

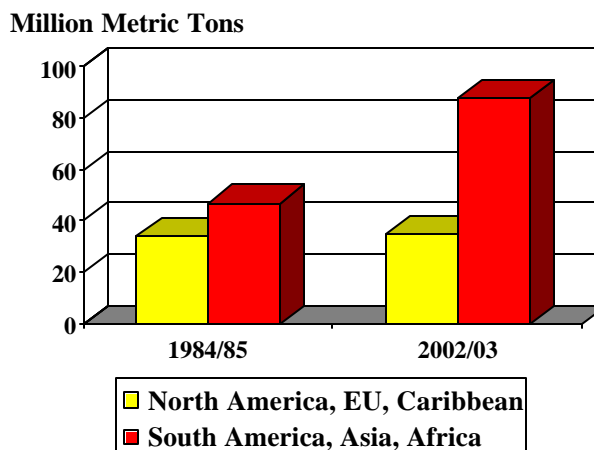
## Changes in the World Sugar Situation

World sugar production and trade has changed significantly since 1985. During this period two basic changes have occurred. Southern Hemisphere countries have become more prominent as primary suppliers and the number and size of import markets have increased. In 1984/85, world sugar production started to grow as more efficient producers enlarged their operations. Southern Hemisphere producers, primarily Brazil, overtook the established post-World War II heavy weights, Cuba, the United States, and the EU. Sustained production in Australia, South Africa, Zimbabwe, and Swaziland also contributed to the predominance of the Southern Hemisphere. In addition, production began to increase in Guatemala and four Asian countries, China, India, Pakistan, and Thailand.

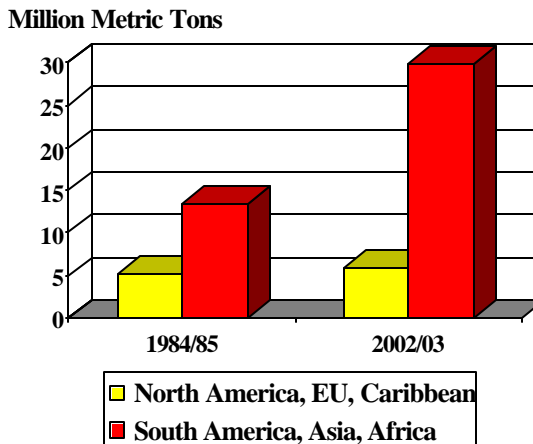
### Southern Hemisphere Producers Assume Greater Importance

Aggregating world sugar data on a National Basis - i.e. based on each country's crop year - shows that world production, over the last eighteen years, grew by 57 percent, and consumption rose by 63 percent. Ending stocks however, increased by, only 46 percent. In both 1984/85 and 2002/03, two thirds of the regions presented in Table 1 were reasonably significant producers of sugar. However, by 2002/03 the relative importance of the regions changed, as did the proportional relationship between these groups. Most

World Sugar Production 1984/85 and 2002/03



World Sugar Exports 1984/85 and 2002/03



notable is the reduced production in the Caribbean region, and increased production in both Asia and South America.

In 1984/85, the Caribbean produced 9.6 million tons of sugar representing 11 percent of world production. By 2002/03, Caribbean production declined to 4.1 million tons, accounting for only 3 percent of world production. Coincidentally, exports from the Caribbean, which accounted for 29 percent of the world total in 1984/85, dropped to only 3 million tons, accounting for 7 percent of world exports. Much of this loss is due to the decline of Cuban sugar industry. The progressive decline in Cuban sugar production coupled with the realignment of the Soviet Union into separate countries, and the dissolution of COMECON, increased the open market demand for sugar in Europe.

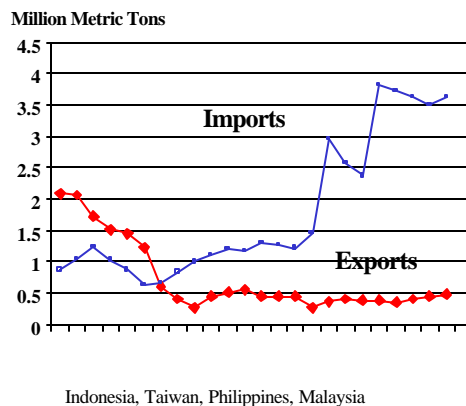
The star of Southern Hemisphere production and trade is Brazil. All the other performers are the supporting cast. Brazil's production increased 144 percent since 1984/85. However, all of the increase occurred after 1993/94. Prior to this period Brazil was producing sugar for domestic consumption and for fuel ethanol. When the government deregulated the industry in 1999/2000 to permit exports, the stage was set for the modernized, low-cost Brazilian industry to supply the world with sugar. Brazil's exports were aided by unprecedented worldwide economic expansion that contributed to the opening and expansion of non-traditional markets in the Middle East, North Africa, and the Far East. These markets began to grow at the same time that Russia and Eastern European countries moved toward becoming market economies.

## Production and Trade Patterns Change within Asia

The production, export, and ending stocks of sugar in four Asian countries – China, Thailand, India, and Pakistan - increased even more dramatically than in the aforementioned Southern Hemisphere countries. Essentially these countries, as a group, changed from being net importers to net exporters. In 1984/85, these four countries had combined net imports of 1.2 million tons. Estimated net exports for 2002/03 are about

3.7 million tons. Thailand is the only significant exporter in this group, shipping about 4.5 million tons a year. Since 1985, production in these countries increased by 141 percent, exports increased by 225 percent, consumption rose by 92 percent, and ending stocks grew by 206 percent.

Emerging Asian Import Markets  
1979/80 to 2002/03



Virtually all of the growth of ending stocks occurred in India, accounting for 80 percent of the amount

accumulated by the Asian Group. Indian sugar is not generally traded extensively due to quality and price considerations. As a result, surplus production continues to build but without affecting world price.

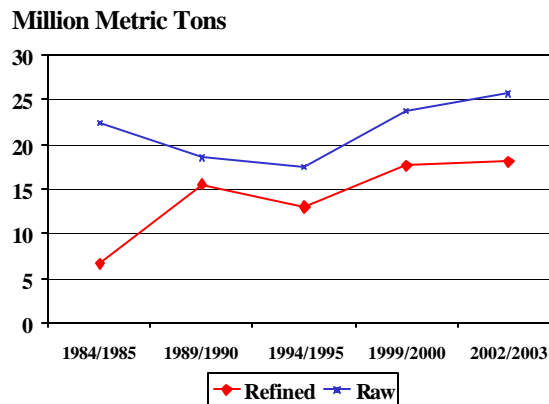
Within the Asian market, Indonesia, Taiwan, Philippines and Malaysia transitioned from being self-sufficient and intermittent exporters to being steady importers. Supplies to these markets are normally obtained from Thailand in the fall and from Australia and, to a limited extent, from Brazil in the spring. Australia markets its sugar through a single desk (i.e., state traded monopoly) that strives to maximize profits and secure long-term customer relationships. This policy, together with the improvement of the quality of raw sugar, has helped to maintain Australia's Far East markets. Nevertheless, improvements in Brazilian marketing infrastructure, such as roads and port facilities, a move to using larger capacity ocean vessels, and a devalued currency, have helped to narrow freight rates to the Far East making its sugar competitive.

### Exports of Refined Sugar Grow as Brazil Assumes Leadership of Exports

The composition sugar of engaged in international trade (i.e., Raw and Refined) also changed along with the transition to the more modern and efficient producers. In 1984/85, 77 percent of world exports consisted of raw sugar. By 2002/03, exports of raw sugar grew

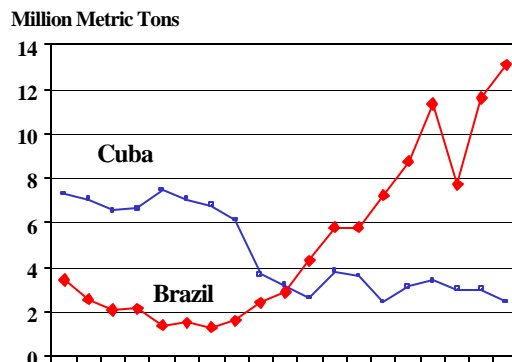
by 3.3 million tons but accounted for only 59 percent of the total. This happened because total sugar exports grew by 50 percent while exports of refined sugar increased nearly three-fold, from 6.6 million tons to 18.1 million tons.

World Exports of Raw and Refined Sugar



Brazilian and Cuban Exports

1984/85 to 2002/03



In 1984/85, the Caribbean and South America together exported 12.7 million tons of raw sugar, with the Caribbean accounting for 66 percent of that total. Refined exports from these regions were negligible. In 2001/02, exports from these two regions

remained virtually the same. However, in 2002/03, the Caribbean sourced only 23 percent of the total, a decline of 43 percent over 18 years.

Much of the shift toward refined sugar exports is associated with Brazil assuming a greater role in the production and trade of both raw and refined sugar. The decline of Cuba's exports of raws is synchronized with Brazil's exports. Brazil began shipping more refined sugar and increasing the quality of both refined and raw sugar available for export. Exports of refined sugar from South America are estimated at 3.7 million tons in 2002/03, representing 20 percent of world-refined exports. Even more startling is the fact that South American exports of raw sugar jumped from 4.35 million tons to over 11 million tons. In 2002/03, Brazil's raw sugar accounted for 43 percent of world raw exports compared to 19 percent in 1984/85.

One of the points of interest in comparing the two time periods, 1984/85 and 2002/03, is that most of production and trade in the pre 1984/85 period occurred during the September-August or October-September marketing years. In 1984/85 analysis attempting to determine price had a relatively clear picture because major producers were working on the same seasonal time frame. Currently, any attempt to take a world situation snapshot on a September-August or October-September basis will contain an elevated stock figure because the Southern Hemisphere, which now constitute a significant volume of world production and trade, will have on hand a significant volume of stock awaiting distribution.

In addition to considering the timing of the supply situation, analysts need to be aware that the world sugar market is stronger than it was 18 years ago because there are more buyers. One reason why prices are stronger than expected may simply be that the commodity moves on to the market in a more timely, smooth manner than expected.

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Table 1

**World Centrifugal Sugar 2002/03**

Region	Production		Consumption		Exports		Imports		Ending Stocks	
	MMT	Pct of Total	MMT	Pct of Total	MMT	Pct of Total	MMT	Pct of Total	MMT	Pct of Total
North America	12,613	9%	15,510	12%	298	1%	2,659	7%	2,129	7%
Caribbean	4,159	3%	1,470	1%	2,977	7%	283	1%	224	1%
Central America	3,670	3%	1,538	1%	2,147	5%	5	0%	336	1%
South America	29,735	21%	15,891	12%	14,673	34%	703	2%	918	3%
Western Europe	18,041	13%	14,849	11%	5,791	13%	2,381	7%	3,393	11%
Eastern Europe	8,028	6%	15,070	11%	1,300	3%	7,238	20%	2,603	8%
Africa	8,238	6%	9,645	7%	3,286	8%	4,997	14%	2,132	7%
Asia and Oceania	49,273	36%	49,829	37%	11,827	27%	11,930	33%	19,027	59%
Middle East	5,013	4%	9,702	7%	1,490	3%	6,283	17%	1,256	4%
Total	138,770		133,504		43,789		36,479		32,018	

**World Centrifugal Sugar 1984/85**

Region	Production		Consumption		Exports		Imports		Ending Stocks	
	MMT	Pct of Total	MMT	Pct of Total	MMT	Pct of Total	MMT	Pct of Total	MMT	Pct of Total
North America	8,841	10%	11,930	15%	455	2%	3,635	16%	3,232	15%
Caribbean	9,551	11%	1,345	2%	8422	29%	136	1%	1,480	7%
Central America	1,752	2%	988	1%	740	3%	20	0%	476	2%
South America	14,746	17%	10,742	13%	4454	15%	461	2%	2,764	13%
Western Europe	15,309	17%	13,379	16%	5106	18%	3,559	15%	2,504	11%
Eastern Europe	3,154	4%	3,391	4%	291	1%	732	3%	934	4%
Africa	6,689	8%	6,906	8%	2237	8%	2,990	13%	1,898	9%
Asia and Oceania	25,346	29%	26,805	33%	6828	24%	7,936	34%	7,279	33%
Middle East	3,129	4%	6,559	8%	470	2%	3,779	16%	1,375	6%
Total	88,517		82,045		29,003		23,248		21,942	

**World Centrifugal Sugar Growth**

Region	Production		Consumption		Exports		Imports		Ending Stocks	
	MMT	Pct of Total	MMT	Pct of Total	MMT	Pct of Total	MMT	Pct of Total	MMT	Pct of Total
North America	3,772	43%	3,580	30%	(157)	-35%	(976)	-27%	(1,103)	-34%
Caribbean	(5,392)	-56%	125	9%	(5,445)	-65%	147	108%	(1,256)	-85%
Central America	1,918	109%	550	56%	1,407	190%	(15)	-75%	(140)	-29%
South America	14,989	102%	5,149	48%	10,219	229%	242	52%	(1,846)	-67%
Western Europe	2,732	18%	1,470	11%	685	13%	(1,178)	-33%	889	36%
Eastern Europe	4,874	155%	11,679	344%	1,009	347%	6,506	889%	1,669	179%
Africa	1,549	23%	2,739	40%	1,049	47%	2,007	67%	234	12%
Asia and Oceania	23,927	94%	23,024	86%	4,999	73%	3,994	50%	11,748	161%
Middle East	1,884	60%	3,143	48%	1,020	217%	2,504	66%	(119)	-9%
Total	50,253	57%	51,459	63%	14,786	51%	13,231	57%	10,076	46%

Source: USDA, FAS

Table 2

**World Exports of Refined Sugar**

	<b>1984/1985</b>	<b>1989/1990</b>	<b>1994/1995</b>	<b>1999/2000</b>	<b>2002/2003</b>
North America	373	617	757	354	218
Caribbean	50	3	2	2	2
Central America	-	-	133	216	349
South America	104	634	2,682	4,425	3,670
Western Europe	5,073	6,575	5,449	6,136	5,789
Eastern Europe	3	5,372	2,049	1,243	1,280
Africa	65	278	185	557	561
Asia and Oceania	934	1,972	1,474	3,157	4,771
Middle East	-	1	297	1,634	1,490
<b>Total</b>	<b>6,602</b>	<b>15,452</b>	<b>13,028</b>	<b>17,724</b>	<b>18,130</b>

**World Exports of Raw Sugar**

	<b>1984/1985</b>	<b>1989/1990</b>	<b>1994/1995</b>	<b>1999/2000</b>	<b>2002/2003</b>
North America	82	170	-	83	80
Caribbean	8,372	7,845	3,208	3,978	2,975
Central America	740	935	1,345	1,747	1,798
South America	4,350	1,738	2,644	8,500	11,003
Western Europe	33	-	-	2	2
Eastern Europe	288	-	8	46	20
Africa	2,172	2,103	1,575	2,409	2,725
Asia and Oceania	5,894	5,668	8,676	7,027	7,056
Middle East	470	-	-	-	-
<b>Total</b>	<b>22,401</b>	<b>18,459</b>	<b>17,456</b>	<b>23,792</b>	<b>25,659</b>

Source: USDA, FAS

