$22 million. The two remaining mills were already under the government liquidation process.

Mexico's Supreme Court of Justice (SCJ) has since declared that the expropriation of the nation's sugar mills was unconstitutional. Consequently the SCJ ordered SAGARPA to return the mills to their original owners. The ruling by the Supreme Court comes after an appeal was lodged by Grupo Machado. The court's decision was based on the fact that the Mexican Government did not consult with the owners before expropriating the mills, thereby violating their civil rights. The SCJ also has stated the government has not made the case that there was a public necessity to take control of the mills.

### ***Sweetener Consumption in Mexico***

Sweetener consumption in Mexico has been relatively high. Figure M10 shows per capita combined deliveries of sugar and HFCS in Mexico and the United States. On average, Mexican deliveries have been equal to about 85 percent of the corresponding U.S. per capita delivery amount. Although the availability of recent, detailed sugar delivery data in Mexico is unavailable, most deliveries (at least as high as 52 percent) are to industrial end users such as beverage, confectionery, and food processing manufacturers. Table M7 shows an Economic Research service (ERS) estimate of the percentage distribution of deliveries to industrial end users amongst various types of sugar-using manufacturers. A comparison with the average U.S. distribution percentages are shown alongside.

Prior to 2002, between 75- and 80-percent of all HFCS deliveries in Mexico went to the beverage industry. On January 1, 2002, Mexico imposed a 20-percent tax on beverages that use sweeteners other than cane sugar. The effect of the tax was immediate as beverage manufacturers abandoned HFCS for domestically produced cane sugar. HFCS consumption began to recover somewhat in 2005 as the result of Mexican Courts granting waivers to certain beverage manufacturers to use HFCS without paying the tax. Although the tax has been found to be in violation of World Trade Organization (WTO) trade rules, the future of HFCS consumption (and especially HFCS imports from the United States) are uncertain. A problem for the Mexican sugar industry is that without border protection, the cost of importing HFCS from the United States and Canada is less than the delivered cost of domestically produced sugar. Also, ERS estimates that the cost of producing HFCS in Mexico is at least 20-percent less than the cost there of producing refined sugar.

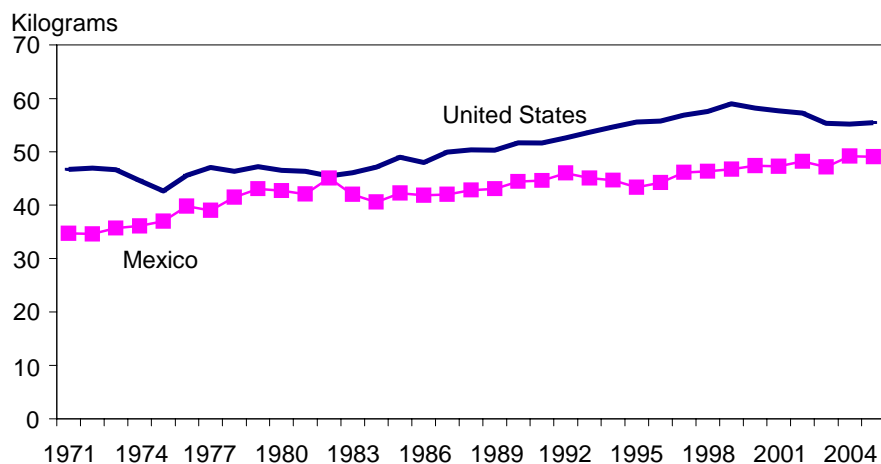
Figure M11 shows ERS estimates of sugar and HFCS deliveries to the food industry in Mexico. It is estimated that HFCS may constitute as much as 13 percent of total sweetener demand in this sector. Figure M12 shows ERS estimates of sugar and HFCS deliveries to the beverage industry. ERS estimates that HFCS constituted at least 25 percent of all sweetener use in 2001, before the beverage tax was imposed.

### ***Sweetener Trade Policy and Prices***

Under terms agreed to in the North American Free Trade Agreement (NAFTA), Mexico and the United States have a comparable set of prohibitive over-quota tariffs on sugar imports from third parties. The tariff on raw sugar is set to 33.8 U.S. cents per kilogram, and 36.0 U.S. cents per kilogram for refined sugar. Mexico has certain preferential in-quota agreements with Central American countries that are

Figure M-10

Per capita combined deliveries of sugar and HFCS in the United States and Mexico, 1971-2005



Source: Economic Research Service, USDA.

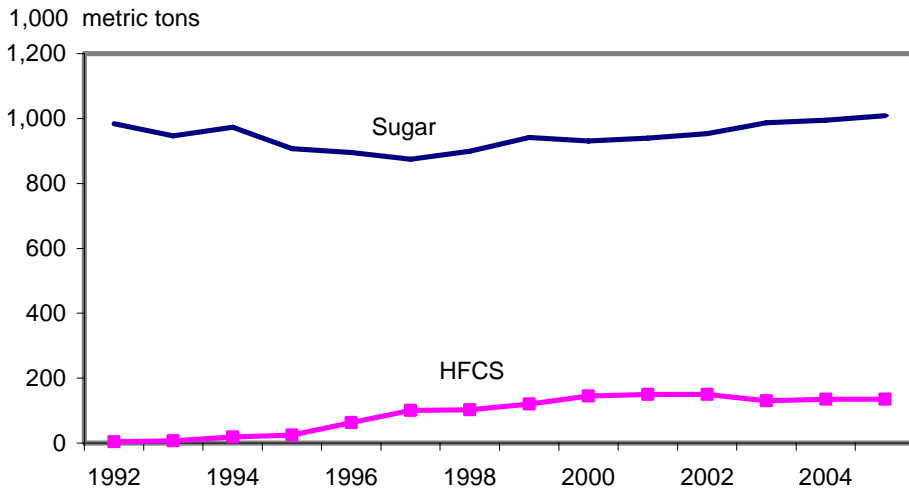
Table M-7--Average industrial sugar end user deliveries

Sector	Mexico	United States
Percentage of all industrial deliveries		
Confectionery	10.9	22.9
Food processing	4.1	6.0
Bakery and Cereals	11.6	41.7
Beverages	59.1	3.8
Dairy	1.1	10.2
Other industrial uses	13.3	15.3

Source: Economic Research Service, USDA.

Figure M-11

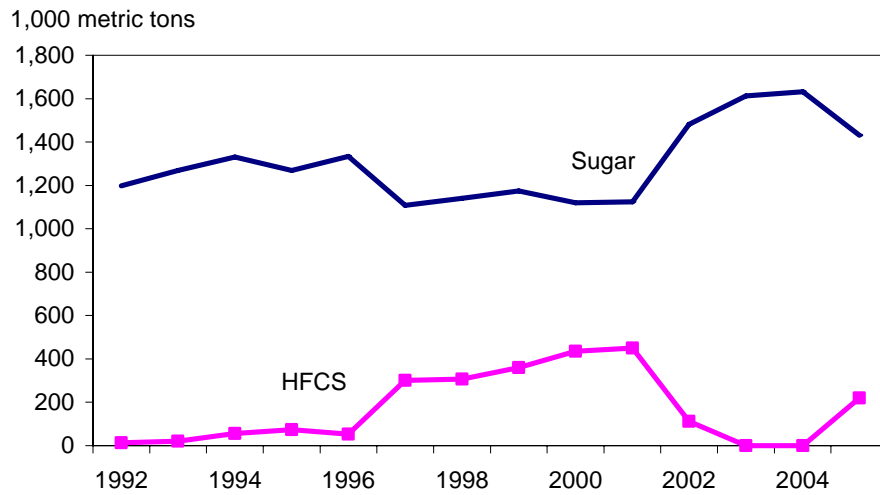
**Mexico sweetener deliveries to food industry, 1992-2005**



Source: Economic Research Service, USDA.

Figure M-12

**Mexico sweetener deliveries to beverage industry, 1992-2005**



Source: Economic Research Service, USDA.

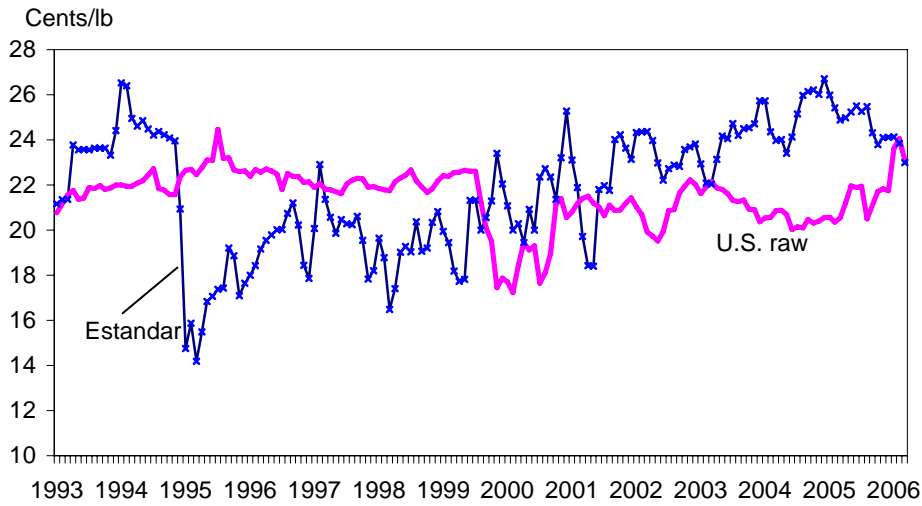
operational only when Mexico is experiencing a sugar deficit. Mexico imports sugar for a re-export program it operates for products that must be re-exported within a 90-day period (PITEX program). This program also absorbs domestic production in excess of domestic needs. Mexico considers such deliveries the equivalent of exporting the sugar.

Apart from the beverage tax on sweeteners other than cane sugar, Mexico has instituted high Most Favored Nation (MFN) tariffs on HFCS. The HFCS duties are set at 156 percent for HFCS-42 and 210 percent for HFCS-55. In April 2002, Mexico unilaterally reclassified its sweeteners trading status with the United States from preferential trading partner status as defined in the NAFTA to MFN status.

Due to the various policies that the Mexican Government maintains, domestic sugar prices are typically much above world levels. The estandar price since 2000 has averaged 23.5 U.S. cents per pound, against 9.2 U.S. cents per pound for the world raw spot price. The refinado price since 2000 has averaged 26.9 U.S. cents per pound, against 11.2 U.S. cents per pound for the world spot white sugar in London. In fact, prices in Mexico since 2000 have averaged above comparable prices in the United States (fig. M13 for estandar/U.S. raw cane sugar, and fig. M14 for refinado/U.S. refined beet sugar).

Figure M-13

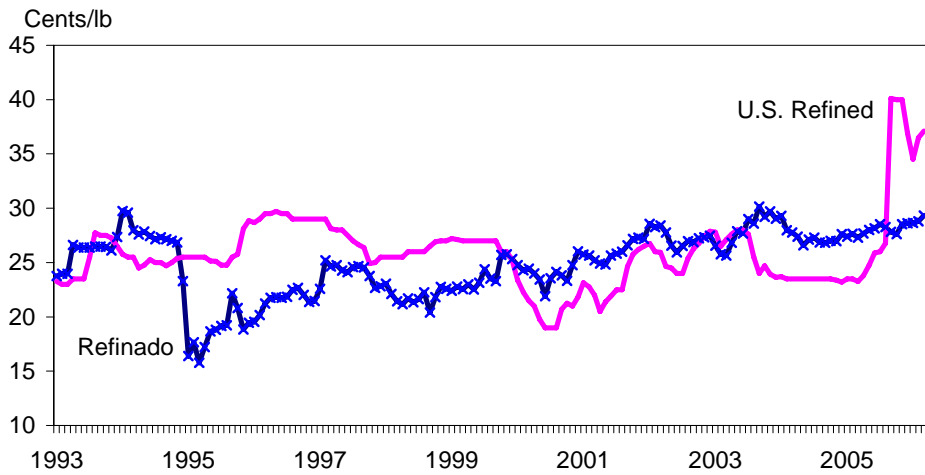
**Sugar prices: Mexico estandar and U.S. raw cane sugar, 1993-2006**



Source: Servicio Nacional de Informacion de Mercados SNIIM-ECONOMICA and NYBOT.

Figure M-14

**Sugar prices: Mexico refinado and U.S. refined beet sugar, 1993-2006**



Source: Servicio Nacional de Informacion de Mercados SNIIM-ECONOMICA and *Milling and Baking News*.